



20th International Forum on Knowledge Asset Dynamics

BOOK OF ABSTRACTS

IFKAD 2025

**Knowledge Futures: AI, Technology,
and the New Business Paradigm**

2-4 July 2025

University of Naples Federico II
Naples, Italy



IFKAD 2025

20th International Forum on Knowledge Asset Dynamics

2-4 July 2025

University of Naples Federico II

Naples, Italy

Knowledge Futures: AI, Technology, and the New Business Paradigm

BOOK OF ABSTRACTS

Organized by:

University of Naples Federico II

LUM University Giuseppe Degennaro

Arts for Business

Distribution IFKAD 2025 – Naples, Italy 2-4 July 2025
University of Naples Federico II
LUM University Giuseppe Degennaro
Arts for Business

Design & Realization: Gabriela Jaroš

PROGRAM OVERVIEW

WEDNESDAY 2 July 2025	
9.00 - 13.00	Virtual Parallel Sessions
13.00 - 14.20	Onsite Venue: Registration Desk Open // Welcome Coffee Break
14.20 - 14.40	Official Opening of IFKAD 2025
14.40 - 16.00	ROUND TABLE WITH INDUSTRY
16.00 - 18.05	Parallel Sessions
18.10 - 20.30	Welcome Reception (<i>University Garden</i>)
THURSDAY 3 July 2025	
9.05 - 9.50	KEYNOTE SPEECH Susanne Durst – Reykjavik University, Iceland
9.55 - 11.10	Parallel Sessions
11.10 - 11.30	Coffee Break
11.30 - 13.35	Parallel Sessions
13.35 - 14.30	Lunch
14.30 - 15.45	Parallel Sessions
15.50 - 17.30	Parallel Sessions
17.30 - 17.50	Coffee Break
17.50 - 18.40	KEYNOTE SPEECH Wim Vanhaverbeke – University of Antwerp, Belgium
20.00 - 24.00	Social Dinner (<i>Palazzo Belvedere</i>)
FRIDAY 4 July 2025	
9.30 - 11.35	Parallel Sessions & Meet the Editors
11.35 - 12.00	Coffee Break
12.00 - 13.40	Parallel Sessions
13.40 - 15.00	Lunch
15.00 - 17.05	Parallel Sessions
17.05 - 17.15	Coffee Break
17.15 - 18.00	KEYNOTE SPEECH Vincenzo Corvello – University of Messina, Italy
18.00 - 18.20	Closing Remarks & Announcement of IFKAD 2026

GENERAL THEMES & TOPICS

- How is AI transforming the way businesses manage and leverage knowledge assets?
- What are the implications of AI-driven knowledge systems on organizational decision-making?
- How can businesses ensure that AI complements human expertise rather than replaces it?
- In what ways are new technologies reshaping the storage, sharing, and utilization of knowledge within organizations?
- What challenges do these technologies pose in terms of knowledge security and integrity?
- How can organizations integrate these technologies to effectively enhance their knowledge management strategies?
- How does AI-driven knowledge management support the creation of innovative business models?
- What new metrics are emerging for assessing business value in an AI-integrated knowledge economy?
- How can organizations balance the pursuit of innovation with ethical considerations in AI deployment?
- How is AI changing the dynamics of knowledge work and collaboration in organizations?
- What skills will be required for knowledge workers in the future?
- How human-based perspectives can be integrated with the development of AI and new technologies?
- How can businesses prepare their workforce for an AI-enhanced knowledge economy?
- What are the ethical challenges posed by AI in knowledge management?
- How can businesses ensure that AI applications in knowledge management are transparent and fair?
- What role should regulators and policymakers play in governing the intersection of AI, knowledge, and technology?
- How does AI enhance traditional data/management science approaches to support KM initiatives and decision-making?

SPECIAL TRACKS

Navigating AI Adoption in the Service Industry: A Focus on Organizational Dynamics

Organizers:

Claudia Cozzio, Free University of Bolzano, Italy
Massimo Morellato, Free University of Bolzano, Italy
Oswin Maurer, Free University of Bolzano, Italy

New Models and Technologies for Business and Management Innovation

Organizers:

Vittorio D'Amato, University LUM, Italy
Antonio Giangreco, IESEG, France
Luca Tuporini, LIUC University of Cattaneo, Italy
Elena Tosca, University LUM, Italy

Diversity Management, Inclusion and Knowledge Creation for Innovation

Organizers:

Beretta Valentina, University of Pavia, Italy
Brescia Valerio, University of Milan, Italy
Demartini Maria Chiara, University of Pavia, Italy
Trucco Sara, University of International Studies in Rome, Italy

IPAZIA CHAPTER – Gender Issues in Innovative Society: AI and Technology for New

Organizational Paradigms

Organizers:

Paola Paoloni, Sapienza University of Rome, Italy
Giuseppe Modaffari, Sapienza University of Rome, Italy

Exploring the Intersection of Digital Transformation and Business Model Innovation: Insights and Opportunities

Organizers:

Veronica Marozzo, University of Messina, Italy
Alessandra Costa, University of Messina, Italy
Tindara Abbate, University of Messina, Italy

Entrepreneurship and New Technologies

Organizers:

Ciro Troise, University of Turin, Italy
Gabriella Esposito, University of Turin, Italy
Mark Anthony Camilleri, University of Malta, Malta
Stefano Bresciani, University of Turin, Italy
Abby Ghobadian, University of Reading, United Kingdom

Society 5.0: From Knowledge-Based to a Wise-Based Approach

Organizers:

Maurizio Massaro, Ca Foscari University of Venice, Italy
Susanne Durst, Reykjavik University, Iceland
Davide Calandra, University of Turin, Italy

SPECIAL TRACKS

Advancing Insights in Organizational Behavior, Technologies and Knowledge Management

Organizers:

Susanne Durst, Reykjavik University, Iceland
Francesca Di Virgilio, University of Molise, Italy
Angelo Rosa, LUM University Giuseppe Degennaro, Italy
Nicola Capolupo, University of Salerno, Italy

Artificial Intelligence and Strategic Knowledge Management

Organizers:

Krishna Venkitachalam, Ajman University, UAE
Nina Helander, Tampere University, Finland

Navigating AI and Cutting-Edge Technologies in Knowledge Management

Organizers:

Vincenzo Varriale, University of Salerno, Italy
Antonello Cammarano, University of Salerno, Italy
Francesca Michelino, University of Salerno, Italy
Mirko Perano, University of Salerno, Italy
Agim Mamuti, Western Balkan University, Albania

The Role of Advanced Technologies in Innovation 5.0 Scenario as Enabler of Innovation Ecosystems

Organizers:

Maria Chiara De Lorenzi, University of Salento, Italy
Domenica Barile
Maria Elena Latino, University of Salento, Italy
Giustina Secundo
Valentina Lazzarotti

Exploring the Impact of Technological Innovation on the Social Sustainability of Agrifood Supply Chains

Organizers:

Roberto Mauriello, University of Naples Federico II, Italy
Simplice Asongu, European Xtramile Centre of African Studies, Belgium
Livio Cricelli, University of Naples Federico II, Italy
Kaliyan Mathiyazhagan, Thiagarajar School of Management, India
Serena Strazzullo, University of Naples Federico II, Italy

Decision Support Methods for Food Waste Reduction in Agri-Food Supply Chain: The KILOWATT Project

Organizers:

Gerarda Fattoruso, University of Foggia, Italy
Massimo Squillante, University of Sannio, Italy
Antonio Violi, University of Sannio, Italy

SPECIAL TRACKS

Future Organizations and Strategies: Integrating Humans and Technology for Social and Environmental Impact

Organizers:

Gabriela Citlalli López Torres, Autonomous University of Aguascalientes, México
Francisco Javier Álvarez Torres, University of Guanajuato, México
Giovanni Schiuma, University LUM Giuseppe Degennaro, Italy
Arina A. Andreeva, Complutense University of Madrid, Spain
Oscar Alejandro Espinoza Mercado, University of Guadalajara, México

Can the Regenerative Approach Support Manufacturing Industries in Facing Unsustainable Conditions? Building New Business Paradigms on Evidence and Best Practices

Organizers:

Maria Elena Latino, University of Salento, Italy
Marta Menegoli, University of Salento, Italy
Roberta Pellegrino, Polytechnic University of Bari, Italy
Antonio Piepoli, Polytechnic University of Bari, Italy
Pierpaolo Pontrandolfo, Polytechnic University of Bari, Italy

Complexity Approaches to Support New Knowledge and Business Development

Organizers:

Giovanna Ferraro, University of Rome Tor Vergata, Italy
Stephan Leitner, University of Klagenfurt, Austria
Raffaella Manzini, LIUC Università Cattaneo, Italy
Cristina Ponsiglione, University of Naples Federico II, Italy
Linda Ponta, University of Genoa, Italy

Industry 5.0 and Sustainability: (Re) Shaping Workforce Skills and Management in Multiple Industries and/or Hybrid Organisations

Organizers:

Mariarosalba Angrisani, Parthenope University of Naples, Italy
Mariavittoria Cicellin, Federico II University of Naples, Italy
Elina Gaile-Sarkane, Riga Technical University, Latvia
Ivana Quinto, Parthenope University of Naples, Italy

Artificial Intelligence, Intellectual Capital, and Value Creation: Inspiring New Strategies and Challenges

Organizers:

Valeria Schifilliti, University of Messina, Italy
Elvira Tiziana La Rocca, University of Messina, Italy
Francesco Fasano, University of Calabria, Italy
María Eugenia Sánchez Vidal, Polytechnic University of Cartagena, Spain

SPECIAL TRACKS

The Value of Interdisciplinary Research in Managing Knowledge and Emerging Technologies to Harmonizing Business and Society

Organizers:

Chiara Civera, University of Turin, Italy
Cecilia Casalegno, University of Turin, Italy
Lea Iaia, University of Turin, Italy
Marco Pironti, University of Turin, Italy
Simone de Colle, IÉSEG School of Management, France

AI and Technology as Catalysts for Knowledge: Shaping Roles, Competences, and Value Creation in Healthcare

Organizers:

Lorella Cannavacciuolo, University of Naples Federico II, Italy
Emanuela Foglia, LIUC University, Italy
Eleonora Gheduzzi, Politecnico of Milan, Italy
Emanuele Lettieri, Politecnico of Milan, Italy

Artificial Intelligence in Medicine: Transforming Healthcare Through Innovation

Organizers:

Guendalina Capece, Universitas Mercatorum, Italy
Tindaro Cicero, Universitas Mercatorum, Italy
Flavia Di Costa, Universitas Mercatorum, Italy
Daniela D'Auria, Universitas Mercatorum, Italy

Stakeholder Collaboration as a Driver of Knowledge Diffusion and Sustainable Value Creation in Ecosystems

Organizers:

Mario Tani, University of Naples Federico II, Italy
Basile Gianpaolo, Mercatorum University, Italy
Anna Prisco, University of Naples Federico II, Italy

Technology Management and Business Maturity: Innovative, Sustainable and Secure Digital Transformation Initiatives in Industry

Organizers:

Vito Del Vecchio, University of Salento, Italy
Mariangela Lazoi, University of Salento, Italy
Christian Catalano, University of Bari Aldo Moro, Italy
Monica Rossi, Polytechnic University of Milan, Italy
Abdelaziz Bouras, Qatar University, Qatar

Accelerating the Shift to a Circular Economy Through Digital Technologies and Knowledge Management

Organizers:

Stefania Supino, San Raffaele University, Italy
Nicola Raimo, LUM University, Italy
Benedetta Esposito, Mercatorum University, Italy
Vitiana L'Abate, University of Sannio, Italy
Filippo Vitolla, LUM University, Italy

SPECIAL TRACKS

Translating Feminist Knowledge into Business Practice for Sustainable and Inclusive Strategies, Processes, and Organizations

Organizers:

Barbara Scozzi, Polytechnic University of Bari, Italy
Francesco Paolo Lagrasta, Polytechnic University of Bari, Italy
Greta Temporin Polytechnic University of Turin, Italy
Omar Mazzucchelli, Polytechnic University of Milan, Italy
Pierpaolo Pontrandolfo, Polytechnic University of Bari, Italy

Exploring Creative Processes and Decision-Making in the Era of Human & Artificial Intelligence

Organizers:

Andrea De Mauro, University Due of Rome, Italy
Paola De Martini, University Tre of Rome, Italy
Rosa Fioravante, University Tre of Rome, Italy
Lucia Marchegiani, University Tre of Rome, Italy
Michela Marchiori, University Tre of Rome, Italy

Health Technology Assessment and Artificial Intelligence in Healthcare Systems

Organizers:

Concetta Lucia Cristofaro, University E-Campus, Italy
Fausto Di Vincenzo, University of Chieti-Pescara, Italy
Federica Morandi, Catholic University of Rome Sacro Cuore, Italy
Marzia Ventura, Magna Graecia University of Catanzaro, Italy
Walter Vesperi, University of Palermo, Italy

The Impact of AI and Digital Transformation on Knowledge Integration Practices in Project Oriented Settings

Organizers:

Paolo Canonico, University of Naples Federico II, Italy
Ernesto De Nito, University of Salerno, Italy
Antonio Bassi, SUPSI, Switzerland
Deva Rangarajan, IÉSEG School of Management Paris, France
Maria D. De-Juan-Vigaray, University of Alicante, Spain

The Impact of ESG Factors on Stakeholder Engagement According to AI

Organizers:

Maria Zifaro, Mercatorum University, Italy
Andrea Presciutti, Mercatorum University, Italy
Giovanni Spatola, Mercatorum University, Italy
Giuseppe Ambrosio, Mercatorum University, Italy
Anna Bisogno, Mercatorum University, Italy

Social Sustainability and AI in the Framework of Knowledge Management

Organizers:

Maria Zifaro, Mercatorum University, Italy
Andrea Presciutti, Mercatorum University, Italy
Giovanni Spatola, Mercatorum University, Italy
Giuseppe Ambrosio, Mercatorum University, Italy

SPECIAL TRACKS

Shaping the Future: Adapting HEIs to the Evolving Knowledge and Innovation Landscape

Organizers:

Nikolett Deutsch, Corvinus University of Budapest, Hungary

Viktória Papp-Horváth, Corvinus University of Budapest, Hungary

Intelligent Communities and Organisations Driving Innovation by Dealing with Knowledge and Technologies

Organizers:

Mauro Romanelli, Parthenope University of Naples, Italy

Alexandra Zbucnea, National University of Political Studies and Public Administration, Romania

Domenico Celenza, University of Cassino and Southern Lazio, Italy

Alessandra Lardo, Parthenope University of Naples, Italy

Trends in Performance Measurement and Management of Healthcare Organizations: Investigating the Contribution of New Digital Technology in Supporting Knowledge Management and Value Creation

Organizers:

Francesca De Domenico, University of Messina, Italy

Anna Maria Melina, University of Messina, Italy

Guido Noto, University of Messina, Italy

Rocco Reina, University of Catanzaro, Italy

GenAI for Improving Organizational Processes and Knowledge

Organizers:

Marianna Lezzi, University of Salento, Italy

Giuliana Barba, University of Salento, Italy

Barbara Scozzi, Polytechnic University of Bari, Italy

Filippo Chiarello, University of Pisa, Italy

Digital Transformation of Circular Manufacturing Systems

Organizers:

Michal Krčál, Masaryk University, Czech Republic

Alena Klapalová, Masaryk University, Czech Republic

Farazee Mohammad Abdullah Asif, KTH Stockholm, Sweden

Sayyed Shoaib-UI-Hasan, KTH Stockholm, Sweden

Artificial Intelligence (AI) and Emerging Technologies for Value Creation in Service-Based Industries

Organizers:

Pasquale Del Vecchio, University LUM Giuseppe Degennaro, Italy

Valentina Ndou, University of Salento, Italy

Roberto Cerchione, University of Naples Parthenope, Italy

Giuseppina Passiante, University of Salento, Italy

Gioconda Mele, University of Salento, Italy

SPECIAL TRACKS

AI and Knowledge Futures in Cultural Tourism: Shaping a New Paradigm

Organizers:

Daniela Carlucci, University of Basilicata, Italy
Antonio Lerro, University of Basilicata, Italy
Francesco Santarsiero, University of Basilicata, Italy
Rosaria Lagrutta, University of Basilicata, Italy
Vincenzo Orsi, University of Basilicata, Italy
Gustavo Morales-Alonso, Polytechnic University of Madrid, Spain
Matias Celdran, Polytechnic University of Madrid, Spain
Francesco Scorza, University of Basilicata, Italy
Beniamino Murgante, University of Basilicata, Italy
Simone Corrado, University of Basilicata, Italy
Rachele Vanessa Gatto, University of Basilicata, Italy
Mauro Fiorentino, University of Basilicata, Italy
Giovanna Andrulli, University of Basilicata, Italy

Open Innovation Pathways: How Start-ups Thrive in Collaborative Ecosystems

Organizers:

Benedetta Pini, University of Parma, Italy
Barbara Bigliardi, University of Parma, Italy
Alberto Michele Felicetti, University of Calabria, Italy
Salvatore Ammirato, University of Calabria, Italy
Virginia Dolci, University of San Marino, San Marino

Questioning the Role of Digital Technologies for Board Decision Making

Organizers:

Gaetano Della Corte, Universitas Mercatorum, Italy
Donata Mussolino, University of Naples Federico II, Italy
Federica Ricci, Sapienza University of Rome, Italy
Sara Saggese, University of Naples Federico II, Italy
Fabrizia Sarto, University of Naples Federico II, Italy

Startups and Cultural Heritage Valorization: An Emerging Paradigm

Organizers:

Fabio Greco, University of Naples Federico II, Italy
Laura Clemente, University of Naples Federico II, Italy
Gesualda Iodice, University of Naples Federico II, Italy
Amelia Napolitano, University of Naples Federico II, Italy
Marco Tregua, University of Naples Federico II, Italy
Francesco Bifulco, University of Naples Federico II, Italy

KEYNOTE SPEAKERS



Susanne Durst

Susanne Durst is a Full Professor of Management at the Department of Business and Economics of Reykjavik University (Iceland).

Her research interests include knowledge (risk) management, responsible digitalization and sustainable business development in the context of small entrepreneurial organizations. Her work has been published widely in international peer-reviewed journals and recognised through various awards, including the Transeo Academic Award in 2012 and the Emerald Literati Award "Outstanding Paper" in 2020 and 2023. She is the Editor-in-Chief of *The Bottom Line* and the co-Editor-in-Chief of *VINE Journal of Information and Knowledge Management Systems*.

Beyond the Echo Chamber: Knowledge for Unity and Progress

We live in an era defined by events that many believed we had left behind. Despite having more information and knowledge than ever before, and despite more and more people having access to education and academic work, many view these achievements as dangerous and are taking active measures to counteract these developments. This keynote speech outlines what all this has to do with knowledge and, by extension, the field of knowledge management; and what individuals, organizations, and ecosystems should do to actively and willingly put a stop to these developments and instead promote the values of inclusivity, trust, and constructive dialogue.

KEYNOTE SPEAKERS



Wim Vanhaverbeke

Wim Vanhaverbeke is Professor of Digital Strategy and Innovation at the University of Antwerp. His research focuses on digital transformation, innovation ecosystems, and open innovation, with publications in leading journals such as *Organization Science*, *Journal of Management*, *Research Policy*, and *California Management Review*. He has co-edited four books on open innovation and authored a seminal work on managing open innovation in SMEs.

He is Editor-in-Chief of *Technovation* and a prominent academic voice in digital transformation and innovation ecosystem research. He co-founded the European Innovation Forum with Henry Chesbrough in 2012 and co-organized the World Open Innovation Conference in 2016. A sought-after speaker at international conferences, he also advises large corporations and technology start-ups on innovation strategies. He serves on the Advisory Committee of the Research Center for Technological Innovation at Tsinghua University.

Digital Technologies, Business Model Innovation & Innovation Ecosystem Management in Institutionalized Industries

The need for the formation of new ecosystems when introducing digital technologies is a relatively unexplored research field. Digital technologies are powerful sources for new business models, but they can only be successfully launched and adopted through a genuine ecosystem strategy and management. I apply this in highly institutionalized industries: I'll focus on precision agriculture, digital healthcare and digitalization of the energy industry. I show why the co-creation of digital solution is hampered by a variety of factors. I discuss two major problems: how can digital solutions get co-created with B2B customers and how must an innovation ecosystem be developed and managed to be successful in making digital solutions mainstream.

The phenomenon based analysis of digitally enabled ecosystems in precision agriculture, healthcare and energy leads to unexplored insights about how to set up complex ecosystems in highly institutionalized industries. In contrast with the results of B2C ecosystem research, my research shows that the ecosystem management is not unipolar, supplier driven or top-down. It is rather multipolar, necessitating a high-powered coalition approach, customer- or demand-driven (co-creation with suppliers) and bottom-up besides the top-down decision making.

KEYNOTE SPEAKERS



Vincenzo Corvello

Professor Vincenzo Corvello is a distinguished scholar in Engineering Management, currently serving as Professor at the University of Messina's Department of Engineering. His research focuses on innovation management and organizational design, and he has published extensively in prestigious international journals such as *Technovation*, *Journal of Business Research*, *Technological Forecasting and Social Change*, and *Review of Managerial Science*. Professor Corvello's work is recognized for advancing understanding in areas such as open innovation, collaborative project management, and organizational strategies for innovation. He serves as the Editor-in-Chief of the *European Journal of Innovation Management*.

Extended Minds, Diffuse Bodies, and Other Once-Science-Fiction Concepts That Could Transform the Way We Work and Manage Organizations

Artificial Intelligence (AI) has moved decisively from the realm of speculative fiction to the center of organizational life. This keynote explores how recent advancements in AI, particularly large language models, and autonomous agents, are not merely tools for automation or data analysis but are actively reshaping the very fabric of how we work, manage, and make sense of the world. The transformation is not only technical; it is profoundly cognitive and social. We are entering a world in which the boundaries between human and machine intelligence are increasingly blurred, requiring us to revisit fundamental assumptions about work, cognition, and organizational identity.

Central to this shift is the idea of *hybrid intelligence*, or *extended minds*: the notion that thinking does not occur only within the brain but is distributed across individuals and devices. AI acts as a cognitive partner, augmenting memory, pattern recognition, and decision-making in ways that challenge traditional models of individual expertise. Alongside this, the concept of *diffuse bodies* emerges: humans now act through and with AI systems across virtual environments, decentralized networks, and algorithmic processes, creating new forms of presence, coordination, and control.

This keynote highlights how the introduction of advanced AI systems transforms not only what we do but *how we do* and more importantly, how we *understand what we are doing*. It is a process of mutual adaptation: humans shape AI by embedding it into daily routines, and AI reshapes human cognition by altering attention, intention, and decision flows. This co-evolution demands new managerial sensibilities, less focused on command-and-control and more attuned to sensemaking, ethical alignment, and systemic adaptability.

Ultimately, the aim is not to predict a dystopian or utopian AI future, but to invite reflection on how science-fiction concepts like mind extension and identity diffusion are already real and actionable. For managers, scholars, and practitioners, the challenge is no longer whether to use AI, but how to reimagine work, collaboration, and organizational meaning in a world where human and machine intelligence are co-creating the future.

INDEX OF ABSTRACTS

- 33 *Claudia Cozzio, Francisco Santos Arteaga, Oswin Maurer*
AI Perceptions Across Organizational Levels: Barriers and Drivers of Adoption in the Hotel Industry
- 34 *Tommaso Di Fonzo*
Artificial Intelligence Adoption in South Tyrolean Hospitality: A Qualitative Analysis
- 35 *Haschka Rouven Edgar*
A Truncated Poisson Model to Approximate the Firm-Level Innovation Generation Process
- 36 *Luca Tuporini, Vittorio D'Amato, Joao Vieira da Cunha, Elena Tosca*
The Interdependent Relationship of MI and Culture: Insights from a Systematic Literature Network Analysis
- 37 *Wanting Guo, Chuanjuan Wu, Marina Latukha, Xudan Wang*
From Integration to Strategic Fit: Reconsidering Human-AI Collaboration through Two Case Studies
- 38 *Giuseppe Zangari, Antonio Lorena, Ludovica Zoccali, Rocco Reina*
Organizational Practices for Agile Work: A Systematic Review on Smart Working Strategies
- 39 *Valerio Brescia, Giuseppe Nicolò*
Knowledge Management and Diversity Management in HEIs: An Italian Overview
- 40 *Filomena Buonocore, Davide de Gennaro, Viviana Colombi Evangelista, Ludovica Del Barone, Floriana Pollio*
Rethinking Fairness in Work-Life Policies: A Conceptual Framework Beyond Parenthood
- 41 *Yafang Tsai, Shih-Wang Wu, Szu-Chieh Chen*
The Impact of Smart Hospitals on Employee Job Performance and Job Satisfaction
- 42 *Giuseppe Maria Bifulco, Fabrizio Maria Bertusi, Leonzio Capparelli*
ESG and AI: The Role of a New Player in the Sustainability's Game. Explorative Analysis of the Potential Impact of Artificial Intelligence in Business Sustainable Performance
- 43 *Beatrice Sveva Stasi, Fabrizia Sarto, Sara Saggese*
Women Directors, Sustainability Knowledge and Greenwashing: A Study on Italian Companies
- 44 *Francesca Dal Mas, Anna Prenestini, Lorenzo Cobianchi*
Can Diversity Be an Opportunity to Enhance Ethics? Findings from a Multinational Survey in the Context of Trauma and Emergency Surgery
- 45 *Szu-Chieh Chen, Wei-Ling Yang, Yafang Tsai, Shih-Wang Wu*
Assessing Carbon Emissions and Energy Use Behaviours among Medical Undergraduate Students in Taiwan
- 46 *Michele Rubino, Elisa Gerbasi, Ilaria Mastrorocco*
Board Diversity and Environmental Innovation: An Empirical Investigation of AI's Moderating Role
- 47 *Vincenzo Pontrelli, Angela Rella, Lara Oliva, Arcangelo Marrone*
Assessing Firm-Level Drivers of High-Quality DE&I Disclosure in Corporate Sustainability Reports: A Stakeholder-Centric Perspective
- 48 *Armando Calabrese, Sofia Carrino, Roberta Costa, Eugenio Roberti, Luigi Tiburzi*
Skill Mismatch: Exploring the Impact of Generative AI in Detecting Biases and Discrimination in Job Advertisements
- 49 *Daria Podmetina, Merle Küttim, Wolfgang Gerstlberger*
The Role of University-Industry-Government Cooperation in Estonia for Sustainable Innovation

INDEX OF ABSTRACTS

- 50 *Laura Iacovone*
The Activation of Inclusive Behaviors Through Self-Awareness of Cognitive Biases: The Contribution of New Web3 Technologies
- 51 *Francesca Valentina Giglio Moro, Carlo Drago*
Addressing Gender Bias in AI Business Implementation: A Latent Dirichlet Allocation-Based Analysis
- 52 *Marco Tutino, Simona Arduini, Chiara Di Mario*
Artificial Intelligence and Gender Roles: A Structured Literature Review (SLR)
- 53 *Simona Arduini, Tommaso Beck, Tommaso Mattei*
Gender Bias: How Artificial Intelligence Can Reinforce or Reduce Stereotypes
- 54 *Lina Volodzkienė, Tomas Baležentis*
Exploring Economic Catalysts and Barriers to Gender Equality: An Empirical Analysis
- 55 *Pedro Seva-Larrosa, Giuseppe Modaffari, Francisco García-Lillo*
Digital Technologies in the Knowledge Era: Opportunity or Challenge for Female Entrepreneurship?
- 56 *Alessandra Buonasera, Simona Catuogno, Valeria Naciti, Pasquale Sasso*
Gendered Intellectual Capital among the ESG Topics: Evidence from the Sustainability Reports of Italian-Listed SMEs
- 57 *Maria Teresa Bianchi, Raffaele de Socio, Sabrina Ricco*
AI Impact on the Corporate Gender Gap
- 58 *Alessandro Galli*
Digital Transformation and Gender Equality in Public Administration: An Analysis of NRRP Policies and Implementation
- 59 *Paola Paoloni, Veronica Procacci, Silvia Ievolella*
Industrial Districts and Women-Led SMEs: A Literature Analysis
- 60 *Paola Paoloni, Alejandra Sevilla-Guzman*
Female Financial Inclusion in the Digital Currencies' Era: A Technological Transformation
- 61 *Irene Fulco, Francesca Loia, Barbara Aquilani, Marcello Martinez*
Investigating Digital Transformation and Business Model Innovation in Made in Italy Sectors
- 62 *Veronica Marozzo, Fabrizio Cesaroni, Tindara Abbate*
Artificial Intelligence in Social Media Advertising: To Say or Not To Say?
- 63 *Chiara Avarello, Antonia Cava, Veronica Marozzo, Francesco Micali, Andrea Nucita, Stefano Russo*
Exploring AI Integration in Sicilian SMEs: An Investigation on Awareness and Perspectives
- 64 *Tindara Abbate, Fabrizio Cesaroni, Mattia Fasano, Tiziana La Rocca, Veronica Marozzo, Valeria Schifilliti*
Digital Finance for SMEs and Startups: Literature Review and Research Proposals
- 65 *Joachim Dehais*
Enterprise Architecture Model for Knowledge Assets
- 66 *Leonardo Santoro, Gabriele Santoro*
Looking for Co-Founders: Exploring the Co-Founders Selection Process in Venture Studios
- 67 *Maria Cristina Pietronudo, Mario Sorrentino, Elena Candelo*
Bridging Innovation and Market: An Exploratory Analysis of AI Startup Value Propositions

INDEX OF ABSTRACTS

- 68 *Luca Simone Macca, Gabriele Santoro*
Exploring Configurations of Growth Hacking Success Factors in SMEs: An FSQCA Approach
- 69 *Cannavale Chiara, Claudio Lorenza, Diana Koroleva*
Entrepreneurs' Perceptions of AI: Level of Adoption, Competences, and Learning Ecosystem
- 70 *Cristina Caterina Amitrano, Gabriella Esposito, Mark Anthony Camilleri, Stefano Bresciani*
Empowering Disadvantage Entrepreneurship: The Role of New Technologies for People With Disabilities
- 71 *Carmine Passavanti, Tatiana Lopez, Pierluigi Rippa, David Urbano*
Institutional Perspectives on Entrepreneurial Education Ecosystems: Fostering Digital Student Startups
- 72 *Francesca Ventimiglia, Edoardo D'Andrassi, Renato Bellesini, Yael Piperno*
Generative AI in Startups: Challenges, Opportunities, and Theoretical Perspectives on Adoption and Implementation
- 73 *Mario Tani, Gianpaolo Basile*
AI and Entrepreneurship: A Bibliometric Exploration in the Post-ChatGPT Era
- 74 *Valerio Brescia, Ginevra Degregori, Alberto Cavazza*
Artificial Intelligence and Knowledge Management in Healthcare: A Pathway to SDGs Achievement
- 75 *Claudio D'Alonzo*
The Impact of Artificial Intelligence on Business Ethics
- 76 *Antonio Cimino, Vincenzo Corvello, Francesco Longo, Vittorio Solina*
Human-Centered Factors in Generative Artificial Intelligence Adoption: Implications for Employee Well-Being
- 77 *Katarzyna Nowicka*
Human-Centric Integration in AI-Driven Supply Chain Management: Bridging Technology and Human Perspectives
- 78 *Simona Mormile, Roberta Romano, Emilia Romeo, Gabriella Piscopo, Paola Adinolfi*
Navigating the Digital Challenge: A Bibliometric Analysis of Talent Management in the Public Sector
- 79 *Débora Cristina De Andrade Vicente, Ivan Luciano Danesi, Marta Bertolaso, Chiara Bellini, Lucia Marchegiani*
Corporate Governance, Human-Centric Approaches, and AI Adoption: Does Organizational Size Matter?
- 80 *Barbara Iannone, MariaLuigia Di Giampietro*
Sustainability and Well-Being in Industry 5.0: A Systematic Literature Review
- 81 *Manuela Paolini, Fausto Di Vincenzo, Domenico Raucci, Federica Morandi*
Fostering Knowledge Management to Enhance Innovative Work Behaviour in Public Healthcare Organizations
- 82 *Maria Cristina Manocchio, Yasir Faheem, Antonia Puccio, Francesca Di Virgilio*
SMEs AI Investments and Resilience: a Knowledge Risk Perspective
- 83 *Nicola Capolupo, Angelo Rosa, Giuliano Marolla, Paola Adinolfi*
The Role of Knowledge Management Systems in Driving Organizational and Technological Innovation through Employee Engagement
- 84 *Buyan-Arvijikh Boldbaatar, Augusto Colongo, Marco Greco, Paolo Landoni*
Human Resource Management in Early-Stage Startups: A Qualitative Multiple-Case Study

INDEX OF ABSTRACTS

- 85 *Testa Federica, Petrolo Damiano, Giampaola Valerio*
Inclusive Language in Academia: Evaluating Human and AI-Generated Communications to Students
- 86 *Elona Çera, Blerina Dhrami, Comfort Adebisi Asamoah*
Unlocking Innovation in SMEs Through Transformational Leadership and Commitment-based HRM Practices
- 87 *Alessandro Massaro, Giuseppe Loseto, Francesco Santarsiero, Giovanni Schiuma, Angelo Rosa, Parisa Sabbagh, Olivia McDermott*
Project "Telediabetolab": Knowledge Gain and AI Data Process Applied in Telediabetology
- 88 *Edoardo D'Andrassi, Maria Vergallito, Greta Bogo, Davide Ceresa*
A Bibliometric Analysis of Artificial Intelligence and Strategic Knowledge Management: Trends, Gaps and Managerial Implications
- 89 *Heidi Salokangas, Nina Helander, Juha Koivistoinen, Kaisa Sorsa, Heli Aramo-Immonen*
Tacit Knowledge Externalisation in the Context of Sustainability to Strengthen Company Resilience
- 90 *Vadim Smirnov, Bojan Grebić, Snežana Lakićević, Jovana Savković*
Knowledge Management in the Artificial Intelligence Era: Do We Still Need People to Transfer Organizational Knowledge?
- 91 *Nina Helander, Krishna Venkitachalam, Hannele Väyrynen*
Public-Private Co-Creation of Knowledge-Based Open Innovations: Challenges and Opportunities
- 92 *Francesco Pucci, Giuseppe Roberto Marseglia, Alberto Irace, Federico Chmet*
AI-Enhanced Data Platforms: Transforming Knowledge Management in Waste Management Organizations
- 93 *Gianluca Aquilone, Vincenzo Varriale, Antonello Cammarano, Francesca Michelino, Mauro Caputo*
The Role of AI and Emerging Technologies in Transforming Knowledge Management
- 94 *Maayan Nakash, Ettore Bolisani*
Do Organizations Struggle to Implement AI in Knowledge Management Systems? Initial Empirical Insights
- 95 *Maria Rosaria Sessa, Valentina Cicalese, Roberto De Luca, Claudio Del Regno, Ornella Malandrino*
How Artificial Intelligence Technologies Support the Management of Knowledge, Skills and Attitudes of Employees: A Systematic Literature Review
- 96 *Mirko Perano, Claudio Del Regno, Marco Pellicano, Agim Mamuti*
Rethinking Knowledge Management: AI's Revolutionary Impact on Strategic Management and Corporate Intelligence
- 97 *Shuyun Zhao, Krishna Venkitachalam*
Role of Artificial Intelligence in Organizational Knowledge Creation in PSFs: A Semi-Systematic Review
- 98 *Maria Elena Latino, Maria Chiara De Lorenzi, Maria Laura Giangrande*
AI-driven Value Creation in Innovation Ecosystem, insights from Stakeholder Theory
- 99 *Domenica Barile, Maria Chiara De Lorenzi, Maria Elena Latino, Giustina Secundo*
Exploring the Interplay between Industry 5.0 and Digital Innovation Ecosystem: A Critical Literature Review
- 100 *Gerardo Luisi*
Empowering Recognition of Clean-Tech Startup Potential to Address the Climate Change Problem: An Agent-Based Simulation

INDEX OF ABSTRACTS

- 101 *Puliga Gloria, Primario Simonetta*
Who Drives Regional Innovation: Public or Private Actors?
- 102 *Roberto Cerchione, Patrizia Ghisellini, Renato Passaro, Ivana Quinto, Viviana Sicardi*
The Role of Circular Startups in Circular Innovative Ecosystems: an Italian Multiple Case Study
- 103 *Marta Menegoli, Damiano Calò, Angelo Corallo*
Can Artificial Intelligence Support Companies in Implementing Sustainable Innovation Strategies? Evidence from Agri-Food Companies
- 104 *Sergio Conterjnic, Cristina Simone, Antonio Laudando*
Analyzing the Excellence in the Agrifood "Made in Italy": The Italian High-Quality Wine Value Chain and the Role of New Technologies
- 105 *Adriana Baselice, Alessandra De Chiara, Sofia Mauro*
Exploring the Preliminary Conditions for Blockchain Credibility in the Agri-food Industry
- 106 *Gerarda Fattoruso, Antonio Violi, Massimo Squillante*
Multi-Criteria Decision-Making to Evaluate Sustainability and Performance in the Agri-Food Supply Chain
- 107 *Kanwal Gul, Elena Lupolo, Simone Luongo, Fabiana Sepe, Giovanna Del Gaudio*
The Role of Intelligent Packaging in Reducing Food Waste: A Consumer Behaviour Analysis
- 108 *Walter Vesperi, Maria Carlotta Rizzuto, Anna Maria Melina*
Organizing the Agri-Food Supply Chain to Reduce Food Waste: An Exploratory Study
- 109 *Francesco Santoro, Ada Biafore, David Toscano*
The Kilowatt Project: An Overview about Aims, Tools, and Key Activities
- 110 *Gabriela Citlalli López Torres, Octavio Hernandez Castorena, Alba Rocio Carvajal Sandoval*
SME Performance through Modern Technology and Sustainable Business Strategies
- 111 *José Octavio Contreras Sánchez, Vianney Viridiana Contreras Sánchez, Francisco Javier Álvarez-Torres*
Proposal for an Inclusive and Sustainable Telemedicine Ecosystem in Mexico
- 112 *Ana Lidia Quintero Ramírez, Francisco Javier Álvarez-Torres, Giovanni Schiuma, Gabriela Citlalli López-Torres, María D. De-Juan-Vigaray, Clara María Freire Margaça*
The Role of Human Expertise in Digital Transformation and Innovation of SMEs
- 113 *Lidia Galabova, Mina Daskalova*
AI-Human Capital Balance: Wise AI Application in Higher Education
- 114 *Elizabeth Real Catarina Morais*
Cultural Intelligence and Sustainable Entrepreneurship Strategies to Success in a Global Context
- 115 *Javier Martínez-Falcó, Eduardo Sánchez-García, Bartolomé Marco-Lajara, Patricia Zaragoza-Sáez*
Green Knowledge Management and Green Brand Image: Unravelling the Role of Green Entrepreneurial Orientation and Green Transformational Leadership
- 116 *Claudia Spilotro, Michele Posa, Giustina Secundo, Ivano De Turi*
Navigating the Twin Transition: Disclosure Practices in the Ecosystem of Italian Universities
- 117 *Oscar Alejandro Espinoza Mercado, Juan Antonio Vargas Barraza*
Analyzing Innovative Marketing Strategies within SME's in the Restaurant Industry: A Knowledge-Based Approach
- 118 *Peter Lindgren, Jane Flarup, Purnima Lala Mehta, Anmol Bhatia*
How Does AI impact Human Capital and Capability (HCC) in MBMI Processes?

INDEX OF ABSTRACTS

- 119 *Jovana Popovic, Milica Vukotic*
Exploring Technology Diffusion for Enhanced Energy Efficiency: An Empirical Approach
- 120 *Maria Elena Latino, Marta Menegoli, Roberta Pellegrino, Antonio Piepoli, Pierpaolo Pontrandolfo*
What Regenerative Approaches Drive Resilience? A Knowledge Frame for Social-Ecological Systems
- 121 *Francesco Cafforio, Giovanni Francesco Massari, Ilaria Giannoccaro*
Uncovering Procurement in Restorative and Regenerative Supply Chain Archetypes: A Conceptual Framework based on Relational View Theory
- 122 *Sara Matino, Gabriele Luigi Gravina, Luca Mainetti, Roberto Vergallo*
GenAI-aided Sustainable Digital Transformation: A Novel Framework and Early Results
- 123 *Francesca Lerario, Achille Claudio Garavelli, Valentina De Carolis, Daniela Fico, Daniela Rizzo, Carola Esposito Corcione*
Designing 3D-Printed Biocomposites for Quarry Renaturalization: Evaluating a Regenerative Business Model
- 124 *Diana Smite*
Collaborative Hackathons: Enabling Corporate Sustainability Transitions. The Case of Riga Technical University Coopetition
- 125 *Giovanna Ferraro, Antonio Iovanella, Alessandro Ramponi*
An Analysis of Fintech Patents in the Lights of Green Technologies
- 126 *Profiroiu Constantin Marius, Profiroiu Alina Georgiana, Constantin Daniela-Luminița, Cibu Bianca Raluca, Delcea Camelia*
Understanding Socio-Economic Perceptions Complexity in Romania and Moldova: Implications for the Business Environment
- 127 *Vincenzo Maione, Cristina Ponsiglione, Simonetta Primario, Manfred Paier, Theresa Buerscher*
Mapping Twin Transitions in Regional Innovation Systems: A Configurational Approach
- 128 *Roberta De Cristofaro, Vincenzo Del Duca, Cristina Ponsiglione, Simonetta Primario, Serena Strazzullo*
Addressing the Complexity of the Green Hydrogen Value-Chain: An Agent-Based Modelling Approach
- 129 *Stephan Leitner*
Organisational Resilience and Decision-Making Modes: An Agent-Based Analysis
- 130 *Carmine Passavanti, Simonetta Primario, Pierluigi Rippa*
Institutional Conditions in Entrepreneurial Education Ecosystems: Effects on Entrepreneurial Knowledge and Culture
- 131 *Adrian Domenteanu, Ioana Ioanăș, Andra Sandu, Delcea Camelia, Liviu-Adrian Cotfas*
Using Artificial Intelligence for Employee Retention Analysis in Complex Environments
- 132 *Linda Ponta, Andrea Urbinati, Raffaella Manzini*
Circular Economy Yes or No? This is the Dilemma. An Agent-Based Approach
- 133 *Linda Ponta, Raffaella Manzini, Silvano Cincotti*
Technology Leaders and Followers: An Agent-Based Approach
- 134 *Raimonda Agne Medeisiene*
How to Support New Knowledge and Business Development Using Applied Theatre: A Case Study
- 135 *Martina Percuoco, Anna Prisco, Irene Ricciardi, Vincenzo Dell'Anno*
Artificial Intelligence for a Sustainable Future: Unraveling its Impact on Circular Economy

INDEX OF ABSTRACTS

- 136 *Rasma Pīpiķe, Elīna Gaile- Sarkane*
The Role of Top Management Teams' Educational Diversity in Enterprise Performance through the Lens of Upper Echelons Theory
- 137 *Mariarosalba Angrisani, Marcello Risitano, Marco Ferretti*
Skilling and Upskilling within Port Authority Management: A Strategic Approach to Industry 5.0 Requirements
- 138 *Kristaps Banga, Elina Gaile - Sarkane*
The Bridge Maker's Role in Industry 5.0 Ecosystems: Driving Collaboration and Innovation for Sustainable Outcomes
- 139 *Isabella Bonacci, Maria Menshikova, Danila Scarozza*
Evolution of HRM: Longitudinal Analysis of HR Specialists' Skills in Italy
- 140 *Emma Tambou Marianna, Jahan Ara Peerally*
Collaborative Skills and the Evolving Techno-Social Employee Profiles for Manufacturing Firms under the Digitalization Era
- 141 *Maria Eugenia Sánchez Vidal, David Cegarra Leiva*
Shifting Operational HRM to AI: Opportunities, Challenges and Strategic Pathways
- 142 *Minh Hieu Nguyen*
Enhancing Value Creation with Metro Systems: Future Directions Through AI and Intellectual Capital
- 143 *Antonino Interdonato*
Artificial Intelligence as a Lever for Intellectual Capital in Public Administration
- 144 *Esri Nyituriki*
Artificial Intelligence and Microfinance: Enhancing Social Inclusion and Value Creation for Immigrant Communities
- 145 *Valeria Naciti, Alessandra Patti, Valeria Schifilliti*
Female Empowerment and Gender Pay Gap: Unlocking Intellectual Capital for Value Creation
- 146 *Vincenzo Belfiore, Alberto Caratozzolo, Valeria Naciti, Daniela Rupo*
AI-driven Transformation in the Pharmaceutical Industry: Value Creation through Strategic Collaboration
- 147 *Antonietta Cosentino, Carla Morrone, Salvatore Principale, Alessandro Sura*
Remote Working and Public Administration: Implications for Relationships with External Users
- 148 *Annaluce Mandiello, Federica Zeuli, Francesco Schiavone*
Digital Therapeutics and Music: A Transdisciplinary Approach in Healthcare
- 149 *Cecilia Casalegno, Dario N. Palmucci, Cristian Rizzo*
Brain Rot and Its Repercussions on Business Students and Managerial Decision-Making: A Multidisciplinary Experimental Approach
- 150 *Chiara Civera, Cecilia Casalegno, Ivan Gnesi, Andrea Pellegrino*
Corporate Communication and Stakeholder Trust: A Multidisciplinary Approach to Reputation Management in the Pharmaceutical Industry
- 151 *Damiano Cortese, Cecilia Casalegno*
What if...? Narratives, Stakeholders and Alternate Endings in Value Creation
- 152 *Fabrizio Mosca, Valentina Chiaudano, Hafsa Shakil*
Digital Innovation for Sustainable Destination Management: Multi-Stakeholder Engagement - On My Way App

INDEX OF ABSTRACTS

- 153 *Antonio Iazzi, Simona Lamusta, Paola Scorrano, Monica Fait*
Bibliometric Exploration of Impression Management and Emerging Technologies in Business Communication
- 154 *Mattia Tamiazzo, Chiara Civera, Weng Marc Lim, Alberto Ferraris, Valentina Chiaudano*
Chatting with AI about Sustainability Reporting and Stakeholder Engagement
- 155 *Chiara Civera, Brigida Morelli, Margherita Zito, Giuseppina Gifuni, Vincenzo Russo*
Feeling Green, Buying Fast: Neuromarketing Evidence on the Attitude–Behavior Gap and Informational Processing in Sustainable Fashion among Gen Z
- 156 *Paola Pisano, Rossella Lombardo, Rebecca Boggetti, Rebecca Piolatto, Samuele Rea, Francesco Ricasoli, Elisa Lurago, Maria Antonia Ventriglia, Federico Giorgi*
AI Adoption by Italian Startups: A Measurement Framework
- 157 *Maria Caligaris, Melissa Macaluso, Rossella Lombardo, Paola Pisano*
Interdisciplinary Framework for AI-Powered Restoration Storytelling
- 158 *Caterina Pozzan, Anna Tiso, Azemeraw Tadesse Mengistu, Chiara Verbano*
Challenges of Implementing Healthcare Lean Management in Territorial Healthcare: Insights from an Unsuccessful Case
- 159 *Eleonora Gheduzzi, Mattia Vincenzo Olive, Luca Gastaldi, Cristina Masella*
How Artificial Intelligence Reshapes the Role of Professionals: Preliminary Evidence From a Qualitative Study
- 160 *Chiara Pamich, Anna Tiso, Chiara Verbano*
Enhancing Quality Management in Paediatric Palliative Care Pathways: A Systematic Literature Review
- 161 *Emanuela Foglia, Federica Asperti, Sara Pozzi, Federico Filippo Orsini, Giulia Lanzi*
Transforming Healthcare with AI: Assessing Barriers and Impacts, in a Systematic Review
- 162 *Armando Calabrese, Roberta Costa, Francesca Di Pillo, Valerio Schiaroli, Simona Sedda, Luigi Tiburzi*
Integrating the Business Model Concept for the Development of Physicians' Dual Practice in Public Healthcare Delivery Systems
- 163 *Luigi Jesus Basile*
From Innovation to Integration: A Bibliometric-Systematic Review of Digital Therapeutics and Their Impact on Healthcare
- 164 *Salvatore Ammirato, Alessandro Russo, Laura Cutri, Roberto Linzalone*
Driving the Potential Application of AI in Time-Sensitive Clinical Workflows: A Case Study on Stroke Care
- 165 *Lorella Cannavacciuolo, Paolo Mancuso, Alessandro Scarpa*
Exploring the Intricate Relationship between Artificial Intelligence and Healthcare Organizations
- 166 *Antonio De Pascalis, Alessandro Distante, Salvatore Distaso, Gianluca Elia, Gianluca Lorenzo, Alessandro Margherita, Amalia Mariotti, Marcello Napoli, Daniele Prete, Gianluca Solazzo, Anna Zito*
A Value-based Perspective of Artificial Intelligence for Teledialysis: an Ongoing Experiment
- 167 *Fabiola Colmenero Fonseca, Amparo Borrell, Lauren Yolanda Gómez Zamorano, Rut Benavente*
Technology and Heritage: Artificial Intelligence Applied to the Diagnosis and Conservation of Ceramic Materials
- 168 *Kevin A. Echeverry B, Fabiola Colmenero Fonseca, Ramiro Rodríguez Pérez, Javier Cárcel-Carrasco*
Knowledge Management and Artificial Intelligence to Recover Constructive Knowledge and Materials from the Golden Triangle

INDEX OF ABSTRACTS

- 169 *Ilaria Mariani, Marzia Mortati, Francesca Rizzo*
Designing and Scaling GovTech Solutions Through Stakeholder Engagement. The Case Study of WiseTown's Digital Twin
- 170 *Sabrina Picone*
Artificial Intelligence and the Future of Copyright Law
- 171 *Cristina Simone, Maria Antonietta De Cesare*
Platform Capitalism and the State: Between a New Balance of Power and Geopolitical Competition
- 172 *Marco Chironi, Benedetta Coluccia*
Cybersecurity in the Legal Context: State of Art and Next Challenges
- 173 *Dóra Horváth, Noémi Szilvia Lőrincz*
The Impact of AI on Patient Interactions in Healthcare: Towards Dehumanisation or Rehumanisation?
- 174 *Alba Maria Gallo, Ubaldo Comite, Eveny Ciurleo*
Human-Machine Interaction and Robotics in Healthcare: A Research Programme as a Starting Point
- 175 *Guendalina Capece, Tindaro Cicero, Daniela D'Auria, Flavia Di Costa*
Specific Learning Disabilities (SLD) and Artificial Intelligence (AI): A Bibliometric Analysis
- 176 *Ivone Junges, Clarissa Carneiro Mussi, Eduardo Anibal Blanco*
Artificial Intelligence as a Tool for Building Innovative Organizational Strategies in Market Consolidation
- 177 *Nunzia Carbonara, Davide De Vita*
Healthcare in the Digital Age: A Systematic Literature Review on the Impact of AI and Big Data on Business Models and Patient Value
- 178 *Gabriella Esposito, Stefano Bresciani, Ciro Troise, Simona Alfiero*
Governance for Transition: Regulatory Incentives and Stakeholder Engagement in the New European Bauhaus
- 179 *Ciro Troise, Stefania Testa, Gabriella Esposito, Guido Giovando*
Crowdfunding Failures: An Opportunity for Stakeholder Collaboration?
- 180 *Barbara Fasoli Braccini, Federico Gaeta*
How the Three-Dimensional Porter Model Redefines Value Creation: Framework, Analysis and Application
- 181 *Nibedita Saha, Nabanita Saha, Tomas Sáha, Sharad Srivastava, Petr Sáha*
New Collaborative Ecosystems: Do they Create Stirring Dynamics on Footwear Industries Value Chain and Business Network to Integrate Societal Challenges?
- 182 *Yassine Boutouar, Maurizio La Rocca, Tiziana La Rocca, Augusto D'Amico*
From Sustainability to Success, The Moderating Role of High-Tech Sector Affiliation in Equity Crowdfunding
- 183 *Sara Ianniello, Livio Cricelli, Serena Strazzullo*
The Role of Technology in Advancing Sustainability: Insights from the Textile Industry
- 184 *Nicolò Gianmauro Totaro, Mariasimona Miglietta, Angelo Corallo, Massimiliano Gervasi*
Big Data Technology Maturity Model: Exploring User Perceptions
- 185 *Andrea Gargiulo, Daniele Leone, Marco Ferretti*
A Sustainable Future for Media-Franchising's Role in the Entertainment Industry

INDEX OF ABSTRACTS

- 186 *Vito Del Vecchio, Martina De Giovanni, Ayotobi Oromiye Holo, Mariangela Lazoi*
Key Factors for Leveraging and Capitalizing Digital Transformation Initiatives in Industrial Landscape
- 187 *Sajjad Ahmed, Miguel Mira da Silva, Alberto Rodrigues da Silva, Mariangela Lazoi*
A Comparative Analysis of Low-Code/No-Code Frameworks
- 188 *Alessia Anna Catalano, Christian Catalano, Andrea Chezzi, Vito Del Vecchio*
Thriving Through Digital Change: Building Resilient, Adaptive and Sustainable Organizations
- 189 *Noémi Szilvia Lőrincz*
Driving or Being Driven: AI Integration in Automotive Supplier Operations and Strategy
- 190 *Vito del Vecchio, Mariangela Lazoi, Fabio Paracchini, Giorgia Specchia*
Measuring Innovation in Large ICT Firms: A Bibliometric Analysis
- 191 *Vita Santa Barletta, Fabio Biondi, Christian Catalano, Samuele del Vescovo, Carla di Biccari*
Adversarial ML Attacks in Multi-Domain Operations
- 192 *Kaisa Sorsa, Heidi Salokangas, Heli Aramo-Immonen*
Sustainability Maturity Models in the Context of Quality Management
- 193 *Antonio Lorena, Anna M. Correale, Alessia Talarico, Rocco Reina*
The Impact of Artificial Intelligence on the Development of Soft Skills: Opportunities and Challenges for Organizations
- 194 *Dario Barberini, Maria Giovina Pasca, Gabriella Arcese*
Blockchain for the Circular Economy: Implications and Future Directions
- 195 *Orlando Troisi, Gennaro Maione, Corrado De Cristofaro*
Nudge-Based Strategies and Institutional Policies for Sustainable Consumption Behavior Within Circular Economy
- 196 *Chiara Signore*
Developing an Environmental Decision Support System for ARPAC to Foster the Adoption of Circular Economy Practices among SMEs
- 197 *Daniela Sica, Benedetta Esposito, Stefania Supino*
Integrating GPT Models into Life Cycle Assessment: Unlocking Artificial Intelligence-Driven Circular Economy
- 198 *Federica Marroni*
Exploring Artificial Intelligence in the Circular Blue Economy
- 199 *Vitiana L'Abate, Nicola Raimo, Felice Petruzzella, Antonio Salvi, Filippo Vitolla*
National Culture and Circular Economy Disclosure through Sustainability Reports
- 200 *Miriana Ferrara, Nicola Capolupo*
Unleashing Digital Transformation in LCA: The Interplay between Data-Driven Culture and Digital Capabilities
- 201 *Michele Rubino, Ilaria Mastroiocco, Giovanni Maria Garegnani*
Transformation from a Linear to a Circular Economy: The Role of Digital Technologies
- 202 *Candida Bussoli, Ilenia Fraccalvieri*
Circular Economy Disclosure and Bank Market Value: Evidence from Europe
- 203 *Amal Bouihat, Pierluigi Zerbino, Davide Aloini*
Digital Product Passports for Promoting Circularity in the Construction Sector: A Systematic Literature Review

INDEX OF ABSTRACTS

- 204 *Giovanna Afeltra, Maria Menshikova*
The Intersection between Circular Economy and Knowledge Management: The Role of Digital Technologies
- 205 *Patrizia Pastore, Antonio Ricciardi, Gianmarco Salzillo, Silvia Tommaso*
Interfirm Aggregations for Circular Economy Transition in Italian Olive Oil Industry
- 206 *Claudia Spilotro, Giustina Secundo*
Digital Transformation of Sustainability Reporting in the Era of Circular Economy: A Systematic Literature Review and Strategic Roadmap
- 207 *Angela Rella, Vincenzo Pontrelli, Lara Oliva, Arcangelo Marrone*
From Challenges to Opportunities: A Stakeholder Theory Approach to Circular Economy Ecosystems
- 208 *Maria Coscia, Anna D'Auria, Alessandra De Chiara*
Digital Technologies in Eco-Industrial Parks: Exploring Barriers and Challenges
- 209 *Stefania Manetti*
Artificial Intelligence in the Agri-Food Supply Chain: How it Might Facilitate Circular Economy Practices?
- 210 *Tamara Menichini, Stefania Roberta Miccoli*
Exploring the Gender Gap in ERC Funding: A Geographical and Socioeconomic Analysis of Female Academic Research, Innovation, and Entrepreneurship
- 211 *Michela Colacicco, Mastropasqua Antonio, Francesco Paolo Lagrasta, Barbara Scozzi*
The Role of Physical Appearance in the Entrepreneurial Journey: A State-of-the-Art Review from a Feminist Perspective
- 212 *Michele Modina, Ilaria Nigro*
The Role of DAOs in Shaping Knowledge Management: Opportunities and Risks
- 213 *Antoinette Strada, Chiara Vandoni, Guido Perboli*
Blockchain Technology and Non-Fungible Tokens (NFTs) in Museums: Legal Considerations
- 214 *Elisa Bonacini*
Sarajevo 1992-2025: The Contribution of Art between War and Peace, Analogue and Digital
- 215 *Maria Antonietta Cipriano, Paola Demartini*
The Human in the Loop: Artificial Intelligence as a Co-Pilot in the Creative Process of the Artists. A Critical Analysis in Visual Arts
- 216 *Chiara Bellini, Débora Cristina De Andrade Vicente, Lucia Marchegiani*
AI for Start-up Decision-Making and Knowledge Management: Evidence from an Innovation Ecosystem
- 217 *Gianmaria Abbondante, Alessio Di Leo, Rita Mura, Andrea De Mauro, Enzo Peruffo*
Managing in the AI Era: A Systematic Literature Review on the Evolution of Managerial Roles and Competencies
- 218 *Paola Demartini, Michela Marchiori, Rosa Fioravante, Flavia Marucci*
Advancing Holistic Heritage Impact Assessment through Human-Digital Collaboration
- 219 *Elvira Tiziana La Rocca, Raffaella Coppolino*
Digital Healthcare Technologies and the Co-Design of Healthcare Services: A Scoping Review
- 220 *Noemi Condit, Alice Ravizza*
Health Technology Assessment of Artificial Intelligence Systems: The Importance of Evaluating Digital Literacy and Trust

INDEX OF ABSTRACTS

- 221 *Esther Oluwatosin Akinbobola, Guido Noto*
The Evolution of HTA in a Global Context: A Content Analysis on National and International Guidelines
- 222 *Anna Maria Melina, Rocco Reina, Raffaella Coppolino, Nadia Di Carluccio*
Healthcare Leaders in the Age of AI: New Challenges and New Opportunities
- 223 *Antonio Bassi*
Developing a New Project Management Framework with AI, Blockchain, and Digital Twin Integration
- 224 *Arthur Pantelides*
A Case Study in AI Integration: The Real Impact on Organizational Support, Efficiency, and Strategic Value Creation, in Global Project Management
- 225 *Cinzia Battistella, Fabio Nonino, Alessandro Pompei*
Evaluating AI's Impact on Project Risk Management: To What Extent can AI Assist Project Managers and Mitigate Human Limitations?
- 226 *Adriana Scuotto, Paolo Canonico*
Untangling Proof-of-Concept Projects: A Systematic Literature Review
- 227 *Francesca Loia, Cecilia Maltempo, Rosario Marrapodi, Marcello Martinez, Stefania Mele, Mario Pezzillo Iacono*
Leveraging the Metaverse: A Multidimensional Approach to Knowledge Management in Project-Oriented Settings
- 228 *Teresa Anna Rita Gentile, Caterina Galdiero, Paola Adinolfi, Ernesto De Nito, Gabriella Piscopo*
Hybrid Work And Knowledge Transfer In The Public Administration Context
- 229 *Ernesto De Nito, Paolo Canonico, Andrea Caccialanza, Valentina Langella*
Knowledge Ecosystem in a Hybrid Context: Insights From a Consultancy Project
- 230 *Paolo Canonico, Ernesto De Nito, Vincenza Esposito, Mario Pezzillo Iacono, Carla Conte*
Digital Transformation and Organizational Change in the Public Sector: Evidence from a Case Study
- 231 *Giovanni Spatola, Stefania D'Aprile, Maria Zifaro, Andrea Presciutti, Alessandro Broglia*
Preliminary Study on the Impact of Artificial Intelligence in ESG Practices: A Multi-Case Approach in the Italian Market
- 232 *Paola Campana, Riccardo Censi, Fulvio Schettino, Chiara De Pucchio*
Optimizing ESG Risk Assessment Processes with AI-Driven Process Mining: A Framework for Proactive Sustainability Management
- 233 *Giuseppe Bruno, Manuel Cavola, Anna Del Balzo, Carmela Piccolo, Eduardo Pipicelli*
Navigating Sustainability Standards: Challenges and Interoperability Between ESRS and GRI
- 234 *Giovanni Spatola, Giuseppe Ambrosio, Marianna Mancino, Maria Zifaro, Andrea Presciutti*
Exploring the Synergy: AI-Driven Knowledge Management, ESG Performance, and Stakeholder Perceptions in the Energy Sector
- 235 *Marianna Mancino, Maria Zifaro, Giuseppe Ambrosio, Giovanni Spatola*
Artificial Intelligence, Knowledge Management and Reduced Work Time: Rethinking Organizational Competitiveness
- 236 *Stefania D'Aprile, Giovanni Spatola*
Artificial Intelligence as a Driver for Educational Inclusion: Developing a Generative AI Chatbot to Support Professors and Students
- 237 *Serena Strazzullo, Moacir Godinho Filo*
The Role of Artificial Intelligence in Social Sustainability: A Socio-Technical Systems Perspective

INDEX OF ABSTRACTS

- 238 *Daniel Ruiz López, Fabiola Colmenero Fonseca, Ramiro Rodríguez Pérez, Juan Francisco Palomino Bernal*
Semantic Dimensions of Digital Transformation: An Integrated Approach to Resource Management and Organizational Sustainability
- 239 *Giovanni Spatola, Mario D'Avino, Antonio Capasso, Maria Zifaro, Andrea Presciutti*
Artificial Intelligence and Social Sustainability in the Energy Sector: Enhancing Stakeholder Perception and ESG Performance through Innovative Practices
- 240 *Marianna Mancino, Maria Zifaro, Giuseppe Ambrosio, Giovanni Spatola*
Social Taxonomy, Balance Sheet and AI for Sustainability in Public Administration Policies
- 241 *László Berényi, Nikolett Deutsch*
Change to Digital Learning: A Task-Technology Fit Approach to Moodle
- 242 *Viktória Papp-Horváth*
Digital Literacy of Gen Z Students in the Context of Project Management Education
- 243 *Petra Wagner, Marcus Jandt, Vitaliy Soloviy*
Emerging Roles for Public Research Organizations in Shaping Innovation Ecosystems
- 244 *Roberto Mauriello, Livio Cricelli, Serena Strazzullo*
Enhancing Resilience in Agrifood Supply Chains: The Role of Technological Innovation for Risk Management
- 245 *Stefano Marciano, Francesca Peluso*
Business Model Innovation and Digital Technologies in Agri-Food: Leveraging Boundaries for Sustainability
- 246 *Patrice De Micco, Arianna Gabburo, Gianluca Vitale, Angelo Riccaboni*
Exploring Sustainability Data Management Process: Evidence from SMEs
- 247 *Mauro Romanelli*
Smart Responsible Innovative Cities: An Organisational Agenda
- 248 *Raffaele Silvestre, Mauro Romanelli*
Managing Organizations between Artificial Intelligence and Technostress: A Typology Model
- 249 *Anna Turchetta, Sara Gigli*
The Integration between Artificial Intelligence, Knowledge Management, and Collaborative Innovation for the Creation of Sustainable Value in Industry 5.0
- 250 *Mauro Romanelli, Alexandra Zbucheá, Monica Bira*
Creative Urban Spaces: A Collaborative and Organisational View
- 251 *Fabrizio Rossi, Domenico Celenza, Elbano De Nuccio, Alessandro Sicali*
Narcissistic CEOs and Zombie Firms: Evidence from Europe
- 252 *Giuliana Cavadi, Martina Vivoli, Federico Cosenz*
Evaluating AI's Impact in Healthcare: a Systemic Approach through Key Performance Indicators
- 253 *Walter Vesperi, Marzia Ventura*
Digital Evolution in Healthcare: A Scoping Review on Emerging Inequalities
- 254 *Sara Consilia Papavero, Concetta Lucia Cristofaro, Rossella Di Bidino, Fabrizio Massimo Ferrara, Giuseppe Arbia, Sabrina Bonomi*
Evaluating Holistic Socio-Environmental Impact of Digital Health: Scoping Review of Decision-Making Frameworks
- 255 *Valeria Schifilliti, Veronica Marozzo, Alessandra Costa, Augusto D'Amico*
Exploring Cardiologists' Perspectives on Wearable ECG Devices: Evidence from an E-focus Group

INDEX OF ABSTRACTS

- 256 *Małgorzata Runiewicz-Wardyn*
The Role of AI in Waste Reduction and Sustainability of Pharmaceutical Industry
- 257 *Kathrin Kirchner, Ettore Bolisani, Tomas Cherkos Kassaneh, Enrico Scarso, Nima Taraghi*
Impact of Work Experience on the Use of Generative AI for Knowledge Management
- 258 *Giuseppe Loseto, Alessandro Massaro, Angelo Rosa*
Generative AI Techniques for Data Aggregation and Summarization: Enhancing Decision Support in Healthcare
- 259 *Giuliana Barba, Marianna Lezzi, Mariangela Lazoi, Massimo Scalvenzi*
A Bibliometric Analysis of GenAI for Privacy and Information Security in Industry
- 260 *Lucaleonardo Bove, Lorenzo Epifani, Angelo Corallo, Massimiliano Gervasi*
Harnessing Large Language Models for Data Mesh Adoption in Multi-Organizational Data Ecosystems
- 261 *Mariasimona Miglietta, Lorenzo Epifani, Marco Di Salvo, Angelo Corallo, Gervasi Massimiliano*
Generative AI in Data Management: Enhancing Data Quality Control for Business Data
- 262 *Francesco Filippo, Francesco Paolo Lagrasta, Stefano Lisi, Barbara Scozzi*
Individual and Organizational Factors affecting the Adoption of GenAI in Creative Contexts: an Explorative Study
- 263 *Marco Scatto, Karen Venturini, Chiara Grosso, Alberto Petroni*
Forecasting Analysis for Technology-Driven Transition in Circular Packaging
- 264 *Michal Krčál, Sayyed Shoaib-Ul-Hasan, Farazee Mohammad Abdullah Asif, Mikhail Monashev*
Digital Solutions to Support Transition from Linear to Circular Manufacturing
- 265 *Tamara Menichini, Gennaro Salierno, Nicoletta Maria Strollo*
Shaping the Twin Transition: How Leading Innovators align Industry 4.0 and Circular Economy Practices for Sustainable Growth
- 266 *Aelita Skarzauskiene, Kristina Kovaitė, Monika Mačiulienė, Paulius Šūmakaris*
AI-driven Knowledge Futures: Digital Innovation in Cultural Heritage
- 267 *Matias Celdrán Bonafonte, Francesco Santarsiero, Gustavo Morales-Alonso*
Transforming Hotel Innovation Management through Innovation Labs: Lessons from Spain
- 268 *Francesco Santarsiero, Daniela Carlucci, Antonio Lerro, Rosaria Lagrutta, Vincenzo Orsi*
Assessing Digital Maturity in Rural Tourism: Insights from Pilot Areas in Basilicata
- 269 *Antonio Lerro, Rosaria Lagrutta, Vincenzo Orsi, Francesco Santarsiero, Daniela Carlucci, Giovanna Andrulli*
Models and Tools to Support Innovation Processes in Cultural Tourism Ecosystems: Evidences and Implications for Basilicata
- 270 *Antonio Lerro, Rosaria Lagrutta, Vincenzo Orsi, Francesco Santarsiero, Daniela Carlucci*
Digital Transformation in Rural Cultural Tourism: Insights from a SWOT Analysis in Basilicata
- 271 *Michele Modina, Anna Vittoria Formisano, Aysan Bashirpour Bonab*
The Role of Incubators in the Innovation Ecosystem
- 272 *Eva Panetti, Viktoriia Apalkova, Maurizio Caon*
Resilience of Entrepreneurial Ecosystems (EEs) in Switzerland: Diversity, Coherence, and Digitalization
- 273 *Antonio Sonetto, Silvia Tommaso, Antonio Ricciardi*
Leveraging External Knowledge: How Business Incubators Facilitate Open Innovation in Start-ups

INDEX OF ABSTRACTS

- 274 *Laura Monferdini, Benedetta Pini, Virginia Dolci, Eleonora Bottani*
How Emerging Technologies Drive Collaboration in Start-Ups' Innovation Ecosystems
- 275 *Serena Filippelli, Barbara Bigliardi, Virginia Dolci, Laura Monferdini, Benedetta Pini*
The Impact of Digitalization and Open Innovation on the Performance of Innovative Startups: A Systematic Literature Review
- 276 *Maria Cristina Pietronudo, Eva Panetti, Andrea Caporuscio, Daniele Leone*
Mental Models for Entrepreneurial Ecosystems: A Simulation Experiment
- 277 *Alberto Michele Felicetti, Salvatore Ammirato, Roberto Linzalone, Laura Cutrì*
Orchestrating Digital Innovation Ecosystems: A Case Study on Asymmetric Collaborations in Pharma Logistics
- 278 *Filomena Riemma, Davide de Gennaro, Filomena Buonocore, Rosario Marrapodi*
Stress Management and Organizational Strategies: Promoting Well-Being and Innovation in Healthcare Systems
- 279 *Alice Mannocci, Guendalina Capece, David Shaholli, Jessica Pratavia, Lombardo Floranna Guarente, Ilaria Frantellizzi, Ramos Mren Quesada, Francesco Belsito, Bruno Gerace, Ginevra Duraturo, Claudia Sarcoli, Antonietta Monteduro, Giuseppe La Torre*
A Randomized Controlled Field Trial: A Gamified Training Course on Workplace Health and Safety Prevention for Middle School Students – "Let's Play 81!"
- 280 *Cristina Cersosimo, Franco Ernesto Rubino*
The Role of Digital Technologies on Corporate Governance Mechanisms
- 281 *Giacomo Gotti, Angela Oksana Fiorella, Carla Morrone, Valerio D'Ovidio*
Navigating Sustainable Corporate Governance in the Age of Artificial Intelligence: Primary Evidence from Italy
- 282 *Riccardo Michele Colangelo, Eleonora Petrazzuoli, Maria Menshikova, Vito Saverio Ciccoira, Nunzia Cosmo*
Costs and Benefits of AI Adoption in the Recruitment Process: Organisational, Recruiter, and Job Applicant Perspectives
- 283 *Leonzio Capparelli, Lapo Biancardi, Michele Galeotti, Vincenzo Scafarto*
Digital Transformation, Board of Directors and Environmental Performance: Evidence from Italian Listed Companies
- 284 *Daniela Cicchini, Paolo Conte, Luana Pellegrini*
Digitalization and Sustainability Reporting in the Public Sector: A Structured Literature Review
- 285 *Giovanna Muraglia, Laura Clemente, Gesualda Iodice, Mariavittoria Cicellin, Francesco Bifulco*
Digital Transformation and Public-Private Partnerships to Enhance Local Cultural Heritage
- 286 *Fabio Greco, Francesco Bifulco*
Measuring Museum Visitor Experience: Fresh Evidence from Bourbon Heritage Sites and potential Collaborations with Startups
- 287 *Chiara Vandoni, Guido Perboli*
Barriers to Web3 Technologies in Museums: A Qualitative Study in Turin
- 288 *Amelia Napolitano, Laura Clemente, Francesco Bifulco*
Artificial Intelligence and Value Co-creation in Museums: Promoting Inclusion for People With Disabilities
- 289 *Heini Merkkiniemi*
Let Me Entertain You: Managing Socially Sustainable Experience Economy Ecosystems
- 290 *Jean-Baptiste Philippe*
Redefining Middle Management: How Generative AI Reshapes Roles and Competencies

INDEX OF ABSTRACTS

- 291 *Gianluca Gherardi*
A (Fun)Nel Model for Knowledge Management
- 292 *Matteo Barisone, Diana Rolando, Alice Barreca, Concetta Sulpizio*
AI-Driven Data Integration in Real Estate Development Processes
- 293 *Sandra Penger, Vlado Dimovski, Maja Meško, Judita Peterlin, Vasja Roblek*
The Use of Artificial Intelligence in Recruitment Selection in Slovenian Organisations: An Exploratory Approach Analysing HR Managers' Experiences
- 294 *Lufuno Lugisani, Oluseye Jegede*
The Role of Chatbots in Enhancing Managerial Experience within Organisations
- 295 *Petia Genkova, Henrik Schreiber, Edwin Semke*
Global or Local Player? – Cultural Diversity and Barriers in STEM Studies
- 296 *Maja Bacovic*
A Country's Innovativeness as a Determinant of Income Convergence
- 297 *Behrooz Moradi, Ettore Bolisani, Juan-Gabriel Cegarra-Navarro, Aurora Martínez Martínez, Tomas Cherkos Kassaneh, Furong Cai*
Towards a Unified Framework for Knowledge Worker Roles: A Systematic Literature Review
- 298 *Micol Di Vita, Emilio Paolucci, Elisabetta Raguseo*
Do Mentors Influence the Effects of the Entrepreneurial Programs of Early-Stage Start-Ups Pivot Decisions? An RCT Experiment
- 299 *Alfredo Castro, Roberto Sbragia, Elza Veloso*
Digital Leadership in the Era of Remote Work: Challenges, Strategies, and the impact of AI
- 300 *Roberto Grandinetti*
How Artificial Intelligence Erodes the Tacit Dimension of Organizations
- 301 *Ewa Stolarek-Muszyńska, Malgorzata Zieba*
Navigating Uncertainty through Knowledge Sharing: Lessons from Tourism in Times of Pandemic. Case Study from Poland
- 302 *Igor Zatsman*
AI Technology for Language Knowledge Discovery Built on Modified Spiral Model and DIK Hierarchy
- 303 *Riccardo Ventura, Ilaria Mariani*
Open Innovation for Virtual Worlds: A Design-Driven Theoretical Framework for the Creation of User-Generated Experiences
- 304 *Ludovica Nardi, Andrea De Mauro*
Managing Prices in the Age of AI: A Taxonomy of AI Applications to Support Pricing Decisions
- 305 *Carlo Drago, Francesca Valentina Giglio Moro, Angelo Leogrande*
Bibliometric Ensemble-Based Community Detection Analysis of AI, Knowledge Management, and Emerging Technologies Convergence in Business Paradigms
- 306 *Selvi Kannan*
AI-Driven Knowledge Translation and Ethical Governance: Transforming Knowledge Management for Business Model Innovation
- 307 *Martyna Skorupko, Malgorzata Zieba*
Employee Withdrawal and Knowledge Management Processes
- 308 *Claude Meier, Ursula Häfliger*
Generative Artificial Intelligence: Knowledge, Perception and Use among White-Collar Employees in Companies

INDEX OF ABSTRACTS

- 309 *Amarildo Zane, Fátima Guadamillas Gómez, Mario Javier Donate Manzanares*
Knowledge Management in Diverse Organizations: A Meta-Data Analysis
- 310 *Marco Praticò, Salvatore Tallarico, Luisa Pellegrini, Simone Lazzini*
Improving Clinical Evidence for Medical Devices: A Lifecycle Approach
- 311 *Gustavo Morales-Alonso, Faisal Rasool, Yulissa Navarro-Castillo, Antonio Hidalgo*
Exploring Frugal and Reverse Innovation: A Bibliometric Review and Conceptual Proposal
- 312 *Ranieri Alves dos Santos, Fernando Alvaro Ostuni Gauthier, Marcelo Macedo, Vanessa Roberg*
The Use of Generative AI and Lean UX in Knowledge Engineering Projects
- 313 *Stefano Abbate, Piera Centobelli, Maria Di Gregorio*
Food Waste Valorisation: A Comparative Study with a Hybrid AHP-Fuzzy Approach
- 314 *Giovanna Attanasio, Cinzia Battistella, Irene Bubbola, Francesca Di Pillo, Fabio Nonino, Giulia Palombi*
What Drives Sustainability-Oriented Digital Platforms?
- 315 *Fiengo Vincenzo, Passaro Renato, Quinto Ivana*
A Framework for Assessing the Sustainability of P2P Platforms
- 316 *Giovanni Baldissarro, Gianpaolo Iazzolino, Giuseppe Longo, Donato Morea*
Innovation in Entrepreneurship and Performance: An Empirical Research on Italian Innovative Startups
- 317 *Mirva Hyypiä*
Meaningfulness Reshaping Technology, Knowledge Co-Creation, and Leadership
- 318 *Maione Vincenzo, Ponsiglione Cristina, Primario Simonetta*
A Network Epidemic Model for Fake News Diffusion: Agent-Based Insights for Responsible Social Media
- 319 *Dijana Oreski*
Enhancing Organizational Knowledge Management through Retrieval-Augmented Generation and Large Language Models
- 320 *Fabrizio Baldassarre, Savino Santovito, Raffaele Campo, Pierfelice Rosato*
Enhancing the Acceptation of Insects as Food: A Sustainable Strategy?
- 321 *Tamara Menichini, Gennaro Salierno, Nicoletta Maria Strollo*
Materiality Analysis for SDG Prioritization: Is Multi-Criteria Decision Making Helpful?
- 322 *Ettore Zini, Chiara Tognon, Angelo Zerega, Angelo Leogrande, Nicola Magaletti, Giovanni Schiuma*
An Integrated Model for Defining and Monitoring ESG KPIs in Smart Buildings: A Methodological Approach to Sustainability Performance Management
- 323 *Panus Faroongsarng, Pornthipa Ongkunaruk*
Improving Revenue and Delivery Performance by Production Planning Using Mixed Integer Programming in a Plastic Manufacturing Industry
- 324 *Wuttipong Panitsettakorn, Pornthipa Ongkunaruk, Thaweephan Leingpibul*
Trust, Transparency, and Technology: A Case Study of IQAV-Driven Quality Assurance in Thailand's Cosmetic Sector
- 325 *Min-Ren Yan, Yuhong Wang, Muh-Lin Tsai*
Knowledge Management for ESG-oriented Products and Sustainable Business Ecosystem Development

INDEX OF ABSTRACTS

- 326 *Angela Wen-Chi Chen, Hsi-Chin Tseng, Chasel Yu-Ting Cheng, Lilian Yi-Hsin Shen, Yu-Long Wang, Chuan-Han Chao, Min-Ren Yan*
Driving National Well-being through Nutrition: Standard Foods Group's Approach to Taiwan's Sustainability Challenges
- 327 *Min-Ren Yan, Andrew Hartanto*
Managing Knowledge for Eco-Museum Education System in University Town and Learning Societies
- 328 *Min-Ren Yan, Jae Hsueh*
Taipei Christmas Market System Design with Cultural Ecosystem Service Innovation Strategies
- 329 *Hui Fang, Nai, MeiYi Winnie Song, Zejingi, Liang*
A System Dynamics Study on the Transition from Kite Tethering to Social Network Weaving in Overseas Internships of AI Employment Program Students
- 330 *Chiung Chuan Lo*
System Dynamics Analysis of AI Empowerment's Impact on Knowledge, Skills, and Abilities (KSA) and Technology-Skills-Knowledge (TSK) in Business Management
- 331 *C. F. Lin*
The Use of Artificial Intelligence Tools in Early Childhood Education: A System Dynamics Analysis of Early Childhood Education Scenarios
- 332 *Wen-Chou Huang*
System Dynamics Analysis of AI-Driven Marketing Planning
- 333 *Chiung Chuan Lo, Ju-We Chen, Yi-Chen Cheng*
A Case Study on System Dynamics Analysis and AI-Enabled Differentiation in Industrial Water Conservation Solutions under the ESG Trend
- 334 *Ju-We Chen, MeiYi Winnie Song*
Dynamic Analysis of Generative AI Innovation Architecture System
- 335 *Chi-Yuan Lin, Ju-We Chen, Hsiao-Chi Wu*
The Impact of AI-Enabled Aquaculture Innovation Framework on Sustainable Development (ESG) – A System Dynamics Perspective

AI Perceptions Across Organizational Levels: Barriers and Drivers of Adoption in the Hotel Industry

Claudia Cozzio, Francisco Santos Arteaga, Oswin Maurer

Free University of Bolzano, Bolzano, Italy

Universidad Complutense de Madrid, Madrid, Spain

Abstract

This study explores the challenges and opportunities associated with adopting artificial intelligence (AI) in the hotel industry, with a particular focus on how perceptions of adoption differ across hierarchical levels. Drawing on consensus mapping and interviews with 21 participants, ranging from top managers and first-line supervisors to non-managerial staff, the research reveals distinct viewpoints on both the benefits and barriers of AI implementation. While top managers primarily perceive AI as a strategic tool for gaining competitive advantage, non-managerial employees tend to emphasize its potential for reducing operational costs. Despite these perceived benefits, the adoption of AI is hindered by limited awareness, insufficient understanding, and a general resistance to change.

Keywords: Artificial Intelligence (AI), hospitality, drivers, barriers, stakeholders, consensus mapping

Artificial Intelligence Adoption in South Tyrolean Hospitality: A Qualitative Analysis

Tommaso Di Fonzo

Free University of Bolzano, Bolzano, Italy

Abstract

This study aims to analyse and understand perceptions of artificial intelligence and its use in the South Tyrolean hospitality sector, with particular attention to the different organizational roles held by employees. To this end, 44 semi-structured interviews were conducted, involving both managerial staff and employees in non-managerial positions. This approach allowed for the collection of a broad and diverse range of perspectives. Data analysis was carried out using a qualitative approach, deemed the most suitable for exploring personal perceptions and experiences. The NVivo software was used to support data processing and organization, facilitating the identification of recurring themes and differences between the groups analysed. The results highlight significant differences in familiarity with artificial intelligence. Managers, in particular, demonstrate a greater understanding of the topic, often illustrated with concrete examples of artificial intelligence usage within their establishments. Moreover, they tend to have a more positive outlook, perceiving the benefits of artificial intelligence as outweighing the associated costs. Interestingly, both groups identified the current staff shortage as a strong incentive for adopting artificial intelligence, which is seen as a potential solution to this challenge. At the same time, they recognize the lack of specific skills among employees as one of the main barriers to effective AI implementation, which in turn impacts the availability of qualified personnel.

Keywords: Artificial intelligence, AI in hospitality, Perception toward AI, AI benefits and AI challenges

A Truncated Poisson Model to Approximate the Firm-Level Innovation Generation Process

Haschka Rouven Edgar

Corvinus University of Budapest, Budapest, Hungary

Abstract

In today's high-technology markets, innovativeness and competitiveness are paramount for firm success. This article delves into the intricate relationship between research and development (R&D) investments, knowledge generation, and patent outcomes, with a specific focus on the pharmaceutical industry. Drawing upon existing literature and empirical evidence, we propose a novel theoretical model that captures the firm-level knowledge generation process, considering the intermediary role of patent applications. Unlike previous studies that overlook the patent application process, our model integrates this crucial step. Using a truncated Poisson model, we analyse a dataset comprising 137 independent European pharmaceutical firms to empirically test our theoretical framework. Our findings reveal that accounting for truncation significantly influences the estimation of innovation input elasticities, emphasizing the importance of considering the patent application process in assessing the effectiveness of R&D investments. The empirical results highlight the complexity of the innovation process, wherein R&D investments translate into latent knowledge, which in turn manifests into patent outcomes subject to the patent application process. By considering these intricacies, our model provides a more accurate approximation of the firm-level innovation process.

Keywords: Knowledge generation, firm-level innovation process, patenting ambition, truncated Poisson regression

The Interdependent Relationship of MI and Culture: Insights from a Systematic Literature Network Analysis

Luca Tuporini, Vittorio D'Amato, Joao Vieira da Cunha, Elena Tosca

LIUC-Università Cattaneo, Castellanza (VA), Italy

Università LUM-Giuseppe Degennaro, Casamassima (BA), Italy

IESEG School of Management, Lille, France

Abstract

Continuous innovation is necessary as a source of competitive advantage due to the constant changes in global business brought about by globalization and the quick advancement of technology. While product and process innovations have traditionally received considerable attention, management innovation (MI) has emerged as an equally critical element (Birkinshaw et al., 2008; Mol and Birkinshaw, 2009). However, despite its potential benefits being clear, the academic debate on MI is still lacking, especially in understanding its interdependence with organizational culture (OC) (Khosravi et al., 2019; Hogan and Coote, 2014). Few studies have systematically examined how organizational culture can both support and hinder methods of managerial innovation, as well as how MI can function as a catalyst for cultural change (Hamel, 2008). By emphasizing this interconnectedness, we add to the expanding body of research that establishes MI as a critical component for achieving long-term competitive advantage through cultural flexibility (Puranam et al., 2014).

By examining how MI and OC influence each other, this study aims to fill this gap and enrich the literature by offering a current and in-depth synthesis of the main research themes and trends. In particular, we specifically investigate MI enablers, how organizational culture supports or inhibits MI, and how MI itself stimulates cultural change. To this end, we use an approach called Systematic Literature Network Analysis (SLNA), which combines the accuracy of literature network analysis with the rigor of a systematic literature review (SLR).

The data for our analysis came from the Scopus database, which contains more than 57 million academic publications. The results of our SLNA provide several important insights. First, we verified that managerial innovation and organizational culture have a positive feedback loop. Secondly, we list several important factors that support management innovation, such as organizational learning, knowledge management, and transformational leadership (Sarros et al., 2008). Third, our work emphasizes how crucial narratives and knowledge management are to the MI-OC dynamic. The SLNA demonstrates the growing importance of management innovation in organisational studies. By filling this knowledge gap, our research lays the foundation for further empirical studies on the connection between MI and OC, providing managers with knowledge that can support the development of innovative and culturally transformative environments.

Keywords: Management Innovation, Organizational Culture, Systematic Network Literature Review, Bibliometric Analysis

From Integration to Strategic Fit: Reconsidering Human-AI Collaboration through Two Case Studies

Wanting Guo, Chuanjuan Wu, Marina Latukha, Xudan Wang

GSOM St. Petersburg State University, St. Petersburg, Russia

Emlyon Business School, Ecully, France

Léonard de Vinci Pôle Universitaire, Paris, France

With Digital Intelligence Institute, Shanghai, China

Abstract

The increasing integration of artificial intelligence (AI) in organizations has shifted its conceptualization from a mere technological tool to an active collaborative partner. Despite growing recognition of the strategic potential of human-AI collaboration, many firms struggle to align AI adoption with organizational goals, often resulting in employee disengagement, fragmented workflows, and inefficient digital transformation. To overcome this dilemma, we introduce the concept of human-AI fit, extending person-environment (P-E) fit theory to examine how organizations align individual capabilities, AI, and strategic objectives. Through a qualitative comparative case study of two leading Chinese firms, Company Alpha (an e-commerce platform) and Company Beta (an ICT infrastructure provider), both recognized for their competitive edge in AI-driven operations and commercially successful AI products in the market, we analyze semi-structured interviews, observational data, and organizational documents to trace the dynamics of human-AI collaboration and reveal the factors contributing to the fit and their interplay. Our findings show that successful AI integration goes beyond technical deployment, as these two cases demonstrate two patterns of leveraging this fit to sustainable growth with distinct features. Case Alpha highlights the importance of role clarity in managing task division between humans and AI, while Case Beta highlights how talent management systems combined with organizational culture enhance workforce readiness. Theoretically, this study extends P-E fit theory into the context of human-AI interaction, adding the dynamic dimension that employees must navigate in the new digital era. Practically, it offers actionable insights for firms seeking to optimize human-AI collaboration and navigate AI-driven transformation effectively.

Keywords: Human-AI Collaboration, Corporate Strategy, Talent Management

Organizational Practices for Agile Work: A Systematic Review on Smart Working Strategies

Giuseppe Zangari, Antonio Lorena, Ludovica Zoccali, Rocco Reina

University Magna Graecia, Catanzaro, Italy

Abstract

In recent years, Smart Working (SW) has emerged as one of the most significant transformative paradigms of modern workplaces, driven by technological advancements and societal and cultural shifts. In particular, the COVID-19 pandemic further accelerated the adoption of flexible work models, compelling organizations to profoundly revise their internal processes.

Based on this premise, the following study aims to analyze how organizational processes must be adapted to effectively support the transition to SW, with a particular focus on the required changes in human resources (HR) management practices, leadership models, and organizational culture.

The methodological approach adopted consists of a systematic review of the literature (Tranfield et al., 2003), conducted in the three international and multidisciplinary databases Scopus, Web of Science (WoS), and ProQuest, using query strings given by combinations of the two keywords: Smart Working and Organizational Processes.

The conducted literature review on the investigated topic highlights the main strategies and principal challenges faced by organizations in the transition to SW, including the management of digital burnout and the maintenance of team cohesion.

Despite some research limitations due to the inclusion and exclusion criteria adopted in the consulted databases, the obtained results emphasize the evolution of managerial roles toward the adoption of digital collaboration tools and a cultural shift toward employee trust and well-being. In addition, this study also aims to provide a broad framework in the field of Agile Work (AW) for researchers and practitioners, useful in designing more sustainable SW strategies and that support Knowledge Management (KM) and organizational innovation.

Keywords: Organizational processes - smart working

Knowledge Management and Diversity Management in HEIs: An Italian Overview

Valerio Brescia, Giuseppe Nicolò

University of Milan, Milan Italy

University of Salerno, Fisciano (SA), Italy

Abstract

Higher Education Institutions (HEIs) play a critical role in fostering diversity and inclusivity while managing knowledge effectively. However, the integration of Diversity Management (DM) and Knowledge Management (KM) in HEIs remains a fragmented process, influenced by institutional size, technological infrastructure, and strategic alignment. This study explores the presence of key diversity management elements within Italian university PIAOs (Integrated Plans of Activities and Organization), using a knowledge management lens to assess inclusivity, collaboration, intersectionality, and technology integration. Through content analysis, the study identifies significant disparities in diversity and knowledge strategies among universities of different sizes. Larger institutions tend to leverage AI-driven recruitment systems, open-access repositories, and interdisciplinary collaboration platforms, ensuring a scalable and technology-enhanced approach to diversity and knowledge dissemination. Mid-sized universities prioritize regional engagement, faculty-student mentorship programs, and interdisciplinary teamwork, adopting structured but less technology-intensive approaches. Smaller universities, by contrast, rely more on community engagement, face-to-face collaboration, and localized mentorship models, often lacking the resources to implement large-scale digital transformation. The findings reveal that institutional size directly influences the extent of technology integration in both diversity and knowledge strategies. Larger universities demonstrate advanced digital ecosystems, while mid-sized and smaller institutions exhibit resource constraints that limit their ability to implement AI-driven and automated solutions. Additionally, intersectionality remains an underdeveloped dimension in most institutions, with policies often failing to address the complexity of overlapping identities, resulting in generic rather than tailored inclusion strategies. This research underscores the need for more integrated and technology-supported diversity management frameworks across HEIs. AI, digital platforms, and structured knowledge-sharing models can enhance inclusivity, bridge disparities, and ensure that diversity policies are effectively embedded within knowledge systems. The study calls for policy reforms, targeted investments, and institutional collaborations to foster an equitable and technology-driven higher education environment, ensuring that diversity and knowledge management serve as complementary pillars for institutional growth and innovation.

Keywords: diversity management, knowledge management, Higher Education Institutions (HEIs), intersectionality, technology integration

Rethinking Fairness in Work-Life Policies: A Conceptual Framework Beyond Parenthood

Filomena Buonocore, Davide de Gennaro, Viviana Colombi

Evangelista, Ludovica Del Barone, Floriana Pollio

University of Naples "Parthenope", Naples, Italy

University of Salento, Lecce, Italy

Abstract

Traditional workplace policies aimed at supporting work-life balance, career development, and organizational support have largely been designed with employees with children in mind. However, such family-centric approaches risk marginalizing the growing number of employees who are childfree by choice or who desire children in the future. These groups often remain underrepresented in both academic literature and organizational practice. This paper proposes a conceptual framework for rethinking workplace equity by integrating diverse family statuses and future aspirations into the analysis of fairness perceptions. Drawing on equity theory, we examine how three groups—parents, childfree employees by choice, and employees desiring children—differ in their experiences and expectations of fairness across three core domains: work-life balance, career progression, and perceived organizational support (POS). We introduce the concept of anticipatory fairness to capture how employees evaluate current policies not only based on present conditions but also in light of their anticipated future needs and life trajectories. The framework identifies hidden and often overlooked inequities in how support is distributed, how opportunities for career advancement are perceived, and how organizational inclusion is experienced by employees with differing family orientations. Based on this conceptual foundation, we propose three theoretical propositions and outline directions for future empirical research. Our model encourages organizations to move beyond binary categories of parenthood and to develop more inclusive policies that recognize the full diversity of employee identities. By embracing a broader and more dynamic understanding of equity, organizations can foster greater fairness, motivation, and retention across all employee groups, ultimately contributing to more inclusive and sustainable workplaces.

Keywords: Equity theory, Work-life balance, Career progression, Perceived organizational support, Anticipatory fairness, Childfree employees, Inclusion

The Impact of Smart Hospitals on Employee Job Performance and Job Satisfaction

Yafang Tsai, Shih-Wang Wu, Szu-Chieh Chen

Chung Shan Medical University, Taichung, Taiwan, ROC

Chia Nan University of Pharmacy & Science, Tainan, Taiwan, ROC

Abstract

Technological advancements in healthcare can potentially enhance employee efficiency and job satisfaction. This study explores how smart hospitals impact employees' job performance and satisfaction. A cross-sectional survey was conducted from December 1, 2018, to January 31, 2019, yielding 338 valid responses. Regression analysis showed that employees who perceived their hospital as highly smart reported significantly better job performance compared to those who viewed their hospital as less smart (odds ratio [OR] = 3.014, p-value < 0.001). Similarly, those in highly smart hospitals also reported greater job satisfaction than their counterparts in less smart hospitals ([OR] = 2.645, p-value < 0.001). In addition, employees with high job performance reported significantly higher job satisfaction ([OR] = 13.172, p-value < 0.001) than those with lower performance. These findings suggest that hospital managers should prioritize integrating and promoting smart technologies in hospital operations to boost employee performance and satisfaction.

Keywords: smart hospital, intelligent hospital, job performance, job satisfaction, healthcare management

ESG and AI: The Role of a New Player in the Sustainability's Game. Explorative Analysis of the Potential Impact of Artificial Intelligence in Business Sustainable Performance

Giuseppe Maria Bifulco, Fabrizio Maria Bertusi, Leonzio Capparelli

Universitas Mercatorum, Rome, Italy

Sapienza Università di Roma, Rome, Italy

Abstract

The study explores the relationship between AI adoption and ESG performance, addressing a gap in literature. AI enhances sustainability by improving environmental monitoring, optimizing resource allocation, and fostering circular economy initiatives. Socially, AI promotes diversity and workplace well-being through advanced algorithms, while in governance, it strengthens oversight, risk assessment, and compliance. Using Bloomberg data on U.S. and Western European companies, the study tests whether ethical AI policies impact ESG scores. The results confirm a significant positive effect, suggesting that responsible AI adoption strengthens corporate transparency, investor trust, and decision-making.

Keywords: AI, ESG, Listed companies, USA and Western Europe

Women Directors, Sustainability Knowledge and Greenwashing: A Study on Italian Companies

Beatrice Sveva Stasi, Fabrizia Sarto, Sara Saggese

University of Naples Federico II, Naples, Italy

Abstract

In recent years, the growing attention to environmental, social, and governance (ESG) practices has driven companies to adopt Corporate Social Responsibility (CSR) strategies. The commitment to CSR is influenced by the need to satisfy stakeholder demands to improve firm performance. However, such growing pressure has also produced unintended distortions, notably the phenomenon of greenwashing, as corporate practice involving the dissemination of misleading information regarding a company's ESG commitments to enhance company public image and reputation. This study aims to analyse two possible determinants at board of directors level of greenwashing: the presence of female directors and board members with sustainability knowledge. Based on a sample of 35 Italian publicly listed non-financial companies in 2023, the research employs logistic regressions to examine the effect of the above mentioned board features on greenwashing, which is measured by comparing the ESG Perception Index and the Standard Ethics Rating. The results show that both the presence of female directors and directors with sustainability knowledge positively affect the greenwashing. This suggests that, although these characteristics are often considered to enhance the quality and transparency of sustainability disclosure, they may also increase the ability to manipulate such information. The study contributes to both theory and practice. From a theoretical perspective, it contributes to the literature on board composition and the determinants of greenwashing. From a practical perspective, it highlights the importance for nomination committees to consider the role of gender and human capital in the directors' appointment process, taking into account the potential association with greenwashing.

Keywords: Greenwashing, Women, Board of directors, Sustainability knowledge, Italy

Can Diversity Be an Opportunity to Enhance Ethics? Findings from a Multinational Survey in the Context of Trauma and Emergency Surgery

Francesca Dal Mas, Anna Prenestini, Lorenzo Cobiauchi

Ca' Foscari University, 30121 Venice, Italy

SAN University, Lodz, Poland

University of Milan, Milan, Italy

University of Pavia, Pavia, Italy

Abstract

Ethics stands today as a primary pillar of modern medicine, and no medical specialty represents an exception. Acute care and trauma (AC&T) surgery is a complex clinical field, often characterized by high time pressure and little knowledge about the patient and circumstances. Our investigation wishes to deepen the role of diversity in AC&T teams as an opportunity to enhance ethics. The study, endorsed by the World Society of Emergency Surgery, analyses 402 questionnaires gathered from medical professionals from 72 countries, investigating three ethical issues (namely, patient's informed consent as a knowledge translation tool, the team leader as an ethical leader, and ethics as an educational subject). Findings underline the potential of diversity to enhance the attention towards ethical matters, offering food for thought to hospital managers and healthcare professionals.

Keywords: Trauma and emergency surgery; Diversity; Ethics; Team Dynamics; Knowledge Management

Assessing Carbon Emissions and Energy Use Behaviours among Medical Undergraduate Students in Taiwan

Szu-Chieh Chen, Wei-Ling Yang, Yafang Tsai, Shih-Wang Wu

Chung Shan Medical University, Taichung, Taiwan

Chia Nan University, Tainan, Taiwan

Abstract

This cross-sectional study investigates the energy use behaviors, carbon emissions, and energy-related knowledge, attitudes, and practices (KAP) of undergraduate students from six private medical universities across northern, central, and southern Taiwan. Data were collected via structured questionnaires from May to June 2023, encompassing 184 students with diverse academic years, departments, and gender distributions (69% female). The study quantified daily activity durations involving energy consumption—such as air conditioning, heating, transportation, and use of electrical appliances—and estimated individual annual carbon emissions by integrating activity duration, energy consumption rates, and emission factors. Results indicate that air conditioning and heating account for the longest daily energy use (244 to 750 minutes), reflecting Taiwan's subtropical climate and high cooling demand. Transportation activities, including car, motorcycle, and public transit use, also contribute substantially, with Taipei Medical University students exhibiting the highest public transportation usage (mean 98 minutes). Departmental variations were noted, with pharmacy students using air conditioning most extensively and medical laboratory science students using public transit more frequently.

The KAP survey revealed moderate to high knowledge levels but comparatively lower positive attitudes and practices toward energy conservation, aligning with international findings. These results highlight the importance of targeted educational interventions to promote sustainable energy behaviors among medical students, who are future healthcare professionals with potential influence on institutional sustainability. This study fills a research gap by linking individual-level energy behaviors with carbon emission estimates in Taiwan's higher education context, providing a foundation for policy and behavioral strategies aimed at reducing the carbon footprint of medical education institutions.

Keywords: Carbon emission, Knowledge-Attitude-Practice (KAP), Taiwan, Subtropical climate, Energy

Board Diversity and Environmental Innovation: An Empirical Investigation of AI's Moderating Role

Michele Rubino, Elisa Gerbasi, Ilaria Mastrorocco

University LUM Giuseppe Degennaro, Casamassima, Italy

Abstract

This paper investigates the relationship between board diversity, the adoption of artificial intelligence (AI), and environmental innovation in multinational companies operating in highly polluting industries. Drawing on the resource-based view, the study considers board diversity as a source of strategic human capital and AI as a complementary technological asset that enhances organizational capabilities. Using data from 102 multinational firms collected in 2023, the analysis employs Ordinary Least Squares (OLS) regression and moderation analysis to test two hypotheses. The results show that board diversity alone does not significantly impact environmental innovation. However, the presence of AI significantly strengthens this relationship, enabling diverse boards to contribute more effectively to green innovation. The study adds to the sustainability and innovation literature by showing how AI can amplify the strategic value of diversity. It also offers practical insights, emphasizing the importance of aligning diversity and inclusion initiatives with technological investment to advance corporate sustainability goals.

Keywords: Environmental innovation; board diversity; artificial intelligence; resource-based view.

Assessing Firm-Level Drivers of High-Quality DE&I Disclosure in Corporate Sustainability Reports: A Stakeholder-Centric Perspective

Vincenzo Pontrelli, Angela Rella, Lara Oliva, Arcangelo Marrone

University "G. D'Annunzio", Chieti, Pescara, Italy

LUM "Giuseppe Degennaro" University, Casamassima, Bari, Italy

University of Molise, Termoli, Campobasso, Italy

Abstract

In recent years, the growing emphasis on social sustainability and ethical corporate behavior has brought Diversity, Equity, and Inclusion (DE&I) to the forefront of both academic debate and corporate strategy. Movements such as Me Too and Black Lives Matter, alongside the impact of the COVID-19 pandemic, have accelerated awareness around social inequalities, urging firms to enhance transparency and commitment to inclusive practices. Despite this trend, empirical studies investigating the determinants of DE&I disclosure remain scarce.

This study aims to fill this gap by analyzing the quality of DE&I disclosure among S&P 500 firms. A manual content analysis is conducted using the Global Reporting Initiative (GRI) standards, leading to the construction of a DE&I Disclosure Quality Index (DE&ID). Each disclosure item is scored on a 0–3 scale, allowing a maximum index value of 51. The analysis incorporates "Requirements," "Recommendations," and "Guidelines" outlined in the GRI framework.

The second objective is to investigate the influence of firm-specific economic and financial characteristics—firm size, firm profitability, firm leverage, and firm age—on DE&I disclosure levels. Four hypotheses, grounded in stakeholder theory, are tested using OLS regression.

Results demonstrate that larger, more leveraged, and younger firms exhibit higher DE&I disclosure, driven by greater stakeholder pressure and the strategic benefits of enhanced transparency. This study contributes to the ESG literature by offering new insights into the drivers of DE&I communication, with implications for both academia and policy, and supports the integration of DE&I into corporate accountability frameworks.

Keywords: Diversity, Equity, and Inclusion (DE&I); Disclosure; Stakeholder theory; Sustainability reporting; Determinants

Skill Mismatch: Exploring the Impact of Generative AI in Detecting Biases and Discrimination in Job Advertisements

Armando Calabrese, Sofia Carrino, Roberta Costa, Eugenio Roberti, Luigi Tiburzi

University of Rome "Tor Vergata", Rome, Italy

Abstract

The Human Resources field, on a national and global scale, faces increasing challenges related to Skill Mismatch, a phenomenon in which candidates' profiles do not align with labour market demand. The contributing factor analysed in this paper is the lack of inclusivity in job advertisements, as non-inclusive language and biases in the selection criteria may discourage applications from underrepresented communities. Ensuring compliance with Diversity & Inclusion (D&I) principles in job postings is essential to fostering fair hiring practices and promoting employment equity.

While AI-based technologies are finding increasing applications in the recruitment process, thus becoming part of the research topics in HR management, most existing tools primarily focus on gender discrimination, underestimating other critical aspects of D&I. This study explores how an integrated approach, based on a broader range of aspects of D&I European principles, may enrich AI-based tools to identify, but also solve, biases in job advertisements, enhancing inclusivity and employment equity for both candidates and recruiters. By expanding the scope of these tools, organizations can better align their hiring practices with the evolving expectations of a diverse and inclusive workforce.

The approach to the problem has been broken down into two main phases. First, guidelines were developed based on European non-discrimination regulations, providing a structured framework for evaluating job advertisements. Then, a Generative AI-based software was designed to screen job postings for inclusivity and compliance. The study underscores the potential advantages of AI-driven automation in screening job advertisements, reducing human biases, resource commitment, and processing time while ensuring adherence to D&I principles.

Keywords: Mismatch; Diversity and Inclusion (D&I); Generative AI; Job Advertisement (JobAds); Human Resources (HR)

The Role of University-Industry-Government Cooperation in Estonia for Sustainable Innovation

Daria Podmetina, Merle Küttim, Wolfgang Gerstlberger

Tallinn University of Technology, Tallinn, Estonia

Abstract

This study explores how university-industry-government (U-I-G) cooperation fosters sustainable innovation in the context of Estonia's post-industrial Ida-Viru region—a historically oil shale-dependent area undergoing a complex sustainability transition. Drawing on the multi-actor collaboration frameworks, which integrates both innovation and sustainability perspectives, this we study how collaborative efforts across institutional boundaries can enhance socio-technical change in peripheral European regions. Using a qualitative methodology 46 stakeholders from educational institutions, companies, municipalities, and umbrella organisations were interviewed to understand the dynamics of regional innovation system. The findings highlight the dual role universities and other educational institutions play—as knowledge producers and civic institutions—bridging technological advancement with societal values. The study reveals how knowledge spillovers, academic-industry exchanges, and boundary-spanning organizations enable sustainable innovation practices, even despite of significant structural challenges such as brain drain, low trust, weak entrepreneurship, and demographic decline. The analysis identifies enabling mechanisms, such as state support via the Just Transition measure, localized collaboration platforms like clusters, industrial parks, joint events and increased trust among actors—as pivotal to overcoming barriers. Companies in the region are adopting sustainable practices, ranging from incremental efficiency improvements to radical innovations such as resource valorization and bio-based production models. The findings also underscore the tensions between short-term economic goals and long-term sustainability. The research advances theoretical understanding of the multi-actor collaboration frameworks, including Triple Helix Twins model and its practical relevance in navigating the complex interdependencies between technological and social innovation. It concludes that reconfiguring regional innovation systems around sustainability goals requires not only institutional collaboration, but also the cultivation of shared values and systemic reflexivity.

Keywords: Sustainable innovation, sustainability, innovation, triple helix twin, university-industry-government cooperation

The Activation of Inclusive Behaviors Through Self-Awareness of Cognitive Biases: The Contribution of New Web3 Technologies

Laura Iacovone

University of Milan, Milan, Italy

Abstract

This paper seeks to advance understanding of the persistent gap between the growing societal and organizational attention to Diversity, Equity, and Inclusion (DE&I) and the limited reduction of non-inclusive behaviors and practices in real-world contexts. While inclusivity is inherently linked to the cultural and value systems of organizations, it is equally evident that socially undesirable or inappropriate behaviors fall within the realm of individual decision-making. These behaviors are frequently influenced by cognitive biases and prejudices, which tend to perpetuate or normalize inappropriate conduct rather than stigmatizing or sanctioning it. Despite increasing sensitivity to DE&I issues in both societal and organizational domains, training remains the most widely adopted intervention. However, such initiatives often yield only limited short-term awareness and rarely generate enduring structural change.

Accordingly, this paper first explores the intersection between DE&I and various forms of knowledge management, with particular attention to interdisciplinary frameworks that integrate diverse epistemological perspectives. Within this framework, the paper highlights the growing relevance of technology not only in terms of content accessibility and knowledge dissemination related to DE&I, but also as a transformative tool in shaping learning processes. Specifically, the focus is on emerging Web3 technologies—most notably immersive solutions such as virtual reality (VR) and Artificial Intelligence (AI)—which hold disruptive potential for reshaping traditional training paradigms. These technologies offer new opportunities for insight into individual decision-making mechanisms and behavioral patterns. The development of advanced immersive applications presents the potential to transcend the limitations of passive cognitive learning by fostering active engagement in dynamic, simulated environments. This facilitates the unconscious acquisition of new skills and behavioral responses. The paper analyzes various implementation strategies and their outcomes, with particular emphasis on integrative approaches that combine VR, neuroscience, and artificial intelligence (AI). These multidimensional solutions appear especially effective in enhancing individual self-awareness and facilitating unconscious behavioral recalibration.

The study concludes by proposing an initial conceptual framework that categorizes the range of emerging approaches according to their respective objectives and impacts. It further identifies key strengths and limitations, offering guidance for the more effective design and deployment of DE&I training interventions.

Keywords: Diversity, Equity & Inclusion (DE&I); Inclusive Behaviors; Cognitive Biases; Immersive learning; Virtual ad Mixed Reality+AI (VR&AI)

Addressing Gender Bias in AI Business Implementation: A Latent Dirichlet Allocation-Based Analysis

Francesca Valentina Giglio Moro, Carlo Drago

University Niccolò Cusano, Rome, Italy

Abstract

This work focuses attention to a sensitive issue emerged in the Artificial Intelligence (AI) tools application. Using technologies, the approach is based on the gender-neutral concept of the AI (Craiut, M. V., & Iancu, I. R., 2022) but the algorithms and the data sets could be affected by different kinds of biases (Stinson, C., 2022). In fact, the first signs of gender stereotypes dates back to 1990s with the studies on the computer detection of gender discrimination (Nass, C., Moon, Y., & Green, N., 1997). As suggested by Gorska, A. M., & Jemielniak, D. (2023), the AI systems have been produced by humans from which their prejudices are also derived. The risk is related to the authors of the algorithms who could affect with their values the AI system outcomes (Nobles, 2018).

Even if the widespread thought in Silicon Valley was based on the denial that the technology could be affected by stereotypes by virtue of the techno-libertarian ideology, several studies have highlighted the presence of bias in Information Technology (IT) and AI tools.

In this way, according to Cowgill, B., & Tucker, C. E. (2020) it is possible to disguise among “biased algorithmic predictions” and “biased algorithmic objectives”.

Consequently, the data adopted in algorithms have the double effect in order to empathize stereotypes or inequality and, in addition, amplify these issues (Wajcman, J., 2000 and Hanemaayer, A. 2020) to the detriment of minorities (Hicks, M., 2021).

The present study faces up the gender bias across different AI tools and through the two opposite directions of this bias: perpetuation and mitigation (O'Connor & Liu, 2024).

Keywords: Artificial Intelligence, Biases, AI Bias, Latent Dirichlet Allocation (LDA), Topic Modeling

Artificial Intelligence and Gender Roles: A Structured Literature Review (SLR)

Marco Tutino, Simona Arduini, Chiara Di Mario

University of Roma Tre, Roma, Italy

Abstract

This study presents a Structured Literature Review (SLR) aimed to explore a relationship between Artificial Intelligence (AI) and Gender equality, with a particular focus on the historical developments of this topic and the identification of future research perspectives.

AI is widely regarded as a transformative force with the capacity to reshape numerous dimensions of global society. While its long-term effects on economic system remain subject to debate, the labor market is already emerging as a critical area of impact. Moreover, AI holds the potential to enhance efficiency and productivity, but it simultaneously raises concerns about job displacement, access to opportunities and, exacerbation of existing social inequality.

In this context, our objective is to examine how academic literature has responded to the emergence of AI, particularly analyzing the extent to which gender-related themes are integrated into discussions of AI development and application.

To achieve this, the review is supported by a bibliometric analysis, conducted using the Biblioshny package in R-Studio, were performed on a sample of 290 academic documents (Articles and Book Chapters) available on Scopus and published from 2015 to 2025. The dataset was selected through a rigorous and validated screening process to ensure relevance and academic quality. The analysis is structured around four main dimensions: the annual evolution of publications, the identification and frequency of emerging keywords and trending topics, and the geographical distribution of scholarly contributions.

The originality of this research lies in its methodological approach and use of bibliometric analysis, to explore a broad spectrum of academic publications over a significant period, serving as a potential base for further insights and future studies.

Keywords: Artificial Intelligence (AI), Gender equality, Business transformation, Structured Literature Review (SLR), Bibliometric analysis

Gender Bias: How Artificial Intelligence Can Reinforce or Reduce Stereotypes

Simona Arduini, Tommaso Beck, Tommaso Mattei

University of Roma Tre, Roma, Italy

Abstract

This paper examines how implicit cultural biases, gender inequalities, and artificial intelligence (AI) interact to shape contemporary workplace dynamics. Cultural biases—often unconscious and deeply ingrained—influence key processes such as personnel selection, task assignment, and promotion decisions, favoring candidates who mirror dominant norms and marginalizing alternative perspectives. These mechanisms erode the psychological safety of members in multicultural teams and hinder innovation, underscoring the need for bias-aware training and recruitment technologies.

On the gender front, wage gaps persist, women remain underrepresented in leadership roles, and those perceived as overly assertive face harsher evaluations. Obstacles such as limited access to high-level mentors, stereotypes about women's leadership capabilities, and greater domestic care burdens exacerbate women's position in the workplace. The paper also explores the intersectional dimension of discrimination, in which race, age, or disability biases compound gender bias to create multilayered barriers for the most vulnerable groups.

The research then addresses AI's ambivalent role: on one hand, selection algorithms trained on historical data may perpetuate existing prejudices, disadvantaging ethnic minorities, gender-diverse applicants, and other marginalized groups; on the other hand, when ethically designed, built on diverse datasets, and subject to transparent governance and rigorous auditing, AI can deliver more objective and consistent evaluations that reduce the impact of human bias. Exemplary tools include algorithms that detect discriminatory language in job postings and platforms that measure equity in decision-making processes.

Following a critical literature review, the study adopts an integrated multiple-case approach combined with content analysis to examine real-world examples and concrete data. This methodological combination ensures both deep contextual interpretation and systematic rigor. Human oversight, ethical design principles, and continuous monitoring are therefore essential to translate AI's transformative potential into truly inclusive and equitable organizational practices.

Keywords: Artificial Intelligence (AI), Gender equality, Workplace Bias, AI Ethics, Structured Literature Review (SLR)

Exploring Economic Catalysts and Barriers to Gender Equality: An Empirical Analysis

Lina Volodzkienė, Tomas Baležentis

Lithuanian Center of Social Sciences, Vilnius, Lithuania

Abstract

Gender equality is a fundamental human right and a driver of social justice, economic growth, and sustainable development. This study investigates the economic determinants that shape gender inequality in the European Union, focusing on 27 member states from 1995 to 2022. While acknowledging the multidimensional nature of gender equality, the analysis concentrates on economic factors – such as development, trade orientation, institutional quality, and public spending – that influence inequality outcomes. The research is rooted in the premise that economic policies can serve both as enablers and barriers to gender equality, particularly in the context of structural transformation toward a climate-neutral economy.

A panel data approach using a two-way fixed-effects model is employed to assess how per capita GDP, export intensity, labor market regulation, rule of law, gender pay gaps, and public expenditure on education and social protection affect the Gender Inequality Index (GII). Interaction effects are included to evaluate whether export orientation modifies the relationship between growth and inequality. To ensure robust estimation, Driscoll-Kraay standard errors are used to address heteroscedasticity, serial correlation, and cross-sectional dependence.

The results reveal that higher per capita income significantly reduces gender inequality. However, export intensity consistently increases inequality, and no significant interaction effect is found between exports and growth – suggesting that export-led development does not mediate the impact of economic growth on gender outcomes. Higher gender pay gaps and male-to-female population ratios are linked to increased inequality, while stronger rule of law and labor market regulation contribute to its reduction. Public expenditure on education, social protection, and related welfare domains shows a consistent and significant negative effect on gender inequality, affirming the importance of redistributive policies.

The findings underscore that economic growth alone is insufficient to reduce gender disparities. Instead, targeted policies – particularly those strengthening labor institutions, promoting inclusive governance, and investing in social infrastructure – are essential to mitigate structural barriers. Advancing gender equality during the green transition requires a multidimensional policy approach that integrates economic, legal, and institutional reforms.

Keywords: gender equality, gender disparities, economic development, climate-neutral society, low-carbon transition

Digital Technologies in the Knowledge Era: Opportunity or Challenge for Female Entrepreneurship?

Pedro Seva-Larrosa, Giuseppe Modaffari, Francisco García-Lillo

University of Alicante, Alicante, Spain

Saint Camillus International University of Health Sciences, Rome, Italy

Abstract

Throughout history, women have played an active role in entrepreneurship, although their participation has often been invisibilized or restricted by social and legal norms. Today, digitalization and new technologies present significant opportunities to expand women's participation in entrepreneurial activities. However, they can also intensify existing challenges or generate new ones. In this context, it becomes necessary to analyze in depth how digitalization impacts on the specific opportunities and challenges faced by women entrepreneurs. The objective of this paper is to analyze the intersection in research between female entrepreneurship and digitalization. To do so, a comprehensive review of 171 scientific articles published in Web of Science (WoS) between 2010 and 2025 was conducted. The results report the main references in the literature on the nexus between female entrepreneurship and digitization: countries (China, USA, India and the UK), authors (McAdam, Maura from Dublin City University and Kelly, Grainne from Queens University Belfast), papers (Pergelova et al., 2019; McAdam et al., 2020; Ughetto et al., 2020), journals (International Journal of Gender and Entrepreneurship and Small Business Economics). The co-word analysis allowed us to identify seven main thematic fronts: (1) social networks, (2) financing, (3) Covid-19, (4) competitive advantage and internationalization, (5) entrepreneurship ecosystems, (6) education, and (7) miscellaneous topics. Each of these fronts was characterized in terms of the opportunities and challenges posed by digital transformation for female entrepreneurship. The results are of interest to researchers concerned with women's entrepreneurship, policy makers charged with fostering gender-responsive entrepreneurship, and women entrepreneurs as they seek to seize the opportunities and circumvent the challenges posed by digital technologies.

Keywords: Women entrepreneurship, Female entrepreneurship, Digitalization, Artificial intelligence, Systematic literature review

Gendered Intellectual Capital among the ESG Topics: Evidence from the Sustainability Reports of Italian-Listed SMEs

Alessandra Buonasera, Simona Catuogno, Valeria Naciti, Pasquale Sasso

University of Messina, Messina, Italy

University of Naples Federico II, Naples, Italy

Pegaso Digital University, Naples, Italy

Abstract

Italian-listed SMEs attentive to sustainability reporting are characterized by a great incidence of intangible assets and intellectual capital (IC) as key drivers of differentiation from their competitors and the best use of their resources to capture high market share. As IC disclosure in its components of human, structural and relational capital supports company transparency, this article investigates the degree of integration between IC disclosure and sustainability reporting and whether the gender dimension of human, relational and structural capital has been disentangled from the overall disclosure of IC as a material matter among the ESG reporting topics. By using the content analysis, we explore how corporate governance bodies of Italian medium-listed companies address IC and gender materiality in sustainability reporting. The estimation uses hand-collected data disclosed by a sample of Italian medium-listed firms from 2020 to 2024. We measure IC with a weighted index and examine the determinants of IC growth across sub-index classes composed of human, structural and relational capital. The findings reveal that the IC index positively relates to the firm's gender materiality and ESG determinants. The article broadens the knowledge about IC disclosure in sustainability reporting and accounts for its relationship with gender materiality among ESG topics under the CSRD legal constraints.

Keywords: Intellectual Capital, Relational Capital, Human Capital, Structural Capital, Gender Equality, ESG, Sustainability Reporting, Materiality

AI Impact on the Corporate Gender Gap

Maria Teresa Bianchi, Raffaele de Socio, Sabrina Ricco

Sapienza University of Rome, Rome, Italy

Abstract

The aim of this research is to describe the impact of AI (artificial intelligence) on the corporate gender gap.

The research methodology applied to this paper is the qualitative method through the application of the multiple case study analysis. We selected two privatal case study. Sources of analysis were corporate data, financial and sustainability reports for the financial year 2023 and 2024 of two Italian listed companies and a questionnaire that was prepared, with open-ended questions and then submitted to two management representatives of the companies involved, through semi-structured interviews. The two companies were chosen because, in the last two years, i.e. as of 2023, they have introduced and enhanced AI tools in the performance of work tasks, to the benefit of their employees. The research focuses not only on the adoption of AI tools by employees, but also on the ability of such tools to affect the gender work gap, the gender pay gap and other aspects of work related to gender differences. This represents a novelty compared to the traditional reference literature, which is focusing on the use of AI, but has not yet delved into how this might affect the gender gap and the eventual narrowing of this gap at the corporate level. The paper enriches the existing literature through study and results that are a useful baseline for academic and practitioners' implications about the evolution of the research in the use of new technologies and STARA (Smart Technologies, Artificial Intelligence, Robotics, and Algorithms) in work tasks and the changes they can bring about in the gender gap as a result of continued adoption, to the benefit of all workers in the company.

Keywords: Gender Equality; Gender Gap; AI; Technology; STARA

Digital Transformation and Gender Equality in Public Administration: An Analysis of NRRP Policies and Implementation

Alessandro Galli

Sapienza University of Rome, Rome, Italy

Abstract

Digital transformation is reshaping how public administrations operate, with artificial intelligence and emerging technologies playing a growing role in the management and delivery of public services. The National Recovery and Resilience Plan (NRRP) offers a strategic opportunity to modernize the Italian Public Administration (PA) and to foster more equitable and inclusive access to digital resources. However, administrative digitalization alone does not automatically ensure the overcoming of gender disparities. Without deliberate inclusion strategies, technological innovations risk reinforcing existing inequalities. This study analyzes the extent to which the NRRP, specifically through Mission 1, Component 1 (M1C1), has integrated gender equity objectives into PA digitalization initiatives.

Adopting a qualitative content analysis (QCA) approach, this research examines a sample of ten Public Calls for Proposals issued by the Presidency of the Council of Ministers – Department for Digital Transformation (PCM-DTD) portal and manually coded based on two analytical dimensions: (1) compliance with NRRP horizontal principles, and (2) adherence to EU legal obligations on gender equality. Special attention was paid to the use of gender-aware language, objectives, and evaluation mechanisms. The analysis reveals that all ten calls formally acknowledge gender equality in line with the NRRP's horizontal principles. However, such references are typically generic and are not translated into concrete requirements or measurable criteria. The reviewed calls lack any form of operationalization, such as gender-disaggregated indicators or structured evaluation mechanisms. Furthermore, binding EU legal provisions on gender equality are merely mentioned, without detailed elaboration or integration into project evaluation frameworks. This superficial treatment limits the enforceability of equity commitments and reflects a broader institutional gap between legal mandates and their practical implementation in the digitalization of the public sector.

This study offers a novel contribution to the literature on public sector innovation by introducing a gender-sensitive perspective into the analysis of digital transformation policies. It critically reflects on the risks of procedural formalism and emphasizes the need to embed gender equality principles more deeply into digital public investments. The findings provide actionable insights for policymakers aiming to leverage technological innovation as a true vector for social inclusion and equity.

The study is limited by its qualitative nature and the small sample size focused solely on Italian cases. Moreover, the analysis is restricted to document-based data without empirical validation through project outcomes or stakeholder feedback. Future research should integrate quantitative measures and fieldwork to assess the real-world impact of digital transformation initiatives on gender inclusion and explore comparative studies across different EU contexts.

Keywords: NRRP, Digital Transformation, Public Administration, Gender Equality, Public Funding, Inclusive Governance

Industrial Districts and Women-Led SMEs: A Literature Analysis

Sapienza University of Rome, Rome, Italy

Abstract

The aim of this work is to investigate how the academic literature has addressed the relationship between industrial districts and female entrepreneurship. This relationship is particularly relevant since industrial districts are widely recognized as dynamic environments that foster innovation and business growth, especially for small and medium-sized enterprises (SMEs). The review seeks to identify the main areas of analysis that have emerged in recent years and to explore future research directions related to the role of territorial ecosystems in supporting women-led SMEs.

This study adopts a structured literature review (SLR) methodology to systematically analyze the scientific contributions published between 2008 and 2025. The review was conducted using the SCOPUS database. Each contribution was manually classified according to three dimensions: research focus, methodology used, and geographical area of the authors. This analytical framework allowed for the identification of recurring patterns and theoretical gaps.

The findings reveal that most studies focus on the structural and cultural barriers that female entrepreneurs face, even within cooperative environments such as industrial districts. These include limited access to credit, gender stereotypes, family responsibilities and weak support networks. A smaller body of literature highlights the strategic role of women's human capital, including leadership, training, and innovation capacity, in enhancing the competitiveness of district-based SMEs. Only a few studies explicitly explore how industrial districts can act as enabling ecosystems for female entrepreneurship. From a methodological standpoint, the literature is dominated by quantitative research, while qualitative studies remain limited but offer valuable insights into personal experiences and informal networks. In terms of geographical distribution, most contributions come from Asia and Southern Europe, reflecting both emerging interest in inclusive entrepreneurship and the historical importance of district models in countries such as Italy and Spain.

This study contributes to the literature by providing a comprehensive and up-to-date mapping of the intersection between industrial districts and female entrepreneurship. It highlights the need for more inclusive district governance and calls for future research using qualitative and mixed-method approaches to better understand the lived experiences of women entrepreneurs and the real impact of local production systems.

Keywords: Female entrepreneurship, Industrial districts, Gender and SMEs, Territorial ecosystems

Female Financial Inclusion in the Digital Currencies' Era: A Technological Transformation

Paola Paoloni, Alejandra Sevilla-Guzman

Sapienza University of Rome, Rome, Italy

Abstract

Efforts to promote financial inclusion have led to exploring new tools, including Central Bank Digital Currencies (CBDCs). These currencies have the potential to overcome some limitations that many people still face when accessing financial services. According to Agarwal et al. (2023) and De Gregorio (2021), CBDCs reduce the cost of transactions, strengthen security, and facilitate credit. Still, much depends on how these tools were shaped. If they are to serve everyone fairly, they must be designed with more than just functionality in mind, and that is where the objective complexity lies, especially when global expectations, like those set by the G20, come into play. Furthermore, these instruments represent a key opportunity for women's inclusion by offering accessible solutions that promote equity in access. However, their effectiveness is conditioned by socioeconomic factors and public policies aimed at gender equity (Inder, 2024). This research employs the systematic literature review (SLR) methodology, which analyzed 73 academic sources, including articles and books, extracted from the SCOPUS database, which is recognized for its multidisciplinary coverage of scientific publications. The study demonstrates its originality by situating itself in the field of female financial inclusion and addressing an early-stage explored topic: the role that CBDCs can play, from a gender perspective, in women's economic empowerment and their progress toward financial autonomy. Findings underscore the importance of designing appropriate regulatory frameworks and investing in technological development to ensure equitable access to CBDCs. This includes protecting women's financial rights and improving access to digital devices and financial education (Ozili, 2022; Sandhu et al., 2023).

Keywords: Financial Inclusion, CBDC, Female

Investigating Digital Transformation and Business Model Innovation in Made in Italy Sectors

Irene Fulco, Francesca Loia, Barbara Aquilani, Marcello Martinez

Dept of Economics, Engineering, Society and Business Organization, University of Tuscia,
Viterbo, Italy

Dept of Economics, University of Campania Luigi Vanvitelli, Capua, Italy

Abstract

This study examines the intersection of digital transformation (DT) and business model innovation (BMI) within traditional “Made in Italy” sectors, such as Food & Wine, Fashion & Clothing, Home & Furnishings, and Automation. While these industries are renowned for their cultural heritage, they face the challenge of integrating digital technologies to remain competitive without losing their identity. The research explores how Italian firms in these sectors are navigating the balance between embracing digital innovation, particularly within the framework of Industry 5.0, and preserving traditional values. Industry 5.0, with its emphasis on human-centered innovation and sustainable practices, provides a lens through which to understand the evolving relationship between digital technologies and traditional craftsmanship. Through a qualitative multiple case study approach, this study aims to uncover how digital technologies, aligned with Industry 5.0 principles, are reshaping business models.

Keywords: Digital transformation, Business Model Innovation, Made in Italy, Industry 5.0

Artificial Intelligence in Social Media Advertising: To Say or Not To Say?

Veronica Marozzo, Fabrizio Cesaroni, Tindara Abbate

University of Messina, Messina, Italy

Abstract

The increasing integration of Artificial Intelligence (AI) in the advertising industry is opening up both promising opportunities and new challenges for brands leveraging social media to promote their offerings. The rise of Generative AI (gen-AI) is reshaping how advertising content is developed. Yet, while the benefits of creative automation are evident, little is known about how disclosing AI involvement influences consumer perceptions and attitudes toward advertisements. This research investigates the effects of openly stating the use of AI in social media advertising on how consumers perceive and respond to content. Results of two experimental studies show that transparency regarding AI use significantly boosts perceived advertising credibility and enhances comprehension of the advertising message. These findings indicate that consumers value transparency in AI-generated content. The study offers practical implications for marketing professionals and underlines the importance of further research into the ethical and regulatory dimensions of AI use in advertising.

Keywords: Artificial Intelligence, Social Media Advertising, Advertising Credibility, Advertising Language Comprehension

Exploring AI Integration in Sicilian SMEs: An Investigation on Awareness and Perspectives

Chiara Avarello, Antonia Cava, Veronica Marozzo, Francesco Micali, Andrea Nucita, Stefano Russo

University of Messina, Messina, Italy
Lo Stretto Digitale, Messina, Italy

Abstract

In an increasingly digitalised society, Artificial Intelligence (AI) is gaining prominence as a key driver of business innovation and competitiveness. While much research has focused on AI adoption in large enterprises, fewer studies have explored its integration within small and medium-sized enterprises (SMEs), especially in regions with specific socio-economic contexts. This study investigates the awareness, perceptions, and adoption of AI technologies among SMEs in Sicily, a region in southern Italy, characterised by unique economic and organisational dynamics. Adopting a mixed-methods approach, the research combines qualitative insights from in-depth interviews with entrepreneurs from both digital and non-digital sectors, and a large-scale quantitative survey targeting over 2.000 Sicilian SMEs. The methodological framework is structured in sequential phases, where the qualitative component plays a foundational role in informing and shaping the subsequent quantitative investigation. The qualitative findings reveal significant disparities in AI awareness and implementation between sectors, highlighting both enablers and barriers such as digital maturity, organizational culture, training needs, and resistance to change. These insights informed the development of a structured questionnaire to capture broader trends in AI readiness, perceived benefits, and challenges. The study contributes to the literature on digital transformation in SMEs by applying the Technology–Organization–Environment (TOE) framework to a specific regional context, offering both theoretical insights and practical recommendations for policymakers, training institutions, and business leaders seeking to foster inclusive AI adoption.

Keywords: Artificial Intelligence, SME, Sicily

Digital Finance for SMEs and Startups: Literature Review and Research Proposals

Tindara Abbate, Fabrizio Cesaroni, Mattia Fasano, Elvira Tiziana
La Rocca, Veronica Marozzo, Valeria Schifilliti

University of Messina, Messina, Italy

Abstract

Financial digitalisation represents a systemic transformation that affects the entire business lifecycle, emphasising trust, transparency, sustainability, and innovation. Digital tools and platforms, such as crowdfunding and online peer-to-peer lending, increase access to credit and mitigate entry barriers, particularly for startups and small and medium sized enterprises. New technologies, including blockchain and big data, reduce information asymmetries, improve risk assessment, and strengthen stakeholder trust. The transparency of these platforms, associated with the use of reputational signals (for instance credit ratings and reviews), plays a pivotal role in attracting investors and optimizing capital allocation. The democratisation of access to finance supports innovative business models that are not just profit-driven but also oriented towards social and environmental value.

In this context, our research aims to systematically conceptualise digital finance tools, their specific benefits and challenges. The integration of advanced digital technologies into financial services allows greater access to lending resources and innovative funding models. Moreover, several issues and trends emerge, such as, the regulatory uncertainty, the data quality for privacy and cybersecurity, increasing use of AI to customise financial services and risk assessment. Specifically, our study presents a detailed analysis of the state of the art on the connections between digital finance and entrepreneurship, focusing on credit rating in the digital context. In addition, it also provides propositions through which firms can gain competitive advantage and highlights the democratization of credit and financial inclusion, made possible by reducing geographical and socio-economic barriers. Several implications emerge from a managerial point of view and from a theoretical perspective.

Keywords: Fintech, Crowdlending, Digital Marketplace, Digital Platform, Entrepreneurship

Enterprise Architecture Model for Knowledge Assets

Project Management Institute Switzerland, Bern, Switzerland

Abstract

Enterprise architecture (EA) is a fundamental framework for aligning technology, processes, and information systems with organizational strategy. In the context of knowledge assets and artificial intelligence (AI), EA provides the necessary structure for effective knowledge management and AI integration. However, traditional EA models face limitations in handling dynamic knowledge flows and AI-driven insights. This summary explores EA's role in managing knowledge, the impact of AI on knowledge assets, and necessary modifications to improve AI integration.

EA plays a crucial role in structuring and governing knowledge within organizations. Frameworks like TOGAF and Zachman facilitate the creation of repositories, workflows, and governance structures to optimize knowledge storage, retrieval, and dissemination. In AI-driven organizations, EA ensures that AI initiatives align with knowledge management strategies, preventing disruptions while enhancing decision-making capabilities.

Knowledge serves as both an input and output in AI systems. High-quality, structured data is essential for training AI models, while AI-generated insights contribute to organizational knowledge. However, poorly curated or siloed knowledge assets can lead to biased models and unreliable results. Enterprise architects must ensure the integrity, accessibility, and interoperability of knowledge assets.

Conventional EA models struggle with:

- A lack of flexible standards for data pipelines, making it difficult to integrate AI-driven DataOps and MLOps.
- Siloed architectures that limit knowledge-sharing and AI effectiveness.
- Static frameworks that do not support real-time knowledge processing.

To enhance AI integration, organizations should:

- Adopt modular, dynamic EA metamodels supporting microservices and AI scalability.
- Implement knowledge-centric frameworks incorporating semantic models and ontologies.
- Integrate DataOps and MLOps pipelines to facilitate continuous AI model refinement.
- Foster a knowledge-sharing culture through training and transparent governance.

By evolving EA frameworks and fostering a collaborative organizational culture, businesses can optimize knowledge management and AI utilization for sustained performance.

Keywords: Architecture, assets, knowledge management.

Looking for Co-Founders: Exploring the Co-Founders Selection Process in Venture Studios

University of Turin, Turin, Italy

Abstract

Startups' success is strongly influenced by the capabilities, traits, and dynamics of their founding teams. While the role of co-founders in shaping venture outcomes is well established in entrepreneurship literature, little is known about how they are selected in contexts where founding teams are externally assembled, such as within venture studios. Venture studios represent a distinct form of new venture creation (NVC), where organizations (rather than individuals) initiate and structure the entrepreneurial process. Central to this model is the strategic recruitment of external co-founders who are expected to lead ventures they did not originate. The goal of this paper is to investigate how co-founder selection processes are designed and implemented within venture studios, with a focus on the underlying decision criteria and timing strategies adopted in practice.

This research adopts a qualitative, exploratory design based on multi-case illustrative studies of three European venture studios: Rocket Internet, Hexa, and Mamazen. Findings reveal that the co-founder search in venture studios is a deliberate strategic activity. Rather than being recruited solely for executional tasks, co-founders are selected for their entrepreneurial mindset, risk appetite, and capacity to take full ownership of the venture. Venture Studios do not hire CEOs but rather recruit founder-like individuals to lead ventures alongside them, offering shared equity and full operational responsibility from day one. This inversion of traditional entrepreneurial logic positions venture builders as orchestrators of resources and talent, aligning with Gartner's (1985) view of entrepreneurship as an organizing activity and the Resource-Based View's emphasis on leveraging human capital.

Keywords: Venture Studio, Venture Building, New Venture Creation, Co-Founders, Entrepreneurship

Bridging Innovation and Market: An Exploratory Analysis of AI Startup Value Propositions

Maria Cristina Pietronudo, Mario Sorrentino, Elena Candelo

University of Campania “Luigi Vanvitelli”, Capua, CE, Italy

University of Turin, Turin, Italy

Abstract

This paper explores how AI startups articulate their value propositions—a critical element in defining and communicating value to customers. AI startups, in fact, struggle to align their technological capabilities with real market needs. Drawing on an exploratory multiple-case study of ten Italian AI startups, this research tries to investigate emerging patterns and main challenges AI startups face in articulating the value proposition. Preliminary findings reveal a fragmented landscape: while some startups adopt detailed use cases and visuals to support their claims, others rely on minimal communication and invite direct contact. Value propositions often emphasize efficiency and cost savings but lack quantification and substantiation. The study highlights the tension between technological sophistication and market clarity, especially in cross-industry applications. By focusing on how AI startups construct their value propositions, this research contributes to both AI entrepreneurship literature and broader discussions on value proposition strategy in emerging, high-tech markets.

Keywords: AI startup; Value Proposition; Entrepreneurship

Exploring Configurations of Growth Hacking Success Factors in SMEs: An FSQCA Approach

Luca Simone Macca, Gabriele Santoro

University of Turin, Turin, Italy

University of Nicosia, Nicosia, Cyprus

Abstract

The pursuit of sustainable and accelerated growth in small- and medium-sized enterprises (SMEs) can be effectively promoted through the application of Growth Hacking (GH) strategies. Improving the performance of GH practices within SMEs has therefore emerged as a critical objective for both practitioners and researchers. Drawing on the theoretical foundations of the Technology-Organization-Environment (TOE) framework, this article proposes an integrated analytical model to explore the determinants of GH performance in SMEs. Based on a sample of SMEs actively engaged in GH initiatives, the research will employ fuzzy-set qualitative comparative analysis (fsQCA) to examine the configurational relationships between technological, organizational, and environmental factors that influence GH outcomes. It is expected that: (1) no single condition will be sufficient on its own to achieve high GH performance; (2) multiple and equally effective combinations of internal and external factors will lead to successful outcomes, supporting the principle of equifinality; and (3) key technological capabilities, such as digital transformation and data analytics, along with organizational adaptability and responsiveness to environmental dynamism, will emerge as critical elements in successful configurations. Furthermore, relying solely on technology adoption or external market conditions may prove insufficient to maximize GH performance without appropriate organizational adaptation. These findings enrich the current understanding of the complex mechanisms influencing GH performance and offer practical insights for SMEs wishing to design more effective and resource-efficient growth strategies.

Overall, this research is expected to make a threefold contribution. First, it enriches the theoretical foundations of GH research by applying and extending the TOE framework in a configurational context. Second, it advances methodological practice by employing fsQCA to uncover complex causal relationships often missed by traditional methods. Third, it provides actionable insights for practitioners and policymakers by identifying strategic pathways to optimize GH practices according to different organizational contexts and resource profiles.

Keywords: Growth hacking, Technology organization environment-TOE, digital transformation, managerial experimental approach

Entrepreneurs' Perceptions of AI: Level of Adoption, Competences, and Learning Ecosystem

Cannavale Chiara, Claudio Lorenza, Diana Koroleva

University of Naples Parthenope, Naples, Italy

National Research University Higher School of Economics, Russia

Abstract

The advent of the Fourth Industrial Revolution has marked a profound shift in the global economy, driven by the integration of artificial intelligence (AI), the Internet of Things, and quantum computing. AI stands out as a transformative force, profoundly reshaping industries, labour markets, and economic interactions. Also, AI's widespread implementation generates both opportunities and disruptions, with forecasts of the displacement of millions of jobs and the creation of new roles. However, these transformations vary significantly across regions and demographics, with countries like Italy facing unique challenges, including a substantial digital skills gap among the working population. Despite the growing interest in AI's technological and economic implications, limited research has investigated how specifically entrepreneurs adopt and utilise AI technologies in their daily business practices. While existing literature has focused predominantly on sector-specific applications—most notably in healthcare—entrepreneurship as a dynamic and multifaceted phenomenon remains underexplored in this context. Indeed, our study investigates how entrepreneurs adopt AI into their professional routines, the digital competencies they display during this process, and the learning ecosystems that support their acquisition of AI-related knowledge. To reach our research aim, we adopt a qualitative approach, conducting semi-structured interviews with a sample of entrepreneurs operating in Southern Italy. Through thematic analysis, we aim to highlight the existing patterns of AI adoption and the support mechanisms within the entrepreneurial ecosystems. The findings contribute to a deeper understanding of the AI adoption for entrepreneurs and their main digital competencies gap, offering theoretical insights and practical implications for policymakers, educators, and innovation stakeholders.

Keywords: artificial intelligence, AI adoption; knowledge gaps

Empowering Disadvantage Entrepreneurship: The Role of New Technologies for People With Disabilities

Cristina Caterina Amitrano, Gabriella Esposito, Mark Anthony Camilleri, Stefano Bresciani

University of Turin, Turin, Italy

Tallinn University of Technology, Tallinn, Estonia

University of Malta, Msida, Malta

Gnosis: Mediterranean Institute for Management Science, University of Nicosia, Nicosia, Cyprus

Abstract

The intersection of sustainability, inclusion, and entrepreneurship is increasingly recognised as a strategic priority for contemporary businesses and societies. Among underserved groups, people with disabilities (PwDs) present both a significant entrepreneurial potential and unique barriers to business creation and operation. While self-employment offers a promising pathway towards economic inclusion for PwDs, research into the specific mechanisms enabling this form of disadvantage entrepreneurship remains fragmented and under-theorised (Klangboonkrong and Baines, 2022; Bhardwaj et al., 2023). This paper critically reviews the business and management literature to examine how emerging digital technologies can act as affordances facilitating entrepreneurial activity among PwDs.

Drawing upon affordance theory (Gibson, 1979; Leonardi, 2011), this study employs a qualitative, problematising literature review methodology (Alvesson and Sandberg, 2011, 2020), sourcing peer-reviewed articles across entrepreneurship, business, management, and disability studies. A theoretical framework is developed by synthesising the findings, identifying four key technological affordances: communication and interaction, business creation and operation, learning and capability development, and community and identity formation.

The analysis demonstrates that digital technologies are not neutral enablers but dynamic socio-material actors whose affordances depend on user capability and institutional context. It reveals how digital solutions can meaningfully reduce systemic barriers, enhance market access, and foster entrepreneurial identity among PwDs. This study contributes to extending the understanding of inclusive entrepreneurship within a digital economy, proposing that inclusive technology strategies must be embedded in policy and education, digital platform design, and business support services.

The paper advocates for future empirical research to validate and refine the proposed framework across diverse PwD populations and socio-economic contexts. It emphasises the need to account for intersectional factors and to evaluate the long-term sustainability of technology-enabled ventures. Ultimately, enabling entrepreneurs with disabilities through technology is not merely an ethical imperative but a strategic investment in unlocking innovation, diversity, and sustainable growth.

Keywords: Entrepreneurship, Disability, Technologies, Affordance theory

Institutional Perspectives on Entrepreneurial Education Ecosystems: Fostering Digital Student Startups

Carmine Passavanti, Tatiana Lopez, Pierluigi Rippa, David Urbano

University of Naples Federico II, Naples, Italy

Universitat Autònoma de Barcelona, Barcelona, Spain

Abstract

The increasing integration of digital technologies (DT)—such as artificial intelligence, big data, and extended reality—is transforming the domain of academic entrepreneurship. Despite the growing interest in digital academic entrepreneurship, extant literature rarely distinguishes the unique institutional challenges faced by student entrepreneurs, whose ventures are typically less resource-intensive, more agile, and deeply embedded in digitally mediated learning environments. Moreover, while studies acknowledge the transformative potential of DT, few have examined their dual interaction with formal and informal university mechanisms, especially from a comparative perspective across institutional ecosystems. Finally, existing frameworks often overlook how students appropriate digital tools and platforms to navigate institutional constraints, thus underestimating student agency in shaping entrepreneurial outcomes in the digital age. This study addresses that gap by investigating how formal and informal university-based mechanisms influence the entrepreneurial motivations and capabilities of student founders in digitally evolving environments.

Grounded in the conceptual frameworks of Rippa and Secundo (2019) and Guerrero and Urbano (2012), the study adopts a qualitative, comparative case-study approach. Six student-led digital startups were analysed across two entrepreneurial universities—University of Naples Federico II (Italy) and Universitat Autònoma de Barcelona (Spain)—using in-depth interviews and documentary analysis. Findings reveal that while formal structures such as entrepreneurship education and technology transfer systems are widely available, they often lack practical alignment with the needs of digital ventures. Informal factors—like cultural perceptions of entrepreneurship, experiential learning practices, and exposure to role models—also play a crucial role, yet their effectiveness varies across institutional contexts.

The study advances two key propositions: first, that universities providing access to advanced digital skills and specialised technical resources are more likely to foster the successful development of digital startups; and second, that institutions facilitating access to online educational resources and entrepreneurial networks significantly enhance the success potential of student-led ventures. These findings demonstrate how DT reshape the interplay between institutional structures and entrepreneurial behaviour, offering theoretical contributions to digital academic entrepreneurship and practical insights for higher education institutions aiming to cultivate inclusive and future-ready innovation ecosystems.

Keywords: Digital Academic Entrepreneurship; Student Entrepreneurship; Entrepreneurial Universities; Institutional Theory; Comparative Case Study

Francesca Ventimiglia, Edoardo D'Andrassi, Renato Bellesini, Yael Piperno

Roma Tre University, Rome, Italy

Abstract

Recent technological advancements have accelerated the development of generative artificial intelligence (GenAI), which has increasingly captured the attention of the academic community (Hu, 2023). GenAI tools appear particularly well-suited for resource-constrained and loosely structured business environments such as small and medium-sized enterprises (SMEs) and startups, as they provide access to cutting-edge knowledge that has traditionally been the prerogative of large corporations (Acar & Gvirtz, 2024).

Despite the evident potential of GenAI in startups, the limited body of research on AI management (e.g., Kaplan & Haenlein, 2020; Lee & Shin, 2020; Leyer & Schneider, 2021; Paschen et al., 2020) has failed to provide actionable recommendations for the use of this technology. To date, the literature has focused almost exclusively on AI implementation within large organizations, offering little insight into smaller entities such as startups. This gap is particularly critical given that startups, by nature of their limited resources, exhibit a high propensity for adopting GenAI (Bughin, 2023).

In this context, startups can both exploit the potential of ready-made GenAI solutions and collaborate with technology providers to build more advanced tools and/or tools that address specific needs such as, for instance, improving scalability and innovation, which are central to achieving sustainable competitive advantage. As things stand, however, no studies have been identified in the literature that systematically analyse this significant opportunity, which - as previous studies have shown - can also contribute to the achievement of several Sustainable Development Goals (SDGs) (UNESCO, 2019; UN, 2023; McKinsey, 2024).

Against this backdrop, the present study adopts a scoping review approach to investigate: (i) the competencies required by startup employees and leaders to develop solutions increasingly aligned with business and consumer needs; (ii) the reasons that lead startups to adopt GenAI solutions; and (iii) the challenges and promises startups face in adopting GenAI.

Indeed, authors believe that the study can have both theoretical and practical implications, serving as a valuable guide for startups seeking to implement GenAI tools enabling them to bridge - at least partially - the technological and knowledge gap with larger firms.

Given the significant impact that the implementation of GenAI models can have on startups, this research lays the groundwork for future empirical investigations on the topic.

Keywords: Startup life cycle, Innovation, Competitive advantages, Growth, Technology

AI and Entrepreneurship: A Bibliometric Exploration in the Post-ChatGPT Era

Mario Tani, Gianpaolo Basile

Università degli Studi di Napoli Federico II, Napoli, Italia

Università Telematica Mercatorum, Roma, Italia

Abstract

The pervasive integration of artificial intelligence (AI) is fundamentally reshaping societal and business landscapes, presenting both significant opportunities and challenges, particularly within the entrepreneurial sphere. AI's potential to alter venture conception, development, scaling, market entry, and competitive dynamics necessitates a re-evaluation of traditional entrepreneurship theories. As a key enabling technology, AI revolutionises core entrepreneurial processes, from ideation to market expansion, fostering novel forms of value creation and opportunity identification. However, despite acknowledging the influence of digital technologies, a comprehensive understanding of specific research trends concerning AI's role, especially following the widespread adoption of generative AI tools like ChatGPT, remains underdeveloped. This study addresses this gap through a bibliometric systematic literature review. Utilising the Web of Science database and the “bibliometrix” R-package, we employ thematic evolution analysis to map the trajectory of research topics at the intersection of AI and entrepreneurship, specifically comparing the pre- and post-ChatGPT periods. We aim to visualise the field's structure, identify influential contributions, and track thematic shifts. Anticipated findings include the emergence of research streams focused on generative AI's impact on venture creation, ethical considerations, evolving decision-making processes, and the new skills required for AI-driven entrepreneurship. This analysis seeks to provide practical insights for entrepreneurs leveraging AI tools and highlight knowledge gaps and future research directions for academics, ultimately contributing to a deeper understanding of how AI is shaping the future of entrepreneurship.

Keywords: Artificial Intelligence, Entrepreneurship, ChatGPT, Bibliometric Analysis, Thematic Evolution

Artificial Intelligence and Knowledge Management in Healthcare: A Pathway to SDGs Achievement

Valerio Brescia, Ginevra Degregori, Alberto Cavazza

University of Milan, Milan Italy

University of Turin, Turin Italy

University of Milan- Bicocca, Milan Italy

Abstract

The integration of Artificial Intelligence (AI) and Knowledge Management (KM) in healthcare is transforming decision-making, resource allocation, and service efficiency, aligning with the United Nations' Sustainable Development Goals (SDGs). AI-driven KM systems enhance clinical decision-making, optimize disease detection, and expand medical access, particularly in underserved areas, supporting SDG 3 (Good Health and Well-being) and SDG 10 (Reduced Inequalities). Additionally, AI contributes to SDG 4 (Quality Education) by improving medical training and SDG 13 (Climate Action) through energy-efficient healthcare solutions. Despite its potential, the adoption of AI in healthcare faces significant challenges, including data privacy concerns, algorithmic biases, and regulatory uncertainties. The lack of comprehensive studies assessing AI's measurable impact on sustainability further limits its large-scale implementation. This study addresses these gaps by analyzing how AI-driven KM systems support SDGs and identifying key obstacles to their integration. The research conducts a bibliometric and thematic analysis and examines 1,095 peer-reviewed papers from the Scopus database. Findings highlight AI's role in enhancing efficiency, enabling knowledge-sharing, and improving resilience in healthcare systems. However, concerns regarding ethical governance, equitable access, and technological disparities underline the necessity of strong policy frameworks to ensure responsible AI deployment. This study contributes to the discourse on AI's role in healthcare by providing a structured analysis of its impact on SDG achievement. Finally, the article addresses future research perspectives as joint scholars' and practitioners' analyses.

Keywords: Artificial Intelligence, Knowledge Management, Healthcare, Sustainable Development Goals

The Impact of Artificial Intelligence on Business Ethics

Claudio D'Alonzo

Catholic University Our Lady of Good Counsel, Tirana, Albania

Abstract

The purpose of this study is to analyse the impact of artificial intelligence on business adoption. At the regulatory level, in 2024 the European Union introduced the Artificial Intelligence Regulation (AI Act), which is the first global legislative framework to regulate the use of artificial intelligence. This regulation applies to both European and non-European companies operating in the EU, imposing requirements for security, transparency and respect for fundamental rights.

The adoption of artificial intelligence has significant implications for the business organisation. It affects decision-making processes, redefines roles within companies and introduces new ethical responsibilities. Not only does artificial intelligence optimise internal processes and improve interaction with customers, but it also becomes an integral part of organisational, administrative and accounting arrangements. The findings highlight how the use of artificial intelligence can expose companies to ethical risks, requiring a strategic approach to identify and mitigate these risks.

Another central theme is the relationship between artificial intelligence and corporate social responsibility (CSR). Artificial intelligence offers tools to harmonise economic goals with social and environmental ones, contributing to greater sustainability and better corporate governance. Companies can use artificial intelligence to reduce pollution, optimise resource use and improve employee welfare by adopting ethical and sustainable business models. However, the management of artificial intelligence requires a periodic review of organisational structures and the creation of specific committees to ensure responsible and compliant use.

In the end, the study emphasises the importance of developing reliable algorithms that respect human rights and minimise negative impacts. Although artificial intelligence may be a lever for improving quality of life and promoting innovation, its use must be guided by sound ethical principles and a clear regulatory framework. Only an integrated and responsible approach will allow to maximise the benefits of artificial intelligence while mitigating risks. This paper contributes to the understanding of the ethical and regulatory implications of artificial intelligence, providing a legal and organisational perspective on the challenges and opportunities this technology presents for the future of businesses.

Keywords: Artificial intelligence, ethics, business

Human-Centered Factors in Generative Artificial Intelligence Adoption: Implications for Employee Well-Being

Antonio Cimino, Vincenzo Corvello, Francesco Longo, Vittorio Solina

University of Messina, Messina, Italy

University of Calabria, Rende, Italy

Abstract

In recent years, Artificial Intelligence (AI) has gained significant attention across disciplines and industries, with the adoption of Generative Artificial Intelligence (GenAI) in organizations accelerating, particularly through the introduction of user-friendly conversational chatbots. While numerous studies have investigated either the factors influencing AI adoption within organizations or the effects of AI adoption on organizational performance, the role of human-centered factors in shaping its adoption and their subsequent impact on employee quality of working life remains largely unexplored. To address this gap, and drawing on socio-technical systems theory, this study proposes a theoretical model investigating the interplay between key human-centered factors, GenAI adoption, and employee quality of working life. Specifically, employee trust in GenAI is identified as a key human-centered antecedent of GenAI adoption. GenAI adoption is conceptualized through two main constructs: GenAI use and GenAI hedonic experience. Workplace well-being is used as the indicator of employee quality of working life. The model is tested using Partial Least Squares Structural Equation Modeling on survey data collected from 214 Italian professionals with experience in using GenAI in their work activities. The findings demonstrate that employee trust in AI positively influences both GenAI use and GenAI hedonic experience, and that these two factors, in turn, strongly impact workplace well-being. Additionally, while trust in AI also directly affects workplace well-being, its impact is weaker compared to the effects of GenAI use and GenAI hedonic experience. This study provides important practical implications for organizations aiming to improve employee well-being through the adoption of GenAI. Additionally, limitations of the study are discussed, along with suggestions for future research directions.

Keywords: Human-Centered Factors, Generative Artificial Intelligence Adoption, Employee Well-Being, Socio-Technical Systems Theory, Trust in Artificial Intelligence

Human-Centric Integration in AI-Driven Supply Chain Management: Bridging Technology and Human Perspectives

Katarzyna Nowicka

SGH Warsaw School of Economics, Warsaw, Poland

Abstract

The rapid integration of artificial intelligence (AI) and emerging technologies in supply chain management is transforming operational efficiency, decision-making, and transparency. While these technological advancements offer significant benefits, the human-based perspectives essential to ethical, cultural, and organisational dynamics are often marginalised. This paper addresses the critical need for a human-centric approach in the development and application of AI within supply chains, proposing a framework for harmonising technology with human values.

The study identifies three core dimensions of integration: workforce development, ethical and cultural alignment, and human-technology collaboration. Workforce development involves upskilling and reskilling initiatives to prepare employees for synergistic roles with AI, thereby enhancing adaptability in automated environments. Ethical and cultural alignment addresses the imperative to design AI systems that reflect organisational values, ensure inclusivity, and uphold data privacy and fairness. Human-technology collaboration highlights the complementary strengths of human judgment and AI capabilities, enhancing areas such as demand forecasting, sustainability, and risk management.

The paper also explores the key enablers of this integration, including leadership commitment, trust-driven cultures, and interdisciplinary collaboration across AI developers, supply chain professionals, and ethicists. Despite challenges like organisational inertia and limited investment in human capital, strategic policies and change management can facilitate adoption.

Based on a systematic literature review, the research contributes practical insights and recommendations for aligning AI-driven innovation with human-centric values within the supply chain management.

Keywords: Human-Centric Integration, Artificial Intelligence (AI), Supply Chain Management, Ethical Technology Adoption, Workforce Development

Navigating the Digital Challenge: A Bibliometric Analysis of Talent Management in the Public Sector

Simona Mormile, Roberta Romano, Emilia Romeo, Gabriella Piscopo, Paola Adinolfi

University of Salerno, Italy

Abstract

In an era of rapid technological advancement, digital transformation has emerged as a critical driver reshaping human resource management in public sector organizations. While talent management has long been a cornerstone in the private sector, the public sector faces unique challenges—including bureaucratic rigidity, limited resources, and evolving workforce expectations—that complicate efforts to attract, retain, and develop skilled personnel. Today, talent management strategies must strike a balance between technological innovation and human-centric approaches that prioritize employee well-being, engagement, and ethical considerations. Despite growing scholarly interest, research on talent management in the context of digital transformation within the public sector remains fragmented across disciplines and methodological approaches.

To address this gap, the present study employs a bibliometric analysis, using the Bibliometrix R package, to systematically map the literature on digital transformation and talent management in public administration. Findings reveal a significant acceleration of academic output from 2020 onward, coinciding with the pandemic-driven digitalization of public services.

Thematic analysis highlights innovation, sustainable development, leadership, and perception as core emerging themes, alongside rising interest in AI and knowledge management. However, areas such as employee well-being, lifelong learning, and digital inclusion remain underexplored.

This paper offers a comprehensive overview of the evolving academic landscape, underscoring the need for future research to integrate both technological and human dimensions of talent management in the public sector. In doing so, it contributes to advancing a more resilient, agile, and inclusive public workforce capable of navigating the challenges of digital transformation while enhancing public value and citizen trust.

Keywords: Talent Management, Public Sector, Digital Transformation, Bibliometric Analysis

Corporate Governance, Human-Centric Approaches, and AI Adoption: Does Organizational Size Matter?

Débora Cristina De Andrade Vicente, Ivan Luciano Danesi, Marta Bertolaso, Chiara Bellini, Lucia Marchegiani

Roma Tre University, Rome, Italy

Centro di Ricerca su Tecnologie, Innovazione e Servizi Finanziari (CeTIF), Milan, Italy

University Campus Bio-Medico of Rome, Rome, Italy

Abstract

The adoption of artificial intelligence (AI) has become a strategic priority for organizations of all sizes, driven by pursuit of process optimization, efficiency gains, and enhanced decision-making. Yet, the effectiveness of AI depends not only on technological implementation but on how organizations integrate it with human-centric values –a challenge that remains underexplored in the context of corporate governance and innovation ecosystems.

This paper explores how corporate governance functions as an instrumental factor in institutionalizing human-centric AI adoption, comparing practices across large organizations, SMEs, and startups within the Rome Technopole (RT) innovation ecosystem. We argue that governance plays a critical role in fostering ethical AI adoption, yet human-centricity should not be treated merely as an afterthought. Instead, it must be a constitutive principle, embedded in the design of the innovation ecosystem itself. Using data from the Rome Technopole Observatory on AI, this exploratory study investigates how organizational size shapes AI strategies and perceived alignment with human-centric values. Findings reveal that structural changes (e.g., dedicated AI teams in large organizations) do not necessarily lead to more human-centric practices or perceptions that AI is aligned with human values. This underscores a critical gap: widespread AI adoption does not guarantee alignment with human-centric principles, which highlights the need for governance that fosters human-centricity at a foundational level.

To address this, based on Sangiovanni Vincentelli's meet-in-the-middle principle, we outline the necessary conditions for developing an innovation ecosystem grounded in human-centric principles. Furthermore, we consider organizations as social, dynamic, and adaptable systems and the RT innovation ecosystem as a context-dependent ecosystem responsible for interactions between its organizations. This theoretical exploratory study paves the way for future empirical research into RT and others innovation ecosystems.

In conclusion, this study posits that corporate governance can be an instrumental mechanism for sustaining an innovation ecosystem in which human-centricity is constitutive. These insights are particularly relevant for organizations operating within collaborative innovation ecosystems, and the innovation ecosystem itself, as they emphasize the alignment between technological progress and societal values as a prerequisite for sustainable and integrative innovation.

Keywords: Artificial Intelligence, Human-Centricity, Organizational Structure, AI Governance Practices, Innovation Ecosystems

Sustainability and Well-Being in Industry 5.0: A Systematic Literature Review

Barbara Iannone, Marialuigia Di Giampietro

University "G. D'Annunzio" of Chieti-Pescara, Pescara, Italy

Abstract

This study proposes a systematic literature review aimed at analyzing three key thematic areas: the conceptual and operational adoption of new operational paradigms related to the use of technology in the business environment (Industry 5.0), sustainability strategies in new business models (sustainability) and the concept of well-being in the workplace. The study examined 21 scientific articles selected from the Scopus and Web of Science databases, published in the period 2020-2024, considering the following keywords: industry 5.0, sustainability and well-being. The results highlight the crucial role of advanced technologies - such as artificial intelligence, collaborative robotics and the Internet of Things - in fostering safer, more efficient and well-being-oriented production environments for workers, with a positive impact on the overall sustainability of industrial systems. The 'Industry 5.0' phase is an evolution of the previous Industry 4.0, shifting the focus from pure automation to the enhancement of human capital, the ethical integration of technologies and the promotion of human-machine cooperation. It moves towards a society that is based on the use of technology for a more human, inclusive and resilient society, where technology is at the service of human well-being (Society 5.0). Findings reveal that technology is configured not as an end, but as a means for the improvement of collective well-being and quality of life and lastly for production systems that evolve by placing the person at the center: the goal is to reach the ethical integration of technologies through the human-machine collaboration.

Keywords: sustainability – well-being – Industry 5.0 – systematic literature review

Fostering Knowledge Management to Enhance Innovative Work Behaviour in Public Healthcare Organizations

Manuela Paolini, Fausto Di Vincenzo, Domenico Raucci, Federica Morandi

University of Studies of L'Aquila, L'Aquila, Italy

University of Studies "G. d'Annunzio" of Chieti-Pescara, Pescara, Italy

Catholic University of the Sacred Heart, Rome, Italy

Abstract

Innovative work behaviour (IWB) may be crucial to enable middle managers of public healthcare organizations (PHOs) to effectively fulfil their hybrid role of doctor-managers. However, psychological and cognitive boundaries associated with role hybridization can inhibit IWB. To overcome these criticalities, knowledge should be dynamically managed within PHOs. Grounded in the social identity theory, the present study aimed to explore the development of knowledge transfer at the individual-level of analysis by investigating the influence of doctor-managers' organizational identification (OI) on their IWB, through the indirect effect of satisfaction with the managerial role. A survey was administered to doctor-managers working in Italian PHOs. A linear regression analysis was performed to test the research design. The findings demonstrated that doctor-managers' OI address a greater satisfaction with the managerial role; in turn, this latter positively influences doctor-managers' IWB. This study provides new insights into the individual determinants of IWB in knowledge-intensive public organizations like PHOs. In doing so, it contributes to the ongoing discussion on the pivotal role of knowledge transfer dynamics as a precursor of IWB by unleashing the potential of OI. PHOs' top management should regulate doctor-managers' identity by providing an environment fostering the transfer of knowledge supporting them in performing their hybrid role. This may be achieved through managerial practices that facilitate vertical and horizontal integration and knowledge exchange.

Keywords: Innovative Work Behaviour, Knowledge Management, Public Healthcare Organizations, Hybrid managers

SMEs AI Investments and Resilience: a Knowledge Risk Perspective

Maria Cristina Manocchio, Yasir Faheem, Antonia Puccio,
Francesca Di Virgilio

University of Molise, Campobasso, Italy

Abstract

This paper aims to investigate how investment in artificial intelligence interacts with automation-related knowledge risks to shape the resilience of small- and medium-sized enterprises in the Italian context. The rapid advancement of digital transformation requires an extensive understanding of the link between innovative technologies, such as artificial intelligence, and the management of knowledge risks linked to automation, notably related to improving the competitive advantage of small- and medium-sized enterprises. This study employs knowledge risk theory to investigate how investments in artificial intelligence, alongside the challenges introduced by automation, collectively influence organizational resilience and innovation capacity. The empirical foundation of this research is based on secondary data collected across 20 Italian regions and various industries. The dataset was obtained from Confartigianato, a leading association of small- and medium-sized enterprises in Italy. The data were then analyzed using a quantitative approach. The results showed that areas with elevated automation-related knowledge risks are more inclined to invest in artificial intelligence, suggesting a reactive rather than proactive investment approach. The results also highlight varied geographical patterns related to investment levels, risk exposure, and digital readiness, with significant discrepancies in digital adoption and the critical role of knowledge risk as an intermediary factor in the link between artificial intelligence investment and organizational resilience, suggesting that beneficial outcomes are contingent on proficient risk management. This study aims to make a substantial contribution to the current literature on knowledge risk by investigating its application in the context of artificial intelligence and automation deployment in small- and medium-sized enterprises, thereby informing management and regulatory approaches.

Keywords: Artificial Intelligence, Knowledge Risk, Automation Risk, SMEs, Organizational Resilience

The Role of Knowledge Management Systems in Driving Organizational and Technological Innovation through Employee Engagement

Nicola Capolupo, Angelo Rosa, Giuliano Marolla, Paola Adinolfi

San Raffaele Rome University, Rome, Italy

University LUM Giuseppe Degennaro, Casamassima (Ba) Italy

University of Salerno, Fisciano (SA) Italy

Abstract

Knowledge Management Systems (KMS) have emerged as critical tools to support the acquisition, sharing, and application of knowledge across organizations. Innovation plays a central role in this process, encompassing both organizational innovation—improvements to internal processes and services—and technological innovation—the adoption and development of new technologies.

Employee engagement is a key factor linking these two dimensions of innovation. Engaged employees are more motivated and committed to change, making them more likely to contribute to innovation efforts. This study explored how KMS implementation fosters organizational innovation, which in turn enhances employee engagement and drives technological innovation. The findings demonstrate that a strong culture of innovation within the organization not only encourages technological advancements but also promotes active employee participation. The study emphasizes important strategic implications for organizations: investing in KMS to build a knowledge-driven culture, implementing employee engagement initiatives to support innovation, and integrating technology adoption into broader organizational strategies. Creating an environment that aligns leadership, HR practices, and knowledge management efforts is essential to achieving continuous improvement and adaptability in today's competitive landscape.

Keywords: Knowledge Management System, Employee Engagement, Organizational Innovation, Technological Innovation

Human Resource Management in Early-Stage Startups: A Qualitative Multiple-Case Study

Buyan-Arvijikh Boldbaatar, Augusto Colongo, Marco Greco, Paolo Landoni

Politecnico di Torino, Torino (TO), Italy

University of Cassino and Southern Lazio, Cassino (FR), Italy

Abstract

Early-stage startups face unique challenges in Human Capital (HC) management, as traditional Human Resource Management (HRM) practices, designed for established firms, overlooking the unique organizational dynamics of nascent ventures. This exploratory qualitative case study examines HRM practices in early-stage startups through a cross-case analysis of eight cases: two each from France, Italy, and the United Kingdom, complemented by one case each from Switzerland and Tunisia. We conducted semi-structured interviews with eight startup founders and three early-hire employees, enabling comprehensive perspective triangulation through multiple stakeholder viewpoints within each case organization. Through the theoretical lenses of Resource-Based View (RBV) and contingency theory, this study examines how startups orchestrate their HR resources and adapt their management systems. The findings demonstrate the imperative for adaptive HRM strategies in early-stage startups' dynamic environments during critical phases of hiring, onboarding, and retention. The study's primary contribution is extending the startup HRM literature by introducing a flexible management of a fractional HR management model, which provides startups with a cost-effective, expertise-driven solution for managing essential HR functions, including talent acquisition, onboarding, development, and retention. The research advances both theoretical understanding of HRM in nascent ventures and provides actionable insights for startup founders in optimizing their HC management strategies within resource constraints, particularly during their founding years.

Keywords: Human Resource Management (HRM), Human Capital (HC), Early-stage startup, Fractional Human Resources (HR)

Inclusive Language in Academia: Evaluating Human and AI-Generated Communications to Students

Testa Federica, Petrolo Damiano, Giampaola Valerio

Università degli studi di Roma Tor Vergata, Roma, Italia

Università degli Studi del Piemonte Orientale “Amedeo Avogadro”, Vercelli, Italia

Università degli studi eCampus, Novedrate, Italia

Abstract

In recent years, growing societal attention to gender bias and inequality has prompted Universities to reconsider their institutional practices, including the use of inclusive language in formal communication. As central actors in the production and dissemination of knowledge, academic institutions bear a cultural responsibility to ensure that their communication practices reflect principles of equity and inclusion. This study explores the extent to which written communications addressed to students, either by university faculty or generated by artificial intelligence (AI), adhere to inclusive language practices.

The research adopts a qualitative design based on content analysis and evaluates 63 announcements authored by faculty members from two Italian universities, alongside 39 messages produced by three generative AI systems—ChatGPT Basic, Deepseek, and Gemini 2.0 Flash. The analysis is guided by 16 indicators of inclusive language use, drawn from the guidelines developed by Sabatini (1987) and revised by Somma and Maestri (2020). Each message is classified as inclusive, non-inclusive, or partially inclusive, based on the presence or absence of these indicators.

Findings show that inclusive communication practices are strongly gendered: female faculty members display a much higher rate of inclusive language use (48%) compared to their male colleagues (18%). Notably, no male full professor in the sample used inclusive language. Disciplinary differences also emerge, suggesting that the adoption of inclusive language is influenced by specific cultural norms within academic fields. Among AI systems, Gemini 2.0 Flash produced the highest share of inclusive outputs (38%), followed by ChatGPT (23%) and Deepseek (8%). However, the overall low performance of AI models indicates that inclusive principles are not yet systematically embedded in their training.

This paper contributes to the literature by combining human and AI communication analysis under a unified framework and offering empirical insights into how inclusive language is—or is not—implemented in practice. The results underscore the need for targeted interventions, both educational and technological, to promote inclusive communication in academia. By advancing this dual focus on human and AI-generated texts, the study highlights inclusivity not only as an ethical imperative, but also as a strategic priority for fostering institutional credibility and evolution.

Keywords: Inclusive Language; Academia; AI; Content Analysis; Communication

Unlocking Innovation in SMEs Though Transformational Leadership and Commitment-based HRM Practices

Elona Çera, Blerina Dhrami, Comfort Adebisi Asamoah

University Metropolitan Tirana, Tirana, Albania

Tomas Bata University in Zlin, Zlin, Czech Republic

Abstract

The purpose of this research is to examine transformational leadership impacts open innovation through the mediating role of commitment-based human resource management practices. A quantitative survey was conducted to collect data from a sample of 169 SMEs. The findings indicate a considerable positive correlation between transformational leadership and inbound open innovation in SMEs, as demonstrated by the quantitative survey analysis conducted with SmartPLS version 4.1.0.9. Furthermore, commitment-based human resource management methods work as a significant mediator between transformational leadership towards and innovation and the acquisition of knowledge within a company, referred to as inbound open innovation. The results underscore the imperative of developing organizational leadership that promotes change, creativity, trust, and employee commitment to enhance organizational openness. Open innovation is a recognized organizational approach that promotes transformation, enhances the competitiveness of SMEs, and stimulates overall economic growth. The results compel policymakers and decision makers to concentrate more on a transformational leadership style that can facilitate transformation and boost employee loyalty to the firm. Consequently, a culture of openness will be fostered, resulting in a more favorable impact on the performance of SMEs.

Keywords: Transformational leadership, HRM, inbound open innovation, competitiveness, SMEs

Project “Telediabetolab”: Knowledge Gain and AI Data Process Applied in Telediabetology

Alessandro Massaro, Giuseppe Loseto, Francesco Santarsiero,
Giovanni Schiuma, Angelo Rosa, Parisa Sabbagh, Olivia McDermott

LUM University Giuseppe Degennaro, Bari, Italy

University of Salerno, Fisciano, Italy

University of Galway, Galway, Ireland

Abstract

The goal of the proposed paper is to provide a preliminary Artificial Intelligence (AI) approach addressing the analysis on the prevention of diabetes. The study is performed within the framework of the research project Telediabetolab and focuses on the check of the supervised Support Vector machine (SVM) algorithm to define a method to perform a data processing analysis based on predicted diabetes risk. The preliminary study highlights the possibility of defining a multi-parametric approach to prevent the chronic condition of diabetes by considering the pre-diabetes condition. The SVM data processing is executed by analyzing different parameters such as blood pressure, body weight, glucose, and blood ones. The predicted results show that there could be cases of diabetics who might not be diabetic and cases of non-risk that could degenerate.

Keywords: Telediabetology Process, Process Mining, chronic disease management

A Bibliometric Analysis of Artificial Intelligence and Strategic Knowledge Management: Trends, Gaps and Managerial Implications

Edoardo D'Andrassi, Maria Vergallito, Greta Bogo, Davide Ceresa

Roma Tre University, Rome (RM), Italy

Abstract

Technological developments are changing the way knowledge is created and transmitted within corporate organisations, also considering the widespread use of artificial intelligence (AI).

In this regard, business organisations interface with AI with increasing frequency. Therefore, the study aims to identify the existing correlations between AI and Strategic Knowledge Management (SKM), to understand whether strategic knowledge management within companies can be influenced by the use of AI. Indeed, the use of such technology without strategic and effective knowledge management can lead to the loss of organisational memory and the waste of energy and resources. Hence, the need to understand what dynamics - both technological and managerial - support an effective integration of AI and SKM. This study provides a bibliometric and systematic literature review (SLR) on AI and SKM, analysing the scientific output and defining new research topics. To perform the analysis, articles were searched on the Web of Science database and subsequently analysed using the R package Bibliometrix. A total of 346 peer-reviewed articles in English were collected and analysed. The results show the growing interest in the literature on the subject. The studies focus on the use of AI as a prediction and classification tool for managerial decision-making, and as a tool to improve knowledge management in organisations to extract information. The cluster analysis revealed the presence of two thematic nodes directly related to AI and SKM: Intellectual Capital and Innovation Performance. The analysis reveals a new classification of research strands and provides fruitful research questions for further research on the topic.

Keywords: AI, systematic review, Bibliometrix, KM, Management decision

Tacit Knowledge Externalisation in the Context of Sustainability to Strengthen Company Resilience

Heidi Salokangas, Nina Helander, Juha Koivistoinen, Kaisa Sorsa,
Heli Aramo-Immonen

Turku University of Applied Sciences, Turku, Finland

Tampere University, Tampere, Finland

Joensuu, Finland

Abstract

This research investigates the externalisation of tacit knowledge within the textile industry, focusing on sustainable practices to enhance company resilience. The study examines the carding process in a textile SME, exploring how tacit knowledge can be effectively externalised to support sustainability and business continuity. Through qualitative methods, including observations and unstructured interviews, the research captures the intricate details of the carding process, and the expertise required. The findings highlight the labour-intensive nature of carding, the importance of skilled operators, and the impact of material properties on the final product. The study also identifies key factors contributing to the successful externalisation of tacit knowledge, such as trust between stakeholders and the use of cause-and-effect analysis for knowledge visualisation. The implications of this research extend to industry professionals, SMEs, and policymakers, promoting sustainable practices through effective knowledge management. This work contributes to the broader discourse on sustainability in the textile industry, offering insights into the practical application of tacit knowledge externalisation for business resilience.

Keywords: Knowledge externalization, SECI model, sustainability, tacit knowledge, AI

Knowledge Management in the Artificial Intelligence Era: Do We Still Need People to Transfer Organizational Knowledge?

Vadim Smirnov, Bojan Grebić, Snežana Lakićević, Jovana Savković

University of Novi Sad, Novi Sad, Serbia

University Business Academy in Novi Sad, Novi Sad, Serbia

University of Belgrade, Belgrade, Serbia

Abstract

Considering the current levels of artificial intelligence development and adoption, along with the various forms of knowledge and information that reside within organizations, rethinking the interplay of people, data, and emerging technologies presents a valuable opportunity for organizations seeking to adapt and thrive in fast-changing environments. Therefore, this paper aims to explore the transformative potential of artificial intelligence in enhancing knowledge management and to provide insights into how it is shaping the future of acquiring, creating, applying, preserving, and sharing knowledge as its core processes. To achieve this, we have conducted a systematic literature review of pertinent research papers published over the past decade and analyzed the relationships between artificial intelligence and knowledge management, as well as between artificial intelligence and knowledge transfer, offering a comprehensive overview of the potential for their integration. Furthermore, the human perspective on the growing integration of artificial intelligence and knowledge transfer is examined, with a focus on the important question of human involvement and significance in a field deeply influenced by artificial intelligence advancements. Ultimately, the paper provides insights into a new reality that calls for a partnership between people and technology, highlighting the mutual reliance between artificial intelligence systems – built on human knowledge and intelligence – and humans, who increasingly depend on the objectivity and support offered by artificial intelligence tools and models. As such, this research can be seen as a starting point for further discussion and empirical investigation into whether the human role in transferring organizational knowledge is merely changing or gradually diminishing.

Keywords: Knowledge Management, Artificial Intelligence, AI Knowledge Transfer, Business Transformation, Organizational Change

Public-Private Co-Creation of Knowledge-Based Open Innovations: Challenges and Opportunities

Nina Helander, Krishna Venkitachalam, Hannele Väyrynen

Tampere University, Tampere, Finland

Ajman University, Ajman, UAE &

Estonian Business School, Tallinn, Estonia

Abstract

Efficiency and value creation for citizens, communities, and societies are becoming increasingly important for the public sector. Public sector is continuously seeking for innovative ways to create and provide services, and despite acknowledging the key role of knowledge in innovation processes, the relationship between publicly available knowledge and innovation is still poorly understood. A more unified view of OI and the public sector originated knowledge ecosystem, alongside public-private collaboration, is crucial. The private sector's creation of open knowledge-based innovations, such as products or services, for private markets appears to have minimal influence. To achieve successful knowledge-based innovation, functional systems are crucial for addressing the identified barriers within public knowledge and innovation. This paper investigates the potential of public sector originated knowledge to drive open innovation in partnership with public and private organizations. The potential to gather and use openly available knowledge is now greater than ever due to the possibilities provided by AI. Challenges in innovation are widely explored in existing research. Future studies should focus on developing models for successful open knowledge initiatives, including strategic planning (value realization and resource-based strategic analysis), technical enablers (new digital technologies as AI), sharing platforms (design of public knowledge sources with appropriate APIs), enabling functional public knowledge ecosystems, and legal frameworks to support open public knowledge sharing and utilization (e.g., knowledge privacy). Research needs to consider social aspects alongside technological and business ones. This includes management models for public knowledge and innovation, knowledge processes and its management to support OI, and organizational cultures that reflect experiences of control or safety, risk management, attitudes and engagement in OI processes. To better comprehend how the private sector can benefit from public knowledge, additional empirical studies are crucial.

Keywords: Open innovation; publicly available knowledge; knowledge-based innovation; public-private co-creation

Technology Leaders and Followers: An Agent-Based Approach

Linda Ponta, Raffaella Manzini, Silvano Cincotti

Università degli Studi di Genova, Genova, Italy

Università Cattaneo - LIUC, Castellanza (VA), Italy

Abstract

In this dynamic and full-opportunity world, firms must face challenges in markets and technologies. One of the main assets that firms can use to address these challenges is innovation, and an important element is to define the most appropriate innovation strategy. Inside innovation strategy, fundamental decisions are about selection, acquisition, and timing. The innovation selecting consists of the selection of the innovations to develop; the innovation acquiring consists of how firms acquire the innovation (the main strategies can be simplified with insourcing (make), outsourcing (buy), or collaborating (collaborate)). In particular, with respect to timing, firms are heterogeneous and two main approaches can be identified: technological leaders and technological followers that work on the technological knowledge developed by the technological leaders. In this paper, the two approaches have been investigated to study the impact on the firm's performance. To conduct this investigation, the Patent Agent-Based Innovation Model and Simulator (PABIM) has been enhanced. The PABIM is characterized by heterogeneous firms that are organized as a directed random graph. The use of an agent-based model allows for the exploration of emergent dynamics and their subsequent effects on performance. The results indicate that when a firm can adopt all the acquisition strategies (make, buy, collaborate), the optimal strategy concerning timing for firm performance is the leaders' approach, independently of the sector innovation intensity. The study recommends that managers and policymakers adopt a comprehensive approach to innovation management, integrating pertinent technical knowledge related to product or process development with the necessary resources for effective implementation.

Keywords: technology leaders, technology followers, patent, agent-based model

How to Support New Knowledge and Business Development Using Applied Theatre: A Case Study

Raimonda Agne Medeisiene

The Lithuanian Academy of Music and Theatre, Klaipėda, Lithuania

Abstract

This paper explores the diverse ways in which applied theatre can be employed to support new knowledge creation and facilitate business development processes.

Applied theatre has gained traction as a tool for engagement and expression in various professional domains. Scholars (O'Connor, 2020; Kershaw, 2021) have highlighted the capacity of drama-based techniques to cultivate dialogue, reflection, and collaboration within teams.

Well-functioning companies are continuously seeking effective ways to address these tensions. Often, this is linked to the development of soft skills. The scientific literature discusses and analyzes methods applied to the development of soft skills in business environment training, such as dilemma resolution, case studies, experience-based artistic interventions, and vignettes. The application of these methods emphasizes that they strengthen cognitive abilities by focusing on the verbal assessment of hypothetical situational projections, deepen empathy, and help foster trust and collaboration between managers and employees.

Based on literature analysis and conducted research, there is reason to believe that the impact of applied theatre can be even more effective, as it is specifically targeted at professionals in the real world and the content of their experience. However, applied theatre interventions in the business context deserve more attention.

This paper presents a study conducted using innovative experimental research methodologies to evaluate this phenomenon.

Based on the research-driven methodology, two case studies are presented, illustrating how applied theatre was integrated into two business organizations in Lithuania during October and November 2024.

Keywords: Complexity, Innovation, Applied Theatre, Institutional culture

Artificial Intelligence for a Sustainable Future: Unraveling its Impact on Circular Economy

Martina Percuoco, Anna Prisco, Irene Ricciardi, Vincenzo Dell’Anno

University of Naples Federico II, Napoli, Italia

Abstract

Artificial Intelligence (AI) is rapidly transforming organizational practices and enabling more sustainable business models, especially in the context of the circular economy. While its potential is widely acknowledged, empirical evidence on the factors that influence AI adoption and its actual impact on circular economy practices—particularly in the context of small and medium-sized enterprises (SMEs)—remains limited. This study investigates the drivers of AI adoption among innovative Italian SMEs and assesses how AI contributes to the implementation of circular economy strategies. Grounded in the Unified Theory of Acceptance and Use of Technology (UTAUT), the study explores the role of four key constructs—Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions—in shaping AI adoption decisions. It also examines the extent to which AI adoption promotes circular economy practices. The empirical analysis is based on data collected through a structured online questionnaire distributed to 1,664 innovative SMEs across Italy, of which 52 provided complete responses. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM), a technique particularly suitable for testing complex models with small to moderate sample sizes. The findings partially validate the proposed theoretical framework. Performance Expectancy, Social Influence, and Facilitating Conditions are found to significantly influence AI adoption, while Effort Expectancy does not emerge as a significant predictor—suggesting that ease of use is less critical, possibly due to growing digital literacy or available technical support. Most importantly, the results show that AI adoption positively affects circular economy practices, supporting the view of AI as not only a technological asset but also a strategic enabler of sustainability. This study contributes to the literature by bridging the gap between technology adoption theories and circular economy research. It also offers practical insights for managers and policymakers aiming to promote digital and sustainable transitions. Emphasizing AI’s strategic value, the study encourages investment in both technological infrastructure and supportive organizational environments to foster innovation and sustainable development.

Keywords: Artificial intelligence; UTAUT ; sustainability; circular economy practices; PLS-SEM

The Role of Top Management Teams' Educational Diversity in Enterprise Performance through the Lens of Upper Echelons Theory

Rasma Pīpiķe, Elīna Gaile- Sarkane

Rīgas Technical University, Riga, Latvia

Abstract

This study investigates the relationship between Top Management Teams' (TMTs) educational diversity and enterprise performance within the Upper Echelons Theory (UET) framework. It integrates data from ten qualitative interviews with senior managers and a quantitative survey of 765 small and medium-sized Latvian enterprises (SMEs) representatives. The study explores how educational background—a form of deep-level diversity—affects strategic decision-making, innovation, and financial outcomes across organizational contexts.

Findings suggest educational diversity is a valuable strategic asset, particularly in medium to large enterprises and knowledge-intensive sectors. Respondents highlighted that diverse academic backgrounds support problem-solving, particularly in crisis situations. However, the perceived value of education varied by demographic and organizational factors, including age, gender, language group, company size, and industry sector. While 64% of survey participants rated educational background as "very important" or "extremely important" for financial decision-making, others emphasized the complementary role of practical experience and collective managerial tenure.

The analysis confirms that education is not always the dominant factor in executive performance. Meanwhile, when combined with other dynamic traits such as risk tolerance and shared values, it significantly influences organizational outcomes. Sector-specific findings underscore that in industries with high complexity and change, such as technology, services, and manufacturing, educational diversity in TMTs plays a more critical role. In smaller companies—particularly those with 10 to 49 employees or annual revenues below €300,000—hands-on experience is often viewed as more important than formal education, as shown by lower support for educational diversity in these groups. In contrast, 63.92% of all surveyed enterprise representatives rated educational diversity in Top Management Teams (TMTs) as "very" or "extremely important" for financial decision-making, with this figure rising significantly in firms with over 50 employees or annual revenues above €5 million. Using these findings for companies in practical terms, it means that developing their leadership teams and being willing to stay competitive, should consider not only formal education but also ensure a diverse blend of academic backgrounds among top managers. The study supports the development of a mathematical model that incorporates both the educational and behavioural characteristics of TMTs. It also contributes to the broader understanding of how diversity management impacts firm-level performance and innovation in a regional context.

Keywords: Diversity Management, Top Management Teams, Upper Echelons Theory, Educational diversity, Enterprise Performance

Skilling and Upskilling within Port Authority Management: A Strategic Approach to Industry 5.0 Requirements

Mariarosalba Angrisani, Marcello Risitano, Marco Ferretti

Parthenope University of Naples, Naples, Italy

Abstract

The transition toward Industry 5.0 has brought forth a new paradigm within maritime logistics and port governance, where the focus shifts beyond automation to embrace resilience, sustainability, and above all, human-centric innovation. In this context, Port Authorities, particularly those operating under the Landlord model, face unprecedented demands to align infrastructural and technological transformation with comprehensive workforce development strategies. While infrastructure and digital systems have been historically prioritised, the capabilities and adaptability of the human workforce—especially blue-collar maritime workers—have received comparatively less strategic attention.

This study investigates the alignment of workforce development with Industry 5.0 principles, focusing on the evolving competencies, training gaps, and strategic responses of Port Authorities operating under the Landlord model. Framed by the Resource-Based View and the Dynamic Capabilities Theory, the research explores how human capital—particularly blue workers—functions as a core asset for competitive advantage, technological readiness, and organisational resilience.

Employing a qualitative methodology, the study draws on twelve semi-structured interviews with executives, HR managers, and operational staff from Italy's maritime sector. Thematic content analysis revealed three core patterns: a widespread digital skills gap among blue workers, the fragmented nature of training initiatives across port authorities, and a misalignment between strategic HR objectives and operational governance.

Findings suggest that for Port Authorities to meet the expectations of Industry 5.0, workforce development must be fully integrated into port governance frameworks. Human-centric innovation, environmental sustainability, and digital transformation are not achievable without a skilled and empowered workforce.

The performed analysis additionally underscores the need for cultural and institutional shifts that reframe blue workers as, active agents of technological co-creation and environmental stewardship.

Ultimately, the study advocates for the establishment of structured, collaborative skilling frameworks, potentially through regional Port Skills Councils or transnational maritime academies, to harmonise training standards and close capability gaps. Such interventions would not only strengthen organisational performance but also affirm the role of Port Authorities as key enablers of a resilient and inclusive maritime ecosystem in line with Industry 5.0 values.

Keywords: Industry 5.0, maritime sector, blue workers, port authority governance, competencies

The Bridge Maker's Role in Industry 5.0 Ecosystems: Driving Collaboration and Innovation for Sustainable Outcomes

Kristaps Banga, Elina Gaile - Sarkane

Riga Technical University Latvia

Abstract

The transition to Industry 5.0 marks a paradigm shift towards innovation ecosystems that prioritize human-centricity, sustainability, and resilience. This paper advances the understanding of innovation ecosystem governance by introducing the concept of the "Bridge Maker" - a strategic intermediary that plays a pivotal role in aligning diverse stakeholders, fostering collaborative governance, and embedding Industry 5.0 values systemically across ecosystems. Grounded in insights from Complex Adaptive Systems (CAS) theory, Open Innovation (OI), and recent developments in ecosystem orchestration and governance, the Bridge Maker (BM) is positioned as a crucial enabler of ecosystem adaptability and success.

Through a conceptual analysis, this paper addresses two primary research questions: (1) How do Bridge Makers align stakeholders to drive collaboration and innovation within human-centered Industry 5.0 ecosystems? (2) What role do Bridge Makers play in embedding sustainability and human-centric values as systemic ecosystem features? Drawing from recent theoretical advancements (Chesbrough, 2003; Holgersson et al., 2022; Tedesco, 2019) and extending the Adaptive Open Innovation Systems (AOIS) framework, the study proposes a model highlighting the competencies, behaviors, and governance mechanisms required for effective Bridge Making.

The findings suggest that BM operates through trust-building, sense-making, strategic foresight, and adaptive orchestration practices that promote long-term ecosystem resilience. In doing so, they bridge institutional gaps, overcome organizational inertia, and create the conditions necessary for sustainable innovation trajectories. The paper offers practical implications for innovation managers, policymakers, and educators seeking to operationalize Industry 5.0 principles within complex multi-actor environments. Finally, the study calls for further empirical research to explore the dynamic practices of BM across various industry contexts and to develop actionable guidelines for their identification, training, and support within innovation ecosystems.

Keywords: Bridge maker, collaboration, ecosystem governance, Industry 5.0, innovation

Evolution of HRM: Longitudinal Analysis of HR Specialists' Skills in Italy

Isabella Bonacci, Maria Menshikova, Danila Scarozza

Universitas Mercatorum, Rome, Italy

Link Campus University, Rome, Italy

Abstract

This study explores the evolving profile of Human Resource (HR) professionals in Italy through a longitudinal analysis of the skills possessed by new entrants in the HR area from 2017 to 2024. In the face of rapid digital transformation, sustainability challenges, and post-pandemic organizational changes, the role of HR has shifted significantly from administrative support to strategic business partnership. Based on data from the Excelsior Information System, the research investigates the development of ten key competencies, grouped into four categories—social, intellectual, volitional, and managerial—based on the framework by Kolot et al. (2022). Findings reveal that the most developed competencies among new HR specialists are teamwork, problem-solving, and flexibility/adaptability, with consistently high scores and low standard deviation, indicating strong and homogeneous preparation in these areas. In contrast, the capacity to apply Industry 4.0 technologies and communication in foreign languages remain underdeveloped and highly variable, highlighting key areas for future improvement. Digital competencies, while relatively strong, still show moderate variation across candidates, suggesting that digital readiness is progressing but not yet universally embedded. The analysis also highlights important longitudinal trends. Volitional and managerial competencies show both high average performance and remarkable stability over time, while social and intellectual skills present more heterogeneous trends. The data reflect a clear need for HR professionals to enhance their technological and international communication capabilities, particularly given their strategic role in managing change, fostering cultural alignment, and driving organizational transformation. This research contributes to the understanding of how the HR function is adapting to contemporary demands, emphasizing the need for continuous upskilling and alignment between education, professional training, and labor market expectations. The findings support the call for stronger collaboration between academia and organizations, to ensure that HR professionals are equipped with the necessary skills.

Keywords: Human Resource Management, HR, skills, competencies, longitudinal analysis

Collaborative Skills and the Evolving Techno-Social Employee Profiles for Manufacturing Firms under the Digitalization Era

Emma Tambou Marianna, Jahan Ara Peerally

HEC Montréal, Montréal (Québec), Canada

Abstract

Creating digital technological capabilities (DTCs) in manufacturing firms requires employees' collaborative skills, entailing collaboration between humans and between humans and machines. However, there is limited empirical evidence or conceptual guidelines regarding these skills. We question: What types of human, and human and machine collaborative skills are needed for creating DTCs in manufacturing firms as they advance under the Fourth Industrial Revolution (4IR) and toward the Fifth Industrial Revolution (5IR)? Building on Peerally et al.'s (2022) DTC framework, we show that as the manufacturing firm progresses from readiness to maturity on the 4IR spectrum, the techno-social profiles of employees will evolve, and different stages will require different combinations of human-human and human-machine collaboration skills within the firm and across the supply chain. These findings are essential for the design of sustainable practices promoted by the 5IR. We conduct this analysis across the organizational functions of the manufacturing firm. We discuss the implications of our findings for policymakers, practitioners and scholars.

Keywords: Digitalization; Digital Technological Capabilities; Manufacturing Firms; Human and Machine Collaborative Skills; Employee Techno-Social Profiles

Shifting Operational HRM to AI: Opportunities, Challenges and Strategic Pathways

Maria Eugenia Sánchez Vidal, David Cegarra Leiva

Universidad Politécnica de Cartagena (UPCT), Cartagena, Spain

Abstract

This paper explores the transition of operational human resource management (HRM) tasks to artificial intelligence (AI) and examines the resulting opportunities, challenges, and strategic pathways. We develop a theoretical analysis grounded in recent HRM literature and Tursunbayeva's (2024) configurational framework, which views HRM practices as consisting of operational, relational, and transformational dimensions. The study is conceptual in nature, integrating insights from technology adoption (e.g., the technology-organization-people perspective) and responsible AI principles to extend and refine existing theory. We argue that delegating operational HRM activities to AI can significantly enhance efficiency and decision-making—such as through automation of repetitive administrative tasks and data-driven analytics—while freeing HR professionals to focus on higher-value relational and strategic roles. However, this shift also introduces notable challenges, including algorithmic bias, privacy and transparency concerns, workforce skill gaps, and employee resistance to AI-driven change. To address these issues, we propose strategic pathways for organizations, emphasizing the adoption of Responsible AI governance (ensuring fairness, accountability, and human oversight), proactive change management and upskilling of HR personnel, and alignment of AI initiatives with broader HR strategy (e.g., leveraging AI to support diversity and inclusion goals). In doing so, the paper contributes to HRM theory by extending Tursunbayeva's framework with a more detailed examination of the operational HRM–AI interface and by incorporating multi-level and human-centric considerations. The resulting model offers a holistic view of AI integration in HRM, highlighting that AI's benefits in operational HRM are maximized only when accompanied by ethical safeguards and strategic alignment. The paper concludes with theoretical implications and recommendations for HR practitioners seeking to responsibly navigate the AI transformation of HRM.

Keywords: Artificial Intelligence, Human Resource Management, Automation, Ethical Decision-Making, Workforce Transformation

The Role of Technology in Advancing Sustainability: Insights from the Textile Industry

Sara Ianniello, Livio Cricelli, Serena Strazzullo

Abstract

The textile industry faces increasing scrutiny for its environmental pollution, waste of water and energy resources, labor issues, and inefficiencies throughout the value chain (Pedersen and Gwozdz, 2014). As global agendas, such as the United Nations Sustainable Development Goals (SDGs) and the European Green Deal, call for urgent transformation, technology emerges as both a potential enabler of sustainability and a tool to mitigate the textile industry impacts. However, existing literature remains fragmented, often analyzing technologies in specific operational conditions or focusing on a singular dimension of sustainability. By conducting a systematic literature review of recent academic contributions (2020–2024), this study examines how technologies support the environmental, economic, and social pillars of sustainability in the textile industry. The review identifies and categorizes 88 articles from the Scopus database, revealing a diverse yet disconnected research landscape. From the content analysis, technologies are grouped into three clusters: emerging, established, and process-oriented. To offer an integrative perspective, the paper introduces a multi-level taxonomy that links technologies to specific sustainability-related weaknesses across the textile value chain. Findings show that while some technologies, especially Blockchain and data-driven systems, demonstrate convergent sustainability benefits, most generate partial or domain-specific improvements, such as Artificial Intelligence (AI) which raises concerns related to equity and digital exclusion (Park et al., 2020). The social dimension remains the least addressed, emphasizing the need for comprehensive strategies and governance frameworks to guide equitable technological adoption. This research offers a structured framework to help vertically integrated textile companies understand how technology adoption can address their sustainability challenges and provides practical insights for aligning business practices with innovation and SDGs objectives.

Keywords:

Big Data Technology Maturity Model: Exploring User Perceptions

Nicolò Gianmauro Totaro, Mariasimona Miglietta, Angelo Corallo,
Massimiliano Gervasi

University of Salento, Lecce, Italy

Abstract

Big data technologies are fundamental in managing large volumes of data and transforming data into information. However, the mere availability of technological resources is not sufficient to extract meaningful insights. The maturity of these technologies and users' perceptions of their use play a crucial role in determining their potential for value creation. This study proposes a maturity model that integrates both the technological maturity perceived by users and users' own maturity in utilizing these tools. Focusing on three major cloud-based services for big data, namely Google Cloud Platform, Amazon Web Services, and Microsoft Azure, the research explores user perceptions regarding the capabilities and usability of these platforms in supporting big data initiatives. The research methodology involved the design of a structured questionnaire aimed at investigating two main constructs: "Technological Maturity", referring to the extent to which the technology meets user needs; "User Maturity", concerning users' competence, awareness, and confidence in utilizing the investigated platforms. The questionnaire was administered to big data professionals, who were asked to evaluate one or more technologies based on their own experience. The analysis revealed significant trends, including a general increase in perceived technological maturity with growing user experience, and a non-linear relationship between experience and user maturity. The high number of "Don't know" responses among less experienced participants, and their decrease among more experienced users, highlights a progressive increase in self-awareness and knowledge acquisition over time. Notably, evidence of the "Dunning-Kruger" effect emerged, indicating that less experienced users tend to overestimate their abilities. This research proposes an innovative framework for assessing technological maturity in the big data context. The model not only enhances academic understanding but also offers practical guidance for organizations in the selection, adoption, and integration of cloud technologies, while supporting effective strategies for internal skills development. The findings underscore the importance of considering, alongside technological characteristics, human factors related to perception and usability of the adopted technologies.

Keywords: big data, data analytics, cloud services, maturity model

A Sustainable Future for Media-Franchising's Role in the Entertainment Industry

Andrea Gargiulo, Daniele Leone, Marco Ferretti

Parthenope University of Naples, Naples, Italy

Abstract

This research investigates the evolving role of media franchising in the entertainment industry, focusing on how interconnected media platforms, transmedia storytelling, and innovative business models shape franchise sustainability and consumer engagement. Tracing the historical development from niche intellectual properties to globally recognized brands such as “Harry Potter”, “Pokémon”, and “Hello Kitty”, the study illustrates how strategic franchising has transformed content creation, distribution, merchandising, and licensing. This evolution underscores the sector’s capacity for cultural influence and economic resilience.

The research is particularly relevant in a time of shifting consumer behaviours and technological advancements. As audiences demand more personalized and immersive content, franchises must strike a balance between innovation, quality, and brand consistency. The study is vital for the sector as it addresses how economic sustainability and consumer loyalty can be preserved amidst market saturation and franchise fatigue—issues that threaten long-term profitability and brand equity.

Grounded in qualitative methodology, this study employs thematic analysis and a focused case study of “The Walt Disney Company”, integrating data from academic literature, industry reports, and publicly accessible analyses and documents. Key findings reveal that while media franchising can create a self-sustaining revenue model and foster intergenerational brand loyalty, aggressive content expansion can dilute narrative integrity and weaken engagement. The study anticipates that future success depends on strategic selectivity, high production values, and meaningful innovation.

This paper provides actionable insights for entertainment managers, policymakers, and scholars, contributing to a deeper understanding of how media franchises can adapt to ensure cultural relevance and sustainable business growth in a competitive global market.

Keywords: Media-Franchising; Sustainability; Business Models; Intellectual Property Management

Key Factors for Leveraging and Capitalizing Digital Transformation Initiatives in Industrial Landscape

Vito Del Vecchio, Martina De Giovanni, Ayotobi Oromiye Holo,

Mariangela Lazoi

University of Salento, Lecce, Italy

Abstract

Industrial organizations are increasingly investing in technology and digital transformation (DT) initiatives to enhance their digital maturity and achieve sustainable growth within VUCA markets. However, the potential benefits of these investments vary depending on the company's level of technological maturity. Higher maturity generally provides better positions to implement DT strategies and maximize their return on investment (ROI). However, due to the inherent complexity of DT initiatives, many organizations struggle to determine the most effective investment paths and align them with strategic objectives. ROI in DT is multifaceted and not limited to financial outcomes. Economic advantages can come from specific strategic and operational actions.

Digital Transformation Maturity Models (DTMMs) are proposed in literature for assessing and measuring, based on specific dimensions and factors, the business readiness in managing DT investments. Despite DTMMs are widely discussed in literature, none of them refers to ROI concept. Addressing this research gap, through a Systematic Literature Review, the study aims to explore the relationship between DT maturity and ROI and to identify the key factors facilitating the implementation of specific actions for gathering high ROI. Based on 35 DTMMs, the paper identifies 51 key factors that influence successful DT implementation and capitalization. These factors are grouped into four dimensions: People, Organization & Culture, Information & Technology, and Operations. Furthermore, through the interaction of an IT company, the study provides an original framework matching all factors with specific forms of ROI. The framework represents a valuable indication for companies to shape their digital strategies, consider DT investments, and generate meaningful ROI.

Keywords: Digital Transformation, Maturity, Return on Investment, Industry

A Comparative Analysis of Low-Code/No-Code Frameworks

Sajjad Ahmed, Miguel Mira da Silva, Alberto Rodrigues da Silva,
Mariangela Lazoi

University of Salento, Lecce, Italy
University of Lisbon, Portugal

Abstract

The advent of low-code and no-code (LCNC) platforms has revolutionized software development, making it accessible to users with different programming skills. These methodologies provide both technical and non-technical users with innovative solutions to optimize the software development process. The goal of this paper is to inform and enrich both scholarly discourse and practical application by synthesizing theoretical frameworks with practical experiences, ultimately driving advancements in software engineering methodologies and helping individuals and organizations to leverage these innovative development paradigms effectively. The paper presents a comparative analysis of features and capabilities of the platforms AppSheet, PowerApps, and Bubble.io. It explores Model-Driven Development's role in enhancing these platforms. To further enrich the analysis, a group of PhD students with different expertise in software engineering and LCNC paradigms were interviewed to gather their perspectives on the practical use and potential of these platforms. Their insights provided a valuable layer of expertise to the evaluation process, highlighting nuanced challenges and opportunities that emerge in applied settings. The three platforms were systematically compared and ranked using the analytic hierarchy process (AHP), a multi-criteria decision-making methodology that structures the decision-making process into a hierarchical model. AHP's systematic approach ensures that both subjective preferences and objective data are integrated, making it an effective method for selecting the most suitable LCNC platform. This approach allowed for an objective evaluation based on key factors such as usability, scalability, and adaptability to various development needs. By combining hands-on experimentation with expert insights and a rigorous evaluation framework, this study bridges the gap between theoretical understanding and practical application.

Keywords: low-code development platform; no-code development platform; model driven development; AHP method; Digital Transformation

Thriving Through Digital Change: Building Resilient, Adaptive and Sustainable Organizations

Alessia Anna Catalano, Christian Catalano, Andrea Chezzi, Vito Del Vecchio

University of Salento, Lecce, Italy

University of Bari Aldo Moro, Bari, Italy

Abstract

In today's complex environments, organizations increasingly rely on their ability to manage change and build resilience to sustain long-term competitiveness. This phenomenon is particularly evident in high technological intensive companies dealing with frequent changes due to digitalization and technological disruptions. Through a Systematic Literature Review this study investigates the interconnections between change management, individual resilience, and organizational resilience, with the aims to identify theoretical models and key constructs shaping the complexity of business organizations when approaching to change processes. Based on the analysis of 46 peer-reviewed journal articles published between 2007 and 2025, findings reveal that individual resilience – defined as the psychological capacity to cope with, adapt and recover from adversity – plays a pivotal role in shaping employee responses to organizational change. Transformational leadership and resilient organizational cultures act as enablers, reinforcing individual capabilities and translating them into collective adaptive capacity.

Several studies draw on theoretical perspectives such as dynamic capabilities, psychological capital, and the resource-based view, suggesting that resilience is not a static attribute but a dynamic, multilevel process involving learning, improvisation, and innovation. Despite growing scholarly attention, the literature remains fragmented, with limited longitudinal designs and scarce integration across micro, and macro levels.

To address these limitations, on top of the literature, the study introduces a conceptual model that links individual resilience to organizational resilience through change management processes, in which leadership and culture represent key enablers. This model offers a strategic lens to understand how individual psychological resources can be leveraged to support organizational transformation and long-term sustainability in volatile and knowledge-intensive contexts. This study also highlights the importance of connecting human dynamics with organizational agility and encourages future interdisciplinary research on multilevel resilience as a knowledge-based capability to enable adaptive and sustainable change.

Keywords: Change Management, Innovation Management, Organizational Resilience, Individual Resilience

Driving or Being Driven: AI Integration in Automotive Supplier Operations and Strategy

Noémi Szilvia Lőrincz

Corvinus University of Budapest, Budapest, Hungary

Abstract

Nowadays, the automotive industry lives in the most exciting time in history and maybe the most significant challenge as well: electric, connected, and autonomous—and the future of the automotive industry is being driven by different and not just innovative but also green solutions reshaping the competitive environment (Calza et al., 2017). This study examines the use of Artificial Intelligence (AI) among automotive suppliers operating in Hungary, focusing on daily processes and their role in their strategy-making. The study also looks at how widespread the introduction of AI is in automotive supplier networks, who allows and can afford to use AI solutions (mainly depending on size), and how important they consider the use of AI to be in terms of their competitive position in the market. A questionnaire, to which 22 responses were received, helped to map general market trends and identify the main R&D activities of key automotive suppliers in Hungary. Four semi-structured interviews were conducted with automotive experts to understand these dynamics better. The results show that most participants do not see AI as a replacement for human resources but rather as a support tool that can optimize workflows, free up time, and make work more efficient and faster. It is primarily used in decision-preparation processes during strategy development. As a decision-support tool, it is not yet widely used in its current phase, so decisions and responsibility remain in the hands of people for the time being. In this regard, many interviewees highlighted the role of AI in error prediction, for example, in manufacturing processes. Solutions were mentioned where AI-based software could replace real-road testing, saving money and time and avoiding environmental emissions. However, interviewees also emphasize that AI literacy plays a role in successfully applying these solutions and that emphasis should be placed on training employees. The study thus identifies the critical conditions for the successful integration of artificial intelligence, including optimized organizational processes, improving knowledge of AI, and robust data management. Trust also emerged as an important factor, as generational differences can be observed in the acceptance and use of AI. The results suggest that, if introduced carefully, AI will not replace but rather support various processes for the time being. Companies that do not invest in introducing AI-based solutions, including training their employees, may find themselves at a serious competitive disadvantage in the automotive supplier market.

Keywords: Automotive parts manufacturing; Artificial intelligence (AI), Technology management, Innovation management

Measuring Innovation in Large ICT Firms: A Bibliometric Analysis

Vito del Vecchio, Mariangela Lazoi, Fabio Paracchini, Giorgia

Specchia

University of Salento, Lecce, Italy

Altea Federation, Milan, Italy

Abstract

Innovation measurement remains a persistent challenge for organizations, especially in fast-evolving and complex sectors like ICT and IT, where traditional evaluation models struggle to capture the dynamic and intangible nature of innovation. Despite the abundance of proposed metrics and frameworks, the field remains fragmented, lacking a unified theoretical foundation and consistent methodological standards. This study addresses these gaps through a bibliometric analysis of 688 peer-reviewed articles published between 2001 and 2025, retrieved from Scopus and Web of Science. The analysis explores the evolution of scholarly production, identifies the intellectual roots of the field, such as the Resource-Based View, Dynamic Capabilities, and Absorptive Capacity, and maps the conceptual structure around key themes including open innovation, green and sustainable innovation, human capital, and knowledge management. The findings reveal a growing but dispersed research landscape, characterized by weak citation networks and parallel, often disconnected, research trajectories. Beyond describing the structural properties of the field, the study highlights the emergence of distinct thematic clusters aligned with different strategic and organizational perspectives. While this diversity reflects the complexity of innovation itself, it also underscores the need for more integrative and context-sensitive approaches to innovation measurement. By offering a comprehensive and data-driven overview of the literature, this study lays the groundwork for a forthcoming systematic literature review aimed at consolidating existing knowledge and supporting the development of robust, multidimensional frameworks. The results offer theoretical insights for advancing the field and practical implications for managers and policymakers seeking more effective tools to evaluate and guide innovation efforts.

Keywords: Innovation, Innovation metrics, Measure, Bibliometric analysis

Adversarial ML Attacks in Multi-Domain Operations

Vita Santa Barletta, Fabio Biondi, Christian Catalano, Samuele del Vescovo, Carla di Biccari

University of Bari Aldo Moro, Bari, Italy

Network Operations Command (COR), Rome, Italy

3IMT School for Advanced Studies of Lucca, Lucca, Italy

University of Salento Ecotekne Campus, Lecce, Italy

Abstract

In recent years, the concept of Multi-Domain Operations (MDOs) is increasingly recognized within civilian/military strategy, emphasizing the integration of capabilities across multiple domains to generate synergistic effects. This framework entails the orchestration of operations across varied and frequently contested environments aiming to mitigate an adversary's advantages. The Cyber Social Security framework for MDOs (CSS-MDO) is a powerful tool to improve the integration of cyber defense operations within Multi-Domain (MD) frameworks. Working along the two dimensions i.e. the horizontal (the five active operational domains) and the vertical one (the security units for Detection, Response and Prevention), it's possible to redefine the detection rules, the formulation of new response plans and the prevention of security incidents and attacks through each domain's knowledge. An example of techniques to be maliciously adopted across domains exploiting vulnerabilities of each MD system based on Artificial Intelligence (AI) and Machine Learning (ML) is Adversarial Machine Learning (AML). Considering the current period of strong innovation in the automotive industry and the massive use of vehicles in civil/military scenarios, it's plausible to label them as perfect victims of future attacks in MD scenarios. The target of these attacks exploiting the AML vulnerability could be the ML-based Intrusion Detection System (IDS) delegated to protect in-vehicle Controller Area Network (CAN) based automotive networks. Therefore, the goal of this research work is to estimate the possible negative impact of some Black-Box AML attacks on the Supervised ML-based IDS performances in the CAN bus frame detection task. The victim is assumed to be resident in the vehicle itself. The attacks involved are the Zeroth Order Optimization (ZOO) and the Membership Inference (MI). The results show the evasion attack impact (weighted accuracy loss) is about 70% and the inference attack is not successful. These attacks could constitute an integral part of future Multi-Domain Operations (MDOs), potentially targeting terrorist climates and fully impacting on the Detection-Response-Prevention dimensions of the CSS-MDO framework. This intelligence would allow to know how to defeat MDOs potentially violating intercontinental security perimeters.

Keywords: Black-Box Adversarial Machine Learning, Intrusion Detection System, Multi-Domain Operations, Cybersecurity, Cyber Social Threat Intelligence

Navigating Sustainability Standards: Challenges and Interoperability Between ESRS and GRI

Giuseppe Bruno, Manuel Cavola, Anna Del Balzo, Carmela Piccolo, Eduardo Pipicelli

Università degli Studi di Napoli Federico II, Naples, Italy
Università Telematica Pegaso, Naples, Italy

Abstract

In the European context, the many initiatives aimed at integrating sustainability considerations into corporate practices are consolidated within the broader EU Sustainable Finance Framework, developed under the guidance of the European Financial Reporting Advisory Group (EFRAG) (EFRAG, 2021). Among these, the introduction of the European Sustainability Reporting Standards (ESRS), mandated by the Corporate Sustainability Reporting Directive (CSRD), represents a major turning point in sustainability reporting across the EU. At the same time, the Global Reporting Initiative (GRI) remains one of the most widely adopted and internationally recognised frameworks. For many European companies, the need to comply with both systems raises concerns regarding alignment, redundancy, and efficiency of reporting efforts.

To address these concerns, this study seeks to answer questions related to the needs of developing an entirely new framework as the only viable solution for EFRAG, and to the effort required to ensure interoperability between frameworks.

To explore these issues, a Comparative-Matrix is developed to systematically map and compare disclosure requirements of the GRI and ESRS frameworks and a structured quantitative methodology is proposed to estimate the reporting workload under different compliance scenarios focusing on the Environmental pillar.

The analysis reveals that, despite conceptual convergence, substantial operational differences remain, particularly in terms of metric formulation and relative granularity. As a result, companies aiming for dual compliance may encounter duplicated reporting efforts and increased complexity in data governance. These findings highlight the need for greater harmonisation at the operational level and prompt reflection on whether introducing a new standalone framework is the most effective path toward global sustainability comparability.

Keywords: Sustainability reporting; Corporate Sustainability Reporting Directive; European Sustainability Reporting Standard; Global Reporting Initiative; Interoperability

Exploring the Synergy: AI-Driven Knowledge Management, ESG Performance, and Stakeholder Perceptions in the Energy Sector

Giovanni Spatola, Giuseppe Ambrosio, Marianna Mancino, Maria Zifaro, Andrea Presciutti

Mercatorum University, Rome, Italy

Abstract

The global imperative for sustainable development is compelling industries to reassess operations, emphasizing Environmental, Social, and Governance (ESG) criteria. The energy sector, pivotal yet environmentally impactful, faces intense pressure to innovate sustainably. Artificial Intelligence (AI) offers transformative potential, particularly its application in Knowledge Management (KM) systems to enhance information handling for superior ESG performance. However, a literature gap exists concerning the interplay between AI-driven KM, ESG outcomes, stakeholder perceptions, and corporate competitiveness in this sector. This proposal outlines a study to investigate these dynamics: how AI-driven KM influences ESG outcomes, how stakeholders perceive these innovations, and how such practices might bolster energy companies' competitive advantage. A mixed-methods design is planned (literature review, three Italian energy sector case studies, a survey of ~150 stakeholders). Findings are expected to show a positive AI-KM impact on ESG metrics, multifaceted stakeholder perceptions (more positive externally, varied internally with concerns like job displacement), and enhanced competitiveness through innovation and efficiency. The study aims for theoretical contributions to the AI-KM-ESG nexus and practical insights for energy executives.

Keywords: artificial intelligence, knowledge management, ESG performance, stakeholder perception, energy sector, mixed-methods research, sustainability, digital transformation

Artificial Intelligence, Knowledge Management and Reduced Work Time: Rethinking Organizational Competitiveness

Marianna Mancino, Maria Zifaro, Giuseppe Ambrosio, Giovanni Spatola

Mercatorum University, Rome, Italy

Abstract

Business success is no longer defined solely by financial performance or the quality of goods and services provided. It is imperative for companies to embed sustainability into their strategic frameworks, embracing socially and environmentally responsible practices. Businesses must now prioritize aligning profit with ethical and sustainable practices that enhance lives, protect the environment, and foster inclusive communities.

In this new mindset, work focuses on growth as well as output, redefining productivity around well-being and sustainability in a people-centered “productive revolution.”

Emerging technologies such as artificial intelligence (AI) offer new ways of organizing work, helping companies use their resources more effectively. It is through intelligent automation that many repetitive, low-value tasks can be eliminated, freeing up time for more strategic and creative activities. This makes it possible to reduce working hours without compromising, and indeed improving, both productivity and competitiveness.

At the same time, AI plays a fundamental role in knowledge management (KM), due to its ability to collect, analyze, and organize large volumes of data, enabling the creation, sharing, and preservation of knowledge within companies.

The reduction of working hours is increasingly central to the debate on the future of work, closely linked to the issue of work-life balance. Improving the balance between private and professional life has become a priority for many companies. What experiences such as the “4 Days Week” have demonstrated in various European countries is that they can bring tangible benefits: greater well-being, motivation, productivity, and improved talent retention.

The present study aims to explore the role of AI in transforming work models, focusing in particular on the effects of reducing working hours on productivity and knowledge management. The analysis will be carried out through a theoretical-documentary research approach, based on an integrated review of scientific literature, institutional reports, and national and international business cases, with particular reference to the themes of artificial intelligence, productivity, and knowledge management.

Keywords: Artificial Intelligence, Productivity, Worktime Reduction, Knowledge Management, Well-being

Artificial Intelligence as a Driver for Educational Inclusion: Developing a Generative AI Chatbot to Support Professors and Students

Stefania D'Aprile, Giovanni Spatola

Universitas Mercatorum, Rome, Italy

Abstract

Social sustainability is a fundamental pillar for the balanced and inclusive development of contemporary societies. It embodies the commitment to social equity, inclusion, respect for human rights, and the promotion of collective well-being. Artificial intelligence (AI), with its increasing deployment, is emerging as a key tool for addressing social challenges and promoting sustainability goals, which, to date, also involve education, following the provisions of Sustainable Development Goal 4 (SDGs 4) of the UN 2030 Agenda. The integration of artificial intelligence (AI) technology into education has introduced many possibilities. However, it also raises ethical issues that require careful consideration. This paper aims to highlight the importance of considering AI as a driver for educational inclusion, starting with an analysis of its potential. The study delves into the benefits and challenges of the introduction of a generative AI chatbot by Multiversity Group, Italy's largest group operating in the Digital Education sector and Europe's second largest group, which, driven by its vision of AI-enhanced education, collaborated with strategic consulting firm Bain & Company to build such a generative chatbot, leveraging OpenAI technology, to provide a better learning experience for students by fostering engagement and interaction with professors, and to combine didactic delivery and interactive assistance to learners. This paper aims to explore the emerging contribution of AI in education to promote innovative and inclusive educational delivery to reduce possible educational inequalities, considering the benefits, challenges and ethical implications of implementing the technology. AI can be an enabler for social progress, but it requires attention relative to the risks of discrimination and risks related to privacy and data security. The paper analyzes the high-impact challenges faced in developing the generative AI project to ensure that student data is securely managed in compliance with legal standards, such as GDPR 2016/679, the qualitative value of responses, the need for continuous monitoring, and overcoming any technological limitations.

Keywords: Artificial intelligence, social sustainability, inclusive education, digital education, role of AI in education

The Role of Artificial Intelligence in Social Sustainability: A Socio-Technical Systems Perspective

Serena Strazzullo, Moacir Godinho Filo

University of Naples Federico II, Naples, Italy

EM Normandie Business School Metis Lab, France; Federal University of São Carlos, Brasil.

Abstract

This paper examines the role of Artificial Intelligence (AI) in advancing sustainability, focusing on the intersection of AI and social sustainability. Given the substantial body of research in this field, a systematic review of over 2,000 articles was conducted. The sample was first analysed descriptively, followed by a thematic grouping based on sustainability dimensions. Notably, the social dimension of sustainability was underrepresented, prompting a more detailed exploration of AI's role in addressing social sustainability. To explore AI's role in advancing social sustainability, this study uses the Socio-Technical Systems (STS) framework. STS, developed by Emery and Trist (1960), examines the interplay between technology and social systems, focusing on five elements: technology, work processes, people, organizational structures, and the external environment. These elements guide the analysis of AI's effects across sectors such as healthcare, education, and governance. The study highlights AI's role in reshaping workflows, skill development, organizational hierarchies, and societal systems, while addressing global challenges like climate action and economic resilience. The study contributes to the field by integrating STS into AI and social sustainability, providing a structured lens to assess AI's impact. It offers actionable insights for policymakers, organizations, and researchers on how to leverage AI responsibly, ensuring ethical governance, fairness, and inclusivity. The study emphasizes the need for frameworks that balance AI's opportunities with potential risks, promoting responsible AI deployment across sectors.

Keywords: Artificial Intelligence; Socio-Technical Systems Perspective; Social; Sustainability; Thematic Analysis

Semantic Dimensions of Digital Transformation: An Integrated Approach to Resource Management and Organizational Sustainability

Daniel Ruiz López, Fabiola Colmenero Fonseca, Ramiro Rodríguez Pérez, Juan Francisco Palomino Bernal

University Autonomous of Guadalajara, Zapopan, Jalisco, Mexico.

Technological Institute of Ciudad Guzman, Ciudad Guzman, Jalisco, Mexico

La Salle University Mexico, Mexico City CDMX, Mexico.

Universitat Politècnica de València, Valencia, Spain.

Abstract

Digital transformation is redefining organizational structures by incorporating artificial intelligence (AI), emerging technologies, and new approaches to resource management focused on sustainability. This study explores the semantic dimensions of this process, key to aligning technological capabilities with organizational and societal needs.

Through an interdisciplinary methodology combining semantic analysis and case studies in sectors such as manufacturing, energy, healthcare and education, 25 organizations in Europe and Latin America were analyzed. The findings show that 72% of the organizations that implemented intelligent monitoring systems achieved a 30% improvement in operational efficiency and a 25% reduction in energy costs. In addition, 64% of companies that implemented digital resource management platforms reported a decrease in their carbon footprint of at least 20%.

However, significant barriers were also identified. Fifty-eight percent of organizations lacked a clear digital sustainability strategy, and 46% reported internal cultural resistance to technology adoption. This disconnect between technology and organizational culture limits the transformative impact of the digital process.

To overcome these challenges, a three-phase intervention model is proposed: (1) diagnosis of needs and resources, (2) contextualized integration of emerging technologies, and (3) pilot testing with feedback mechanisms. This structure facilitates a coherent and sustainable digital transformation.

The discussion reveals that semantic dimensions play an essential role not only in the understanding of technological objectives, but also in the construction of conceptual frameworks that enable their effective implementation in organizational strategies. Organizations that incorporated semantic analysis into their innovation processes showed 35% more alignment between their sustainability objectives and their technology decisions.

In conclusion, digital transformation should not be understood solely as a technical modernization, but as a profound structural change that requires semantic, technological and cultural articulation. Organizations that integrate these elements can become active agents of social and environmental change. To scale this impact, it is essential to promote partnerships between companies, governments and academia that promote sustainable innovation ecosystems adapted to different contexts.

Keywords: Digital transformation, Organizational sustainability, Resource management, Emerging technologies, Artificial intelligence

Artificial Intelligence and Social Sustainability in the Energy Sector: Enhancing Stakeholder Perception and ESG Performance through Innovative Practices

Giovanni Spatola, Mario D'Avino, Antonio Capasso, Maria Zifaro, Andrea Presciutti

Mercatorum University, Rome, Italy

Abstract

The integration of Artificial Intelligence (AI) into sustainability practices is transforming industries by enabling innovative solutions to complex challenges. However, while the nexus between AI and economic or environmental sustainability has been the subject of substantial academic inquiry, its potential role in advancing social sustainability remains comparatively underexplored. Social sustainability, encompassing critical aspects such as health and well-being, equitable access to education, and community resilience, is fundamental to the development of sustainable societies and is explicitly linked to Sustainable Development Goals (SDGs) such as SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), and SDG 11 (Sustainable Cities and Communities). In the energy sector, where innovation is a primary driver, AI is increasingly employed to address issues including energy equity, workforce safety, and community development. The success of such initiatives, however, critically hinges on stakeholder perception, which influences the legitimacy and acceptance of AI-driven practices. This study aims to bridge the gap between AI applications and their social implications by examining how AI-driven innovative practices in the energy sector can enhance social sustainability and Environmental, Social, and Governance (ESG) performance. Specifically, it focuses on the role of stakeholder perception as a key determinant of the success of socially sustainable initiatives. By integrating concepts from stakeholder theory and knowledge management frameworks, this research seeks to advance theoretical understanding while offering practical strategies for achieving sustainability goals in knowledge-intensive and innovation-driven industries. The paper presents a review of the extant literature and outlines a research proposal predicated on a mixed-methods approach, focusing on case studies of energy companies implementing AI for social sustainability.

Keywords: artificial intelligence, social sustainability, ESG performance, stakeholder perception, energy sector

Social Taxonomy, Balance Sheet and AI for Sustainability in Public Administration Policies

Marianna Mancino, Maria Zifaro, Giuseppe Ambrosio, Giovanni Spatola

Mercatorum University, Rome, Italy

Abstract

The European Union plays an important role in promoting the Sustainable Development Goals (SDGs) of the 2030 Agenda through the advancement of sustainable finance. The aim of sustainable finance is to direct financial resources toward initiatives aligned with ESG (Environmental, Social, and Governance) principles. However, unlike financial ratings based on recognized accounting standards, a globally shared framework for assessing ESG activities and investments is still lacking.

To fill this gap, the EU has launched a process to develop common standards for identifying sustainable economic activities, not only from an environmental but also from a social perspective.

In this context, the proposal for a European Social Taxonomy has emerged, developed by the Platform on Sustainable Finance (PSF). Its goal is to classify projects, investments, and policies based on their social impact. The three main objectives identified, decent work, well-being and adequate living conditions, and inclusive societies, are supported by sub-goals to facilitate implementation and reporting.

Nonetheless, the analysis of social variables remains particularly complex due to their qualitative, multidimensional, and often subjective nature, which makes objective and standardized measurement challenging. In the absence of a global social reporting standard, practices remain heterogeneous and fragmented, undermining data comparability and the development of evidence-based policies.

In this scenario, Public Administrations (PAs) are called upon to adopt effective tools to make their social actions visible, measurable, and communicable. The Final social balance sheet serves as a key tool for accountability and transparency, useful for strengthening the relationship with citizens and evaluating the public value generated.

The integration of the Social Report, the Social Taxonomy, and Artificial Intelligence (AI) represents a strategic opportunity to improve the analysis, monitoring, and implementation of social policies in alignment with the 2030 Agenda. This study analyzes the approach adopted by local administrations in social reporting and the potential of AI to enhance these processes, promoting more effective and sustainable public governance.

Keywords: European Social Taxonomy, Social Balance Sheet, Public Administration, Artificial Intelligence

Change to Digital Learning: A Task-Technology Fit Approach to Moodle

László Berényi, Nikolett Deutsch

University of Miskolc, Miskolc, Hungary

Corvinus University of Budapest, Budapest, Hungary

Abstract

Continuous changes in higher education are essential. The sector plays an exemplary role since it prepares the experts of the next generations for various industries. At the same time, financial difficulties, structural problems, and slow response to changing market requirements are often experienced. As digitization is a major issue nowadays, the progress of higher education institutions gives a comprehensive imprint. Comprehensive improvement is needed, which involves a number of separate tasks. As a popular learning management system, the Moodle is a typical fingerprint of higher education digitalization. Measuring the acceptance and use of technology offers valuable information about the state of progress and development opportunities. The study uses a Fit-Focus Task-Technology Fit model adapted as a reflective PLS-SEM model to assess Moodle. Although this kind of model has limited scope to other behavioral-based framework models like the Technology Acceptance Model or Unified Theory of Acceptance and Use of Technology, targeted investigations are necessary for a deeper understanding of the influencing factors. The pilot study analysis was based on a sample of 849 Hungarian higher education students. The results show that Moodle offers technology-driven innovation to institutions, but exploiting its features is limited. Adding the task to the model of whether Moodle is ready to substitute traditional learning materials, the structural model explains 56% of the variance in the perceived performance of the system. The study results may contribute to a better overview of digitalization in higher education, but the most important outcome is the applicability of task-technology fit analysis and its extension to other systems and additional stakeholders.

Keywords: digitalization, higher education, Moodle, Task-Technology Fit Model

Digital Transformation, Board of Directors and Environmental Performance: Evidence from Italian Listed Companies

Leonzio Capparelli, Lapo Biancardi, Michele Galeotti, Vincenzo Scafarto

Sapienza University of Rome, Rome, Italy

University of Cassino and Southern Lazio, Folcara, Italy

Abstract

Digital transformation, board characteristics, and environmental performance are increasingly significant in the realm of corporate sustainability. Numerous scholars assert that digital transformation can serve as a powerful catalyst for sustainable corporate development, delivering substantial benefits to both businesses and society. Digital transformation refers to the process through which companies evolve from traditional industrial stages to the Industry 5.0 paradigm, which integrates technological innovation with human-centric approaches.

According to the stakeholder theory, firms operate within an interconnected system encompassing economic, social, environmental and political dimensions, and enhancing corporate profitability has become an essential requirement for stakeholders. In this context, digital transformation can substantially boost corporate productivity and contribute to achieving sustainable development goals, thereby acting as a primary factor through which stakeholders can compel firms to initiate transformation processes.

Furthermore, companies are increasingly subjected to pressures from stakeholders who are placing greater emphasis on environmental issues, compelling them to adopt proactive environmental governance strategies. However, despite the extensive development of literature on digital transformation and environmental performance, studies analyzing the potential moderating role of board characteristics remain limited. This paper aims to bridge this gap by exploring the relationship between digital transformation and environmental performance, considering the specificities of board characteristics.

The existing empirical literature often employs textual analysis to quantify the extent and quality of digital transformation. Similarly, in this study, the construction of the digital transformation indicator is achieved through keywords selected based on prior literature, including: big data, informatization, intelligence, robotics, Internet of Things, blockchain, automation, digitization, and cloud computing.

Based on this method to measure the digital transformation efforts, we investigated the potential moderating effect of board gender diversity on the relationship between digitalization and corporate environmental performance, using data from Italian publicly listed companies for the year 2023.

The results of the empirical analysis indicate that 1) digital transformation has a positive and significant impact on corporate environmental performance, and 2) that impact of digital transformation on environmental performance is reinforced by a higher presence of female directors on corporate boards. These findings provide potentially valuable insights to a diverse audience. Firstly, to companies engaged in digitalization processes. Secondly, to developing countries still in the Industry 3.0 or Industry 4.0 phase. Thirdly, to governments of developed countries, to promote national technological growth, monitor companies, and establish appropriate regulatory frameworks for the digital era.

Keywords: digital transformation, female directors, critical mass, CSR performance

Digitalization and Sustainability Reporting in the Public Sector: A Structured Literature Review

Daniela Cicchini, Paolo Conte, Luana Pellegrini

University of Rome La Sapienza, Rome, Italy

Abstract

This paper aims to review the literature on the digitalization and sustainability reporting of the public sector, focusing on the evolution of digitalization in these reporting practices. Specifically, the study examines the literature considering the evolution of digital tools in reporting practices among public companies. Moreover, it aims to propose future research directions. This study used a qualitative methodology with a structured literature review (SLR) approach. Our research reviews 23 documents using the CABS accounting journal ranking over the last 20 years (2004-2024). Our results reveal three main research streams focused on i) Dialogical Accounting, Sustainability Reporting, and Digitalization in the Public Sector, ii) Sustainability Accounting, Digitalization, and Governance in Local Public Sector Institutions, and iii) Accounting and Digitalization of Public Services. This study offers theoretical implications for academics and practitioners. It enhances the literature on digital sustainability reporting by public sector organizations, providing an overview of current research and future directions. Additionally, it presents the evolving landscape and its implications for public sector reporting strategies, filling a gap in the literature on digitalization in sustainability reporting practices of public entities.

Keywords: Sustainability reporting, Digitalization, Public sector, Structured Literature Review

Digital Transformation and Public-Private Partnerships to Enhance Local Cultural Heritage

Giovanna Muraglia, Laura Clemente, Gesualda Iodice,
Mariavittoria Cicellin, Francesco Bifulco

Sapienza University, Rome, Italy.
University Federico II, Naples, Italy.

Abstract

The present research aims to explore how digital transformation, when integrated within Public-Private Partnerships (PPPs) and social enterprise models, can foster inclusive, innovative, and sustainable approaches to cultural heritage governance. Anchored in the case study of JustMO', a cultural cooperative operating in Sepino (Molise, Italy), the study investigates how multi-stakeholder collaboration can activate new value creation processes in the cultural sector.

Adopting the SoPHIA evaluation model as a holistic analytical framework, the study examines the cultural, social, educational, and economic impacts of digitally supported heritage initiatives not only to enhance visitor experience and educational outreach but also to reinforce place identity and community ownership.

The analysis emphasizes the strategic role of Special Public-Private Partnerships (PSPPs) in enabling cross-sector collaboration, with social enterprises positioned as key orchestrators of digital ecosystems. These hybrid actors bridge institutional boundaries, channel public and private resources, and promote co-creation through participatory design and open digital infrastructures.

From a theoretical perspective, the paper contributes to current debates on PPPs by proposing an expanded view of social enterprises as drivers of digitally enabled cultural innovation. Ultimately, the study provides insights for cultural managers, policymakers, and scholars seeking to align heritage valorization with sustainability objectives and place-based development strategies.

Keywords: Cultural Heritage, Social Entrepreneurship, Digital Transformation, Public-Private Partnership, New Cultural Ventures

Measuring Museum Visitor Experience: Fresh Evidence from Bourbon Heritage Sites and potential Collaborations with Startups

Fabio Greco, Francesco Bifulco

University of Naples Federico II, Naples, Italy

Abstract

This study explores visitor satisfaction at Bourbon cultural heritage sites in Campania, with a focus on the Royal Palace of Naples and the National Archaeological Museum (MANN). Adopting a mixed-methods approach, researchers carried out 97 interviews to assess eight critical dimensions of satisfaction. Through the application of the expectancy-disconfirmation model, the study contrasts perceived quality with the importance attributed by visitors. Findings show strong appreciation for the cultural content offered but point to notable shortcomings in infrastructure, digital accessibility, and post-visit engagement. A clear mismatch between visitor expectations and the actual services provided—especially regarding online communication and complementary offerings—emerges.

The research incorporates a pilot phase conducted by the Siti Reali organization, which represents a foundational step in satisfaction measurement. This phase serves as a valuable input for future collaborations with innovative startups that could enhance and scale similar evaluation processes using digital and data-driven tools.

Demographic and behavioral data indicate a growing interest in thematic experiences and customized itineraries, underscoring the need for more responsive and flexible site management. Overall, the study contributes to the field of cultural tourism by aligning satisfaction analytics with heritage site operations. Strategic proposals aim to strengthen visitor engagement and reposition Bourbon sites within the global tourism landscape, supporting sustainable and visitor-focused growth for Southern Italy's cultural tourism sector.

Keywords: Cultural startups, visitor experience, heritage tourism, entrepreneurial opportunities, digital engagement

Barriers to Web3 Technologies in Museums: A Qualitative Study in Turin

Chiara Vandoni, Guido Perboli

Politecnico di Torino, Turin, Italy

Abstract

The museum sector is undergoing a significant digital transformation, accelerated by the COVID-19 pandemic, which exposed vulnerabilities such as revenue losses and reduced visitor engagement. Emerging Web3 technologies, including blockchain and Non-Fungible Tokens (NFTs), offer potential solutions for monetization, visitor engagement, and accessibility. However, adoption in Italian museums remains limited. This study explores the barriers to Web3 technology adoption from an institutional perspective, using qualitative interviews with 23 museum professionals, including directors and curators. Key findings reveal multifaceted challenges, including skepticism about the added value of NFTs, perceived technological complexity, financial constraints, and regulatory uncertainties related to copyright and data protection. Cultural concerns also emerged, with some stakeholders fearing that digital innovations might compromise museums' traditional roles or lead to excessive commercialization. The study aligns these themes with the Unified Theory of Acceptance and Use of Technology (UTAUT), extending the model to include sector-specific factors.

The research highlights the tension between innovation and tradition in museums, emphasizing the need for compelling use cases, robust regulatory guidelines, and dedicated funding to facilitate adoption. By contextualizing Web3 adoption within UTAUT, this study provides a theoretical foundation for future empirical investigations and practical insights for museums navigating digital transformation. The findings underscore the importance of balancing technological advancement with cultural preservation, ensuring that digital tools enhance rather than overshadow the core mission of museums as custodians of heritage and education. This study contributes to a broader debate on technology adoption in cultural institutions, particularly in contexts with strong historical traditions such as Italy.

Keywords: Cultural Ecosystem, UTAUT, Web3, NFT, Digital Transformation

Artificial Intelligence and Value Co-creation in Museums: Promoting Inclusion for People With Disabilities

Amelia Napolitano, Laura Clemente, Francesco Bifulco

University of Padua, Padua, Italy

Sapienza University of Rome, Rome, Italy

Federico II University of Naples, Naples, Italy

Abstract

The present study investigates the potential of Artificial Intelligence (AI) to foster inclusive cultural value in Italian museums, focusing on addressing the physical, sensory and cognitive barriers encountered by visitors with disabilities. The research employed a multiple-case qualitative design, engaging more than twenty museums through a semi-structured online questionnaire administered to accessibility managers. The museums varied in governance, location, and thematic focus, but all were committed to accessibility. The findings demonstrate a robust theoretical understanding of AI's potential to personalise experiences. However, its practical implementation remains predominantly experimental, constrained by infrastructural limitations, organisational rigidity and financial constraints. A significant proportion of institutions engaging with AI, specifically 87.5%, reported incorporating co-design processes with individuals living with disabilities. This finding serves to emphasise the pivotal role that participatory approaches play in ensuring technological solutions are aligned with the needs of the end-users. From a governance perspective, the study posits that truly inclusive innovation necessitates a systemic strategy: museums must invest not only in technological infrastructure but also in interdisciplinary processes that facilitate collaboration among curators, technical specialists and disability-community representatives. Furthermore, the sustainable integration of AI tools necessitates a coordinated commitment across multiple institutional levels, encompassing individual museums, governmental bodies, and disability-rights organisations, to ensure the availability of adequate resources, expertise, and policy support. To strengthen the evidence base, it is recommended that future research should expand the empirical scope by testing the proposed framework on a larger, more diverse sample of cultural institutions and by conducting longitudinal studies to track the long-term impacts of AI-driven accessibility initiatives. The work under discussion here establishes the foundations for human-centred technological innovation that extends beyond the scope of pilot projects and integrates inclusivity as a fundamental element of museum practice.

Keywords: Accessibility, Artificial Intelligence, Value co-creation, Museums, Person with disabilities

Let Me Entertain You: Managing Socially Sustainable Experience Economy Ecosystems

Heini Merkkiniemi

Tampere University MAB, Tampere, Finland

Abstract

This research aims at exploring and understanding the complex contemporary phenomena of socially sustainable Experience economy. It contributes to the academic discussion around Experience economy research, strategy and policy by developing understanding about managing social sustainability within Experience economy ecosystems in Finland. The core question of this doctoral thesis is how to ensure everyone equal access to Experience Economy Ecosystems?

The context of this research is the new Experience Economy research program conducted at Tampere University. This article is part of a doctoral thesis, focused in specifically on industry phenomenas Accessibility of Experience and Paths and Communities of Experience. The Experience economy research program generates a rich empirical context and metadatabase highlighting the ongoing transformation and market development within the uprising Experience Economy ecosystems in Finland.

In this article experience economy is studied through social sustainability and in specifically inclusivity, to identify and analyse the mechanisms for managing social development goal SDG implementation within the experience economy ecosystems. Empirical data is drawn from OAF Outsider Art Festival. OAF is a new multidiscipline art festival, organized in conjunction with the largest Nordic art festival Helsinki Festival. OAF promotes diversity, equity and inclusion (DEI) and contributes to Social Development Goal implementation (SDG) by managing innovative collaborations between industry outsiders and insiders. OAF provides an interesting case - an industry specific critical “node” -within the EE ecosystem, providing new knowledge from the perspective of industry outsiders.

In result, by identifying, analysing and mapping the critical nodes, access points and stages where social transformation and inclusivity actualise and create socially sustainable, experience driven business models, this research creates new knowledge of managing social sustainability within Experience economy ecosystems and networks, in research and practice. This research contributes to Sustainable Development Goals (SDG): Sustainable cities and communities (11), reduced inequalities (10), partnerships for the goals (17), industry, innovation and infrastructure (9), decent work and economic growth (8).

Keywords: Experience economy ecosystems, social sustainability, inclusion, co creation, festival management

Redefining Middle Management: How Generative AI Reshapes Roles and Competencies

Jean-Baptiste Philippe

Aix-Marseille University, Aix-en-Provence, France

Abstract

This ongoing research investigates how Generative Artificial Intelligence (GAI) technologies are reshaping the roles and competencies of middle managers. While much of the existing literature emphasizes macro-level impacts of AI—such as productivity gains and strategic transformation—this study focuses on micro-level changes, particularly managerial adaptation, decision-making, and skill reconfiguration.

Grounded in activity theory (Engeström, 1987, 2001) and informed by a critical realist epistemology, the study adopts a qualitative, inductive approach. Data is being collected through semi-structured interviews with middle managers from three contrasting organizational contexts: a large enterprise in the energy sector (30 interviews), a medium-sized digital services firm (15 interviews), and a small telecommunications company (15 interviews). This multi-site design enables the analysis of systemic tensions across different governance models and organizational cultures.

Preliminary findings reveal that middle managers are often at the forefront of GAI experimentation, initiating Bottom-Up innovation processes outside official IT channels. These informal practices—frequently associated with Shadow IT—allow for agile problem-solving but also pose significant risks in terms of data security and strategic misalignment. Managers report that GAI tools not only automate routine tasks but also support cognitive structuring, thereby transforming how they plan, communicate, and lead.

The integration of GAI calls for hybrid competencies that go beyond technical know-how. Conceptual skills (e.g., sense-making and system thinking), human skills (e.g., empathy, leadership, conflict mediation), and ethical awareness are increasingly vital. Middle managers thus emerge as key facilitators of digital transformation, mediating between frontline innovation and top-down strategic frameworks.

This paper contributes to the literature by offering a multi-dimensional reading of managerial transformation through the lens of activity theory. It proposes actionable insights for organizations aiming to responsibly integrate GAI, emphasizing the need for adaptive governance, targeted upskilling, and the creation of experimental safe zones. Future work will extend the dataset and explore longitudinal trajectories of GAI adoption and governance.

Keywords: Generative Artificial Intelligence (GAI); middle managers; organizational transformation; Shadow IT; managerial competencies

A (Fun)Nel Model for Knowledge Management

Gianluca Gherardi

University of Naples Federico II, Naples, Italy

Abstract

Think of a funnel. What is its shape? What does it do? It has a large end, larger and larger that allows many elements to pass through, such as grains of sand or kernels of rice; and it has a narrow end, narrowing to block the passage to most of them; funnel has a simple but useful function: it serves to pour a big mass of parts into a container with a small opening. This is, when you think about it, the same principle behind human information processing and knowledge management. This paper proposes a funnel-shaped conceptual framework, that integrates three dimensions of knowledge: complexity; intelligibility; innovability; as the three dimensions of the funnel. Such framework provides a more comprehensive form of understanding complex institutions, both political and economic. It highlights, also, the interaction between information and institutions, and how it can impact human behaviour.

Keywords: Information, Knowledge, Complexity, Relational language, Lateral thinking.

Dynamic Analysis of Generative AI Innovation Architecture System

Ju-We Chen, MeiYi Winnie Song

Shih Chien University, Taipei, Taiwan

Abstract

The rapid development of Generative Artificial Intelligence (Generative AI) in recent years has had a profound impact on industrial innovation and decision-making models. However, the application of Generative AI involves complex dynamic variables, such as algorithm optimization, data quality, corporate adoption willingness, and policy regulations. To gain a comprehensive understanding of its innovation framework and development trajectory, this study employs System Dynamics (SD) methodology to construct a dynamic model of the Generative AI innovation framework, exploring the impact mechanisms of key factors such as technological evolution, market demand, policy environment, and resource investment on system development.

The study findings indicate that the development of Generative AI is driven by both technological advancements and market feedback, with corporate adoption rates and technology maturity exhibiting nonlinear growth. Additionally, policy and regulatory frameworks have a time-lag effect on Generative AI—overregulation may hinder innovation, whereas well-designed incentive mechanisms can facilitate technological breakthroughs and industry applications. Through system dynamics analysis, this study establishes an adaptable innovation framework, providing valuable insights for enterprises and policymakers to optimize AI application strategies and promote sustainable innovation development.

Keywords: Generative AI, Innovation Framework, System Dynamics, Technological Development, Policy Regulation

The Impact of AI-Enabled Aquaculture Innovation Framework on Sustainable Development (ESG) – A System Dynamics Perspective

Chi-Yuan Lin, Ju-We Chen, Hsiao-Chi Wu

Fisheries Research Institute, Keelung City, Taiwan

Shih Chien University, Taipei, Taiwan

Ming Chuan University, Taoyuan City, Taiwan

Abstract

With the rapid development of the global aquaculture industry, traditional farming models face challenges such as environmental pollution, excessive resource consumption, and ecological imbalance. Under the Environmental, Social, and Governance (ESG) framework for sustainable development, AI and AIoT technologies are regarded as key innovative tools to enhance aquaculture efficiency and environmental sustainability. This study employs System Dynamics (SD) methodology to construct a dynamic model of the AI-enabled aquaculture innovation framework, exploring how AI technologies—such as intelligent monitoring, smart control, data-driven decision-making, and situational dashboards—affect water quality management, feed optimization, ecological balance, and economic benefits. Additionally, it analyzes the impact of policy support and market demand on ESG sustainability goals. The study results indicate that AI-enabled technologies can effectively enhance resource management in aquaculture farms, reduce water pollution and carbon emissions during farming processes, and improve production efficiency and operational stability through real-time monitoring and predictive analytics. Moreover, policy and market incentives play a crucial role in promoting AI adoption, where appropriate subsidies and regulatory measures can accelerate industry transformation. The system dynamics analysis in this study provides a comprehensive perspective to assist aquaculture operators and agricultural policymakers in formulating economically viable and sustainable aquaculture strategies, fostering both industry growth and environmental sustainability.

Keywords: AI-enabled, Aquaculture, System Dynamics, ESG, Intelligent Dashboard

AI-Enhanced Data Platforms: Transforming Knowledge Management in Waste Management Organizations

Francesco Pucci, Giuseppe Roberto Marseglia, Alberto Irace,
Federico Chmet

Department of Mathematics and Computer Science “Ulisse Dini”, University of Florence,
Florence, Italy

Department of Civil Engineering and Architecture, University of Pavia, Pavia, Italy

Department of Management “Valter Cantino”, University of Turin, Turin

Abstract

This paper examines the transformative impact of AI-enhanced data platforms on knowledge management (KM) within waste management organizations, focusing on the case of Alia Servizi Ambientali SpA in Tuscany, Italy. Utilizing a qualitative case study approach that combines on-site observations, stakeholder interviews, and system data analysis, our research demonstrates that AI integration significantly optimizes operational efficiency by consolidating diverse data streams, from IoT sensors monitoring waste receptacles to vehicle fleet metrics, into a unified, high-quality repository. The platform employs a medallion architecture to ensure data quality, enabling predictive analytics that improve route optimization, reduce vehicle movements, and lower carbon emissions. Beyond these practical benefits, the study advances theoretical insights by proposing a framework that situates AI-driven KM within broader governance and ethical contexts, contrasting traditional approaches with the dynamic capabilities of AI technologies. Despite the inherent limitations of a single-case design, our findings provide a strategic blueprint for leveraging AI-enhanced data platforms in waste management. They underscore the critical role of robust governance frameworks, leadership commitment, and targeted training in aligning technological capabilities with evolving KM practices, ensuring the sustainability and scalability of digital transformation initiatives.

Keywords: Artificial Intelligence, Knowledge Management, Data Platforms, Waste Management, Digital Transformation

The Role of AI and Emerging Technologies in Transforming Knowledge Management

Gianluca Aquilone, Vincenzo Varriale, Antonello Cammarano,
Francesca Michelino, Mauro Caputo

University of Salerno, Fisciano (SA), Italy

Abstract

Knowledge is one of the most valuable assets in modern organizations. However, its intangible and evolving nature makes it challenging to capture and leverage. Knowledge management (KM) is the organized, systematic process that acquires, refines, organizes, and applies this knowledge to improve organizational success and secure long-term competitive advantage. As data volume and complexity continue to grow, conventional systems have proven insufficient to harness the full potential of knowledge assets. As a result, emerging technologies have become indispensable, providing agile, scalable, and intelligent solutions. However, much of the existing research often examines these technologies in isolation, considering artificial intelligence (AI) and others as standalone entities, failing to reveal the synergies that emerge from combining them. This limitation is further complicated by the nature of common research approaches: literature reviews, while offering broad theoretical insights, are typically too abstract to inform practical application; meanwhile, case studies, though grounded in real-world scenarios, often lack generalizability due to their strong context-specific focus. This study addresses these gaps by investigating how AI and complementary, emerging technologies redefine KM areas. Drawing on 1,487 documented business practices—comprising case studies, pilot projects, and simulation models—derived from literature, this research focuses on five critical KM phases: knowledge creation, acquisition, organization, transfer, and application. Conceptually, knowledge is created or acquired, then captured, organized, and preserved for the long term, transferred to those who need it, and finally applied to produce value. Finally, these practices are analyzed through association analysis via Cramér's V to quantify the strength of relationships between AI (whether used alone or alongside other technologies), business functions and the different KM areas. Theoretically, the findings advance KM research by demonstrating which technological combinations are more effective in each KM phase. From a managerial perspective, the emerging practices examined in this study offer real-world examples of how these integrated solutions can be successfully deployed, allowing managers to draw from documented practices rather than starting from scratch.

Keywords: Artificial Intelligence, Emerging Technologies, Knowledge Management, Blockchain, Internet of Things

Do Organizations Struggle to Implement AI in Knowledge Management Systems? Initial Empirical Insights

Maayan Nakash, Ettore Bolisani

Bar-Ilan University, Ramat Gan, Israel

University of Padova, Vicenza, Italy

Abstract

Previous studies have highlighted the numerous benefits of artificial intelligence (AI) models in enhancing the management of organizational knowledge assets. However, the adoption of AI in organizational settings often encounters significant barriers that hinder its optimal implementation. This paper presents preliminary findings from a timely study that uniquely focuses on the perceived obstacles at the intersection of AI and knowledge management (KM) in organizations. Our objective was to understand the perspectives of employees and managers regarding four dimensions of barriers and challenges in integrating AI technologies into knowledge management systems (KMSs) in business: human, technological, financial, and ethical-regulatory. A voluntary and anonymous online questionnaire was completed by 378 respondents from various industries. The results reveal that financial barriers were reported to be the least significant by both regular employees and managers. Instead, nearly half of the participants expressed concerns about technical barriers, particularly the inadequacy of their organizations' technological infrastructure to support AI applications effectively. A significant percentage of 82.28% of the sample mentioned organizational barriers, specifically noting that employees lack the necessary skills to leverage AI for enhancing organizational KM. Furthermore, nine out of ten respondents indicated that a substantial cultural shift is essential for facilitating AI adoption within their organizations. Concerns about the potential leakage of sensitive information due to AI usage were significant, with approximately two-thirds of respondents highlighting this issue. Additional ethical barriers were prominent, with three out of four participants reporting a lack of clear organizational procedures to ensure information security and privacy in AI applications. These findings have significant theoretical and practical implications for the discipline of KM in general, and for KMSs in particular. These findings lay a fertile ground for future empirical investigations into the relationship between AI and KM.

Keywords: Artificial Intelligence, AI Adoption, Technology Adoption, Challenges, Implementation, Knowledge Management Systems

How Artificial Intelligence Technologies Support the Management of Knowledge, Skills and Attitudes of Employees: A Systematic Literature Review

Maria Rosaria Sessa, Valentina Cicalese, Roberto De Luca, Claudio Del Regno, Ornella Malandrino

University of Salerno, Fisciano (SA), Italy

Reald University College, Vlorë, Albania

Abstract

This research paper is focused on the main topic of how Artificial Intelligence (AI) can support the management of Knowledge, Skills and Attitudes (KSA) of employees considering that human resources is an important element in organizations based on Corporate Social Responsibility. Artificial Intelligence is a technology increasingly used in companies to make production processes autonomous, but also useful to explore how employees' Knowledge, Skills and Attitudes are developed. This paper aims to provide a Systematic Literature Review (SLR) about how Artificial Intelligence technologies can support the management of knowledge, in a particular way the competences of employees. For this reason, the main aim of this research work is to create a better understanding of the relationship between Artificial Intelligence and Knowledge, Skills and Attitudes in the job market. By using the Scopus database, we have generated some 138 papers. Also, we have filtered these documents collected by using the Prisma model identifying some 53 documents. By applying the Quality Assessment (QA) a total of 46 documents were not included in this selection of extracted papers as they did not correlate thematically with the topic of the research work. Based on this methodological approach, some 7 papers have been selected. From the results it was possible to partially answer the research question posed, confirming that artificial intelligence technologies can support employees' Knowledge, Skills and Attitudes management. Finally, the paper concludes with limitations of the research and lines of future research have been developed.

Keywords: Artificial Intelligence, Competences, KSA, Prisma Model, Systematic Literature Review

Rethinking Knowledge Management: AI's Revolutionary Impact on Strategic Management and Corporate Intelligence

Mirko Perano, Claudio Del Regno, Marco Pellicano, Agim Mamuti

University of Salerno, Fisciano (SA), Italy

Reald University College, Vlorë, Albania

Western Balkan University, Tiranë, Albania

Abstract

The technological revolution of the last 5 years was characterized by an impressive acceleration on data processing and computation power. The emerging technologies (such as machine and deep learning, Internet of Things, big data and others) have been integrated with Artificial Intelligence (AI) determining challenges and opportunities for Industry 5.0 and Society 5.0. This integration within the new two paradigms can strongly improve the strategic and tactical capabilities of the organizations (industrial side) and improve the wellbeing of the citizens (society side). In this highly technological era knowledge driven, companies and public organizations need to focus attention to build a sustainable competitive advantage to ensure that value will be co-created overtime. They need information and data to be processed and obtain knowledge to be used to characterize strategic design and processes also including risk evaluation. In doing so, they must determine and maintain a dynamic balance in the interaction between human and artificial intelligence, both in strategic decisions and in operations. The need for organizations to integrate Corporate Intelligence systems to maximize strategic action and obtain real value not too far from that planned at the level of deliberate strategy is increasingly emerging. This is in order to generate economic, social and environmental value that mutually impacts industry and society enhancing the competitive advantage for private and public organizations and the wellbeing for the citizens. Therefore, the aim of this paper is threefold: explore the existing literature on the relationship between artificial intelligence and Knowledge Management; secondly, identify possible patterns among the ways to facilitate the processes of knowledge creation, between humans and artificial intelligence; and finally, investigate possible implications of such relationship in the areas of Strategic Management and Corporate Intelligence. To this end a Systematic Literature Review has been carried out by using Scopus and Web of Science databases to identify the papers that focused on the topics of Artificial Intelligence, Emerging technologies, Ethics, Industry and Society (from 1.0 to 5.0 level). Furthermore, from the results it has been possible to develop a theoretical framework and discussions in response to the research question. Conclusions include both theoretical and practical implications, limitations and possible future research lines.

Keywords: Artificial Intelligence; Corporate Intelligence; Emerging technologies; Knowledge Management; Strategic Management

Role of Artificial Intelligence in Organizational Knowledge Creation in PSFs: A Semi-Systematic Review

Shuyun Zhao, Krishna Venkitachalam

Estonian Business School, Tallinn, Estonia

College of Business Administration, Ajman University, UAE

Abstract

Organizational knowledge creation (OKC) plays a significant role in driving innovation, especially for professional service firms (PSFs). However, despite the growing use of Artificial Intelligence (AI) in organizations, the intersection between AI and organizational knowledge creation remains underexplored. This study aims to explore AI's role in organizational knowledge creation, using Nonaka's SECI model as the theoretical lens.

This study conducts a semi-systematic literature review to synthesize insights from AI, OKC, and PSFs. The preliminary search yielded few results at the intersection of these three domains; therefore, a pairwise searching strategy was adopted, in combination with backward snowballing method, to identify relevant papers. An in-depth qualitative content analysis was conducted - recurring literature concepts were identified and categorized to highlight AI's potential in organizational knowledge creation.

According to the study findings, AI's role in organizational knowledge creation can be auxiliary, augmentative, or adaptative, depending on the SECI model's conversion mode. The characteristics of PSFs poses both challenges and entry points for AI. Based on the insights, a conceptual framework integrating AI into organizational knowledge creation within the context of PSFs is developed. The framework maps the three role types onto the four modes of the SECI model and identifies four corresponding outcomes. Several limitations must be acknowledged: first, the study limits to using the SECI model as the theoretical lens; second, empirical findings are not evident; lastly, the findings may not be generalizable to non-knowledge-intensive sectors. Conceptually, this study broadens the understanding of the SECI model in the era of AI, giving fresh insights into AI's role in OKC within PSFs. In practice, it helps PSFs to effectively use AI for creating new organizational knowledge.

This study incorporates AI into the traditional SECI-based framework of organizational knowledge creation. As AI technology advances, future studies are encouraged to further investigate the role of AI in organizational knowledge creation from different perspectives.

Keywords: artificial intelligence, organizational knowledge creation, SECI, professional service firms

AI-driven Value Creation in Innovation Ecosystem, insights from Stakeholder Theory

Maria Elena Latino, Maria Chiara De Lorenzi, Maria Laura Giangrande

Naica S.C, Lecce, Italy

University of Salento, Lecce, Italy

Abstract

In the era of Industry 5.0, artificial intelligence offers new opportunities for co-creation, personalization, collaboration and integration. These affect companies' Business Model Innovation strategies, supporting progress in the interactions between sets of actors, populations, activities, institutions and networks impacting the entire innovation ecosystems. Positioning itself in the research stream focused on analysing the impact generated by emerging technologies in the innovation of business ecosystems, this study aims of discussing the impact generated by artificial intelligence in business model innovation, reflecting on the salience of the involved stakeholders. A three-phase methodological approach was used, integrating a systematic literature review with a case study analysis. The related findings were discussed according the stakeholder theory basing on the salience attributes of power, legitimacy and urgency. This approach allowed us to establish a strong theoretical foundation while anchoring our findings in real-world example. Seven artificial intelligence-based value creation innovations were identified, demonstrating how artificial intelligence-based applications are transforming value creation mechanisms. Findings indicate that artificial intelligence has the potential to generate significant added value, primarily by enhancing value creation through data exploitation and the high degree of services customization tailored to customer needs. Moreover, new value streams emerge from artificial intelligence-based applications, driven by the widespread adoption of the technology across innovation ecosystems. This diffusion influences and engages stakeholders at every layer of the ecosystem's structure. Stakeholders are classified as Discretionary (Standards Bodies, Public Bodies), Demanding (Distribution Channels, Research Institutes), Dangerous (other suppliers), Dependent (Suppliers), Definitive (Core Organization, Customers, Complementors). Notably, no stakeholders were identified that align with the Dormant or Dominant categories.

Keywords: Stakeholder Identification and Salience, Society 5.0, Advanced technologies, Business Model Innovation, Value strategies

Exploring the Interplay between Industry 5.0 and Digital Innovation Ecosystem: A Critical Literature Review

Domenica Barile, Maria Chiara De Lorenzi, Maria Elena Latino,
Giustina Secundo

LUM Giuseppe De Gennaro, Casamassima (BA), Italy
University of Salento, Lecce (LE), Italy

Abstract

The intersection of advanced digital technologies and innovation ecosystems is driving the transition to Industry 5.0 (I5.0), a paradigm shift emphasizing human-centricity, sustainability, and resilience. Unlike Industry 4.0, which focused on automation, I5.0 promotes inclusive and ethical innovation. Through a Systematic Literature Review and bibliometric analysis, this study identifies three thematic clusters. The first, Resilience, explores how technologies like digital twins, AI, and predictive analytics enable adaptive responses to disruptions, enhancing operational continuity. The second, Sustainability, highlights the role of blockchain, IoT, and intelligent systems in supporting circular economy models and reducing environmental impacts. The third, Human-centricity, examines the integration of collaborative robots, HCPS, and wearable technologies to improve worker well-being and inclusion. These clusters demonstrate how I5.0 technologies can shape more inclusive and sustainable innovation ecosystems. The paper concludes with a future research agenda and offers a structured framework for aligning technological innovation with societal goals, contributing to the evolution of the I5.0 discourse.

Keywords: digital technologies, emerging technologies, innovation ecosystem, industry 5.0, innovation 5.0

Empowering Recognition of Clean-Tech Startup Potential to Address the Climate Change Problem: An Agent-Based Simulation

Gerardo Luisi

University of Naples "Parthenope", Napoli, Italy

Abstract

Recent research has highlighted the growing importance of cleantech start-ups and sustainable entrepreneurial ecosystems in the development of innovative sustainable technologies. This paper investigates cleantech startups within the framework of sustainable entrepreneurial ecosystems, drawing on the classification of startups that develop innovative, environmentally beneficial technologies. Prior studies have highlighted the influence of ecosystem dynamics, including the roles of intermediaries, government, universities, and corporations, on the emergence and success of green startups (De Marchi et al., 2012; Arfi et al., 2018; Theodoraki et al., 2022; van Rijnsoever, 2022; Nylund et al., 2022). Despite these insights, the literature reveals gaps in understanding how sustainable value is recognized and evaluated within these ecosystems, with superficial assessments sometimes leading to unintended negative environmental consequences (Zink et al., 2017). To address this, the present study explores how the quality and diffusion of environmental impact evaluation practices affect entrepreneurial ecosystem mechanisms. Employing an agent-based modeling approach, the research simulates the interactions of ecosystem actors and the influence of environmental scoring on investment flows and startup evolution. The findings aim to clarify the systemic effects of robust environmental impact evaluation, offering theoretical, managerial, and policy implications for fostering responsible innovation and sustainable development in entrepreneurial ecosystems.

Keywords: Cleantech Start-up; Sustainable Value Recognition; Sustainable entrepreneurial Ecosystem; AI; Agent-Based Model

Who Drives Regional Innovation: Public or Private Actors?

Puliga Gloria, Primario Simonetta

LIUC Cattaneo University, Italy

University of Naples Federico II, Naples, Italy

Abstract

In an increasingly competitive and globalized economy, continuous innovation represents a key lever for regional development. This study examines how the dimensions of intellectual capital (IC), i.e. human, structural, and relational, encompassing both private and public assets, contribute to regional innovation outcomes, with a specific focus on small and medium-sized enterprises (SMEs). Building on the lens of Complex Adaptive Systems, the paper addresses the configurational and context-specific nature of innovation dynamics at the territorial level. The study employs fuzzy-set Qualitative Comparative Analysis (fsQCA), using data from Italian regions (NUTS 2). The analysis identifies multiple causal pathways through which various combinations of public, private, and hybrid IC components influence the likelihood that SMEs introduce product and process innovations. Human capital, particularly in its private and hybrid forms, is a consistently necessary condition across innovation types.

Keywords: Intellectual Capital, Regional Innovation, Public Actors, Private Actors, Italy

The Role of Circular Startups in Circular Innovative Ecosystems: an Italian Multiple Case Study

Roberto Cerchione, Patrizia Ghisellini, Renato Passaro, Ivana Quinto, Viviana Sicardi

University of Naples Parthenope, Naples, Italy

Abstract

The transition toward sustainable and circular economic models has prompted increasing interest in the role of circular start-ups as key agents of innovation. However, the contribution of circular start-ups within sustainable entrepreneurial ecosystems remains underexplored, particularly through the lens of complex adaptive systems theory. This paper aims to address this gap by investigating how circular start-ups act as catalysts for the development and evolution of SEEs, emphasizing their capacity to foster systemic sustainability transitions through innovation, collaboration, and adaptability. Notably, SEE aims to promote entrepreneurial initiatives that prioritise economic, environmental, and social sustainability, thereby playing a pivotal role in the transition to a sustainable economy. According to the complex adaptive system theory, a SEE can be described as a dynamic network of interconnected actors in continuous evolution, wherein the complex nature of the 'system' increases as the number of components and their interactions grow. Adopting a qualitative, multiple case study methodology, this research analyses three Italian circular start-ups operating in different sectors, namely agriculture/food, bio-construction, and fashion/textile. Data were collected through semi-structured interviews, company websites, and secondary sources, enabling triangulation and robust thematic analysis. Findings reveal that circular start-up show several features that align closely with the principles of CAS, where macro-level behaviours emerge from decentralized interactions among diverse agents. Moreover, the open boundaries of SEEs facilitate the integration of circular strategies within local contexts while maintaining scalable and collaborative frameworks. The study contributes to the literature by bridging entrepreneurship, circular economy, and complex adaptive system theory, offering a wider understanding of how circular start-ups can drive ecosystemic change.

Keywords: Circular Economy, Circular startups, Digital technologies, Innovation Ecosystems

Can Artificial Intelligence Support Companies in Implementing Sustainable Innovation Strategies? Evidence from Agri-Food Companies

Marta Menegoli, Damiano Calò, Angelo Corallo

University of Salento, Lecce, Italy

Abstract

The agri-food industry is currently facing significant global challenges, including climate change, resource depletion, and growing demands for food security. In response to these challenges, sustainable innovation has become a critical focus for the industry. Sustainable innovation refers to the development and adoption of new technologies, practices, and business models that aim to improve environmental, social, and economic outcomes. One of the most promising technologies for supporting sustainable innovation is artificial intelligence (AI), which has the potential to enhance various aspects of sustainability within the agri-food sector. This study explores the role of AI in supporting sustainable innovation strategies and practices in the agri-food industry, with a focus on understanding how AI can help optimize processes, reduce waste, improve resource management, and foster more sustainable business models.

To achieve this, a comprehensive systematic literature review was conducted, analyzing seventy-three peer-reviewed articles related to AI applications in the agri-food industry. Through this analysis, the study identifies six main clusters of strategies that are currently being employed to drive sustainability in the sector. These strategies include optimizing production processes, improving supply chain efficiency, enhancing product traceability, and advancing precision agriculture practices. Additionally, the study highlights the role of AI in supporting twenty-four specific practices within these strategies, such as predictive analytics for crop yield forecasting, AI-driven waste reduction systems, and AI-based monitoring tools for environmental impacts.

However, the findings also reveal significant gaps in the application of AI, particularly the lack of support for circular economy approaches, which focus on reducing waste and reusing resources throughout the supply chain. This gap presents an opportunity for further research into how AI can be leveraged to support circular practices within the agri-food industry. The study provides a foundation for future exploration into the integration of AI and sustainable innovation, offering insights for both researchers and practitioners seeking to improve sustainability in the agri-food industry.

Keywords: AI, Business Strategy and Operation, Sustainability

Analyzing the Excellence in the Agrifood "Made in Italy": The Italian High-Quality Wine Value Chain and the Role of New Technologies

Sergio Conterjnic, Cristina Simone, Antonio Laudando

Sapienza University of Rome, Rome, Italy

Abstract

This paper focuses on the high-quality wine value chain, one of the most relevant for the Italian agrifood sector. One of the important triggers for the recognition of the different types and qualities of wines and their identity, both in the domestic and the international markets, was the introduction and adoption of the controlled appellation system: DOC (Denominazione di Origine Controllata, Controlled Designation of Origin) and DOCG (Denominazione di Origine Controllata e Garantita, Controlled Designation of Origin Guaranteed). The paper has two aims. The first aim is to provide an accurate analysis of the strategic successful factors of the DOC and DOCG Italian wine value chains. A deep analysis of the vertical integration within the value chain is developed together with an analysis of the strong ties in the horizontal integration, particularly regarding the defense and standing of the DOC and DOCG system. Furthermore, a cross-analysis of successful factors in the DOC and DOCG wine value chains enlightens the key strategic elements of success. Regarding the second aim, this paper examines the key role of digital business platforms in facilitating information exchange, market access and consumer engagement in the high-quality Italian wine industry. The role of the digital platforms in the high-quality wine value chain is more and more increasing in terms of sales channels, strategic tools for transparency, traceability, and direct-to-consumer engagement. The paper provides useful contributions for scholars and practitioners. Concerning scholars, the paper integrates the extant literature on high-quality wines, clearly identifying the sources of advantages of DOC and DOCG wines. Concerning practitioners, the paper provides a multidimensional strategic framework of analysis to support the main stakeholders within the high-quality wine ecosystem in adopting sustainable and regenerative practices for a higher co-creation of value in the value chain. Eventually, the paper provides suggestions for future research paths.

Keywords: Agricultural Value Chains, Agrifood, High-quality wines, Digital business platforms

Exploring the Preliminary Conditions for Blockchain Credibility in the Agri-food Industry

Adriana Baselice, Alessandra De Chiara, Sofia Mauro

University of Naples L'Orientale, Naples, Italy

Abstract

The traceability of product sourcing and production processes has become a crucial need for the Agri-food Industry, where stakeholders - particularly consumers - increasingly demand guarantees on product quality and authenticity. Blockchain technology, given its characteristics of immutability and transparency, can play a key role in solving issues related to traceability and information asymmetry, which undermine security and stakeholder trust in companies, as well as in promoting corporate social sustainability. The present study aims to fill a gap in literature by focusing on the operational application of this technology, with particular attention to the issue of credibility of the raw data entered into the system. To this end, a qualitative approach is adopted based on a multiple case study conducted through secondary data, integrated with primary data collected through a focus group. The work has a twofold objective: on the one hand, to explore the motives and goals that drive companies to implement Blockchain technology; on the other hand, to identify the preliminary conditions that ensure its operational effectiveness and credibility in the eyes of stakeholders. The results suggest that traceability is the main reason why companies decide to implement Blockchain technology, with the goal of ensuring product authenticity and transparency to the consumer. In addition, two sets of factors - operational and validation - were identified as key preconditions for effectively implementing a credible Blockchain information system. The study contributes to a deeper understanding of the operational application of Blockchain in the agri-food sector, providing relevant theoretical and practical implications.

Keywords: Blockchain Technology, Agri-Food Industry, Traceability, Credibility, Social Sustainability

Multi-Criteria Decision-Making to Evaluate Sustainability and Performance in the Agri-Food Supply Chain

Gerarda Fattoruso, Antonio Violi, Massimo Squillante

University of Foggia, Foggia, Italy

University of Sannio, Benevento, Italy

Abstract

Mathematical modeling of complex problems, with particular attention to multi-criteria and optimization models, is particularly effective for analyzing critical issues in the agri-food supply chain. These tools allow analyzing problems of different nature through the use of qualitative and quantitative criteria, often conflicting with each other, and decision alternatives. Their versatility allows adapting solid theoretical constructs to different contexts and application areas, ensuring a modeling that takes into account the peculiarities of the problem under examination. In fact, multi-criteria analysis tools and optimization models allow supporting decision makers in the different phases that characterize the agri-food supply chain. This work addresses in particular the decision problem related to the transition of agri-food products from the storage to the marketing phase, using the Analytic Hierarchy Process (AHP) method. Once the products have undergone transformation processes, they are stored in one or more warehouses for distribution to commercial activities. There are several choices to be made in this phase, including the choice of the commercial establishments in which to distribute the products. In particular, the use of the AHP method is proposed for the analysis of a decision problem relating to the choice of the warehouse distribution with respect to four different commercial establishments (alternatives) that sell directly to the final consumer. A sensitivity analysis is conducted to test the robustness of the method. Through the analysis of a practical case, it is highlighted how the agri-food supply chain is a very complex context, in which the competitiveness of organizations is based on the ability of the decision maker to identify problems, imagine alternatives and adopt solutions. It is also highlighted that these tools, if correctly implemented in organizations, allow the start of an organizational learning process, reducing the costs associated with decision-making errors.

Keywords: Multi-criteria Decision Making, Decision Support Systems, Decision Analysis, Agri-food Supply Chain

The Role of Intelligent Packaging in Reducing Food Waste: A Consumer Behaviour Analysis

University of Naples Federico II, Naples, Italy

Abstract

This study explores how consumers perceive and respond to smart packaging technologies as a practical solution to the growing issue of food waste. While traditional food packaging plays a role in preservation, it often lacks the ability to communicate real-time information about freshness or quality.

Smart packaging, which includes technologies such as sensors, freshness indicators and traceability systems, allows for real-time monitoring of product quality, providing consumers with essential information to make more informed decisions and extend the shelf life of food products.

To understand the factors influencing consumers' intention to adopt these technologies, the research adopts an extended version of the Technology Acceptance Model (TAM). In addition to the classic variables: Perceived Usefulness (PU), Perceived Ease of Use (PEU) and Attitude toward Smart Packaging (ATT), the study introduces a novel variable such as Willingness to Pay (WP).

Data were collected through a structured online survey using realistic, scenario-based situations, and analyzed using Partial Least Squares Structural Equation Modelling (PLS-SEM).

The preliminary findings show that Perceived Usefulness (PU), Perceived Ease of Use (PEU) and Attitude toward Smart Packaging (ATT) significantly influence consumers' intentions to adopt such innovative solutions. Conversely, Willingness to Pay (WTP) does not show a statistically significant relationship with consumer intention.

This research contributes to the academic and practical discourse on sustainable innovation in food systems, offering insights for policymakers, businesses and technology developers aiming to promote smart packaging solutions. The study emphasizes the importance of consumer engagement and targeted strategies to support sustainable consumption patterns and reduce food loss across the supply chain.

Keywords: Food waste; Smart packaging; Consumer behaviour; Technology Acceptance Model; PLS-SEM

Organizing the Agri-Food Supply Chain to Reduce Food Waste: An Exploratory Study

Walter Vesperi, Maria Carlotta Rizzuto, Anna Maria Melina

University of Palermo, Palermo, Italy

Magna-Græcia University of Catanzaro, Catanzaro, Italy

University of Messina, Messina, Italy

Abstract

The agrifood business system, in terms of sector turnover and employment, assumes significant weight for creating economic value within local socio-economic systems, with a direct impact on population health. Furthermore, the agri-food business system is a sector that has direct repercussions in terms of public health and well-being of people. In recent years, the agrifood sector has undergone numerous changes, both regulatory and technological view. These recent changes along with growing societal awareness, have shifted the focus towards combating food waste in the agrifood supply chain. As an effect, the agrifood business system has garnered increasing attention from policymakers and scholars. Consolidated studies on agri-food business systems have focused their attention on historical and evolutionary aspects, leaving out managerial aspects such as those linked to inter-organizational relationships and the supply chain.

This preliminary study aims to offer a first analysis of the main regulatory and organizational elements within the agri-food supply chain business system. This study, through a qualitative approach, analyzes organizational actors, interorganizational relationships and sustainability-oriented strategies along the entire supply chain. The theoretical approach used is based on knowledge management studies. Adopting an exploratory research design, this study employs qualitative methods to gather in-depth insights into the dynamics of the agrifood supply chain. Given the complexity and diversity of organizational actors within the agri-food business system, this exploratory study aims to identify the main evolutionary trends—both regulatory and managerial—of the agri-food supply chain. The research adopts a qualitative methodology, drawing on secondary data sources such as industry reports, regulatory documents, and academic literature.

This study contributes to the academic and practical discourse on agri-food business system by focusing on the organizational dimensions of the issue. Unlike existing literature, it integrates these additional drivers for change, beginning with the regulatory context. The findings provide initial observations and reflections for practitioners seeking to reduce inefficiency through organizational innovation and for scholars in organizational theory. Furthermore, the proposed regulatory framework emphasizes the importance of integrating data-driven technologies and predictive analytics into decision-making processes, enabling more precise inventory management, better coordination among supply chain actors, and the development of reactive strategies to mitigate waste. These practical implications also extend to policymakers, offering pathways for creating supportive regulatory environments and incentivizing sustainable practices in the agrifood sector.

Keywords: Agri-food supply chain, food waste reduction, organizational models, digital regulation, sustainability

The Kilowatt Project: An Overview about Aims, Tools, and Key Activities

Francesco Santoro, Ada Biafore, David Toscano

Itaca S.r.l., Rende (CS), Italy

Abstract

The distribution of fresh products presents unique challenges. Kilowatt specifically aims to: optimize and improve the logistics management of the fresh product supply chain; support processes that ensure the quality and organoleptic and nutritional properties of food; reduce food waste; maximize the energy recovery of waste.

The key points of the project can be summarized as follows: business model innovation, enhanced environmental and social sustainability, optimization of the distribution chain, Smart Packaging design, and waste recycling.

The development of the new business model will focus on offering high-quality products certified for safety, authenticity, environmental impact, and strong market orientation. These products will be strategically placed in various outlets based on real-time demand analysis. A sustainable and ethical approach to food marketing will be promoted, with an emphasis on recovering waste materials to produce alternative energy, as well as redistributing unsold products to the third sector to benefit vulnerable groups in society. Logistical activities for goods distribution will be optimized to reduce travel distances, enabling the planning of deliveries over a longer time horizon, minimizing store visits, and reducing the risk of unsold goods.

Finally, smart packaging systems, composed of active wrappers designed to extend product shelf life and integrated with IoT sensors for monitoring, will be developed. Additionally, digestion matrices will be defined to maximize the energy produced from food waste.

Keywords: Sustainability, Optimization, smart packaging, sensor data, waste minimization

SME Performance through Modern Technology and Sustainable Business Strategies

Gabriela Citlalli López Torres, Octavio Hernandez Castorena, Alba Rocio Carvajal Sandoval

Universidad Autónoma de Aguascalientes, Mexico

Universidad Pontificia Javeriana, Bogota, Colombia

Abstract

This research aims to analyze how operational sustainable business strategies and modern technologies, including employee training influence performance. The methodology is a quantitative approach with a cross-sectional design. Data was collected from 207 SMEs in Aguascalientes, central region of Mexico, through a survey administered to managers or those responsible for operations (INEGI, 2024). The data will be analyzed using EQS software to assess the relationships between the variables. This research aims to provide valuable insights into the factors contributing to firms' operational performance success. The research model will be assessed by the reliability and validity of the measurement instruments using Cronbach's Alpha, Dijkstra-Henseler's rho, Composite Reliability Index, and Average Variance Extracted (AVE). So, the analysis will ensure that the constructs are distinct and not overlapping. The good fit for the proposed theoretical model will be evaluated to suggest that the relationships between the variables were adequately represented (Henseler et al., 2015). The study focuses on the crucial role of sustainable business strategies in enhancing the operational performance of SME (Buttle & Maklan, 2019; Marr, 2016; Marston et al., 2011; Sutherland, 2019). The results obtained in this study indicate that, on the one hand, the factor loading of the variables is within the norm and, on the other hand, sustainable business strategies do have a significant impact on the performance of operational activities in this type of company. This means that for manufacturing SMEs, it is very important to have a sustainable environment that allows all of their operations to be focused on the performance of their internal operating systems. The data collection period was between March and May 2024, considering a stratified random sample of companies within the state of Aguascalientes.

Keywords: SME Performance, Sustainable Business Strategies, Modern Technology, Operations Management, EQS

Proposal for an Inclusive and Sustainable Telemedicine Ecosystem in Mexico

José Octavio Contreras Sánchez, Vianney Viridiana Contreras
Sánchez, Francisco Javier Álvarez-Torres

University of Guanajuato, Guanajuato, Mexico

Abstract

The healthcare system in Mexico faces persistent and multifaceted challenges, such as the exclusion of vulnerable populations, limited access to medical services in rural and marginalized areas, and increasing pressure due to an aging population. The COVID-19 pandemic exacerbated these structural weaknesses, highlighting the urgent need to integrate innovative technological solutions that not only optimize available resources but also expand and improve access to healthcare services.

In response to these needs, a sustainable and inclusive telemedicine ecosystem was proposed, grounded in methodologies from Exponential Organizations (ExO), to ensure long-term scalability, adaptability, and effectiveness.

A diagnostic assessment using the Pan American Health Organization (PAHO) tool revealed a low level of technological maturity at the Centro Médico Puentecillas. To address these gaps, the CANVAS model was applied to redesign the center's business structure, incorporating ExO SCALE principles: staff autonomy, active community participation, and continuous user engagement.

Additionally, the proposal included the development of a digital platform for managing teleconsultations, telemonitoring, and teleassistance, integrating real-time clinical data collection to support evidence-based medical decision-making and preventive health monitoring.

The methodology focused on identifying key technological and organizational deficiencies, prioritizing intervention strategies such as digital literacy training for medical personnel and infrastructure enhancement to improve system performance and reliability.

Keywords: Telemedicine, inclusion, sustainability, Exponential Organizations, digital health, innovation, public health, technology

The Role of Human Expertise in Digital Transformation and Innovation of SMEs

Ana Lidia Quintero Ramírez, Francisco Javier Álvarez-Torres,
Giovanni Schiuma, Gabriela Citlalli López-Torres, Maria D. De-Juan-
Vigaray, Clara María Freire Margaça

University of Guanajuato, Guanajuato, Mexico

LUM University, Italy

University of Aguascalientes, Mexico

University of Alicante, Spain

Universidade Lusófona, Portugal

Abstract

Small and Medium Enterprises (SMEs) are fundamental to Mexico's economy, representing over 70% of formal employment. Despite their importance, many SMEs, particularly in traditional industries such as leather-footwear, struggle to adopt digital technologies due to outdated infrastructure, limited resources, and cultural resistance to change. The COVID-19 pandemic intensified these challenges, underscoring the need for digital transformation to ensure competitiveness and sustainability.

This study explores how SMEs in Guanajuato's leather-footwear sector can leverage digital innovation and human capital to overcome transformation barriers, enhance competitiveness, and align with sustainability goals. It examines the intersection between technology, knowledge management, and organizational culture in the context of the Fourth Industrial Revolution. A qualitative, multi-case methodology was employed, using semi-structured interviews with managers from 13 SMEs. These interviews explored four key dimensions: technological infrastructure, digital culture, challenges to adoption, and future strategies. Triangulation with academic literature ensured analytical rigor and contextual relevance.

Findings reveal that only 15% of the companies have sufficient technological infrastructure to support comprehensive digital transformation, while 70% possess only basic tools such as computers and internet access—often underutilized. A significant 85% of managers cited lack of employee training as a major obstacle. Nonetheless, companies with a strong culture of learning and openness to collaboration showed higher adaptability and up to 20% increases in operational efficiency. The pandemic also acted as a catalyst, pushing many firms toward digitalization, although often reactively.

A conceptual model was developed integrating the four dimensions of transformation, offering a framework for SMEs to navigate digital change. The study further proposes knowledge management strategies including training programs, the integration of digital tools, and collaboration with startups and government agencies. These were identified by 60% of interviewees as key enablers of sustainable innovation.

This research contributes to academic understanding of digital transformation in traditional sectors and provides actionable insights for entrepreneurs and policymakers. It aligns with IFKAD's vision of integrating human expertise and digital innovation to foster socially responsible businesses. By focusing on knowledge as a strategic asset, the study highlights the importance of human capital in driving innovation, sustainability, and long-term resilience in SMEs.

Keywords: Digital Innovation, SMEs, Human Capital, Sustainability, Industry 4.0

AI-Human Capital Balance: Wise AI Application in Higher Education

Lidia Galabova, Mina Daskalova

Technical University of Sofia, Sofia, Bulgaria

Abstract

Artificial Intelligence (AI) implementation at universities is transforming not only the administrative and teaching processes, but is also redefining the way in which Human Capital (HC) is generated. The paper will discuss how AI will impact on the evolvement of HC, and will suggest a balanced approach in AI and HC interaction and outline further development. It will consider some new HC skills needed to complement AI rather than compete with it.

The understanding of AI impact and AI-HC interactions is both critical and crucial in the search for a proper balanced model since it highlights how AI can enhance the educational and learning experience on various levels, support innovative research practices, and streamline institutional processes. However, its use in some of the activities of higher-education organisations must be carefully considered, as reliance on AI tools can potentially undermine abilities for critical thinking, creativity and empathy. By identifying both benefits and challenges, this paper aims to foster a balanced and responsible integration of AI within higher-education.

The goal of the present paper is to explore how AI is used in practice at higher education organisations from the example of the Technical University of Sofia. The study's findings will be analysed through the prism of AI and HC interaction taking into consideration the benefits, as well as the risks of unexpected and unintended negative impact, as a result of this relatively new relationship.

To achieve the goal set, authors will seek answers from various perspectives to the questions: How does human knowledge differ from AI-driven data in terms of interpretation abilities, creativity and decision-making skills in the context of higher-education? - When is AI application justified and how does it support the development of HC, and, conversely in what contexts does HC outperform AI? - How do AI-driven insights empower and enhance human knowledge and support expertise? - Are there any risks in using AI, or any unexpected and unintended consequences?

The paper draws on a literature review of AI's various characteristics and applications to inform semi-structured interviews with and a follow-up survey.

The outcomes from this study will provide valuable insights into AI-HC interaction, inform further AI research and, last but not least, will inform future AI policies and guidelines on good-practice in AI implementation at higher education organisations. Research findings will facilitate the development of an applicable, overarching AI-HC Balance Framework, aimed at boosting synergy instead of limiting HC development and enhancement.

Keywords: human capital, artificial intelligence, learning organisation, higher education

Cultural Intelligence and Sustainable Entrepreneurship Strategies to Success in a Global Context

Elizabeth Real Catarina Morais

Universidade Portucalense Infante D. Henrique, Porto, Portugal

Abstract

The study aims to understand how cultural intelligence, sustainable entrepreneurship and biodiversity-focused business strategies interact and contribute to entrepreneurial success in a global context, considering also sustainability and environmental conservation aspects. The research question is: “How does the integration of cultural intelligence and biodiversity-focused strategies influence the success and sustainability of entrepreneurial ventures in diverse global markets?”

The principal objective of this systematic literature review is to advance the current state-of-the-art and identify the main theories, methodologies and research gaps. In this article, we examine the cultural intelligence topic, sustainability and entrepreneurship systematically reviewing 45 published articles in peer-reviewed journals from 2012 to 2024.

Cultural intelligence is essential for executing sustainability and biodiversity-driven strategies in various global markets. It empowers businesses to adapt strategies, a high level of Cultural Intelligence enables organizations to customize their sustainability efforts to fit local cultural contexts, enhancing their effectiveness and acceptance. Navigate complexities, such as recognizing cultural subtleties facilitates in addressing the complex, nonlinear challenges often linked to global environmental issues.

Managers can use this study to improve strategies for better sustainable practices and cross-cultural communication between employees. Cultural intelligence skills play a crucial role in companies, facilitating management and improving relationships and innovation. It was highlighted that the lack of cultural intelligence has various consequences, so it is important to analyse the gaps and create solutions. An integrative framework and a future research agenda are presented, with the potential to advance our understanding in this field.

Keywords: Cultural Intelligence, Sustainable innovation; Entrepreneurship, motivation, cross-cultural communication

Green Knowledge Management and Green Brand Image: Unravelling the Role of Green Entrepreneurial Orientation and Green Transformational Leadership

Javier Martínez-Falcó, Eduardo Sánchez-García, Bartolomé Marco-Lajara, Patricia Zaragoza-Sáez

University of Alicante, Alicante, Spain

Abstract

This study explores the positive influence of Green Entrepreneurial Orientation (GEO) and Green Transformational Leadership (GTL) on Green Knowledge Management (GKM) and Green Brand Image (GBI) in the context of the Spanish wine industry, while also examining the mediating role of GKM in the relationships between GEO and GBI, and GTL and GBI. To improve the explanatory power of the model, firm-level characteristics such as age, size, and Protected Designation of Origin (PDO) membership are included as control variables. Based on a comprehensive review of the literature, a conceptual model is proposed and empirically tested using Partial Least Squares Structural Equation Modeling (PLS-SEM) with data collected from a sample of 207 Spanish wineries. The results confirm the existence of a positive and significant influence of GKM on GBI, and further demonstrate that GKM partially mediates the positive effects of both GEO and GTL on GBI. This research makes three key contributions: it enriches the understanding of how GKM contributes to the development of a strong green brand image in the wine sector; it represents the first empirical attempt to jointly assess the roles of GEO and GTL as strategic enablers of GBI in this industry; and it sheds new light on the intermediary function of GKM in leveraging green strategic orientations and leadership practices to reinforce brand positioning grounded in environmental values.

Keywords: Green Knowledge Management, Green Brand Image, Green Entrepreneurial Orientation, Green Transformational Leadership, Sustainability

Navigating the Twin Transition: Disclosure Practices in the Ecosystem of Italian Universities

Claudia Spilotro, Michele Posa, Giustina Secundo, Ivano De Turi

LUM University. Casamassima, Bari. Italy

Abstract

This study investigates how Italian universities disclose digital and green initiatives within the broader framework of the twin transition, defined as the synergistic integration of digital transformation and environmental sustainability. Grounded in institutional theory, particularly the concept of mimetic isomorphism, the research seeks to fill a notable gap in literature by examining universities' strategic and reporting practices through the lens of the twin transition.

A mixed-method approach is adopted. First, an exploratory content analysis is conducted on strategic plans, sustainability reports, and third mission documents from 94 Italian universities, using MAXQDA software. A tailored dictionary of keywords – based on European Commission documents – guides the coding process, targeting dimensions of digital transformation and environmental sustainability. Second, two indices – Disclosure Depth and Disclosure Breadth – are developed to assess the extent and variety of disclosed information.

Preliminary results highlight a heterogeneous landscape in how Italian universities approach and communicate their twin transition strategies. Some institutions show a strong commitment, integrating detailed and varied information on both digital and green initiatives, while others reveal minimal or fragmented disclosure. This variability underscores differing levels of institutional readiness and strategic focus across the sector. Patterns emerging from the cluster analysis reflect diverse pathways universities follow in aligning with digital and sustainability imperatives, suggesting both leaders and laggards in the twin transition.

The study provides actionable insights for university administrators and policymakers by mapping current disclosure practices and identifying best-in-class approaches. It supports the creation of strategic roadmaps for institutions aiming to strengthen their role in societal transformation. Transparent and robust disclosure of digital and environmental initiatives enhances institutional accountability, stakeholder engagement, and legitimacy in the eyes of society.

This is the first comprehensive analysis of how higher education institutions address the twin transition through public disclosure. By bridging the literature on sustainability reporting and digital transformation, and applying an institutional lens, the research contributes to a deeper understanding of how universities respond to global challenges. The novel methodological integration of content and cluster analysis also offers a replicable framework for assessing twin transition practices in other national or institutional contexts.

Keywords: Twin transition, University, Disclosure, Institutional theory

Analyzing Innovative Marketing Strategies within SME's in the Restaurant Industry: A Knowledge-Based Approach

Oscar Alejandro Espinoza Mercado, Juan Antonio Vargas Barraza

University of Guadalajara, Guadalajara, Mexico

Abstract

In the competitive business context of the service industry, SMEs seek to stand out through the quality of service in order to guarantee customer satisfaction and loyalty, essential for its long-term survival. The global structure has a profound impact on a wide range of aspects across its dimensions, introducing contemporary trends into our lives through the common industrial framework. Examining current and future trends involves considering several factors like extraordinary situations (such as pandemics), strategies, innovation, technological advancements (like industry 4.0), and the sustainability phenomenon (embracing environmentally friendly practices). Within the context of the tourism industry, restaurant businesses stand out with their never ending evolving trends. Adaptation of new technologies to customer service process and taking steps to predict further advancements in the restaurant business are the success indicators of today's businesses (Khamidovich, 2021).

The restaurant industry has evolved into one of the most fiercely competitive sectors, facing pressure from multiple factors. These include a diverse range of products, swift shifts in trends and consumer habits, the widespread presence of chain stores, and the proliferation of various business types and numbers (Şarıışık, Çavuş and Karamustafa, 2019).

This Research focuses on exploring the foundations of marketing, particularly in the application of SERVQUAL model. It also pays special attention to exploring the bases of marketing and management. In an environment where decision making based on a deep understanding of the essential customer needs, service quality is perceived as a strategic element crucial for business loyalty and sustainability.

After applying a certain criterion regarding the viability and feasibility, it has been determined to consider a sample of 87 restaurant owners in Latin America, specifically within Mexico's restaurant industry. It is important to highlight its impact on economic and cultural aspects, as well as the diversity of actors that play a major role. Additionally, a detailed analysis of their marketing strategies coupled with a knowledge-based approach is about to be revealed.

In order to make this possible, a wide range of factors has already been determined. The analysis contemplates innovation, service quality and knowledge management, supported by recommendations and best practices based on concrete data and the expert application of the SERVQUAL model.

The main goal is to empower these companies to not only survive in a highly competitive market, but to prosper, building solid relationships with their clients and establishing a suitable path to sustainably succeed in the food and beverage industry dynamics.

Keywords: Marketing, Innovation, knowledge, SMEs

How Does AI impact Human Capital and Capability (HCC) in MBMI Processes?

Peter Lindgren, Jane Flarup, Purnima Lala Mehta, Anmol Bhatia

CTIF Global Capsule, Skagen, Denmark
The NorthCap University, Gurugram, India

Abstract

The impact of Artificial Intelligence (AI) on Human Capital (HC) responsible for designing, reengineering, and developing Business Models (BM) has not been extensively investigated. Latest research seems to diverge on whether AI has a negative or positive impact on HC competences, HC capabilities, and Business Model Innovation (BMI) processes. Studies indicate that HC is at risk of being wasted or underutilized due to AI, as research verifies that if the human brain is not utilized as much as AI enables today, where AI takes over HC tasks and HC will be wasted, spilled or lost. Other research shows that AI can release unused HC and potential when AI designs and reengineers Business Models (BMs) and Business Model Ecosystems (BMES). In some cases, AI is even shown to be able to release unused HC when downloading, analyzing BMs, and sensing disruptive, radical, and/or incremental BMs.

The paper investigates AI's impact on HC and HC's capabilities (HCC) in 7 different Multi Business Model Innovation (MBMI) processes, seeking to determine whether AI can enhance the use and potential of HC, or, conversely, hinder and reduce HCC in MBMI.

The impact of AI and MBMI was studied in seven MBMI projects in different BMESs that are influenced by AI. The effect of AI on HCC was analyzed as a key finding and output to the research question: Does AI lead to HCC Waste, spill, loss or does it increase the growth, increase and release HCC potential?

Keywords: Human Capital Waste, Human Capital Potential, AI, Knowledge Management, Multi Business Model Innovation (MBMI)

Exploring Technology Diffusion for Enhanced Energy Efficiency: An Empirical Approach

Jovana Popovic, Milica Vukotic

University of Donja Gorica, Podgorica, Montenegro

Abstract

The present study examines the impact of technology diffusion on energy consumption and efficiency in small and medium enterprises (SMEs) in Montenegro. The focus of this study is a project proposal submitted by a specific SME. The project entails the procurement of the machine for heating and waste collection, as well as the implementation of a digital key for purpose of productivity and energy monitoring. The objective of the project is threefold: firstly, to reduce electricity consumption; secondly, to increase revenue; and thirdly, to promote sustainable practices. This is an empirical study, and as such the results obtained from the real-life consumption of a company can be representative. It was demonstrated that undertaking of project activities would result in the company accruing benefits in both the short and long term. It has been indicated that a reduction in both energy consumption and CO₂ emissions will be observed. However, it is anticipated that the project activities will, over time, lead to the adoption of even more sustainable practices within the company. The paper provides a comprehensive exposition of the demonstration of the Rogers model (TOE and IDP framework) using empirical evidence. Project of this nature are of great benefit to SMEs in Montenegro and the wider region. The provision of financial assistance is but one of the functions of this calls, another is the raising of awareness of various issues. The concept of energy efficiency should not be perceived as disadvantageous, rather, it should be regarded as a concept that is universally accessible and demonstrably manageable in a variety of ways.

Keywords: technology diffusion, energy efficiency, SMEs, transition, innovation.

What Regenerative Approaches Drive Resilience? A Knowledge Frame for Social-Ecological Systems

Maria Elena Latino, Marta Menegoli, Roberta Pellegrino, Antonio Piepoli, Pierpaolo Pontrandolfo

University of Salento, Lecce, Italy

Polytechnic University of Bari, Bari, Italy

Abstract

As environmental and social challenges intensify, regenerative practices in supply chain management (SCM) are emerging as a transformative approach, shifting focus from sustainability to the active restoration of socio-ecological systems. The present study analyses how regenerative principles, including poly-rhythmicity, proportionality, and reciprocity, enhance supply chain resilience through systemic renewal. A comprehensive review of 33 high-impact articles (2010–2024) has identified six key regenerative practices: supply chain plasticity, ecological restoration, circular measures, sustainable resource management (SRM), reshoring, and restorative topophilia. These practices address ecological degradation, economic volatility, and social inequities, all while promoting adaptability. Whilst circularity and SRM predominate in industry applications, there is considerable potential in niche practices such as restorative topophilia, which combines place attachment with ecological restoration. The combination of reshoring and circular principles has the potential to reduce emissions by 30% and stimulate local economies. However, it is important to note that 40% of reshoring initiatives are unsuccessful, resulting in the relocation of production activities that are associated with increased environmental impact. Supply chain plasticity has been demonstrated to exhibit operational resilience; however, it frequently neglects ecological reciprocity, thereby highlighting an evident implementation gap. It is imperative to emphasise the pivotal role that stakeholder engagement, notably from communities and non-governmental organisations (NGOs), plays in transcending the divide between sectors. The present study proposes a framework for "regenerative intelligence" that integrates ecological, social, and supply chain objectives. The study validates institutional redundancy (policy-market synergy) and emphasises poly-rhythmicity as an unexplored lever for resilience. The study provides practical insights for transitioning from protective to proactive regeneration, and it notes two limitations: potential interpretive biases and a focus on academic literature. The study suggests that future research should explore metrics, cultural contexts, and decision-support tools. This work reframes supply chains as catalysts for systemic renewal, advocating for strategies that restore rather than merely sustain.

Keywords: Regeneration, Resilience, Social-Ecological System, Supply Chain Management.

Uncovering Procurement in Restorative and Regenerative Supply Chain Archetypes: A Conceptual Framework based on Relational View Theory

Francesco Cafforio, Giovanni Francesco Massari, Ilaria Giannoccaro

Politecnico di Bari, Bari, Italy

Abstract

In response to escalating environmental, social, and economic challenges, the Circular Economy (CE) has emerged as a pivotal paradigm aiming to decouple growth from environmental degradation and concurrently foster natural regeneration in a systemic way. In this regard, restorative and regenerative supply chains (SCs) have emerged as two promising archetypes to operationalize CE principles. Restorative SCs focus on value preservation through repair, refurbishment, and recycling strategies, while regenerative SCs aim to produce net-positive impacts on the surrounding ecosystem comprising both natural and social components. Despite their distinct goals, the effectiveness of restorative and regenerative archetypes is strongly influenced by procurement processes. While the majority of scholars have identified several multi-level barriers to implement circular procurement practices, the complex dynamics of buyer-supplier relationship mechanisms has yet to be fully explored. This study hence aims to fill this gap by investigating the inter-organizational dynamics underpinning procurement in restorative and regenerative SCs. Specifically, we explore, under the theoretical lens of Relational View Theory (RVT), how buyer-supplier dynamics differ across restorative and regenerative SCs. A multiple-case study was conducted with four Italian manufacturing firms operating in key “Made in Italy” sectors. Data were gathered through semi-structured interviews and secondary sources and analyzed to uncover the correspondent relational mechanisms. Our findings reveal that restorative SCs feature formalized, compliance-driven procurement practices. Buyers impose technical and environmental requirements, while suppliers invest unilaterally in circular capabilities. Knowledge-sharing is predominantly unidirectional and operational. Conversely, regenerative SCs are marked by trust-based governance, joint investments, and co-evolving capabilities. Procurement relationships are strategic, fostering collaborative innovation and aligning production with socio-ecological goals. These SCs feature bidirectional knowledge-sharing, mutual commitment, and co-defined performance indicators encompassing environmental and social outcomes. Theoretically, this study advances the application of RVT in circular contexts by distinguishing how relational mechanisms vary according to circular intent. Practically, it offers differentiated procurement strategies: compliance facilitation in restorative SCs versus partnership and innovation in regenerative SCs. The study thus informs both academic discourse and managerial practice on aligning procurement with sustainable transformation, while highlighting the need for context-sensitive relational models to achieve circularity goals.

Keywords: Circular Procurement, Restorative Supply Chains, Regenerative Supply Chains, Buyer–Supplier Relationships, Relational View Theory

GenAI-aided Sustainable Digital Transformation: A Novel Framework and Early Results

Sara Matino, Gabriele Luigi Gravina, Luca Mainetti, Roberto Vergallo

University of Salento, Lecce, Italy
Pegaso Digital University, Naples, Italy

Abstract

Nowadays, rapid technological advancements play a central role in redefining the operational and strategic dynamics of businesses. Artificial Intelligence (AI), with particular emphasis on Generative AI, not only ensures greater efficiency in business processes but also holds the potential to completely revolutionize the way companies design, implement, and optimize their operations. These tools offer new opportunities to address one of the most pressing challenges of our time: the sustainability of processes. This work proposes a framework structured into three blocks to assess the contribution of Generative AI to sustainable process optimization: (i) automatic process generation through Large Language Models (LLMs), (ii) automated conversion into BPMN models, and (iii) quantitative sustainability analysis. Although the framework has been fully defined at a theoretical level, its implementation is still in progress. This work, in particular, focuses on the results achieved for the first block. Unlike traditional methods that require the involvement of domain experts, advanced Generative AI models are used to automate most (if not all) of the transformation. The study unfolds in two main phases: in the first phase, LLMs generate sustainable versions of processes from textual descriptions, following specific criteria such as carbon footprint reduction, material recycling, and energy efficiency. In the second phase, the results are evaluated using the G-Eval Framework, comparing model performances with expert-conducted analyses.

For the validation of the approach, an analysis was conducted on real processes taken from the Camunda repository. Each process was provided as input to different LLMs, accompanied by a carefully designed prompt specifying the sustainability criteria to be applied. The results proved to be very promising: the Claude 3.5 Haiku model achieved the highest performance (77%), while GPT-4 Turbo scored the lowest (66%).

Keywords: BPR, Sustainability, Carbon-aware, LLM, Generative AI

Designing 3D-Printed Biocomposites for Quarry Renaturalization: Evaluating a Regenerative Business Model

Francesca Lerario, Achille Claudio Garavelli, Valentina De Carolis,
Daniela Fico, Daniela Rizzo, Carola Esposito Corcione

Polytechnic University of Bari, Bari, Italy

University of Salento, Lecce, Italy

Abstract

Each year, the extractive industry generates millions of tons of stone waste, posing significant challenges related to environmental sustainability, waste management and landscape degradation. This study explores how regenerative business models (RBMs) can be operationalized in high-impact industrial contexts through a conceptual organization called Renature. The organization leverages additive manufacturing technologies to transform marble waste and biodegradable polymers (PLA) into 3D printed modular devices intended to facilitate the ecological regeneration of abandoned quarry sites.

The research adopts an action research methodology aimed at assessing Renature's alignment with the three core components of regenerative business model: value proposition, value creation and delivery, and value capture. The analysis focuses on evaluating how regenerative principles, such as nature-based design, multi-capital value generation, stakeholder inclusivity and systemic reciprocity, are concretely implemented in Renature.

Preliminary findings reveal that the organization generates multi-dimensional value, encompassing environmental restoration, local resource circularity, cultural landscape requalification and community engagement. Through that, Renature promoting a transdisciplinary approach that bridges design, material innovation and management engineering. Despite still being in a conceptual phase, the case illustrates how regenerative principles can be integrated into traditionally high-impact industrial sectors. This supports a shift away from sustainability strategies focused only on reducing harm, toward models that create a net positive impact on the environment.

This study contributes to the practical application of regenerative theory by illustrating how business models can move beyond sustainability toward net-positive outcomes. It suggests a possible direction for integrating regenerative logic into industrial innovation, landscape restoration and circular resource use, while acknowledging the need for further empirical investigation to assess its feasibility and broader applicability.

Keywords: Regenerative Business Model, Marble Waste, Sustainable Materials, 3D Printing, Quarry Renaturalization

Collaborative Hackathons: Enabling Corporate Sustainability Transitions. The Case of Riga Technical University Coopetition

Diana Smite

Riga Technical University, Riga, Latvia

Abstract

The global transition toward sustainability faces significant challenges, including stagnant progress, corporate reluctance, and systemic barriers such as funding limitations and lack of effective frameworks (McKinsey & Company, 2024; Boston Consulting Group, 2022). As corporations play a critical role in driving sustainability, many have turned to corporate venturing mechanisms to accelerate knowledge exchange and innovation and solve different challenges involving different stakeholders. Among these mechanisms, corporate-driven hackathons provide a structured yet flexible platform to address sustainability challenges. This paper explores collaborative hackathons as a tool for corporate sustainability transitions, focusing on a case study of the Riga Technical University hackathon Coopetition in collaboration with multiple industry players. The case study provides a detailed analysis of the collaborative mechanism, highlighting learnings and future implications. The research aims to validate theoretical concepts with real-life case studies, resulting in an overview of crucial components of a collaborative hackathon. The case of the Coopetition is primarily based on four semi-structured interviews with representatives from all companies, next to the provided inputs, such as hackathon rules and supporting data, and outputs generated by participants during each event. The primary data were triangulated with secondary data from publicly available sources, including the companies' websites, press releases, and social media. The key contribution of this research lies in validating theoretical insights with real-life implementation, resulting in a summary of crucial components of a collaborative hackathon in the transition to sustainability. This study offers a dual impact: for scholars, it highlights future research directions, while for practitioners, it delivers empirical insights and practical recommendations.

Keywords: Corporate venturing, transition to sustainability, collaborative hackathons

An Analysis of Fintech Patents in the Lights of Green Technologies

Giovanna Ferraro, Antonio Iovanella, Alessandro Ramponi

Abstract

This article analyses the green aspects of technologies embedded within the Fintech sector, providing insights into the intersection of financial innovation and environmental sustainability. The technological advancements introduced in the financial sector over the past decades hold considerable potential to facilitate the ecological transition and promote environmental sustainability – a potential that has been widely acknowledge in the literature. However, there is still little research on the green attributes of the technologies underlying the Fintech sector, particularly through the lens of patents, which serve as concrete indicators of technological innovation.

Our findings contribute to the understanding of technology, finance, and sustainability, emphasising the value of patent data in tracking progress and guiding future developments.

Through the use of statistical analyses and the Social Network Analysis techniques, we define a multi-step methodology and a set of new measures that allow us to analyse Fintech technologies, as described by the underlying patents, in the light of the environmental and eco-friendly perspective, as proposed by the WIPO IPC Green Inventory classification. The statistical analysis of the green Fintech patents reveals several notable trends. The relative frequency of patents containing a number of green technology classifications within the complete dataset exhibits an increasing trends, although this has stabilised in recent years.

Furthermore, the data indicate a modest deceleration in the overall growth of this segment, suggesting a potential plateau in the expansion of green-oriented innovations in the Fintech domain.

Our results offer an original perspective on the idea of green, expanding the analysis to encompass the collective behaviour of the Fintech ecosystem of technologies and, eventually, any other industrial sector.

Keywords: Fintech, Green Patents, Green Technologies, IPC, Social Network Analysis

Understanding Socio-Economic Perceptions Complexity in Romania and Moldova: Implications for the Business Environment

Profiroiu Constantin Marius, Profiroidu Alina Georgiana, Constantin Daniela-Luminița, Cibu Bianca Raluca, Delcea Camelia

Bucharest University of Economic Studies, Bucharest, Romania

Abstract

This paper investigates how people's perceptions of socio-economic indicators in Romania and the Republic of Moldova influence the development of the business environment at local and regional level, in the context of growing challenges to economic and social resilience. Based on a questionnaire applied to a sample of 3228 respondents, the study analyzes eight key indicators, grouped into two composite indices: "Economic and social policies" (I1) and "Access to basic services/resources (critical infrastructures) services" (I2). These two indices were then combined into a third, entitled "Overall socio-economic perceptions" (I3), to provide an integrated picture of the well-being of the population. During the course of the work the K-means clustering algorithm and the Silhouette indicator were applied to validate the optimal number of clusters, using the RStudio software the research identified different relevant county-level clusters. In the case of the I1 index, Romanian counties clustered in a distinct cluster from those in the Republic of Moldova, suggesting significant differences in income satisfaction, job security and access to public services. In contrast, for I2, the analysis revealed five clusters, reflecting greater variation in perceptions of access to utilities, energy, education and health. Thus, even though the majority of counties in Romania received high scores, there were also a few counties that scored lower, for which some improvements should be made. The results provide a useful tool for policy makers and business actors, suggesting areas with different needs and varying investment potential. The study highlights the importance of understanding local perceptions in formulating development and intervention policies.

Keywords: Socio-Economic Analysis; Clustering; K-means; Complexity; Business Environment

Mapping Twin Transitions in Regional Innovation Systems: A Configurational Approach

Vincenzo Maione, Cristina Ponsiglione, Simonetta Primario,
Manfred Paier, Theresa Buerscher

University of Naples Federico II, Naples, Italy

AIT Austrian Institute of Technology GmbH, Vienna, Austria

Abstract

Twin transition —integrating digitalisation and ecological sustainability— has become a structural priority for European regional development, as reflected in major frameworks such as NextGenerationEU and the 2021–2027 Cohesion Policy. These programmes aim not only to support recovery but also to reshape the technological and institutional foundations of regional economies. However, a significant knowledge gap remains: while the twin transition requires coordinated and systemic change, we still lack a clear understanding of how it unfolds across different regional contexts —particularly given persistent disparities in structural capacity and institutional agency. This paper addresses that gap by investigating the relationship between regional industrial path development and the capacity of regions to engage in twin transitions. Drawing on an established typology of development paths —including extension, upgrading, branching, diversification, creation and importation—and on a review of regional case studies, we develop a configurational framework that links these development paths to a set of structural and institutional causal conditions. These conditions are operationalised into indicators grounded in the literature, and applied to the Italian regional context through a fuzzy-set Qualitative Comparative Analysis covering the period 2007–2017. The findings show that regional engagement in twin transitions could result from distinct combinations of development paths and enabling conditions. Extension, upgrading, and importation path —when coupled with enabling regional conditions— are the most conducive to twin specialisation.

The study contributes to debates on bridging evolutionary economic geography and transition-oriented policy, and provides a scalable diagnostic tool to inform place-based strategies tailored to structurally diverse regional contexts.

Keywords: Twin Transition, Regional path development, Regional innovation systems, Complex systems, Fuzzy-set Qualitative Comparative Analysis

Addressing the Complexity of the Green Hydrogen Value-Chain: An Agent-Based Modelling Approach

Roberta De Cristofaro, Vincenzo Del Duca, Cristina Ponsiglione,
Simonetta Primario, Serena Strazzullo

University of Naples Federico II, Naples, Italy.

Abstract

The global energy sector is undergoing a deep transition to mitigate climate change and enhance energy security through sustainable sources (International Energy Agency, 2023). Green hydrogen (GH2) has emerged as a strategic solution for decarbonizing hard-to-abate sectors, aligning with Paris Agreement targets to limit global warming to 1.5°C (Deloitte, 2023; Fuel Cells and Hydrogen 2 Joint Undertaking, 2019). The GH2 value chain operates as a complex adaptive system, characterized by nonlinear relationships, emergent behaviors, and evolving stakeholder interactions (Peyerl & van der Zwaan, 2024; Zhang & Li, 2024). This work examines the economic, social, and environmental impacts of innovations in GH2 production within a European-funded project focused on developing a photocatalytic reactor for water splitting into hydrogen and high-value co-products. Using an Agent-Based Model (ABM) developed in NetLogo, the research simulates stakeholder interactions, capturing emergent dynamics often overlooked by traditional top-down models (Macal & North, 2010). The model is able to estimate the number of plants required to meet Spain's GH2 demand by 2030 (Pawelec et al., 2023) and highlights how stricter sustainability criteria can promote best practices, stimulate innovation, and open economic opportunities. The model demonstrates the strategic potential of GH2 in driving decarbonization, technological advancement, and social inclusion. Moreover, by embedding sustainability across the value chain, the ABM provides policymakers and industry stakeholders with actionable insights to optimize GH2 deployment, lower costs, and support the broader transition to a low-carbon energy system (World Economic Forum, 2021). This research contributes to the growing body of knowledge needed to guide future investments, policy frameworks, and cross-sector collaborations.

Keywords: Green Hydrogen, Agent-Based Modelling, Innovation, Sustainability, Complexity

Organisational Resilience and Decision-Making Modes: An Agent-Based Analysis

Stephan Leitner

University of Klagenfurt, Klagenfurt, Austria

Abstract

Organisational resilience, defined as the capacity to absorb and recover from shocks affecting an organisation's operations, becomes increasingly more important in today's environment. While existing research has mainly explored structural and strategic factors contributing to organisational resilience, the role of managerial decision-making modes in this context remains underexamined. This paper addresses this gap by developing an agent-based model that simulates how different modes of decision-making affect resilience. The model captures stylised organisations as collections of interdependent departments operating on performance landscapes with varying complexity. The study compares silo-based, sequential, collaborative, and proposal-based decision-making across 144 simulated scenarios, incorporating shocks of varying severity. The results reveal that collaborative and proposal-based decision-making modes enhance shock absorption and recovery in complex task environments, while simpler modes perform well in settings where tasks are less complex. Proposal-based coordination offers balanced performance.

Keywords: Organisational resilience, decision-making modes, agent-based modelling, disruptions, task interdependence

Institutional Conditions in Entrepreneurial Education Ecosystems: Effects on Entrepreneurial Knowledge and Culture

Carmine Passavanti, Simonetta Primario, Pierluigi Rippa

University of Naples Federico II, Naples, Italy

Abstract

Entrepreneurial education ecosystems are increasingly recognized as strategic environments within universities that foster entrepreneurial knowledge, culture, and venture creation. However, the interplay between institutional factors and educational outcomes in these ecosystems remains underexplored, particularly from a dynamic, system-level perspective. This study addresses this gap by developing a theory-driven agent-based model—the Entrepreneurial education ecosystems Model: “3E Model”—to simulate how formal (e.g., corruption, bureaucracy, access to credit) and informal (e.g., social perception of entrepreneurship, cultural diversity) institutional factors influence entrepreneurial learning dynamics in university-based ecosystems.

Grounded in entrepreneurial ecosystem theory, stakeholder theory, and institutional theory, the model captures the interactions of heterogeneous agents including students, faculty, investors, and institutional actors. The simulation results reveal that institutional quality significantly shapes the accumulation of entrepreneurial knowledge, the formation of entrepreneurial culture, and the motivation to launch startups. In particular, corruption and bureaucratic burden emerge as major impediments, reducing both knowledge diffusion and entrepreneurial activity. Conversely, favorable social perceptions of entrepreneurship significantly enhance ecosystem performance, with evidence of threshold effects: only after surpassing a certain level of societal support does venture creation accelerate. Cultural diversity also contributes positively by enriching knowledge exchanges, though its impact is more gradual.

The model demonstrates the non-linear and interdependent nature of institutional influence in 3Es, confirming that both formal (structural) and informal (cultural) institutions jointly determine ecosystem vitality. Practically, the 3E Model serves as a decision-support tool for universities and policymakers, enabling the simulation of interventions to strengthen entrepreneurial education. The findings suggest that aligning institutional reforms with cultural initiatives—such as reducing administrative barriers while promoting entrepreneurship as a legitimate career path—can generate synergistic effects that boost entrepreneurial outcomes. The study concludes by outlining future research directions, including model refinement through empirical calibration and the inclusion of feedback loops between education and institutional change.

Keywords: Entrepreneurial Ecosystems; Entrepreneurship Education Ecosystems; Institutional Factors; Agent-Based Modeling

Using Artificial Intelligence for Employee Retention Analysis in Complex Environments

Adrian Domenteanu, Ioana Ioanăș, Andra Sandu, Delcea Camelia,
Liviu-Adrian Cotfas

Bucharest University of Economic Studies, Bucharest, Romania

Abstract

Artificial Intelligence is becoming a crucial technology for a significant number of companies, governments, and employees, representing an important tool which boosts productivity and optimizes activities. The industry sectors have completely changed, by adapting robots and autonomous machines that have very small errors and could work much faster than humans. At the same time, the working environment is a complex adaptive system, as each employee has their own beliefs and interacts with others, forming relationships and adapting to new events as they arise. A dataset regarding the employees of a company has been extracted from GitHub platform.

The dataset contains a series of information referred to the satisfaction level – valued between 0 and 1, with 0 representing the lack of happiness at work, while 1 is the maximum happiness at work; number of projects; score of last performance; average monthly working hours; number of years in the company; whether the employee had an accident at work; whether the employee was promoted in the last five years; the department of the employee; the salary of the employee - divided in three different categories (low, medium, high). Python programming language has been used in order to analyze the data, starting with an exploratory analysis, defining graphical representation of the dataset and concluding with the implementation of Machine Learning algorithms such as of Logistic Regression, Random Forest, Decision Tree, AdaBoost and Extreme Gradient Boosting. Through the use algorithms, a prediction of employee retention has been performed, by taking into consideration multiple features such as the one mentioned above. The models have been trained and evaluated using separate training and testing datasets. The datasets have been extracted from the original dataset using a random sampling approach. The metrics for evaluation of the models are presented using graphical representation, also known as Confusion Matrix, containing True Positive, True Negative, False Positive and False Negative values.

The models considered in the paper have high accuracy, with a recorded minimum accuracy of 70%. Multiple metrics such as ROC-AUC curve, Accuracy, Recall, F1 Score and Precision have been calculated in order to classify the algorithms. The research serves as a foundation for Human Resources departments to better understand employees' needs and determine effective strategies for keeping them motivated, productive, and engaged in the company.

Keywords: Complex Systems, Artificial Intelligence, Machine Learning, Employee Retention, Python
Complex Systems, Artificial Intelligence, Machine Learning, Employee Retention, Python

Circular Economy Yes or No? This is the Dilemma. An Agent-Based Approach

Linda Ponta, Andrea Urbinati, Raffaella Manzini

Università degli Studi di Genova, Genova, Italy

Università Cattaneo - LIUC, Castellanza (VA), Italy

Abstract

Circular economy has emerged as an industrial approach that aims to overcome the traditional “take-make-dispose” economic model, which is based on the intensive extraction of raw materials and the design of products with a limited lifespan. The circular economy approach consists in a closed system in which products, materials and resources are continuously reused, remanufactured and recycled. The implementation of circular economy principles in companies requires a gradual redesign of products, which consists of a concurrent design of products and related manufacturing processes that enhance competitiveness measures, rationalize product/process/resource design decisions and improve operational efficiency in product development. Given this premise, the transition of companies towards a circular economy paradigm challenges companies to rethink their linear approach of doing business, leading to the research dilemma of answering: Is it economically convenient for a company, in terms of economic margin, to develop circular products starting from a linear positioning? To answer this research question, an agent-based model and simulator (ABM) has been developed characterized by four kinds of heterogeneous firms: the supplier, the manufacturer, the user and the recycler.

The adoption of an agent-based model, which is coherent with the approaches of complexity science, allows for investigating the phenomenon considering its complex nature, and the consequent dynamic non-linear relations among the various actors involved: manufacturers, suppliers, customers and consumers, recyclers. Results show that the manufacturer only partially follows consumer sentiment, as it retains a large proportion of linear products. Even when consumer sentiment is low, it is in the manufacturer’s interest to move even slightly towards circular products.

Keywords: linear economy, circular economy, agent-based model

Enhancing Value Creation with Metro Systems: Future Directions Through AI and Intellectual Capital

Minh Hieu Nguyen

Messina University, Messina, Italy

Abstract

This study explores how metro services in Hanoi contribute to value creation for passengers, particularly during the early stages of system adoption. As the city's urban transport landscape shifts toward modern rail, understanding user perceptions becomes central to enhancing service performance and policy design. Grounded in behavioral theories such as the Theory of Planned Behavior (TPB) and Technology Acceptance Model (TAM), along with the Intellectual Capital (IC) framework, the research identifies factors that influence perceived value from the metro experience. A survey of 203 respondents was conducted, and data were analyzed using SPSS with reliability testing, exploratory factor analysis, and multiple regression models. The results show that seven service-related factors—ticketing, travel time, staff, infrastructure of the metro system, stations, and lanes, along with accessibility—have statistically significant effects on value creation. Among them, ticketing and travel time emerged as the most influential. These findings highlight the importance of practical elements such as affordability, ease of use, and travel efficiency in shaping public perceptions of value. While Artificial Intelligence (AI) has not yet been fully implemented in Hanoi's metro system, the paper discusses its potential for improving reliability, personalization, and system integration through smart ticketing, real-time data, and predictive maintenance. The study also underscores the importance of human, structural, and relational capital in supporting such advancements. The research offers implications for metro authorities, planners, and policymakers to better align service development with user needs. It also supports progress toward Sustainable Development Goal 11 by promoting inclusive, safe, and sustainable transport. Limitations include the focus on a single metro line and a cross-sectional dataset. Future studies should consider longitudinal approaches and comparative analyses across regions or cities.

Keywords: Artificial Intelligence (AI), Intellectual Capital (IC), Public Transportation, Sustainable Innovation, Value Creation

Artificial Intelligence as a Lever for Intellectual Capital in Public Administration

Antonino Interdonato

University of Messina, Messina, Italy

Abstract

This study explores the transformative role of artificial intelligence (AI) in enhancing intellectual capital within the Italian Public Administration (PA). In a context marked by digital transition, innovation pressures, and systemic reform, AI emerges not only as a technological enabler but as a strategic catalyst for knowledge creation, skill development, and organizational renewal. By adopting a mixed-method quali-quantitative approach, the research investigates the intersection of AI and human capital through the analysis of 42 strategic policy documents (2020–2024) and 11 INPS “Master Executive” calls (2014–2025). The qualitative analysis identifies prevailing institutional narratives, highlighting the increasing integration of AI, digital competencies, and knowledge management within public sector transformation agendas. Quantitative data—such as the exponential growth of public training investments and scholarship distribution—reinforce these trends, offering empirical evidence of a coordinated strategy aligning AI deployment with human capital development.

The findings underscore a paradigm shift in how PA conceptualizes and operationalizes training. Notably, national policy reforms have redefined training as a performance indicator, expanded access to structured learning pathways, and promoted the use of AI-driven tools for recruitment, upskilling, and decision-making. The study also discusses the ethical and organizational challenges posed by AI adoption, advocating for transparent governance, inter-institutional collaboration, and continuous learning cultures.

The research contributes to the literature by addressing a gap in empirical analyses on the relationship between AI and intellectual capital in the public sector. It proposes a new interpretive model that integrates technological, organizational, and human dimensions of innovation. It offers policy guidance for public managers aiming to align AI with capacity-building strategies. The study positions AI as a lever for building a more resilient, efficient, and equitable PA—one in which human and digital capital synergize to generate enduring public value.

Keywords: public administration, artificial Intelligence, intellectual capital, staff reskilling, training strategies

Artificial Intelligence and Microfinance: Enhancing Social Inclusion and Value Creation for Immigrant Communities

Esri Nyituriki

University of Messina, Messina, Italy

Abstract

This paper explores how Artificial Intelligence can transform microfinance to promote social inclusion and value creation for immigrant communities. Despite immigrants' significant potential to contribute to local economies, they often encounter substantial barriers to accessing formal financial services, including limited credit histories, regulatory challenges, and cultural or linguistic differences. AI technologies, particularly machine learning, predictive analytics, and Natural Language Processing, provide innovative pathways to overcome these challenges by enabling inclusive credit scoring, automated multilingual support, and scalable, personalized financial services.

Employing a Systematic Literature Review guided by Preferred Reporting Items for Systematic reviews and Meta-Analyses and structured through the Population, Intervention, Comparison, and Outcome framework, this study critically evaluates 52 peer-reviewed sources to assess the effectiveness and impacts of AI-driven microfinance compared to traditional microfinance methods. Findings indicate that AI significantly enhances financial accessibility, facilitates immigrant entrepreneurship, and fosters broader social inclusion through culturally and linguistically adapted financial solutions.

A central contribution of this research is the integration of the Intellectual Capital framework, comprising human, structural, and relational capital, to examine the essential conditions for successful AI adoption in microfinance institutions. Human capital is crucial for developing skills in ethical AI deployment, structural capital ensures robust technological infrastructures, and relational capital builds essential trust between institutions and immigrant communities, thus ensuring sustainable and inclusive outcomes.

This study aligns with Sustainable Development Goals 8 (Decent Work), 9 (Industry, Innovation, and Infrastructure), and particularly SDG 10 (Reduced Inequalities). It provides actionable insights and strategic recommendations for financial institutions, policymakers, and fintech firms. To realize AI's full potential in immigrant social inclusion, the paper emphasizes the necessity of ethical AI frameworks, targeted capacity-building initiatives, and trust-based service models, ultimately contributing to more inclusive and equitable societies.

Keywords: Artificial Intelligence, Intellectual Capital, Microfinance, Social Inclusion, Value Creation.

Female Empowerment and Gender Pay Gap: Unlocking Intellectual Capital for Value Creation

Valeria Naciti, Alessandra Patti, Valeria Schifilliti

University of Messina, Messina, Italy

Abstract

The gender pay gap remains a significant issue across industries, exacerbated by occupational segregation despite advancements in female educational attainment and professional experience. This study explores the impact of female leadership and ownership structures on the gender wage gap in the Information and Communication Technology (ICT) sector across European countries. An analysis of a panel dataset from listed companies examines the moderating role of female representation at the top management level, focusing on female CEOs. The findings indicate that increased female representation on corporate boards can reduce the gender pay gap, supporting the hypothesis that diverse boards promote inclusive cultures and equitable compensation practices. Specifically, the study investigates the effects of family and state ownership models on wage inequalities, providing novel insights into how different ownership structures influence gender-based pay gaps. Our research aims to provide insights into how organizations can leverage the potential benefits of gender diversity at the top management level while mitigating the effects of gender-based pay inequalities, thereby addressing this gap in the literature.

Keywords: gender pay gap, Intellectual Capital, Female leadership

AI-driven Transformation in the Pharmaceutical Industry: Value Creation through Strategic Collaboration

Vincenzo Belfiore, Alberto Caratozzolo, Valeria Naciti, Daniela Rupo

University of Messina, Messina, Italy

University Dante Alighieri, Reggio Calabria, Italy

Abstract

The pharmaceutical industry faces significant challenges, including prolonged drug development cycles (10-15 years), escalating costs (exceeding \$1 billion per drug), and mounting pressures to align innovation with sustainability and transparency. This study investigates the transformative role of artificial intelligence (AI) in addressing these challenges, with a focus on value co-creation and environmental, social, and governance (ESG) integration (Prahalad and Ramaswamy, 2000, 2004; Vargo and Lusch, 2004). By analyzing sustainability reports and strategic documents from Johnson & Johnson (J&J) and NVIDIA through qualitative content analysis, this research identifies four thematic topics: AI in Sustainability Report, Value Co-Creation, AI and ESG and Transparency and Reporting. The study aims to find answers starting from how AI is represented in J&J and NVIDIA's reports, which initiatives are linked to the co-creation of value in drug discovery, development and distribution, to what extent are references to AI in line with ESG criteria, and finally what elements emerge regarding transparency and communication of AI practices.

Findings reveal that AI accelerates drug discovery through machine learning (ML) and deep learning (DL), enabling rapid analysis of genomic, proteomic, and clinical trial data. Applications such as virtual screening and predictive modelling reduce trial failures and optimize resource allocation, aligning with ESG goals like waste reduction and energy efficiency. The strategic collaboration between J&J and NVIDIA exemplifies value co-creation, merging pharmaceutical expertise with advanced computing to enhance R&D efficiency and patient-centric outcomes. For instance, NVIDIA's high-performance computing (HPC) infrastructure supports J&J's drug pipeline, reducing time-to-market while fostering sustainable practices.

The analysis highlights AI's dual role as a driver of operational innovation and a catalyst for stakeholder-driven sustainability. Transparency in AI reporting emerges as a critical factor, with both companies emphasizing ethical AI deployment and open communication. However, disparities exist in how AI's societal and environmental impacts are framed, underscoring the need for standardized ESG-aligned reporting frameworks. By bridging value co-creation theory (Prahalad & Ramaswamy, 2004) with empirical insights, this study demonstrates how cross-sector partnerships and AI integration can reconcile economic objectives with global sustainability imperatives. The research contributes practical insights for policymakers and industry leaders, advocating for collaborative, transparent AI adoption to advance both innovation and accountability in the pharmaceutical sector.

Keywords: Artificial Intelligence; Pharma Industry; Value Co-creation; ESG; Strategic Collaboration

Remote Working and Public Administration: Implications for Relationships with External Users

Antonietta Cosentino, Carla Morrone, Salvatore Principale,
Alessandro Sura

University of Rome “La Sapienza”, Rome, Italy

Abstract

The digital transformation has significantly reshaped organizational structures, particularly through the widespread adoption of remote working, which accelerated during the COVID-19 pandemic. While existing literature has explored internal impacts such as productivity and work-life balance, less attention has been paid to the effects on external relational dynamics, especially in the public sector. This paper investigates how remote working influences relational capital in public administration, focusing on the perceptions of external users such as citizens and institutional stakeholders. Relational capital (encompassing trust, reputation, and institutional networks) is critical for public entities delivering essential services. Using a qualitative approach based on semi-structured interviews within a medium-sized Italian municipality, the study explores users' experiences and perceptions of PA following the shift to smart working. Findings contribute to a growing body of research by addressing a literature gap concerning the implications of remote work on trust and relationship quality in the public sector.

Keywords: remote working, relational capital, digital transformation, intellectual capital

Digital Therapeutics and Music: A Transdisciplinary Approach in Healthcare

Annaluce Mandiello, Federica Zeuli, Francesco Schiavone

University of Naples Parthenope, Naples, Italy

Abstract

Over the years, industries have increasingly implemented the transdisciplinary approach to research complex topics such as planetary and human health. Indeed, transdisciplinarity removes boundaries between disciplines to create new frameworks and approaches for solving real-world problems. Such an approach is particularly crucial in healthcare due to the systemic understanding required to solve its emerging challenges. At the same time, innovation literature affirms that the development of current technologies, which are also emerging in healthcare, is by nature transdisciplinary. Studies on digital health solutions reveal their central role in providing treatments, especially non-pharmaceutical ones. These are often developed by combining disciplines such as medicine, psychology, and art to treat diseases related to the emotional and behavioural sphere of the human being, while reducing healthcare costs. The emerging digital health solutions named “Digital Therapeutics” (DTx) are central in providing these care pathways. DTx are evidence-based, software-driven medical interventions providing cognitive-behavioural and emotional therapies. Despite the practical and theoretical relevance to transdisciplinary research, innovation and knowledge management literature still lack a comprehensive understanding of how DTx enhance a transdisciplinary approach to non-pharmaceutical treatments. The authors investigated two DTx providing music therapy by implementing a qualitative multiple case-study to explore the potential of such technology as a driver of new knowledge management strategies in healthcare. Three mechanisms emerged from a thematic analysis. The findings contribute to the current literature on knowledge and innovation and the emerging stream of research on DTx, which are presented as catalysts for integrating diverse forms of knowledge within therapeutic research. Moreover, this research supports practitioners in understanding how to approach digital health solutions when providing non-pharmaceutical treatments, increasing the effectiveness and accessibility of care, and reducing unnecessary costs.

Keywords: Digital Therapeutics; Music-Therapy; Transdisciplinarity; Innovation Management; Knowledge Management

Brain Rot and Its Repercussions on Business Students and Managerial Decision-Making: A Multidisciplinary Experimental Approach

Cecilia Casalegno, Dario N. Palmucci, Cristian Rizzo

University of Torino, Torino, Italy

Abstract

In today's increasingly digital world, university business students, who are the future generation of managers, face significant cognitive challenges resulting from excessive screen time, instant access to information, and compulsive scrolling habits. This phenomenon, often referred to as “brain rot”, has raised serious concerns within both educational and organizational contexts.

Drawing from cognitive psychology, neuroscience, and the literature on managerial decision-making, this study examines the relationship between smartphone and social media use and essential managerial competencies, including attentional endurance, decision-making under uncertainty, complexity management, planning, and interpersonal communication.

We conducted an exploratory correlation analysis on a sample of 133 Gen Z university students to investigate the connection between these cognitive dimensions and both objective (screen time) and subjective (self-reported and perceived addiction) indicators of smartphone and social media usage.

The results indicate that while smartphone addiction significantly correlates with impairments across all cognitive dimensions, objective screen time exhibits selective effects, particularly impacting attentional endurance. Furthermore, social media use proves to be more detrimental than general smartphone use, negatively affecting complexity management and interpersonal interactions.

This research delves into the ways in which digital dependency diminishes strategic thinking and cognitive resilience. By shedding light on these critical issues, it aims to foster the development of future leaders equipped to adeptly navigate the intricate challenges of a technology-saturated landscape.

Keywords: brain rot, strategic decision making, analytical thinking, digital dependency

Corporate Communication and Stakeholder Trust: A Multidisciplinary Approach to Reputation Management in the Pharmaceutical Industry

Chiara Civera, Cecilia Casalegno, Ivan Gnesi, Andrea Pellegrino

Department of Management, University of Turin
Abbvie, Italy

Abstract

This paper explores how pharmaceutical companies, operating in highly regulated environments, can strategically align their corporate communication and marketing functions to build stakeholder trust and enhance brand reputation through purpose-driven initiatives. The study examines the complexities of engaging multiple stakeholders while adhering to strict communication regulations by focusing on disease awareness campaigns.

We employ a two-step methodological approach. First, we conduct an Agent-Based Modeling (ABM) simulation to investigate how different strategic levers—such as institutional engagement, digital tools, and mass communication—affect stakeholder responses, awareness levels, and overall healthcare outcomes. The ABM results indicate that using isolated strategies, like solely relying on mass communication or research networking, is inadequate for achieving systemic awareness or improvements in diagnosis. Instead, effective strategies must be balanced and multi-channel, integrating institutional credibility, professional education, digital innovation, and stakeholder dialogue.

The study advances to a second analytical phase using Deep Embedded Clustering (DEC) to address the limitations of rule-based modeling and gain more nuanced, data-driven insights. This neural network-based technique allows us to identify "good" and "bad" stakeholder engagement clusters based on key performance indicators (KPIs), engagement metrics, and communication variables. DEC enhances strategic personalization and predictive targeting, providing companies with a powerful tool to optimize communication performance.

Our findings contribute to ongoing discussions on digitalization and stakeholder engagement in purpose-driven branding. The study also highlights the importance of integrating corporate communication and marketing to maintain credibility and manage reputational risk in knowledge-intensive, compliance-focused industries like pharmaceuticals.

Keywords: corporate communication, Stakeholder trust and engagement, Agent-Based Modeling (ABM), Purpose-driven branding; Deep embedded clustering model

What if...? Narratives, Stakeholders and Alternate Endings in Value Creation

Damiano Cortese, Cecilia Casalegno

University of Turin, Turin, Italy

Abstract

The research conceptually outlines the nodal importance of narration as a crucial tool supporting stakeholders' moral imagination in the conception of desirable alternatives to the critical existing status quo. This is due to the fact that stories enable people to better understand reality decreasing, at the same time, the ethical pressure related to decisions and actions. Narrative is indeed a central and characterizing human activity orienting – through projections – moral choices, thanks to the evaluation of prospective effects. This is a pathway for value creation based on cooperative generation of knowledge to fully understand the big picture, thereby overcoming problems, crises and trade-offs.

Into this groove, Artificial Intelligence (AI) can play a valuable supporting function thanks to its computing and creative capacity becoming a convenient assistant for stakeholders during the genesis of alternate representations as possible "what if...". AI can in fact contribute to envision further scenarios, making moral imagination even more inventive. Taking into account the doubts and risks connected to AI, control and management of technological tools is needed by the involved stakeholders, to orient the solutions without, of course, limiting the innovative potential. This represents a royal road to overcome a well-known, diffused and increasing resistance and opposition to the cooperation between human and non-human agents.

The paper thus contributes to the concept of moral imagination by adding stakeholders' stories co-design as a creative form of moral imagination and investigating the ancillary role of AI.

The limit of the work is represented by the earlier stage of the still ongoing analysis.

Keywords: Moral imagination, narrative, Stakeholder Theory, Artificial Intelligence, value creation

Digital Innovation for Sustainable Destination Management: Multi-Stakeholder Engagement - On My Way App

Fabrizio Mosca, Valentina Chiaudano, Hafsa Shakil

University of Turin, Italy

Abstract

Destination Management requires strategic coordination of a destination's resources and services through a multi-stakeholder approach to consistently achieve competitive advantage and sustainability goals. While traditional approaches favoured a resource optimization view, recent academic debate favours a holistic one, balancing economic, environmental, and social needs through multi-stakeholder engagement. Stakeholder theory addresses this, stressing that sustainable tourism requires aligning the interests of governments, international tourists, domestic tourists, businesses, and related industries. However, stakeholders often possess conflicting interests, such as profit maximization versus conservation, highlighting the need for robust engagement frameworks.

Digital innovation has emerged as a critical enabler of such collaboration, where technologies like a mobile application may serve the role of a digital platform that facilitates real-time communication, data transparency, and participatory decision-making. Yet, research lacks a unified framework for leveraging digital tools in multi-stakeholder engagement for destination management. This paper addresses this gap by answering our research question: "How can digital technologies enhance multi-stakeholder engagement in destination management to foster sustainable and competitive tourism development?"

Adopting a single case study methodology, our research examines the On My Way App in Italy's Piedmont Region, analyzing both primary (stakeholder interviews) and secondary (project documents) data. Our research seeks to illustrate how technology can align conflicting and overlapping stakeholder interests, build trust, and foster multi-stakeholder decision-making through the app's ability to facilitate communication, resource sharing, and joint initiatives.

Through the app, our framework provides a nuanced, highly contextualized understanding of how digital technologies can foster collaboration among multiple stakeholder groups, driving long-term outcomes. Ultimately, this research provides a practical and scalable framework that supports evidence-based sustainable destination management practices.

Keywords: destination management, multi-stakeholder engagement, sustainable development, digital platform, mobile application

Bibliometric Exploration of Impression Management and Emerging Technologies in Business Communication

Antonio Iazzi, Simona Lamusta, Paola Scorrano, Monica Fait

University of Salento, Lecce, Italy

Unipegaso Telematic University

Abstract

This study offers a bibliometric analysis of impression management (IM) within the evolving landscape of individual and organizational communication, shaped by emerging digital technologies. By analyzing 262 peer-reviewed journal articles indexed in Scopus between 2000 and 2024, the research examines the thematic structure of this interdisciplinary domain.

Performance analysis and co-occurrence network mapping findings reveal a growing interest in IM, particularly over the past decade. The study identifies four core thematic clusters: IM for identity construction through social media; technological augmentation of communicative credibility and authenticity; branding, self-presentation, and user engagement through IM in the age of digital intermediation; socio-psychological dimensions of IM in digital contexts.

The research shows that while IM has been widely explored in psychology, communication, and information science, it remains underrepresented in management and business studies.

The present study contributes to the literature on IM by providing a systematized, multidisciplinary overview of the topic and proposing directions for future research. It advocates for a deeper integration of IM into knowledge management and digital transformation frameworks, emphasizing the need for new communication paradigms to address current challenges.

Keywords: Impression Management, Communication, Digitalization, Emerging Technologies, Stakeholder Engagement

Chatting with AI about Sustainability Reporting and Stakeholder Engagement

Mattia Tamiazzo, Chiara Civera, Weng Marc Lim, Alberto Ferraris,
Valentina Chiaudano

University of Turin, Turin, Italy

Sunway Business School, Sunway University, Selangor, Malaysia

Arizona State University, Tempe, Arizona, USA.

Swinburne University of Technology, Hawthorn, Victoria, Australia

Gnosis: Mediterranean Institute for Management

Abstract

Over the past decade, firms have increasingly shifted from a shareholder to a multi-stakeholder view. This shift reflects a growing awareness that engaging with multiple stakeholder groups can enhance firm performance, improve reputation, and foster long-term value co-creation with and for multiple stakeholders. In this context, Aksoy and colleagues (2022) proposed a three-dimensional framework for multi-stakeholder engagement that includes recognition (acknowledging stakeholder values), support (providing resources), and dialogue (two-way collaboration and value co-creation).

Sustainability reports have become a central tool for communicating these efforts. However, with the rise of Generative AI (GenAI), new implications emerge about the role of AI in analysing sustainability reports. While GenAI tools like language models are increasingly used to summarise content and generate feedback, their ability to detect and evaluate the complexity created considering stakeholder groups and engagement practices remains unclear, especially for GenAI's lack of ethical reasoning and complete contextual understanding.

Our paper aims to understand whether GenAI can effectively identify and interpret multi-stakeholder engagement practices in sustainability reports and provide recommendations aligned with multi-stakeholder engagement frameworks. To understand this, we employed a comparative method between human and AI-based understanding of sustainability reports of business-to-consumer (B2C) brands featured in the RepTrak Report 2025. Specifically, we conducted a content analysis of the brand's sustainability report using Aksoy and colleagues' (2022) framework. Then, the same sustainability reports were analysed by GenAI across three iterative phases: without instruction regarding the multi-stakeholder engagement framework, with a written definition of the three dimensions of the multi-stakeholder engagement framework, and finally, with the paper uploaded.

The findings show that GenAI is capable of recognising and summarising initiatives related to multi-stakeholder engagement, particularly when prompted with clear theoretical input. However, GenAI shows limitations in interpreting complex or nuanced practices, often relying on keyword matching rather than a contextual and deep understanding of the practices. Additionally, results across phases lacked cumulative learning; in fact, GenAI did not integrate previous findings or expand its analysis despite receiving more detailed inputs.

These results highlight both the potential and current limitations of GenAI in analysing and understanding sustainability reports. While helpful in organising information and reducing time for basic analysis, human interpretation remains essential for a better and deeper understanding of the relational, contextual, and ethical aspects of multi-stakeholder engagement practices in the sustainability report. Our study aims to contribute to the emerging literature on GenAI and multistakeholder engagement practices in sustainability reports, offering practical insights into the helpful and sometimes dangerous roles of AI, particularly GenAI.

Keywords: Artificial Intelligence; ChatGPT; Sustainability; Stakeholder; Multi-Stakeholder

Feeling Green, Buying Fast: Neuromarketing Evidence on the Attitude–Behavior Gap and Informational Processing in Sustainable Fashion among Gen Z

Chiara Civera, Brigida Morelli, Margherita Zito, Giuseppina Gifuni,
Vincenzo Russo

University of Turin, Turin, Italy

Università IULM, Milan, Italy

Abstract

Despite increasing environmental and social urgency, the fashion industry continues to exhibit a persistent attitude–behavior gap, particularly among Generation Z consumers who express strong sustainability values yet frequently engage in fast fashion consumption. This study investigates the gap through a multi-method design that combines declarative, physiological, and behavioral data to offer a layered understanding of sustainability attitudes. Specifically, we distinguish between declared attitudes (measured via survey), implicit attitudes (captured through neurophysiological indicators such as EEG, GSR, and HRV), and actual behaviors (observed during product choice in a simulated e-commerce environment with 30 Gen Z participants).

Participants were exposed to four types of sustainability-related information—technical, trend-based, certification-based, and humanitarian narratives. Results reveal that individuals who claim strong pro-sustainability values may show emotional disengagement when faced with rational claims and ultimately choose unsustainable options. In contrast, humanitarian narratives—emotionally and morally grounded—trigger stronger affective arousal, approach motivation, and resilience to price constraints. These findings suggest that messaging capable of conveying the tangible consequences of a sustainable purchase can temporarily realign emotional responses with ethical intentions, thus reducing the gap from within.

The results indicate that the attitude–behavior gap is not merely a matter of inconsistent action, but an embodied misalignment between perceived identity, affective processing, and decision context. This study contributes to dual-process theories of decision-making and provides practical insights for designing emotionally intelligent and morally salient sustainability communication.

Keywords: Fashion Industry; Sustainability; Marketing communication; Neuromarketing; Gen Z

AI Adoption by Italian Startups: A Measurement Framework

Paola Pisano, Rossella Lombardo, Rebecca Bognetti, Rebecca Piolatto, Samuele Rea, Francesco Ricasoli, Elisa Lurago, Maria Antonia Ventriglia, Federico Giorgi

University of Turin, Turin, Italy
Accenture Strategy&Consulting

Abstract

The Italian startup ecosystem provides a rich context to examine the adoption of Artificial Intelligence (AI), since startups are supposed to be at the forefront of new technologies adoption due to their specific nature and characteristics. Despite AI's transformative potential as a general-purpose technology, there is a lack of comprehensive frameworks to measure how Italian startups adopt and integrate AI into their business model and operations. This study addresses this gap by developing an AI Adoption Framework grounded in literature and tailored to startups. The AI adoption framework has been tested on a sample of 14 Italian startups through interviews and data analysis. The results have been analysed through a composite index, the AI Adoption Index (AIAI) to assess the level of AI adoption towards our sample. Findings reveal a moderate-to-high AI readiness among these startups, especially in strategic and technological dimensions, although integration into business models and customer services remains limited. The proposed framework and results contribute to both theory and practice by providing a structured means to assess AI adoption in entrepreneurial ecosystems and guiding strategic interventions.

Keywords: Artificial Intelligence, Startups, Artificial Intelligence Adoption

Interdisciplinary Framework for AI-Powered Restoration Storytelling

Maria Caligaris, Melissa Macaluso, Rossella Lombardo, Paola Pisano

University of Turin, Turin, Italy

Abstract

This paper introduces a multi-layered interdisciplinary framework for AI-powered restoration storytelling and its sets the groundwork for the AI4Re-story tool, that will be developed by HighESt Lab (University of Turin) in collaboration with CCR - La Veneria Reale and with the financial support of Fondazione CRT. This paper explores how Artificial Intelligence (AI) can be integrated into an interdisciplinary framework to create cultural value from restoration data, specifically focusing on how to communicate the often-overlooked material history of artworks. While museum communication typically emphasizes artists, subjects, and contexts, the material aspects of artworks, including their restoration and conservation, are often neglected. These aspects, however, hold valuable insights that can tell rich, untold stories about an artwork's life. Communicating these stories to the general public is challenging, as conservation and restoration knowledge is highly specialized, making it inaccessible to most visitors.

The effectiveness of the interdisciplinary framework for AI-powered restoration storytelling depends on the active involvement and collaboration of a wide range of stakeholders across cultural, technical, and educational domains.

The paper begins by situating this challenge within the broader context of digital transformation in the cultural heritage sector, considering both the potential and difficulties of storytelling in conservation. It then examines existing frameworks for digital and AI-data storytelling, before introducing an interdisciplinary framework for AI-powered restoration storytelling. The AI4Restory project aims to provide a tool that helps curators, restorers, and art historians communicate their work more effectively to different audience segments. This framework aligns with broader societal and technological shifts, addressing the evolving needs of cultural institutions, policymakers, and audiences.

Keywords: Artificial Intelligence, Knowledge Management, Digital Storytelling, Interdisciplinary processes, Restoration

Challenges of Implementing Healthcare Lean Management in Territorial Healthcare: Insights from an Unsuccessful Case

Caterina Pozzan, Anna Tiso, Azemeraw Tadesse Mengistu, Chiara Verbano

University of Padova, Vicenza, Italy

Abstract

Primary care is globally recognised as a fundamental pillar for achieving universal healthcare coverage, supporting the provision of high-quality care within community-based settings. Given the relevance of these services, introducing structured managerial approaches, such as Healthcare Lean Management (HLM), to support quality management can help optimise processes and enhance patient safety and satisfaction. HLM focuses on improving all aspects of care that patients perceive as valuable by reducing waste. However, its implementation and the related sustainability practices needed to ensure project success are still under-investigated in primary care, highlighting the need for further empirical and theoretical studies. To this end, the present paper aims to identify key challenges to the sustainability of HLM implementation, to support improvement initiatives within community healthcare centres. A case of unsuccessful HLM implementation was analysed, focusing on the challenges encountered within an Integrated Family Medicine Centre (IFMC) in Italy. A structured three-step methodology was adopted: (1) identifying a case study involving unsuccessful HLM implementation through case study suitability criteria, (2) identifying challenges to HLM implementation by adapting critical success factors from a previous study, and (3) Conducting focus group discussion on the identified challenges to suggest possible solutions. The findings revealed key challenges grouped into three categories: HLM tools, methods, and people, and outlined potential solutions that emerged through a focus group discussion. These challenges suggest that the organisation was not adequately prepared to support the HLM initiative, underlining the importance of assessing context (organisational) readiness before launching the implementation. This study provides practical insights into the complexities of implementing HLM beyond hospital boundaries, emphasising the need for context-specific solutions. Moreover, it encourages healthcare organizations to focus on detailed planning, structured training programmes, a commitment to continuous improvement, active stakeholder engagement, and enhancing data availability and reliability to successfully implement HLM in community-based centres. Furthermore, the findings of this study can serve as a theoretical basis on future research on HLM. Specifically, researchers could explore the effectiveness of structured HLM training initiatives, strategies to sustain HLM practices, the impact of stakeholder engagement on HLM adoption and continuous improvement, and the integration of relevant digital tools to improve information flow and decision-making in HLM.

Keywords: Healthcare Lean Management, Primary Care, Territorial Healthcare, Sustainability, Challenges

How Artificial Intelligence Reshapes the Role of Professionals: Preliminary Evidence From a Qualitative Study

Eleonora Gheduzzi, Mattia Vincenzo Olive, Luca Gastaldi, Cristina Masella

Politecnico di Milano, Milano, Italy

Abstract

The integration of Artificial Intelligence (AI) into service delivery is reshaping professional roles and value co-creation processes. Drawing on the eight-role framework of Majala et al. (2024), this research investigates how AI modifies professional contributions to value co-creation during service delivery. A qualitative single-case study was conducted in an Italian nursing home that has implemented an AI-based monitoring and decision-support system over the past four years. Semi-structured interviews with eight professionals (managers, nurses, and health workers) were analyzed using an abductive approach. Findings reveal that AI significantly influences all eight professional roles by acting as a catalyst for value co-creation in three ways. As role enhancement - AI enabled professionals to improve communication, foster resident autonomy, raise the organization's image, increase service effectiveness, and enhance users' experience. As role reorganization, AI triggered a reconfiguration of routines and cross-organizational collaboration processes as well as a performance measurement system. As role innovation, AI encouraged the service organization to innovate their modalities of professional-user interactions, their shared knowledge about users and teaching practices. Furthermore, the study also highlights two negative patterns in the role evolution after AI adoption. More precisely, AI can act as a catalyst for value co-destruction by increasing professionals' dependence on AI and raising a sense of worry among professionals during AI adoption. Therefore, AI can both support and limit the evolution of professionals' roles concurrently. This research provides important theoretical and managerial implications, helping service organizations to exploit AI's adoption during the service delivery processes.

Keywords: co-creation, healthcare, role, professional

Enhancing Quality Management in Paediatric Palliative Care Pathways: A Systematic Literature Review

Chiara Pamich, Anna Tiso, Chiara Verbano

University of Padua, Vicenza, Italy

Abstract

The growing population of children living with life-limiting conditions has led to an increasing demand for paediatric palliative care (PPC), which is designed to improve the quality of life for these patients and their families. Despite substantial advances in medical care, access to PPC remains highly inequitable globally, with significant challenges in both high- and low-resource settings. Barriers include limited interdisciplinary expertise, financial constraints and other resource shortages, and the absence of standardized care pathways. These challenges highlight the necessity of improving PPC quality management to ensure safe, effective, and equitable care delivery. This systematic review, conducted following PRISMA guidelines, investigates QI initiatives in PPC pathways. A comprehensive search across major databases using terms related to PPC and QI yielded 538 records, of which 18 met the inclusion criteria. The analysis was conducted in two stages: a descriptive analysis of publication trends and a content analysis of QI settings, performance objectives, implementation strategies, and outcomes. The findings indicate that QI initiatives are concentrated in high-income countries, particularly the United States, with a marked increase in publications after 2018. The studies primarily focus on hospital-based PPC models, with few addressing home or community-based care, despite the growing recognition of their effectiveness. The most common QI objectives included improving clinical effectiveness, timeliness of care, safety, and patient-centeredness. A significant portion of the initiatives involved educational and training interventions for healthcare providers, as well as patient identification tools like trigger lists. Methodologically, only a minority of studies used structured QI frameworks such as Plan-Do-Study-Act cycles. The review highlights several gaps in the literature, including the need for more inclusive research in low- and middle-income countries, as well as opportunities for future studies to explore the application of Lean Management principles and the use of artificial intelligence to enhance decision-making and operational efficiency in PPC. This study offers valuable insights into the current state of QI initiatives in PPC and underscores the need for further innovation. Advancing QI in this field will be essential to ensure a more equitable and sustainable healthcare system and to enhance the quality of care for children with life-limiting conditions and their families.

Keywords: Paediatric Palliative Care, Quality Improvement, Healthcare Management, Literature Review

Transforming Healthcare with AI: Assessing Barriers and Impacts, in a Systematic Review

Emanuela Foglia, Federica Asperti, Sara Pozzi, Federico Filippo Orsini, Giulia Lanzi

LIUC Carlo Cattaneo University, Castellanza (VA), Italy

Abstract

In the context of the fourth industrial revolution, Artificial Intelligence (AI) is increasingly being adopted to address critical challenges in all the industrial fields, as well as within the healthcare one, supporting workforce shortages, guiding resources' allocation and allowing the personalized care approach. While the extant literature has widely explored AI's technical and legal aspects, there remains a significant gap concerning the factors influencing its diffusion and the measurable impacts on clinical decision-making.

This study presents a systematic literature review (SLR) aimed at synthesizing the current evidence on AI applications in healthcare, with a specific focus on their role in supporting clinical decision-making, identifying barriers to adoption, and assessing the main benefits and outcomes. The review was conducted through a structured search on Scopus, and the resulted papers were analysed using both content and bibliometric approaches. A keyword network analysis identified six thematic clusters, including AI application areas, technological infrastructure, advanced tools, ethics, imaging, and personalized medicine.

Findings reveal that AI technologies—such as Machine Learning (ML), Deep Learning (DL), Natural Language Processing (NLP), and Large Language Models (LLMs)—are primarily applied in medical imaging, pathology, cardiovascular medicine, mental health, and telemedicine, demonstrating a high potential in improving diagnostic accuracy, streamlining workflows, and enhancing patient outcomes. However, the adoption of AI is shaped by several enabling and hindering factors: technical challenges, such as the need for high-quality data and lack of transparency in decision-making processes, coexist with ethical, legal, and organizational barriers, including privacy concerns, integration difficulties, and resistance from healthcare professionals.

AI operates across multiple levels: macro (system-level planning and public health), meso (healthcare organizations), and micro (direct patient care), highlighting its pervasive yet context-dependent role. Despite growing evidence of AI's positive impact—especially in diagnostics and operational efficiency—the review underscores the need for a comprehensive evaluation framework that integrates clinical, economic, and ethical dimensions.

This study contributes to the literature by providing a multidimensional overview of AI in healthcare, promoting a wider understanding of its current applications and implementation challenges. By highlighting gaps and proposing areas for future research, it also serves as a valuable guide for practitioners, policymakers and researchers aiming to optimise the integration of AI in clinical settings.

Keywords: Healthcare, AI solutions, clinical decision-making, impacts, barriers

Integrating the Business Model Concept for the Development of Physicians' Dual Practice in Public Healthcare Delivery Systems

Armando Calabrese, Roberta Costa, Francesca Di Pillo, Valerio Schiaroli, Simona Sedda, Luigi Tiburzi

Tor Vergata University of Rome, Rome, Italy

Sapienza University of Rome, Rome, Italy

Abstract

Background: Physicians' Dual Practice (PDP), defined as the concurrent provision of public and private healthcare services by the same physician, presents significant managerial challenges for public healthcare institutions. Its effective governance requires balancing public service obligations with private sector incentives.

Objective: This study aims to develop a comprehensive conceptual business model framework to support the development of PDP within public hospitals. The framework combines regulatory analysis, market evaluation, and the application of the Business Model Canvas (BMC) methodology.

Methods: An inductive approach was adopted, featuring a case study of Policlinico Tor Vergata (PTV), a major university hospital in Italy. The research integrates regulatory context analysis, K-means clustering for market segmentation, and the structured application of the BMC to assess and guide PDP management. Artificial Intelligence (AI) was examined as a strategic enabler to optimize operational processes.

Results: The findings underscore the centrality of regulatory frameworks, organizational governance models, and market dynamics in shaping PDP strategies. Clustering analysis revealed distinct strategic profiles among public healthcare organizations. Furthermore, the study highlights the pivotal role of AI technologies in optimizing waiting lists and balancing public-private service delivery.

Conclusion: By developing a structured and adaptable business model, this study provides actionable insights for policymakers and hospital administrators seeking to enhance the effectiveness of PDP initiatives. The integration of regulatory compliance, market responsiveness, and digital innovation emerges as essential for transforming PDP into a lever for strategic institutional development and improved healthcare delivery.

Keywords: Physicians' Dual Practice, Business Model Canvas, Public Hospital, Healthcare Management, Artificial Intelligence

From Innovation to Integration: A Bibliometric-Systematic Review of Digital Therapeutics and Their Impact on Healthcare

Luigi Jesus Basile

LITEM, Institut Mines-Télécom Business School, Evry, France

Abstract

Digital therapeutics (DTx) are an emerging class of evidence-based software interventions developed to prevent, manage, or treat medical conditions. Their increasing application across clinical settings reflects their potential to improve healthcare accessibility, enhance patient engagement, and support better treatment outcomes. When combined with artificial intelligence (AI), DTx can offer advanced capabilities such as real-time monitoring, personalised interventions, and predictive analytics, further strengthening its clinical impact. However, despite these technological advancements, widespread adoption remains limited due to persistent challenges in regulatory compliance, integration within clinical workflows, and the lack of standardised frameworks for evaluating effectiveness. This study presents a systematic literature review conducted according to PRISMA guidelines to explore the empirical landscape surrounding the implementation, ethical integration, and assessment of DTx within healthcare systems. From an initial pool of 1,951 records, 114 peer-reviewed studies met the inclusion criteria. The analysis identified three central research gaps: first, barriers to integration arising from limited acceptance by healthcare providers and patients; second, unresolved ethical and regulatory issues related to AI use, particularly concerning data privacy, algorithmic bias, and transparency; and third, the absence of consistent clinical benchmarks for evaluating DTx across different therapeutic areas. Bibliometric and thematic analyses reveal a rapidly expanding body of literature, with increasing attention to mental health and chronic disease management. AI integration stands out as a promising yet insufficiently validated DTx dimension. These findings highlight the need for unified regulatory approaches, robust ethical oversight, and interdisciplinary collaboration to support digital therapeutics' safe and effective integration into routine clinical care.

Keywords: Digital therapeutics, DTx, Digital transformation, Healthcare, Artificial Intelligence

Driving the Potential Application of AI in Time-Sensitive Clinical Workflows: A Case Study on Stroke Care

Salvatore Ammirato, Alessandro Russo, Laura Cutrì, Roberto Linzalone

University of Calabria, Rende, Italy

Abstract

Despite rising healthcare costs, many health systems still fall short of patient and policymaker expectations for quality and efficiency. A major challenge is the integration of technological innovations, especially Artificial Intelligence (AI), into healthcare processes. AI has significant potential to improve clinical pathways, particularly in time-sensitive processes like stroke care, where every second counts. However, research on how to best utilize AI in these contexts remains limited. This paper examines the drivers for successful AI application in time-sensitive workflows, focusing on stroke care in Calabria, Italy. Using Business Process Model and Notation (BPMN), the study maps current workflows and analyzes potential AI interventions. Findings highlight the importance of systemic, integrated AI solutions that optimize entire workflows, offering actionable insights for the design of AI-enabled clinical processes that ensure timely, effective care.

Keywords: Clinical workflow, Artificial Intelligence, Health System, AI intervention, Time-sensitive process

Exploring the Intricate Relationship between Artificial Intelligence and Healthcare Organizations

Lorella Cannavacciuolo, Paolo Mancuso, Alessandro Scarpa

University of Naples Federico II, Naples, Italy

University of Rome "Tor Vergata", Rome, Italy

Abstract

This paper explores the role of Artificial Intelligence (AI) in the healthcare industry through a literature review based on Latent Dirichlet Allocation (LDA) topic modelling. While previous reviews have employed narrative or systematic approaches grounded in keyword co-occurrence, citation networks, or predefined topic categories, this study adopts an unsupervised learning technique capable of identifying latent themes within large volumes of unstructured data. This methodological shift allows for a more nuanced and dynamic understanding of emerging trends in AI applications across diverse healthcare domains. The literature search was conducted using the ISI Web of Science (WoS) Core Collection. From an initial dataset of 36,113 documents, a series of exclusion criteria—limited to English-language articles, published in peer-reviewed journals ranked in Q1, with at least five citations and complete metadata—reduced the dataset to 1,962 papers. This refined corpus ensures the inclusion of high-impact and reliable scientific contributions. The findings reveal three overarching themes that underpin the integration of AI in healthcare: data, algorithm, and decision support systems. These elements are tightly interlinked and collectively essential to successful AI implementation. A narrow focus on decision support without addressing algorithmic transparency or data quality may result in fragmented or unsustainable solutions. This study contributes to the growing body of research by identifying the key thematic areas that guide AI integration in healthcare and by highlighting the importance of a holistic approach. It offers valuable insights for researchers, practitioners, and policymakers seeking to understand the evolution of AI in healthcare and to promote more effective, ethical, and robust implementations.

Keywords: Artificial Intelligence, Healthcare, topic analysis, Latent Dirichlet Allocation (LDA)

A Value-based Perspective of Artificial Intelligence for Teledialysis: an Ongoing Experiment

Antonio De Pascalis, Alessandro Distante, Salvatore Distaso,
Gianluca Elia, Gianluca Lorenzo, Alessandro Margherita, Amalia
Mariotti, Marcello Napoli, Daniele Prete, Gianluca Solazzo, Anna
Zito

ASL Lecce, Lecce, Italy

ISBEM – Istituto Scientifico Biomedico Euro Mediterraneo, Mesagne, Italy

ASL Brindisi, Mesagne, Italy

University of Salento, Lecce, Italy

Abstract

In the coming decades, societies will face increasing challenges due to population aging and a rise in chronic illnesses, especially chronic kidney disease (CKD), which affects roughly 10% of adults globally and is projected to become one of the top five causes of death by 2040. This scenario calls public and private actors for conceptualizing and developing more efficient and sustainable care models that exploit the potential of digital technologies. In this perspective, telemedicine has emerged as a promising digital enabler that offers real-time communication and data exchange between patients and healthcare providers. A significant innovation in telemedicine is the integration of artificial intelligence (AI), which enables early identification of health risks, reduces hospital admissions, and supports decision-making in home care settings. In nephrology, AI has been applied to forecast acute kidney injury, track CKD progression, and optimize anemia management in dialysis patients. Despite these advancements, there is a lack of research specifically focused on AI applications in home haemodialysis (HHD), which represents a care model that already offers numerous benefits, including lower costs, reduced infection risks, increased patient autonomy, simplified workflows for healthcare professionals, and environmental advantages. By integrating AI into HHD, it becomes possible to further enhance this model by enabling real-time monitoring, early risk detection, accurate diagnostics, and personalized treatment pathways. By following a design science research methodology, this research aims to explore how AI can reinforce HHD practices. Drawing on real-world experiences from two Italian healthcare institutions - the Vito Fazzi Hospital in Lecce and the Cardio-nephrology Clinic in Mesagne - the study proposes an integrated model that brings together multiple data sources: dialysis parameters, cardiovascular indicators, and nutritional protocols. The model supports a range of AI-enabled services (i.e., diagnostic, predictive, and prescriptive) to improve care quality and personalize treatment for CKD patients at home. Results consist in a conceptual framework articulated in four layers (Input and Pre-processing layer, Domain-specific Processing layer, Cross-domain Integration layer, Task-oriented Service Delivery layer) that integrates diverse data streams and generates actionable insights for patient care. The AI-enabled services characterizing the fourth layer are described along a multiple performance model: health, economics, social factors, and the environment. In conclusion, the study demonstrates that integrating AI into telemedicine can revolutionize CKD management in home settings, promoting a more efficient, patient-centered, and sustainable healthcare model.

Keywords: Artificial Intelligence; Haemodialysis; Model; Teledialysis; Telemedicine

Technology and Heritage: Artificial Intelligence Applied to the Diagnosis and Conservation of Ceramic Materials

Fabiola Colmenero Fonseca, Amparo Borrell, Lauren Yolanda Gómez Zamorano, Rut Benavente

Polytechnic University of Valencia. Valencia, Spain

Autonomous University of Nuevo León. Nuevo León, Monterrey, Mexico

Abstract

The conservation of ceramic materials in cultural heritage faces challenges due to their vulnerability to environmental factors such as humidity, extreme temperatures and natural wear. These materials are essential in architecture and historical artifacts, requiring specialized interventions to preserve their cultural and aesthetic value. This research explores the use of artificial intelligence (AI) to optimize the diagnostic and conservation processes of ceramic materials in cultural heritage, addressing the lack of effective methodologies that combine accurate analysis with sustainable interventions.

Through a methodology based on machine learning algorithms, high-resolution digital images and data obtained from advanced sensors, such as humidity, temperature and vibration, were analyzed. The data were also complemented with environmental monitoring techniques to obtain a comprehensive view of the factors affecting conservation. The objective is to identify and evaluate the state of conservation of ceramic materials through a predictive solution that facilitates early and accurate interventions. To this end, AI models were trained to detect deterioration patterns, such as microcracks and changes in molecular structure, which are imperceptible to the naked eye.

Preliminary findings indicate that AI can identify deterioration patterns in ceramic materials with an accuracy of over 90%. These results suggest that the implementation of AI not only improves diagnostic accuracy, but also the speed of interventions, optimizing decision making in conservation processes. The ability of AI to process large volumes of data and learn from previous patterns also offers new possibilities for preventive interventions, reducing the risk of irreparable damage.

In terms of qualitative results, it was observed that the integration of AI in conservation reduces the dependence on manual and observational methods, which often limit the efficiency of interventions. In terms of quantitative results, a significant improvement in the accuracy of deterioration detection was achieved, reaching levels of more than 90% in the identification of microcracks and structural alterations. In conclusion, the research shows that AI has great potential to transform the conservation of ceramic materials in cultural heritage, improving the accuracy and efficiency of interventions. Integrating this technology facilitates a more sustainable and scalable approach, allowing the model to be replicated in different regions without the need for specialized experts, ensuring the long-term conservation of cultural heritage.

Keywords: Ceramic materials, Cultural heritage, Artificial Intelligence (AI), Conservation diagnosis, Sustainable restoration

Knowledge Management and Artificial Intelligence to Recover Constructive Knowledge and Materials from the Golden Triangle

Kevin A. Echeverry B, Fabiola Colmenero Fonseca, Ramiro Rodríguez Pérez, Javier Cárcel-Carrasco

Polytechnic University of Valencia. Valencia, Spain

Abstract

The integration of artificial intelligence (AI) into architecture presents novel opportunities for design innovation. However, it is imperative to undertake empirical research to explore heritage conservation through AI-based applications capable of assessing and enhancing the preservation state of 19th- and 20th-century buildings and structures. This study employs participatory methodologies involving architects, construction professionals, and local communities to gather inputs for implementation. A SWOT analysis is utilized to examine a selected case study, enabling the identification of conservation gaps and strategic priorities. Focusing on the construction techniques influenced by the 19th–20th century "Antioquian Migration," the research emphasizes material recovery and characterization. Key vernacular materials—such as bahareque, rammed earth, guadua bamboo, and traditional carpentry—are analyzed for their physical properties and associated building techniques. The findings highlight their contextual efficiency, ecological relevance, and potential for sustainable reuse.

The project adheres to ESG (Environmental, Social, and Governance) principles and aligns with Sustainable Development Goals (SDGs) 4 (Quality Education), 10 (Reduced Inequalities), 11 (Sustainable Cities and Communities), and 17 (Partnerships for the Goals). It aims to safeguard intangible heritage and promote knowledge transfer to future generations of designers and practitioners.

Keywords: Heritage architecture, Constructive knowledge, Golden Triangle, Colombian architecture, Use of AI in architecture

Designing and Scaling GovTech Solutions Through Stakeholder Engagement. The Case Study of WiseTown's Digital Twin

Ilaria Mariani, Marzia Mortati, Francesca Rizzo

Department of Design, Politecnico di Milano, Milano, Italy

Abstract

This article investigates the role of stakeholder engagement in the development and deployment of GovTech solutions, using WiseTown—an Italian City Digital Twin (CDT) ecosystem of digital solutions—as a case study. Rooted in a socio-technical perspective, the study explores how engagement with diverse stakeholders—municipal leaders and technical officers—shapes the co-design, adaptation, and scaling of GovTech solutions in real-world contexts. Drawing on a semi-structured expert interview and supported by secondary materials, the analysis explores how WiseTown's digital ecosystem evolves through collaborative practices. The findings are structured around four key facets of stakeholder engagement: entry points and layered engagement strategies; co-design and feedback mechanisms; handling institutional resistance; and inter-municipal scaling. The study highlights a set of mechanisms—such as co-design workshops, civic tech modules, and flexible deployment models—that foster both top-down and bottom-up stakeholder engagement. These approaches enable the co-evolution of digital tools with the needs of local administrations and communities. Lessons derived from the case underscore that stakeholder engagement is not just a participatory ideal but a practical enabler for adoption, usability, and scalability. The article contributes to the GovTech literature by offering empirical and actionable insights on how engagement can overcome institutional resistance, support collaboration, and ensure long-term relevance, while enabling the design and institutionalization of inclusive, scalable, and context-sensitive public sector innovation.

Keywords: GovTech, Stakeholder Engagement, Public-Private Collaboration, Multi-helix ecosystem, Design-driven Innovation

Artificial Intelligence and the Future of Copyright Law

Sabrina Picone

University of Rome Tor Vergata, Rome, Italy

Abstract

The advent of generative Artificial Intelligence (AI) represents a significant challenge for contemporary copyright law. As the capacity of machines to generate content autonomously has increased, the distinction between human creation and automated production has become increasingly indistinct. This raises fundamental questions concerning the attribution of authorship and the ownership of rights. The prevailing legal framework, which is primarily anchored to the “human author” concept, is ill-equipped to resolve these issues uniformly and coherently. The intensity of the international debate has increased in recent years. Legislatively speaking, the adoption of EU Regulation 2024/1689 (AI Act) represented a significant turning point in the governance of AI. Although it does not directly regulate copyright, it introduces transparency for providers of general-purpose AI models, imposing, among other things, the obligation to document the content used for training algorithms and to comply with European copyright law, with particular reference to EU Directive 2019/790. Concurrently, the Italian legislator recently approved DDL no. 1146/2024, which proposes to extend copyright protection to works created with the help of AI, provided they are the result of human intellectual work.

Keywords: Artificial Intelligence, Copyright, AI-Generated Works, EU Regulation 2024/1689 (AI Act), Author

Platform Capitalism and the State: Between a New Balance of Power and Geopolitical Competition

Cristina Simone, Maria Antonietta De Cesare

La Sapienza University of Rome, Rome, Italy

Abstract

The advent of digitization has significantly changed how we live and work, and information society services - especially intermediate services - have become crucial components of our everyday lives. Platform capitalism, which is characterized by the dominance of major digital platforms that have substantial influence across different sectors, has emerged as a result of this digital transition. The widespread impact of these platforms raises serious concerns about their societal ramifications, especially in relation to individual rights, democratic governance, and geopolitical competition. This phenomenon has given rise to the term "state platform capitalism", where governments increasingly leverage dominant digital platforms for their own political and economic agendas.

Aspects of this phenomenon have been examined in the literature to date, but there are still significant gaps in the extant research. Specifically, further research is required to fully comprehend how platform capitalism impacts public speech, accountability, and participation as well as how the power of digital platforms interacts with democratic processes. A small number of dominant digital platforms strongly affects international politics, data sovereignty, and technological competition. Additionally, given the growing competition between China and the United States in the digital sphere and the regulatory role of European Union, the geopolitical implications of platform capitalism demand further scholarly attention.

The purpose of this paper is to fill the literature gaps by carefully examining the complex interactions between platform capitalism and the State. With this aim, and applying a qualitative methodology, this work: first, analyzes the state of the art; second, proposes a definition and identifies the challenges of the platform infrastructural power; third, discusses the main models of the relationship between dominant platforms and the State. Eventually, further research paths are suggested.

Keywords: State Platform Capitalism; Digitization; Geopolitical Competition; Dominant platforms; Infrastructural Power

Cybersecurity in the Legal Context: State of Art and Next Challenges

Marco Chironi, Benedetta Coluccia

University of Salento, Lecce, Italy

Pegaso University, Naples, Italy

Abstract

In recent years, the issue concerning digital security has become increasingly important. Academics within an interdisciplinary approach are debating the topic and how to ensure and implement digital information security from the perspective of both companies and consumer users. The issue affects both the public and private sectors and requires coordinated and effective policy action.

The risks associated with such attacks are closely linked to identity theft, cyber fraud, and money laundering.

In order to address the security-related emergency, the European legislator has enacted several legislative acts. The purpose of this paper is to explain, through a legal analysis, the current regulatory framework examining the new developments and identifying any remaining gaps.

From this analysis, it appears that the topic has recently been the subject of several legislative actions. In this scenario, the NIS 2 Directive (Directive EU 2022/2555) represents a crucial update in the European Union's legislation for network and information security. This work points out the lack of remedies for individuals in the case where the parties addressed by all regulatory interventions fail to respect their obligations.

At the same time, there is no doubt that cyber incidents have a significant impact on the profits of companies. In this regard, the Corporate Sustainability Reporting Directive (CSRD 2022/2464) introduced the inclusion of cybersecurity information in the annual report as non-financial information. For this reason, it is useful to investigate how the cybersecurity obligations contribute to the quality of sustainability reporting.

To address the application problems of these regulations, in the final part of the paper, it could be proposed to use blockchain tools to implement the certainty of digital identity and the integrity of the entered information.

Keywords: Cybersecurity; Data Protection; sustainability; compliance; blockchain

The Impact of AI on Patient Interactions in Healthcare: Towards Dehumanisation or Rehumanisation?

Dóra Horváth, Noémi Szilvia Lőrincz

Corvinus University of Budapest, Budapest, Hungary

Abstract

The advent of artificial intelligence (AI) has precipitated profound changes across various sectors, with healthcare being a prominent area of transformation. This study explores the application of AI in patient communication and management, focusing particularly on the dual potential of these technologies to contribute to either dehumanisation or rehumanisation in clinical practice. While AI offers significant opportunities for improving efficiency, reducing administrative burdens, and enhancing personalised care, it also raises concerns about the erosion of empathy, the loss of human connection, and the ethical implications of machine involvement in care delivery. To gain insight into these dynamics, seven semi-structured interviews were conducted with healthcare professionals and related stakeholders. The findings indicate that participants largely view AI not as a replacement for human clinicians but as a supportive tool capable of optimising workflows and freeing up time for more meaningful patient interactions. In this regard, many interviewees highlighted the rehumanising potential of AI, namely its ability to enable doctors to focus more on core clinical tasks and patient relationships. However, it is also emphasised by interviewees that empathy, trust, and emotional intelligence, which are all qualities that are indispensable to successful medical interactions, cannot be replicated by current AI systems. This underscores a key limitation of AI and the risk of dehumanisation, especially if overreliance on technology reduces opportunities for human engagement. The study further identifies critical conditions for successful AI integration, including optimised organisational processes, improved AI literacy, and robust data management. Trust emerged as a central theme, influenced by generational differences and the perceived need for public institutions to lead the regulation, education, and ethical implementation of AI in healthcare. The findings suggest that, when implemented thoughtfully, AI can reinforce rather than replace the human elements of healthcare, contributing to a rehumanised, patient-centred system that leverages technology to support, not supplant, the doctor-patient relationship.

Keywords: patient communication, patient-centered care, dehumanisation, rehumanisation, trust

Human-Machine Interaction and Robotics in Healthcare: A Research Programme as a Starting Point

Alba Maria Gallo, Ubaldo Comite, Eveny Ciurleo

Giustino Fortunato University, Benevento, Italy

University of Calabria, Cosenza, Italy

Abstract

The increasing adoption of artificial intelligence (AI) and robotics is leading to a profound transformation of the healthcare sector (Raimo et al., 2022), affecting diagnostic accuracy, optimising clinical processes and redefining care practices (Comite, 2022). Collaboration between healthcare professionals and intelligent machines is a key element in the evolution of care, redefining roles and changing traditional organisational structures (Çetin, 2024).

However, large-scale implementation is hampered by acceptance barriers, behavioural resistance and ethical and regulatory issues. This integration presents an opportunity to increase efficiency and reduce the margin of error (Babashahi, 2024), yet questions remain about safety, reliability and the impact on professional skills (Nivethithitha et al., 2014). Adoption depends largely on the trust healthcare professionals place in these technologies, transparency in algorithmic decision-making, and the availability of resources and adequate training.

The study asks: "How does human-computer interaction affect the acceptance of digital technologies by healthcare professionals and what strategies can be implemented to improve their adoption?"

To answer this, the authors conducted a systematic literature review (Massaro et al., 2016), analysing articles from Web of Science (WoS) and Scopus. The selection process combined automated and manual searches, identifying 11 relevant studies. Inclusion criteria focused on works addressing acceptance factors, barriers, and implementation strategies of AI and robotics in healthcare. Technical studies without a human-computer interaction perspective were excluded. Recent literature also highlights the growing role of AI-powered assistants, where human-chatbot interactions redefine service delivery (Akpan et al., 2025).

The aim is to create a strategic agenda for adopting AI and robotics in healthcare, identifying strategies and methods, including empirical ones, to facilitate integration and improve perception among professionals.

Findings show that acceptance depends on trust, perceived usefulness, ease of use and training adequacy. Resistance stems from fear of a diminished human role, regulatory uncertainty and ethical concerns linked to automation. Effective strategies include transparency in decisions, involving healthcare workers in development, and specific training programmes.

Human-computer interaction is redefining healthcare, promoting a collaborative model between professionals and AI. For this transition to succeed, organisational, ethical and training challenges must be addressed. Institutions must invest in training and policies for responsible and sustainable integration (Murugan et al., 2024). Recent studies also emphasize AI-driven assistants as tools to enhance collaboration and bridge gaps in professional-patient interactions (Liu et al., 2024). The adoption of AI and robotics (Kaur, 2024) offers a unique chance to improve care, but requires a strategic, interdisciplinary approach. This contribution offers a foundation for future research and for defining effective, sustainable implementation models.

Keywords: Artificial intelligence, Robotics, Healthcare, Human-machine collaboration

Specific Learning Disabilities (SLD) and Artificial Intelligence (AI): A Bibliometric Analysis

Guendalina Capece, Tindaro Cicero, Daniela D'Auria, Flavia Di Costa

Universitas Mercatorum, Rome, Italy

Abstract

This study conducts a bibliometric analysis of the scientific literature addressing the intersection between Specific Learning Disabilities (SLDs) and Artificial Intelligence (AI), a field that has been gaining increasing relevance due to the transformative potential of AI-based interventions in education. SLDs, including dyslexia, dysgraphia, and dyscalculia, significantly impact learning processes and academic outcomes, making it crucial to explore innovative approaches for their early identification and personalized support. AI technologies, such as machine learning, natural language processing, and adaptive systems, offer promising tools to enhance educational inclusion and tailor interventions to individual learning needs. By leveraging data-driven methodologies, AI can provide dynamic and responsive learning environments, improving both engagement and outcomes for students with diverse cognitive profiles.

Using data retrieved exclusively from the Scopus database and analysed through the Bibliometrix R package, this research examines publication trends, citation patterns, international collaboration networks, and thematic evolutions within this interdisciplinary domain. The analysis reveals a substantial increase in research output since 2020, highlighting a growing academic and technological interest in leveraging AI to address SLD challenges. Countries such as the United States, Spain, Italy, and India emerge as key contributors, fostering an expanding global collaboration network. These international partnerships reflect a shared commitment to addressing the complex and multifaceted nature of learning disabilities through cross-disciplinary research efforts.

Thematic mapping identifies core topics like dyslexia, machine learning, and personalized learning systems, alongside emerging themes such as contrastive and adversarial machine learning approaches, which represent innovative frontiers for future exploration. In particular, these advanced AI techniques show potential in enhancing diagnostic precision and developing more adaptive educational tools. Despite this promising landscape, the study underscores the need for broader empirical validation and interdisciplinary cooperation involving educators, AI researchers, and healthcare professionals. Meta-analytic evidence also suggests the importance of integrating cross-disciplinary insights when developing AI tools tailored to the needs of students with disabilities (Zhang, Carter Jr., Liu, & Peng, 2024).

The findings emphasize the strategic role of AI in promoting educational equity and suggest future research directions to consolidate and expand this field, ultimately contributing to more inclusive and effective learning environments for individuals with SLDs. Such efforts are essential to bridge existing gaps in access to tailored educational resources, ensuring that technological innovation translates into tangible benefits for learners worldwide.

Keywords: Specific Learning Disabilities (SLD); Personalized Learning; Inclusive Education; Artificial Intelligence (AI); Bibliometric Analysis

Artificial Intelligence as a Tool for Building Innovative Organizational Strategies in Market Consolidation

Ivone Junges, Clarissa Carneiro Mussi, Eduardo Anibal Blanco

University of Southern Santa Catarina-Unisul, Florianópolis, Brazil

Abstract

Keywords: The objective of this study is to understand the process of developing and constructing organizational strategies for market consolidation through the use of artificial intelligence (AI) in healthcare organizations located in the southern region of Santa

Healthcare in the Digital Age: A Systematic Literature Review on the Impact of AI and Big Data on Business Models and Patient Value

Nunzia Carbonara, Davide De Vita

Polytechnic University of Bari, Italy

Abstract

The integration of data-driven technologies (DDTs)—such as Artificial Intelligence, Big Data, Machine Learning, and the Internet of Things—into healthcare delivery has sparked significant transformations within provider business models, reshaping how value is created, delivered, and captured across the patient journey. Despite growing scholarly interest, existing research often isolates technological capabilities or primarily examines new market entrants, overlooking how traditional healthcare providers strategically leverage these technologies within their existing frameworks, particularly under a value-based healthcare (VBHC) paradigm. This systematic literature review addresses this gap by examining the specific impacts of DDTs on traditional healthcare providers' business models through a structured analysis of 44 peer-reviewed studies identified using the PRISMA framework from Scopus, Web of Science, and PubMed databases. Our findings systematically map how DDTs influence value creation, delivery, and capture across six distinct phases of the patient journey—prevention, acceptance, diagnosis, treatment, discharge, and follow-up. The analysis demonstrates that DDTs significantly enhance clinical precision, operational efficiency, proactive patient management, and personalization of care, while simultaneously enabling cost optimization, improved patient outcomes, and stronger competitive positioning. By highlighting the multidimensional effects of DDTs on incumbent providers, this study advances theoretical understandings of digital transformation in healthcare. Furthermore, it provides practical insights for healthcare managers by delineating strategic opportunities and implementation considerations, ultimately guiding more informed decisions in adopting these emerging technologies within a VBHC framework.

Keywords: Data-driven technologies, Value-based healthcare, Healthcare business models, Patient journey, Digital transformation

Governance for Transition: Regulatory Incentives and Stakeholder Engagement in the New European Bauhaus

Gabriella Esposito, Stefano Bresciani, Ciro Troise, Simona Alfiero

University of Turin, Management Department “Valter Cantino”, Turin, Italy

Academy of Architecture and Urban Studies, Tallinn University of Technology, Tallinn, Estonia

Gnosis: Mediterranean Inst. for Management Science, School of Business, University of

Abstract

This paper investigates how regulatory frameworks and financial incentives influence stakeholder engagement and the institutionalisation of grassroots innovations within the New European Bauhaus (NEB) initiative. Launched by the European Commission as a creative and interdisciplinary extension of the European Green Deal, the NEB aims to foster more inclusive, sustainable, and aesthetically engaging urban environments. Despite its transformative ambitions, limited empirical evidence exists on how NEB projects evolve from local experimental niches into institutionalised practices embedded within mainstream governance systems.

Building on Transition Theory and the Multi-Level Perspective (MLP), this study conceptualises NEB projects as niche innovations operating within broader socio-technical regimes. It explores how policy instruments shape the dynamics of stakeholder engagement, knowledge diffusion, and adaptive governance. By integrating governance studies into the MLP framework, the paper addresses a critical gap in the sustainability transitions literature: the institutional conditions necessary to scale bottom-up initiatives. Methodologically, the study adopts a qualitative embedded case study design. Data were collected through an online self-assessment form distributed to all NEB prize finalists, complemented by secondary document analysis and semi-structured interviews with project leaders across diverse socio-political contexts. The findings reveal that regulatory incentives are key enablers of stakeholder engagement, particularly when supported by strong institutional backing, clearly defined roles, and mechanisms for continuous co-creation. However, the effectiveness of these incentives is uneven. Ambiguities in policy implementation and disparities in resource accessibility limit participation for smaller or less institutionally connected actors. Some projects succeed in aligning local stakeholders around shared goals, facilitated by municipal support and EU funding, while others struggle with bureaucratic barriers and limited access to technical expertise.

Theoretically, the study extends the MLP by embedding stakeholder co-creation and adaptive governance mechanisms into transition analysis. Empirically, it provides one of the first grounded assessments of how NEB projects scale and institutionalise within multi-level governance structures. Practically, the research offers policy recommendations aimed at strengthening long-term engagement mechanisms, improving the accessibility of funding tools, and fostering cross-sectoral collaboration between local authorities, civil society, and industry.

Ultimately, this study contributes to a more comprehensive understanding of how participatory governance and regulatory design intersect in shaping urban sustainability transitions. It underscores the need for flexible, iterative governance models that allow experimental initiatives to influence policy landscapes and highlights the importance of inclusive and sustained stakeholder engagement for the institutional success of visionary policy agendas such as the NEB.

Keywords: New European Bauhaus, Stakeholder, Policy, Governance, Collaboration

Crowdfunding Failures: An Opportunity for Stakeholder Collaboration?

Ciro Troise, Stefania Testa, Gabriella Esposito, Guido Giovando

University of Turin, Turin, Italy

University of Genova, Genova, Italy

Abstract

The crowdfunding phenomenon has grown exponentially over the years; however this type of financing mechanism does not only include successful initiatives, but there are also numerous cases of failed campaigns in which the proponents do not receive any funding. While most of the studies focused on the post-campaign phases of successful initiatives, a very limited number of scholars have explored the case of unsuccessful initiatives. This study is one of the first to focus on the latter and try to shed some light on the dynamics of the initiatives that have faced such a failure. We conducted qualitative and inductive research based on interviews with proponents of failed CF campaigns in the Italian context and secondary data (in particular from websites, social media, updates). The preliminary findings highlight that significant differences exist between the initiatives failed in the reward-based CF context and the equity-based CF context, as well as the stage of development of the business. Most of the interviewees highlighted the significant learning opportunity for them and the importance of creating collaborations with different stakeholders; at the same time, they faced different emotional challenges in such a scenario. This study could have useful implications for theory and practice. Among the main stakeholders involved are entrepreneurs, CF platforms, investors, policy-makers, governments, incubators/accelerators.

Keywords: crowdfunding, entrepreneurs, stakeholders, failures, startups

How the Three-Dimensional Porter Model Redefines Value Creation: Framework, Analysis and Application

Barbara Fasoli Braccini, Federico Gaeta

UnitelmaSapienza University of Rome, Rome, Italy

Abstract

Michael Porter's value chain model has long been a cornerstone of strategic business analysis, emphasizing the distinction between primary and support activities to achieve competitive advantage. However, in today's increasingly complex and dynamic business environment, the traditional two-dimensional structure of the value chain appears insufficient to capture the intricate interactions that drive value creation. The emergence of cross-functional competencies, generative technologies, and sustainability factors calls for an evolved framework that integrates these elements into a multidimensional perspective.

In the modern business landscape, companies face challenges that require a more holistic approach to value creation. Cross-functional competencies, such as collaboration between departments, are essential for innovation and efficiency. Generative technologies, including AI and machine learning, are transforming how businesses operate and compete. Additionally, sustainability factors are becoming increasingly important as companies strive to meet environmental and social responsibilities. These elements cannot be adequately addressed within the confines of Porter's traditional model.

This article proposes a three-dimensional extension of Porter's model, introducing diagonal factors that interact simultaneously with both primary and support activities. By conceptualizing value creation in a three-dimensional system, businesses can better understand and optimize the dynamic interplay between operational processes, support structures, and diagonal capabilities. This new perspective aims to enhance decision-making, drive innovation, and improve long-term competitive positioning.

The three-dimensional model gives the opportunity to achieve a more comprehensive analysis of how different elements interact and contribute to overall value creation. The evolution of Porter's value chain in a three-dimensional framework provides businesses with a more robust tool for strategic analysis. Considering the complex interactions of generative technologies gives to the companies the opportunity to better challenge the modern business environment and achieve sustainable competitive advantage.

Keywords: Value Chain, Diagonal Factors, Agentic AI, Competitive Advantage

New Collaborative Ecosystems: Do they Create Stirring Dynamics on Footwear Industries Value Chain and Business Network to Integrate Societal Challenges?

Nibedita Saha, Nabanita Saha, Tomas Sáha, Sharad Srivastava, Petr Sáha

Tomas Bata University in Zlín, Czech Republic
Footwear Design and Development Institute, Noida, India

Abstract

This academic paper aims to emphasize the importance of emerging collaborative ecosystems and their potential to enhance innovative interactions within the value chain and business network of the footwear sector in addressing societal issues. Currently, the rise of collaborative ecosystems and networks within businesses is seen as a strategic approach to operations. By reorganizing supply chains, it affects the value chain and business network to include initiatives that tackle societal issues. On the other hand, the digital transformation of businesses has become a major challenge in the 21st century, as organizations work to keep pace with the fundamental digital advancements in materials and technological processes that are crucial for their development. While companies encounter difficulties in adjusting to the new principles of Industry 5.0 and Society 5.0, these frameworks improve the contributions of diverse stakeholders by leveraging digital technologies to generate sustainable value and foster societal well-being. This paper examines how different collaborative methods allow organizations to investigate the ways in which collaborative initiatives among various institutions can foster a supportive environment for vocational education and training (VET) institutions and universities, ultimately strengthening their capacity to develop business incubators. At present, business incubators have become well-known mainly due to efforts from entrepreneurial universities, especially in public sector organizations. This recognition stems from their contribution to the European Union's development strategy aimed at integrating science with and for society (SWAFS), which provides crucial scientific and technological support to address modern business demands. Lastly, it is important to emphasize that the transition to the new paradigms of Industry 5.0 and Society 5.0 significantly hinges on the initiatives of entrepreneurial universities to increase awareness of institutional innovation, foster an entrepreneurial mind-set, and establish a digital innovation framework. These factors collectively promote entrepreneurial ventures in the footwear sector, creating social, collaborative, and commercial benefits.

Keywords: Business Network, Collaborative Ecosystems, Entrepreneurial Ecosystems, Footwear Industry, Societal challenges

From Sustainability to Success, The Moderating Role of High-Tech Sector Affiliation in Equity Crowdfunding

Yassine Boutouar, Maurizio La Rocca, Tiziana La Rocca, Augusto D'Amico

University of Calabria, Italy

Abstract

Equity crowdfunding (ECF) has emerged as an essential funding tool for sustainability-oriented ventures (SOVs). This study examines the relationship between sustainability orientation, high-tech sector affiliation such as information technology, pharmaceuticals, electronics, and telecommunications, and ECF campaign success in the Italian market. We analyze 140 ECF projects from 2017 to 2023, employing artificial intelligence techniques to classify campaign sustainability orientation. We examine the impact of SOVs on various ECF success metrics, including total funds raised, success ratio, and normalized success. Moreover, we explore the potential moderating role of high-tech sectors on the effect of sustainability orientation on campaign performance. Results reveal that SOVs have a significant positive impact on ECF success across multiple metrics, with the positive contribution of high-tech sector affiliation amplifying this effect.

Keywords: Equity crowdfunding, sustainability-oriented ventures (SOVs), high-tech sectors, artificial intelligence, campaign success.

Sustainability Maturity Models in the Context of Quality Management

Kaisa Sorsa, Heidi Salokangas, Heli Aramo-Immonen

Turku University of Applied Sciences, Turku, Finland

Abstract

Given the dynamic changes in the regulatory environment, doing business in a global network (e.g. shipbuilding network) and the increasing use of voluntary certifications and standards, companies need effective tools to monitor and make continuous improvement. A maturity model for cruise shipbuilding network from a quality management and sustainability point of view is the focus of this article. Our research question is: What quality management maturity models, that take sustainability into account in supply network context, can be identified in the literature? This is work in progress as we are developing the maturity model structure searching performance theme areas and key performance indicators for the cruise ship building network. This article is based on a preliminary literature review with themes related to quality management and sustainability. Literature was collected from Scopus AI database in January 2025. The challenge is to develop a maturity model for the network context as the most of the articles are focused on one company maturity perspective.

Keywords: maturity model, sustainability, network, performance, review

The Impact of Artificial Intelligence on the Development of Soft Skills: Opportunities and Challenges for Organizations

Antonio Lorena, Anna M. Correale, Alessia Talarico, Rocco Reina

Università degli Studi "Magna Graecia" di Catanzaro, Catanzaro, Italy

Abstract

In the face of accelerating digital transformation, organizations are increasingly recognizing soft skills—such as emotional intelligence, adaptability, communication, and critical thinking—as essential assets for sustained competitiveness and innovation. While Artificial Intelligence (AI) is widely used to automate technical tasks, its emerging role in supporting soft skills development remains underexplored. This study investigates how AI is currently being adopted to enhance soft skill training in organizational contexts, identifying both the strategic opportunities and critical limitations involved. Drawing on a structured survey of 197 Italian firms, the research provides empirical evidence of a positive and statistically significant relationship between AI adoption in training programs and perceived improvements in employees' soft skills. Technologies such as adaptive learning platforms, AI-powered feedback systems, and virtual simulations are increasingly used to personalize learning pathways and support cognitive and relational competencies. However, the study also highlights several challenges, including cultural resistance, ethical concerns, and the risk of reducing complex human skills to measurable behaviors. The findings suggest that AI can serve as a powerful enabler of soft skill development, but only when integrated into human-centered learning models that preserve the experiential, contextual, and social nature of these competencies. By bridging the gap between theoretical discourse and organizational practice, this study contributes to the literature on AI-enabled learning and offers actionable insights for HR professionals and corporate decision-makers. It emphasizes the need for hybrid training ecosystems where machine intelligence augments, rather than substitutes, human interaction and growth.

Keywords: Artificial Intelligence, Soft Skills, Human Capital Development, Organizational Learning

Blockchain for the Circular Economy: Implications and Future Directions

Dario Barberini, Maria Giovina Pasca, Gabriella Arcese

Niccolo Cussano University, Rome, Italy

Abstract

The study aims to explore the distinctive features of blockchain technology that facilitate the transition to a circular economy, which enables the measurement of circularity practices implemented by companies, providing an objective basis for their reporting and subsequent comparisons (Balzani and Corsi, 2024). The research provides an overview of the current knowledge on how blockchain technology and the most advanced digital technologies contribute to transforming from a linear economy to a circular economy. Following the Tranfield et al. (2003) guidelines, the paper develops a systematic literature review. The review highlights selected papers' bibliometric characteristics (year of publication, document type, study approach, research country) and the main findings. The researchers summarized the research gaps, detecting the sector's potential implications and relevant insights. The findings highlight how introducing blockchain technology has brought significant benefits to achieving circular economy practices for companies. Blockchain technology's significant contribution to the circular economy applies to a wide range of industrial sectors. However, companies need to master new data analysis technologies to adopt blockchain technology and optimize sustainability practices properly. Blockchain links producers with commercial channels, ensuring traceability, transparency, authenticity, increased productivity, reliability, and trust-based agreements while, thanks to the immutability of recorded data, preventing fraud and information falsification (Kumar and Chopra, 2022). The study provides valuable insights for policymakers, companies, and researchers to promote the integration of blockchain technologies within businesses, contributing to the pursuit of sustainable development.

Keywords: Blockchain, Circular economy, Digital technologies, Systematic Literature Review

Nudge-Based Strategies and Institutional Policies for Sustainable Consumption Behavior Within Circular Economy

Orlando Troisi, Gennaro Maione, Corrado De Cristofaro

University of Salerno, Fisciano, Italy

San Raffaele University of Rome, Rome, Italy

Abstract

This study aims to examine the influence of the combined effect of nudge strategies and political-institutional support on sustainable consumer behavior in the context of the circular economy (Supino et al., 2016; Giovina et al., 2023; Torma et al., 2018). To achieve the research objective, the data collected through questionnaire were examined with structural equation modeling (SEM) (Kline, 2023). The reason why SEM was preferred in this study is because it can effectively investigate complex relationships between observed and latent variables (Barra et al., 2024). The research results show the effectiveness of the nudge strategy as a tool to promote sustainable consumption. A gap between purchase intention and consumer behavior was also found, suggesting the presence of structural, financial and behavioral barriers. Institutional policy intervention is needed to overcome barriers to the adoption of sustainable consumption and circular economy. The results of this study provide empirical evidence on the potential of nudge strategies and institutional support in promoting sustainable consumption behaviors. However, for such interventions to be truly effective, the contribution of businesses, governments and institutions is needed to build a system in which sustainability becomes a natural and convenient choice for consumers. This study contributes to the development of Nudge Theory by highlighting not only its validity in influencing consumers' purchasing choices but also its effectiveness in promoting changes in people's vision of the world in terms of sustainability.

Keywords: Circular Economy (CE); Sustainable Consumer Behavior; Nudge Theory; Political-Institutional Support; Intention- Behavior Gap

Developing an Environmental Decision Support System for ARPAC to Foster the Adoption of Circular Economy Practices among SMEs

Chiara Signore

University of Salerno, Fisciano, Italy

Abstract

The growing focus on environmental sustainability and the adoption of Circular Economy (CE) models has highlighted the need for operational tools to monitor and manage environmental risks, especially in complex contexts such as small and medium-sized enterprises (SMEs), considering their presence in the territory. Considering the weight of SMEs, both environmentally and economically, public agencies such as ARPA Campania (ARPAC), play a key role in environmental monitoring. For this reason, this paper describes the development of an Environmental Decision Support System (EDSS) to improve environmental monitoring of SMEs. The system is based on the implementation of a script in Python that allows the automation and analysis of the information collected, configuring itself as a flexible tool that can offer effective monitoring action and, at the same time, accompany SMEs toward greater environmental awareness, facilitating the adoption of practices consistent with the principles of the circular economy. Preliminary results highlight how the system's capabilities can identify companies at greater environmental risk at an early stage, prioritizing environmental control interventions.

Keywords: Environmental Decision Support System; Circular Economy; SMEs; Environmental Monitoring; Sustainability

Integrating GPT Models into Life Cycle Assessment: Unlocking Artificial Intelligence-Driven Circular Economy

Daniela Sica, Benedetta Esposito, Stefania Supino

San Raffaele University Rome, Rome, Italy

Abstract

The increasing complexity of sustainability challenges and the growing adoption of circular economy models have reinforced the pivotal role of Life Cycle Assessment (LCA) as a strategic decision-support tool. However, the technical demands and resource intensity of LCA often hinder its widespread implementation across sectors. Recent advancements in generative artificial intelligence, particularly through large language models such as GPTs, offer promising avenues to enhance LCA practices by facilitating knowledge retrieval, standardizing processes, and supporting analytical reasoning. While early reflections have acknowledged this potential, existing research remains largely conceptual, with few empirically grounded frameworks assessing the operational viability of GPTs in LCA contexts. This study addresses this gap by developing a structured methodological framework aimed at identifying, selecting, and preparing GPT-based tools for their future application in LCA consultancy. A sample of GPTs relevant to sustainability domains was systematically mapped, and a standardized set of prompts was designed to simulate critical decision points throughout the LCA process. These prompts were refined through expert consultation to ensure methodological robustness and alignment with ISO standards. Preliminary findings suggest that, although GPTs vary widely in scope and depth, a subset demonstrates notable potential in supporting methodological structuring and inventory development tasks. By laying the groundwork for a rigorous and replicable evaluation protocol, this study advances the empirical integration of artificial intelligence in environmental modelling. It also offers practical insights for researchers and consultants seeking to responsibly harness generative AI to scale and strengthen life cycle thinking in the circular and digital transitions.

Keywords: Artificial Intelligence; Life Cycle Assessment; Circular Economy; GPT; Large Language Models

Exploring Artificial Intelligence in the Circular Blue Economy

Federica Marroni

University of Rome "La Sapienza", Rome, Italy

Abstract

Artificial intelligence is becoming increasingly important, with applications varying from sector to sector due to its adaptability. Its most common uses range from generating clean energy to monitoring data to analyse the surrounding ecosystem and mitigating pollution damage. In the circular economy, the potential of AI could be harnessed to accelerate sustainable transactions by integrating it into design, business models and infrastructure optimisation. Thanks to its generative capabilities, AI can significantly contribute to reducing the impact of human activities on the environment by addressing challenges related to unsustainable production. In this respect, the circular economy proposes models that contribute to value creation through cycles of reuse, restoration and renewability.

This work, therefore, aims to investigate the state of the art of scientific research in the area of the circular economy in general and, with a specific focus on applications in the context of the Blue Economy, highlighting the uses, advantages and opportunities that the use of these systems brings to the Blue Economy sectors. The methodology adopted consists of a systematic literature review (SLR), aimed at categorising existing scientific contributions extracted from the Scopus database, analysing the main research trends and identifying the most relevant practical applications, and identifying future insights to encourage the adoption of AI within the Blue Economy. The results of this study highlight the limited presence of studies on the application of artificial intelligence in the context of the Blue Economy, and research is fragmented and spread across different disciplinary areas. However, the maritime sector has stood out for its strong interest in technology adoption from a scientific research perspective. This study, therefore, provides theoretical implications for academics by identifying the knowledge gap and providing guidelines for future research, and managerial implications for all stakeholders in the blue economy who want to know how to integrate the use of AI into their processes. Finally, the focus on this as yet under-researched area lends the study a character of originality and scientific relevance.

Keywords: Circular Economy, Blue Economy, Artificial Intelligence, Smart Technologies.

National Culture and Circular Economy Disclosure through Sustainability Reports

Vitiana L'Abate, Nicola Raimo, Felice Petruzzella, Antonio Salvi,
Filippo Vitolla

LUM University, Casamassima (BA), Italy

Giustino Fortunato Telematic University, Benevento, Italy

University of Turin, Turin, Italy

Abstract

The circular economy (CE) is increasingly being recognized as a viable alternative to the traditional linear model of production and consumption, which is now widely acknowledged as unsustainable. For these reasons, the academic literature has begun to take an interest in the way in which companies implement CE strategies in their business models and disseminate information regarding this new model of production and consumption. Specifically, scholars have begun to investigate the dissemination of CE information, but this area of research is still underexplored. In fact, there are only a few studies investigating the factors that influence the levels of CE disclosure (CED). In order to fill the knowledge gap, this study aims to examine the impact of national culture on CED levels. First, this study uses a manual content analysis to measure the amount of CE information disseminated in the sustainability reports of 81 international companies. Secondly, a linear regression model is used to test the impact of national culture on the CED. The results show adequate levels of CE information disclosed through sustainability reports. In addition, they demonstrate a negative impact of power distance and masculinity and a positive effect of uncertainty avoidance and long-term orientation on the CED. To the best of our knowledge, this is the first study to explore the influence of national culture on CED, addressing a gap in the literature at the intersection of cultural values and sustainability reporting practices. By highlighting how specific cultural dimensions shape firms' disclosure behaviour, this study provides valuable insights for companies –seeking to align their reporting with stakeholder expectations – as well as for policymakers and training institutions, who aim to promote more effective and culturally sensitive sustainability frameworks.

Keywords: Circular Economy Disclosure; National Culture; Hofstede; Sustainability Reports

Unleashing Digital Transformation in LCA: The Interplay between Data-Driven Culture and Digital Capabilities

Miriana Ferrara, Nicola Capolupo

University of Salerno, Fisciano (SA), Italy

San Raffaele Rome University, Rome, Italy

Abstract

In an era marked by ever-increasing environmental concern and technological novelty, Life Cycle Assessment (LCA) has come to serve as one key instrument for evaluating environmental performance of organizations. Conversely, much literature has neglected possible strategies for aligning digital transformation (DT) with LCA activities as digital technologies care about dissemination. This study fills the gap by examining how non-technological assets such as data-driven culture (DDC) and digital capabilities (DC) spur digital transformation in LCA practice. Building on Resource-Based View (RBV), this study sees DDC as an organizational resource and DC as a human resource that mediates the effects of DDC on DT. Data were collected through an online survey among 229 Italian companies in the agri-food sector, an environment where the institutionalization of LCA adoption occurs. Structural equation modeling (SEM) was used to test hypothesized relationships. The results suggest that while DDC has no direct effects on DT, it promotes digital capabilities among employees, which in turn affect DT, thereby confirming a full mediation effect. The research supports the idea that transformation of practice relative to sustainability needs actual digital innovation and therefore cannot be achieved by just introducing new technologies. Instead, an important aspect of this process is to bring about a cultural change and the development of human skills. As much as technology influences the advancement of sustainability schemes, such as LCA, it could be unaffacting just by itself. A data culture must grow to foster an environment where data are valued, disseminated, and applied in decision-making, whilst employees should have digital capabilities that help them to draw insights from data, take action, and innovate. Conversely, if cultural and human elements are taken into consideration, the application of the technologies will be enhanced and maximized.

Keywords: Life Cycle Assessment, Digital Transformation, Data Driven Culture, Digital Competencies

Transformation from a Linear to a Circular Economy: The Role of Digital Technologies

Michele Rubino, Ilaria Mastrorocco, Giovanni Maria Garegnani

University LUM, Casamassima (Bari), Italy

Abstract

The article aims to analyse the role of digital technologies related to intelligent manufacturing, i.e. AI, blockchain and big data, in adopting circular economy practices. Digital technologies represent a potential solution to the obstacles related to circular economy implementation, as they offer several benefits through improved data collection and management and the rationalisation of production, storage, value chain and consumption processes. Furthermore, the role of stakeholders and the relationship with them is a key element for the successful implementation of the circular economy and the realisation of the associated benefits. To achieve the aim of the article, the analysis draws on resource dependency theory and examines the direct role of digital technologies for the circular economy as well as the moderating role of stakeholder engagement. The analysis is conducted on a global sample of 102 manufacturing companies using a multivariate regression for the year 2023. The results show a positive and significant impact of digital technologies on the circular economy and the significant role of the interaction between these technologies and stakeholder engagement on the dependent variable. Following resource dependence theory, they offer valuable instruments to mitigate reliance on external environmental factors. These findings provide useful contributions to the development of the literature and various stakeholders.

Keywords: Circular Economy, Digital Technologies, Stakeholder Engagement, Intelligent Manufacturing, Global companies

Circular Economy Disclosure and Bank Market Value: Evidence from Europe

Candida Bussoli, Ilenia Fraccalvieri

LUM Giuseppe Degennaro University, Casamassima (BA), Italy

Abstract

The increasing urgency of environmental concerns, alongside the global challenges posed by climate change and resource depletion, has underscored the need for a transition toward a circular economy (CE). The banking sector plays a pivotal role in this shift, not only by financing and supporting circular initiatives across industries, but also by adopting CE principles within its own operations to enhance accountability and build stakeholder trust. In this context, banks are expected to improve transparency by disclosing information about their CE practices. Despite this growing relevance, CE disclosure (CED) in the banking industry remains an underexplored area in academic research. Therefore, this study seeks to address this gap by investigating the impact of CED on banks' market value. Adopting a signalling theory perspective, the analysis applies an Ordinary Least Squares (OLS) regression to a sample of 107 European listed banks, focusing on CE information disseminated through their official websites. The results reveal a positive and statistically significant relationship between CED and market value. These findings offer interesting theoretical insights and practical implications.

Keywords: Circular Economy; Disclosure; Banking Sector; Banks; Signalling Theory

Digital Product Passports for Promoting Circularity in the Construction Sector: A Systematic Literature Review

Amal Bouihat, Pierluigi Zerbino, Davide Aloini

University of Pisa, Pisa, Italy

Abstract

Digital Product Passports (DPPs) have recently attracted increasing attention from academics, practitioners, policymakers, and intergovernmental organizations. They emerge as a key enabler of the circular economy (CE). The principal idea of DPPs is to track and trace products throughout their life cycle to promote circularity in the construction sector (CS). However, their implementation faces several limitations that hinder their full potential. Particularly, the absence of data, the complexity of the construction supply chain, and the lack of a comprehensive understanding of DPPs role in enabling supply chain management and circular business models. To address this gap, this review aimed to explore the current state of DPPs and how they could promote circularity in the CS. Based on this aim, a systematic literature review (SLR) of 40 manuscripts was conducted and examined across 5 different categories: (1) DPPs-related technologies; (2) DPPs-Enabled CSCM; (3) DPPs for CBMs; (5) Data requirements for DPPs; (5) Challenges in DPPs implementation. The review findings show DPPs significance in promoting circularity in construction. Finally, various gaps in the existing literature are highlighted, helping to point out the necessity for future research direction that may provide a significant implication for academic research and practitioners.

Keywords: Digital Product passports, Circular economy, Construction sector, Circular supply chain management, Circular business models

The Intersection between Circular Economy and Knowledge Management: The Role of Digital Technologies

Giovanna Afeltra, Maria Menshikova

San Raffaele University, Rome, Italy

Universitas Mercatorum, Rome, Italy

Abstract

In recent years, the Circular Economy (CE) has gained significant interest as a strategic model for promoting sustainability, drawing growing attention from both academic researchers and industry professionals. As organizations increasingly seek to reduce waste, optimize resource use, and redesign value chains, the CE framework has emerged as a promising pathway to achieving long-term environmental and economic goals. While prior research has explored the link between knowledge management (KM) and CE, particularly in terms of how organizational learning and knowledge sharing support circular practices, the intersection between CE, KM, and digital technologies (DT) remains relatively underdeveloped in the literature. This study addresses this gap by conducting a comprehensive review of peer-reviewed publications, aiming to understand how knowledge and digital tools jointly contribute to the adoption and implementation of CE principles. Through a combination of bibliometric and content analysis, the research maps the intellectual structure of this interdisciplinary domain, identifying the most influential authors, countries, research institutions, and thematic clusters. Beyond mapping existing knowledge, the study identifies critical research gaps and offers directions for future inquiry, emphasizing the need to investigate how KM and DT can support CE across different levels, micro (organizational), meso (supply chain), and macro (policy and societal). The findings highlight the strategic importance of integrating KM and DT in the CE transition, positioning them as enablers of sustainable innovation, operational efficiency, and systemic transformation. This integrative approach aims to support both theoretical advancement and practical implementation in the evolving landscape of circular and digital economies.

Keywords: circular economy, knowledge management, digital technologies, Bibliometric-Systematic Literature Review

Interfirm Aggregations for Circular Economy Transition in Italian Olive Oil Industry

Patrizia Pastore, Antonio Ricciardi, Gianmarco Salzillo, Silvia Tommaso

Abstract

This study investigates the role of interfirm collaboration and knowledge management in advancing the circular economy (CE) within the olive oil industry (OOI), a key sector in both the Italian and global economies. Although the OOI holds significant economic value, its environmental impact—mainly from intensive farming and production—demands greater alignment with sustainable development goals. The CE model offers a promising alternative, focusing on the reuse, recycling, and valorization of materials and by-products. However, adopting CE practices can be challenging for small and medium-sized enterprises (SMEs) due to the high costs and structural changes required. To address two research questions—whether interfirm aggregation facilitates CE adoption (RQ1), and how knowledge management supports this process (RQ2)—a Systematic Literature Review (SLR) was conducted, covering 66 peer-reviewed articles published between 1993 and 2024. The findings highlight collaborative networks as the most effective form of aggregation, especially among firms within the same sector or geographical area. Other effective models include industrial symbiosis and public-private partnerships, which help reduce costs, share risks, and improve resource efficiency. Agri-food and agriculture sectors are central to these collaborations, frequently interfacing with energy, waste, cosmetics, and pharmaceutical industries. Benefits of interfirm cooperation include improved resource use, reduced waste, greater competitiveness, and innovation. Socially, such partnerships contribute to local development and inclusive growth. Knowledge sharing and management are identified as strategic enablers of CE, fostering innovation dissemination, better coordination along supply chains, and the creation of sustainable business models. However, barriers such as information asymmetries and concerns about intellectual property may limit knowledge exchange. In conclusion, promoting interfirm collaboration and structured knowledge management can significantly enhance CE adoption in the OOI. Supportive policy frameworks are essential to encourage cooperation and remove systemic barriers across agri-food systems.

Keywords: Circular economy, Interfirm networks, Knowledge management, Industrial symbiosis, Olive oil industry

Digital Transformation of Sustainability Reporting in the Era of Circular Economy: A Systematic Literature Review and Strategic Roadmap

Claudia Spilotro, Giustina Secundo

LUM University, Casamassima, Bari, Italy

Abstract

This study investigates how digital technologies are transforming sustainability reporting in the context of increasing regulatory pressure, particularly the European Union's Corporate Sustainability Reporting Directive (CSRD). It aims to address gaps in the existing literature by offering a comprehensive understanding of how technologies support transparency, compliance, and strategic alignment with Environmental, Social, and Governance (ESG) objectives.

Adopting a systematic literature review (SLR) methodology, the research examines scholarly contributions related to digital technologies in sustainability reporting. The review is structured around five critical phases of the reporting process: materiality assessment, data collection, data analysis, data visualization, and assurance. This structured approach enables the identification of key technologies and practices that can support organizations in complying with the CSRD and improving the quality and effectiveness of their sustainability disclosures.

The study reveals the significant and multi-faceted impact of digital technologies such as artificial intelligence (AI), blockchain, Internet of Things (IoT), cloud computing, and data analytics in enhancing sustainability reporting. These technologies improve transparency, reliability, and efficiency across all reporting phases. For example, AI enhances materiality assessment by aligning stakeholder interests with regulatory priorities, while blockchain ensures data traceability and security. IoT and big data analytics enable real-time monitoring of ESG metrics, particularly within complex supply chains. However, the integration of these tools also presents challenges including data governance, security concerns, and the need for organizational readiness.

This research offers practical guidelines for firms aiming to align their reporting practices with CSRD requirements. By presenting a structured framework, the study provides actionable insights into how companies can strategically adopt digital technologies to streamline their ESG data processes, improve compliance, and foster stakeholder trust. The findings also underscore the importance of investing in technological infrastructure and governance systems to address barriers to implementation.

The study provides a holistic and integrated perspective to a previously fragmented literature. It advances current understanding by linking digital innovation directly to the phases of sustainability reporting, moving beyond technology-specific or narrowly focused studies. The proposed framework supports both academic inquiry and managerial practice, offering a strategic roadmap for leveraging digital technologies to meet regulatory demands and achieve competitive advantage in sustainability performance.

Keywords: Digital Technologies, Sustainability Reporting, Innovation Management, Corporate Sustainability Reporting Directive, Systematic Literature Review

From Challenges to Opportunities: A Stakeholder Theory Approach to Circular Economy Ecosystems

Angela Rella, Vincenzo Pontrelli, Lara Oliva, Arcangelo Marrone

LUM “Giuseppe Degennaro” University, Casamassima, Bari, Italy

University “G. D’Annunzio”, Chieti, Pescara, Italy

University of Molise, Termoli, Campobasso, Italy

Abstract

In a global context marked by increasingly pressing environmental, social, and economic challenges, the transition to regenerative economic models such as the circular economy (CE) requires a systemic perspective and collaboration among diverse actors.

This study explores the development of circular ecosystems through the lens of stakeholder theory, adopting a qualitative approach based on a case study of the collaboration between two Italian Benefit Corporations: Andriani (agrifood sector) and Tersan (waste management). The analysis focuses on how barriers and benefits affect the adoption of circular models in inter-organizational contexts.

The partnership led to the creation of a regenerative biofertilizer derived from gluten-free pasta production by-products, branded as BioVegetal. The project, grounded in industrial symbiosis and piloted on red lentil crops, generated measurable environmental, agronomic, and economic benefits, involving a network of local stakeholders.

However, the implementation of this ecosystem revealed significant barriers, including the lack of an organizational culture aligned with circularity, challenges in measuring inter-organizational impacts, infrastructural deficiencies, and inadequate regulatory and fiscal frameworks.

Despite these obstacles, the case illustrates the tangible benefits of CE, such as reduced waste disposal costs, improved operational efficiency, enhanced ecological footprint, and strengthened corporate reputation. Furthermore, the ecosystem facilitated internal capacity building, the adoption of sustainable planning tools, and collaborative innovation, paving the way for new circular products and the dissemination of knowledge across territories. The experience demonstrates how stakeholder theory can serve not only as a conceptual framework but also as a practical guide for designing transformative business models.

This study contributes to the literature on CE and sustainable business models, offering practical insights for firms and policymakers on how to overcome barriers and leverage opportunities associated with shared value creation in regenerative ecosystems.

Keywords: Circular Economy; Circular Economy Ecosystem; Stakeholder theory; Barriers; Benefits

Digital Technologies in Eco-Industrial Parks: Exploring Barriers and Challenges

Maria Coscia, Anna D'Auria, Alessandra De Chiara

L'Orientale University of Naples, Naples, Italy

Abstract

The transition to circular economy (CE) models has become a priority for several industries with special reference to manufacturing activities, where industrial symbiosis (IS)—the sharing and/or the exchange of waste or by-products in a collaborative way—typically occurs within eco-industrial parks (EIPs). Digital technologies (DT) have emerged as key enablers of IS, helping companies use resources more efficiently, improve transparency, and discover new ways to work together. Nevertheless, the adoption of DT in EIPs is hindered by significant barriers. In light of these premises, the present study aims at identifying and categorising the main obstacles faced by companies in undertaking digital solutions for IS. To achieve this goal, a narrative review was performed, starting from the selection of a comprehensive set of keywords through the involvement of experts, followed by a systematic search of the Scopus database. An initial dataset of 460 contributions was refined to a final sample of 59 relevant publications. The review led the authors to identify four categories of challenges faced by companies in undertaking digital solutions for IS: technological, cultural, policy-related, and economic. Apart from tracking the main scholars' standpoints on the challenges, the paper offers a practical recommendations and contributes to the ongoing discourse on digitalisation in EIPs from the perspective of IS.

Keywords: Digital technologies, Eco-industrial park, Industrial symbiosis, Barriers, Challenges

Artificial Intelligence in the Agri-Food Supply Chain: How it Might Facilitate Circular Economy Practices?

Stefania Manetti

San Raffaele Roma University, Rome, Italy

Abstract

The convergence of Artificial Intelligence (AI) and Circular Economy (CE) is often suggested as a promising pathway for sustainable transformation in the agri-food sector. Yet, how human involvement is configured across AI systems, and whether it enables or limits circular outcomes, remains poorly understood. This study examines how AI is integrated into CE-related practices in agri-food organisations and how human roles are distributed across the AI lifecycle, with particular attention to organisational size and structure. Based on a systematic review of 88 peer-reviewed articles published between 2015 and 2025, the study offers a cross-cutting analysis of how AI systems are conceptualised, developed, deployed, and monitored, and how CE goals are addressed within these processes. Results show a strong imbalance: the early phases of the AI lifecycle are largely shaped by external technology providers, while internal organisational actors are mostly engaged during implementation and operational tasks. Strategic and governance-related phases remain underexplored, and participatory approaches are rare. CE considerations are often reduced to operational metrics, such as waste reduction or resource efficiency, rather than driving systemic redesign or regenerative business models. These findings highlight the need to reposition human involvement as a central lever in aligning AI with circular outcomes. Without stronger organisational capacity, inclusive governance, and CE-aware design logics, AI risks reinforcing existing inefficiencies instead of enabling ecological transition. The study offers a timely contribution to debates on digital sustainability and agri-food innovation, proposing future research directions that foreground agency, adaptability, and systemic value creation.

Keywords: Artificial Intelligence, Agri-food, Circular Economy, Systematic Review

Exploring the Gender Gap in ERC Funding: A Geographical and Socioeconomic Analysis of Female Academic Research, Innovation, and Entrepreneurship

Tamara Menichini, Stefania Roberta Miccoli

University of Rome "Niccolò Cusano", Rome, Italy

Abstract

Research, innovation, and entrepreneurship are key in academia, with entrepreneurship serving as a bridge between science and business to drive economic growth. While being more inclusive of women is generally seen as beneficial, gender equality is still far off, with a clear gender gap showing unequal conditions. The Global Gender Gap Index (GGGI) in 2024 showed a global gender gap of 68.5% across 146 economies. The Economist's Glass-Ceiling Index (GCI) in 2024 highlighted a persistent 12% wage gap. This study investigates the gender gap in research, innovation, and entrepreneurship across European universities, specifically examining the distribution of European Research Council (ERC) funding and potential gender bias. Analyzing the geographical allocation of ERC grants, the study reveals a funding disparity, with fewer women researchers receiving funding. While countries with fewer projects show no significant gender differences, those with larger funding volumes exhibit clear disparities favouring men. The second part of the study explores the potential reasons behind the differing percentages of female and male researchers and the socioeconomic factors influencing ERC funding. The analysis suggests that gender equality has an impact on the proportion of female Principal Investigators (PIs) in a country, and factors like women's participation in the workforce, working conditions, entrepreneurship, and political representation influence ERC grants for women. Structural changes are so needed for a more gender-balanced academic environment. Future research could look at sociocultural and psychological barriers for women in securing ERC funding.

Keywords: Gender gap, Research and Innovation (R&I), Academic entrepreneurship, European Research Council (ERC)

The Role of Physical Appearance in the Entrepreneurial Journey: A State-of-the-Art Review from a Feminist Perspective

Michela Colacicco, Mastropasqua Antonio, Francesco Paolo Lagrasta, Barbara Scozzi

Politecnico di Bari, Bari, Italy

Abstract

The study explores the under-investigated intersection between corporeality and entrepreneurship by conducting a systematic literature review on the role of physical appearance in entrepreneurial processes. Despite traditional interest in the influence of bodily aesthetics—particularly physical attractiveness—within feminist scholarship, current research is largely dominated by theoretical approaches rooted in evolutionary and social psychology. Existing studies, while methodologically rigorous, often lack socio-political depth and fail to critically engage with feminist or intersectional paradigms. By adopting a PRISMA-guided systematic review protocol review, the authors identified a final corpus of 15 core studies. Such studies were subjected to bibliometric framing and deductive qualitative content analysis aimed at identifying dominant theoretical backgrounds, recurring methodologies, sample characteristics, and investigated entrepreneurial stages. Results indicate a pronounced quantitative orientation and a consistent preference for structured entrepreneurial environments and early-stage financing scenarios. The analysis reveals a pervasive attractiveness bias and a lack of critical engagement with its implications, which may contribute to legitimizing existing gender hierarchies within entrepreneurial ecosystems. The study ultimately calls for a broader epistemological agenda that integrates feminist ethics, qualitative inquiry, and a critical perspective on bodily representation in entrepreneurship research. The findings provide a foundation for more inclusive and politically aware investigations into how corporeality shapes entrepreneurial outcomes and imaginaries.

Keywords: Entrepreneurial financing, physical attractiveness, beauty, feminism, gender

The Role of DAOs in Shaping Knowledge Management: Opportunities and Risks

Michele Modina, Ilaria Nigro

University of Molise, Campobasso, Italy

Abstract

Knowledge is widely recognized as a core strategic resource in today's knowledge-driven economy. Consequently, Knowledge Management (KM) processes have become central to organizational strategies (Yee et al., 2019; Krause et al., 2019). The spread of new technologies is driving structural changes and innovative dynamics in the business landscape. Decentralized Autonomous Organizations (DAOs) redefine traditional structures using blockchain technology (Wright, 2021). This decentralized structure provides an open, transparent and democratic platform, allowing organizations to harness collective intelligence (Kahan and Rock, 2008; Gola et al., 2023) and improve knowledge management, which all participants can access, contribute to and share information in real time. (Bhatt, 2001; Liu et al., 2022; Phillips, 2024).

While literature covers the importance of knowledge management in organizations (Jelenic, 2011; Hebibi et al., 2019; Koivisto and Taipalus, 2023) as well as DAOs and their decentralized governance structures (Piselli, 2019; Santana and Albareda, 2022; Guillaume et al., 2022), there is a gap in addressing how these two domains intersect. Currently, how a decentralized structure impacts knowledge management remains largely unexplored. This work will bridge the gap between KM practices and DAOs, highlighting this delicate balance between opportunities and challenges.

Through qualitative analysis supported by a comprehensive review of international literature and legal references, this article investigates the impact of decentralization via smart contracts and the transparency enabled by blockchain technology. On one hand, DAOs provide an environment conducive to the democratic sharing of knowledge, encourage direct participation, and reduce information asymmetries. On the other hand, the fragmentation of knowledge, loss of tacit knowledge, and absence of a clear regulatory framework present significant challenges to the sustainability of KM processes.

Keywords: Blockchain, Decentralized Autonomous Organizations (DAOs), Knowledge management, Corporate Governance, Legal Frameworks

Blockchain Technology and Non-Fungible Tokens (NFTs) in Museums: Legal Considerations

Antoinette Strada, Chiara Vandoni, Guido Perboli

Polytechnic University of Turin, Turin, Italy

Abstract

New technologies, particularly blockchain and non-fungible tokens (NFTs), are profoundly transforming the cultural and artistic sectors. Museums are actively responding to this shift by adopting advanced digital tools that enable more engaging, personalized, and innovative visitor experiences. Through the integration of NFTs and immersive technologies, museums can extend the boundaries of cultural participation beyond the physical space, allowing users to interact remotely or gain access to exclusive content such as private exhibitions, supplementary materials, and virtual events. NFTs also allow museums to offer limited digital editions of artworks to collectors around the world, fostering new communities and business models based on digital ownership and participation.

These emerging opportunities demand a reevaluation of how artworks are protected, enhanced, and enjoyed in digital environments. However, for stakeholders to adopt these tools with confidence, several challenges must be addressed.

This study, grounded in the Italian legal framework, investigates key legal issues including copyright law, image rights of cultural assets, and the role of Online Dispute Resolution (ODR) mechanisms in resolving disputes that may arise in NFT transactions. Additionally, the study examines the fiscal implications linked to the creation and commercial use of NFTs by companies.

In a context marked by regulatory uncertainty and diverging legal theories, our research reviews prevailing interpretations and, pending legislative action, proposes a preliminary legal framework. This framework aims to ensure that the creation and transfer of NFTs via smart contracts can be carried out in a transparent, secure, and legally coherent manner, fostering greater trust in the digital transformation of the cultural heritage sector.

Keywords: Blockchain, Legal Framework, ODR, Smart Contract, Museums

Sarajevo 1992-2025: The Contribution of Art between War and Peace, Analogue and Digital

Elisa Bonacini

University of Bari Aldo Moro, Bari, Italy

Abstract

To celebrate the anniversary of the Dayton agreements after the Sarajevo war (1992-1995), a phygital exhibition Sarajevo, from war to peace thirty years later is going to be launched between Bari and Sarajevo, inspired by the Ars Aevi project and celebrated through words and experiences of many protagonists, from local to Italian authorities, from children of yesterday to the adults of today.

Born as a political and peaceful artistic action in response to the war, conceived and realized by Enver 'Enjo' Hadžiomerspahić, the project started in 1992 from the Michelangelo Pistoletto's donation of his artwork Porta allo Specchio. Become one of the greatest contemporary art collections, Ars Aevi will find its definitive location in the new Museum of Contemporary Art designed by Renzo Piano in 2005, donated to Sarajevo and just presented according to its executive design. The collection can be known and enjoyed thanks to the website, the online catalogue and a virtual exhibition, a sort of demo preview of the new Sarajevo Museum.

The project of the Sarajevo, from war to peace thirty years later exhibition, realized through the collaboration of the University of Bari "Aldo Moro", many Italian and Bosnian institutions and the partnership of the Ars Aevi Museum, aims to promote intercultural dialogue and peace, through an exhibition combining stories and contents, in a physical, digital, interactive and immersive way, by using different digital tools, such as an interactive 'augmented' catalogue and a VR exhibition on ArtSteps.

Keywords: Digital Art History, VR experiences, Phygital exhibitions, VR exhibitions, Virtual environments

The Human in the Loop: Artificial Intelligence as a Co-Pilot in the Creative Process of the Artists. A Critical Analysis in Visual Arts

Maria Antonietta Cipriano, Paola Demartini

Roma Tre University, Rome, Italy

Abstract

The rise of Artificial Intelligence (AI) in the visual arts represents a significant shift in contemporary creative practices, prompting urgent questions about the nature of art, the role of the artist, and the boundaries of human-machine collaboration (Cetinic & She, 2023; Rooij, 2024). This paper investigates how generative AI technologies are reshaping the visual arts, with a particular focus on their influence on the creative process (Miller 2019), the attribution of authorship, and audience perception.

Adopting a thematic literature review methodology within an interdisciplinary framework—spanning art theory, media studies, and cognitive science—the research synthesizes key developments from 1975 to 2024. The literature covers a temporal span from the earliest seminal explorations of computer-aided art (Molnar, 1975) to the most recent advances in generative AI technologies and critical discourse (Chiodo, 2024; Messer, 2024). This diachronic range enables a comprehensive understanding of both the historical evolution and the contemporary debates surrounding AI's role in the visual arts.

This research identifies and analyses three core conceptual themes emerging in the discourse. First, the ontology of AI-generated art interrogates the core concepts that address the definition of art, AI, and the links between them. Following a logical progression, the second theme that emerged presents the critical debates revolving around three central issues: authorship, originality, and intentionality (Floridi, 2021; Hertzmann, 2018; Chiodo, 2024). Finally, the review addresses the issue of audience perception, with particular attention to the cognitive bias that emerges when individuals evaluate artworks produced by AI (de Roji, 2024). This final theme is crucial for understanding not only how AI artworks are judged aesthetically but also how deep-rooted expectations about human creativity influence the reception of machine-generated art.

By drawing a historical parallel to the initial resistance faced by photography in the 19th century (Hertzmann, 2001), the paper contextualizes the current scepticism toward AI art as part of a broader cultural negotiation of new media. The findings suggest that AI is not displacing human creativity but rather expanding its modalities—offering novel pathways for artistic exploration and expression.

This study contributes to the academic debate by moving beyond polarized narratives of celebration or rejection, and instead, provides a nuanced, evidence-based reflection on the evolving dynamics between artists, machines, and audiences.

Keywords: Artificial Intelligence; Visual Arts; Creative Process; Human-Machine Collaboration; Audience Perception

AI for Start-up Decision-Making and Knowledge Management: Evidence from an Innovation Ecosystem

Chiara Bellini, Débora Cristina De Andrade Vicente, Lucia Marchegiani

Roma Tre University, Rome, Italy

Abstract

The increasing integration of artificial intelligence (AI) into decision-making processes represents a fundamental lever for competitive positioning, especially for start-ups operating in innovative ecosystems such as Rome Technopole (RT). This paper analyzes whether and how RT startups adopt AI to support decision-making and knowledge management processes, basing these processes on ethical and human-centric principles.

After the preliminary reconstruction of the conceptual framework, using a qualitative-quantitative approach based on semi-structured interviews and questionnaires aimed at innovative startups and SMEs, the study shows that AI solutions are used for big data analysis, simulation of future scenarios and optimization of business strategies. Technologies, in fact, enhance the effectiveness of decisions through predictive analysis and automation, without ever replacing the critical contribution of the human element, which remains guaranteed through feedback, periodic meetings and mentorship sessions. At the same time, transparent and secure data management is essential to establish a climate of trust with stakeholders.

In addition, the adoption of AI is integrated with economic, social, and environmental sustainability criteria, directing innovation towards ethical and responsible business models, in line with the 17 Sustainable Development Goals and Environmental, Social, and Governance (ESG) standards.

The results indicate that, while still in its infancy, the use of AI in RT startups offers significant opportunities for growth and competitiveness, if the integration between advanced technology and human resources is strengthened.

Keywords: Artificial Intelligence, Knowledge Management, Decision-making process, Innovation Ecosystem, Start-up

Managing in the AI Era: A Systematic Literature Review on the Evolution of Managerial Roles and Competencies

Gianmaria Abbondante, Alessio Di Leo, Rita Mura, Andrea De Mauro, Enzo Peruffo

Luiss University, Rome, Italy

University of L'Aquila, L'Aquila, Italy

Abstract

This study explores how Artificial Intelligence is reshaping managerial competencies in modern organizations. While much of the literature emphasizes technological capabilities, we adopt a human-centric perspective to map the evolving competencies, skills, knowledge, and responsibilities that managers must acquire to navigate the evolving technological landscape. The analysis is grounded in a Systematic Literature Review conducted in accordance with the PRISMA framework. A total of 92 peer-reviewed academic articles were examined using a hybrid methodology that combines Large Language Model-assisted content extraction with structured human coding. The resulting taxonomy groups these competencies into four macro-areas: (1) strategic and decision-making competencies, (2) technical and analytical skills, (3) ethical and legal regulatory knowledge, and (4) leadership and change management. Each category includes specific sub-competencies reflecting the complex, interdisciplinary nature of AI adoption. The findings reveal a predominance of studies focused on tertiary industries and a strong reliance on qualitative research designs. A fit score was applied to assess each contribution's alignment with the review's objectives. By mapping the evolving skillset required for AI readiness, the study offers both theoretical insights and practical orientation for managers, educators, and policymakers seeking to navigate digital transformation responsibly and effectively.

Keywords: Managerial Competencies; Artificial Intelligence; Large Language Models; Systematic Literature Review; Human Resource Management

Advancing Holistic Heritage Impact Assessment through Human-Digital Collaboration

Paola Demartini, Michela Marchiori, Rosa Fioravante, Flavia Marucci

Roma Tre University, Roma, Italy

Abstract

This paper explores the development and implementation of a digital knowledge-action platform designed to embed and translate the SoPHIA (Social Platform for Holistic Impact Assessment) method—a multidimensional framework for evaluating cultural heritage initiatives—into an accessible and participatory digital environment. Building on the Horizon 2020-funded SoPHIA project, the SoPHIA for CHANGES initiative, led by Roma Tre University and funded under Italy's Next Generation EU program, sought to address this gap by creating a digital platform grounded in the participatory ethos of the original SoPHIA method. The research employed a Participatory Action Research (PAR) approach, involving iterative cycles of collaboration between academic researchers, digital developers, and cultural heritage stakeholders. This methodology ensured that the platform was not merely a technical artefact but a co-created tool for reflexive learning, action, and knowledge transfer.

The research makes several significant contributions. Firstly, it enhances our understanding of how digital platforms function as socio-technical infrastructures for knowledge creation and dissemination within the cultural sector. It highlights a shift from static information repositories to dynamic, reflexive systems that actively engage and empower users. Secondly, the study introduces a process model for designing a comprehensive heritage impact assessment platform grounded in participatory knowledge management. This model offers valuable guidance for developing future knowledge-action platforms in cultural management and other complex, interdisciplinary domains. Ultimately, this project sheds light on how cultural heritage impact assessment can be disseminated and sustained through digital means without losing the critical reflexivity and human judgment that define meaningful heritage work. It demonstrates that digitalization, when rooted in participatory principles, can enhance—not replace—human creativity, sense-making, and collective action.

Keywords: Digital platform, Cultural Heritage, Impact Assessment, Knowledge Management, SoPHIA method

Digital Healthcare Technologies and the Co-Design of Healthcare Services: A Scoping Review

Elvira Tiziana La Rocca, Raffaella Coppolino

University of Messina, Messina, Italy

Abstract

Healthcare today more than ever is supported by technological innovation that has allowed the improvement of the standards of diagnosis and treatment but also the enhancement of the collection of anamnestic information and monitoring of the treatment path. The new digital health technologies (DHT) and the use of algorithms based on machine learning and artificial intelligence have improved the integration and analysis of data from different sources, becoming a driving force for network collaborations both for research purposes and for healthcare. Moreover, the innovative solutions resulting from the integration between technology and healthcare, aiming at strengthening health services efficiency and patient outcomes, involve the need to integrate complex technologies and specific skills in the design of instruments, devices, specialized health care services. In this context, the theme of co-designing healthcare services comes into play, and it involves a due analysis of the challenges to be faced in implementing co-design architecture.

The aim of the paper is to identify and analyse the coverage of the body of literature on the implication of DHT implementation in the co-design of healthcare services and give a trustworthy indication of the bulk of studies available as well as an overview of the key issues analysed. A scoping review is carried out to map the research done in this field and to identify critical themes and challenges.

The results of this work allow us to outline a cognitive map of the “areas of involvement” and to understand which challenges have already been faced and which are rising. Several interesting theoretical and managerial implications emerge.

Keywords: Digital Health Technologies, healthcare services co-design, scoping review

Health Technology Assessment of Artificial Intelligence Systems: The Importance of Evaluating Digital Literacy and Trust

Noemi Conditi, Alice Ravizza

InsideAI S.r.l., Bologna, Italy

Abstract

Health Technology Assessment (HTA) is a multidisciplinary process dedicated to determining the value of a product or technology (medicinal products, medical devices, in-vitro devices, etc.) used in healthcare throughout its entire life cycle, for the specific purposes of the healthcare system itself. The assessment employs various methods and parameters and aims to guide health policy decisions at both macro and micro levels, reflected in national or regional legislations and processes within healthcare facilities, respectively. The ultimate goal is to establish an equitable, efficient, and high-quality health system by providing essential parameters for healthcare policy decisions, such as pricing, reimbursement, and the adoption of the assessed technology in standard clinical practice. The HTA process is usually tailored to the specific nature of the technology to be assessed, but it becomes a complex exercise for AI-enabled medical devices, especially due to the complexity of such products. To address this complexity, we propose to include among the non-clinical domains of the assessment (i.e. the social, ethical, and legal aspects) two additional indicators: digital autonomy and user trust. Digital autonomy refers to a user's ability to actively engage with and manage digital health technologies. Considering that low digital autonomy can be a barrier to the effective adoption of new technologies, it becomes essential to assess whether an AI system is suitable for the intended patient population. On the other hand, trust is increasingly vital in the context of personalised care, especially when AI is adopted. Given the uncertainties inherent in both clinical practice and AI, evaluating the patients' levels of trust towards the technology is crucial for effectively implementing it. In conclusion, incorporating digital autonomy and trust into HTA is essential to ensure the innovation of the healthcare system through AI systems, while at the same time preserving its personalised and human-centric nature.

Keywords: AI; HTA; Trust; Digital Literacy; Healthcare

The Evolution of HTA in a Global Context: A Content Analysis on National and International Guidelines

Esther Oluwatosin Akinbobola, Guido Noto

University of Messina, Messina, Italy

Abstract

Health Technology Assessment guidelines play a crucial role in promoting evidence-based decision-making within healthcare systems. Recently, the field of HTA has experienced significant evolution driven by advancements in technology, changing healthcare objectives, and an increasing emphasis on transparency, stakeholder engagement, and sustainability. Initially focused on clinical efficacy and safety, HTA has expanded to encompass economic evaluations, real-world data, and broader societal considerations. Contemporary HTA now embraces a wider array of societal considerations, including ethical implications, equity in healthcare access, and the long-term impacts of health technologies on population health.

This study explores the current HTA guidelines of both national and international HTA standards, examining how different approaches and contexts influence their implementation and outcomes. A qualitative content analysis method was employed to assess HTA guidelines from various geographic and economic settings. Relevant guidelines were identified through comprehensive searches of public websites and databases. The documents were analysed using a detailed coding framework.

Findings revealed a clear shift in HTA recommendations, moving from technical, expert-driven documents to more comprehensive and inclusive frameworks. All guidelines emphasized economic evaluation, particularly focusing on performance dimensions and other essential components. The evolution of HTA standards reflects enhanced methodological rigor, increased stakeholder involvement, and improved responsiveness to emerging healthcare challenges. The distinctions and similarities between national and international HTA guidelines highlight diverse healthcare needs, legal frameworks, and resource constraints. This study is significant for harmonizing HTA processes globally while ensuring contextual relevance.

Keywords: evolution, content analysis, guidelines, performance perspective, evaluation

Healthcare Leaders in the Age of AI: New Challenges and New Opportunities

Anna Maria Melina, Rocco Reina, Raffaella Coppolino, Nadia Di Carluccio

University of Messina, Messina, Italy

University of Catanzaro, Catanzaro, Italy

University of Foggia, Foggia, Italy

Abstract

The advent of artificial intelligence (AI) in healthcare is rapidly reshaping the industry. Healthcare leaders are now facing new challenges that require new leadership styles, ethical considerations, and strategic foresight. This paper conducts a literature review in the areas of healthcare, leadership, and AI to explore the evolving role of healthcare leaders. The findings highlight the need for adaptive leadership, the importance of digital literacy, the need to manage ethical concerns, and the opportunities afforded by AI-driven healthcare systems.

A systematic literature review examines the emerging challenges and opportunities that healthcare leaders face in an AI-driven landscape.

The study reveals that healthcare leaders are facing a complex mix of pressures and opportunities. Key challenges include low digital literacy among executives, ethical concerns around data privacy and algorithmic bias, resistance to change in clinical environments, and lack of regulatory clarity. However, AI also offers significant leadership opportunities, such as data-driven decision making, increased operational efficiency, improved patient outcomes through predictive analytics, and the evolution of new leadership roles.

The findings highlight the need for healthcare leaders to develop a mix of digital, ethical, and strategic skills to effectively manage AI integration. Additionally, a leadership model that combines interdisciplinary skills and continuous learning is emerging as essential for success. This analysis provides a critical framework to guide healthcare leadership development in the AI era, contributing to the broader conversation about digital health transformation.

Keywords: Artificial Intelligence, Leadership, Decision Making Process, Healthcare

Developing a New Project Management Framework with AI, Blockchain, and Digital Twin Integration

Antonio Bassi

SUPSI, Lugano, Switzerland

Abstract

The rapid evolution of technology, particularly artificial intelligence (AI), blockchain, and digital twin technologies, is fundamentally reshaping the field of project management (Schwab, 2017; Tapscott & Tapscott, 2018). This transformation is not merely incremental but paradigm-shifting, redefining traditional business models and offering new avenues for project execution that are significantly more efficient, adaptive, and predictive (Brynjolfsson & McAfee, 2014). This paper explores these emerging technologies' integration into contemporary project management frameworks and assesses their potential to enhance risk management, optimize strategic decision-making, and build unprecedented levels of transparency and trust among stakeholders (Zuboff, 2019).

Keywords: Project Management, AI, Blockchain, Digital Twin, IoT

A Case Study in AI Integration: The Real Impact on Organizational Support, Efficiency, and Strategic Value Creation, in Global Project Management

Arthur Pantelides

Virginia Wesleyan University, Virginia, 23455, United States

Abstract

Organizational strategic leadership is about making decisions. These decisions can span the range of higher-level corporate mission & vision direction, all the way down to major industrial project work selection. In between these two points however there is a myriad of operational and tactical decisions that link strategy with performance results and value creation – the goal of strategy. Today a key strategic question that many organizations face deals with not only technology, but social, and even political undertones: “what will be the impact of AI on our business and how can we leverage this strategically for value creation?”

Utilizing PMI’s framework for AI impact on Project Management, the paper analyzes specific areas affecting business functions and organizational development of a major multinational industrial manufacturer of wind turbines. We consider AI’s impact on the entire organization from tactical line managers in sales, to customer service, production control, procurement, design, manufacture and delivery. A key area identified where we have demonstratable results is within customer requirements identification and allocation; this was identified as a critical point where the organization was able to leverage AI so that external customer expectations on performance, delivery, and costs, align with internal organizational stakeholders’ business expectations and functional necessities and capabilities. Initial preliminary improvements seen include an approximate 22% faster project build/delivery rate with a slight decrease of change orders, down 9%. This translates to faster project delivery from initial quotation to final installation and start-up, and with a modest improvement in the number of change requests brought about from either the customer or the manufacturer; these two factors are interrelated. Carrying the AI process implementation experience and knowledge from an individual project-based consideration to higher-level organizational systems-based approach, we identify the potential effects beyond individual customer projects to higher-scope effects. And, within this level of integration and utilization we also consider scale effects that impact the organization’s multiple SBUs, specifically in dispersed production control, procurement, engineering, and manufacturing assets. The paper attempts to demonstrate how AI can be leveraged for optimal efficiency and effectiveness which result in greater value for all project customers throughout all major builds occurring in the organization at any given time. Thus, through the framework principles of Assistance, Automation, and Augmentation, we outline how AI’s practical value-adding impact on tactical work translates to system improvement and ultimately business strategic advantage.

Keywords: AI and Project Management; Stakeholder Support Systems; Operational Efficiency Refinement; Strategic Competitive Advantage Drivers; Business Value Creation

Evaluating AI's Impact on Project Risk Management: To What Extent can AI Assist Project Managers and Mitigate Human Limitations?

Cinzia Battistella, Fabio Nonino, Alessandro Pompei

University of Udine, Udine, Italy

Sapienza University of Rome, Rome, Italy

School of Advanced Defense Studies, Rome, Italy

Abstract

This study investigates how generative AI can support project risk management, particularly among novice users. Through a controlled experiment, university students were tasked with developing a risk register for a real-world scenario, the organization of a scientific conference, with or without the support of ChatGPT. The resulting outputs were assessed by external experts using both quantitative and qualitative criteria. Findings indicate that AI-supported groups produced risk registers with higher structural coherence, completeness, and monitoring clarity. However, AI-generated outputs revealed notable weaknesses, including reduced contextual sensitivity, lack of stakeholder engagement, and limited analytical depth, particularly in defining probability-impact scales and devising original mitigation strategies. Statistical analyses confirmed significant performance differences not only between AI and non-AI groups, but also within AI-assisted projects, emphasizing the importance of how users interact with some AI tools. Qualitative discourse analysis suggests that ChatGPT acts as a cognitive amplifier, streamlining information synthesis and reducing cognitive load, yet requires critical human input to ensure contextual accuracy and creativity. This research contributes to the growing body of knowledge on human–AI collaboration by focusing on inexperienced users. Rather than positioning AI as a replacement for human reasoning, the results underscore its complementary role. Future research should examine how training in AI literacy and prompting strategies can enhance the effectiveness of AI-supported decision-making, ultimately shaping a more resilient and inclusive risk management practice. Understanding how to foster an active, critical engagement with AI tools may become essential in shaping the evolving role of project managers in future project environments.

Keywords: Project management, Risk management, Artificial intelligence

Untangling Proof-of-Concept Projects: A Systematic Literature Review

Adriana Scuotto, Paolo Canonico

University of Naples Federico II, Naples, Italy

Abstract

The past decades have witnessed a surge of research interest in academic engagement, largely focusing on academic entrepreneurship. However, academics also engage through other forms of knowledge application, broadly referred to as academic engagement. Drawing on the domain of academic engagement, in the last years arise an innovative form named Proof-of-concept (PoC) characterized by the interaction between many actors coming from different contexts, as researchers, professionals, managers and entrepreneurs.

This paper aims to review and analyze organizational mechanisms in proof-of-concept projects (PoCP). It develops the theoretical literature on PoC, particularly in the context of university-industry relations in academic engagement. Through a systematic literature review (SLR), the paper examines 85 published articles.

Findings show that literature on PoC is fragmented; various definitions of PoC are used and different typologies of PoC need the adoption of different organizational mechanisms. The research identifies areas that are currently underdeveloped. While the knowledge management framework is lacking in the reviewed literature, our findings highlight a growing interest in this area.

Recent studies reveal a call from the literature to identify knowledge integration issues and mechanisms for successful PoCP in academic engagement field. This paper provides an overview of the current state of research on PoCP and outlines new research opportunities, focusing on underexplored areas within the academic engagement field.

Keywords: Academic Engagement, University-Industry relations, Proof-of-concept, Project, Knowledge integration, Digital transformation

Leveraging the Metaverse: A Multidimensional Approach to Knowledge Management in Project-Oriented Settings

Francesca Loia, Cecilia Maltempo, Rosario Marrapodi, Marcello Martinez, Stefania Mele, Mario Pezzillo Iacono

University of Campania Luigi Vanvitelli, Capua, Italy
University of Naples "Parthenope", Naples, Italy

Abstract

Over time, the evolution of digital technologies has enabled a new perspective on knowledge as a collaborative and dynamic process, shaped through interactions among multiple stakeholders. These technologies facilitate real-time information sharing and support continuous knowledge creation and management in flexible, adaptive ways. Organizations increasingly rely on these digital tools to harness internal and external collective intelligence, fostering innovative knowledge practices. Particularly in project-oriented environments—characterized by complexity and constant change—digital platforms are essential to centralize information, promote collaboration, and enhance knowledge traceability and adaptability.

In this context, emerging platforms such as the metaverse reshape how work and collaboration occur. No longer limited to science fiction, the metaverse now provides immersive, interactive, and collaborative environments enabled by Virtual, Augmented, and Mixed Reality technologies. These digital spaces allow human resources to engage in work, learning, and social interaction in new ways. The metaverse, therefore, offers a promising environment for supporting knowledge management (KM) processes across organizations.

Despite growing interest in virtual environments for learning and communication, the implications of the metaverse for knowledge management remain underexplored. In particular, little attention has been given to how the metaverse affects the various dimensions of knowledge—from tacit to explicit, individual to collective, and from creation to application—especially in project-driven settings. This study addresses this gap by investigating the metaverse as a platform for KM, with a focus on how it facilitates the conversion of knowledge across these dimensions.

Using a qualitative methodology based on multiple case studies, the research examines how immersive virtual environments can enhance knowledge sharing, visualization, and decision-making in complex projects. Findings reveal that the metaverse enables the transition between tacit and explicit knowledge, supports real-time collaboration across distributed teams, and creates value at both individual and organizational levels. Features such as virtual prototyping, scenario planning, and real-time interaction with data and workflows improve communication, alignment, and coordination in project teams.

In conclusion, the metaverse offers a transformative opportunity to address the challenges of knowledge management in dynamic, project-based environments. This study provides insights that could be relevant to both scholars and practitioners in the fields of Human Resource Management and Information Technology.

Keywords: Knowledge Management; Human Resource Management; Digital Technologies; Metaverse; Case study

Hybrid Work And Knowledge Transfer In The Public Administration Context

Teresa Anna Rita Gentile, Caterina Galdiero, Paola Adinolfi,
Ernesto De Nito, Gabriella Piscopo

University of Salerno, Salerno, Italy

Abstract

The aim of this article is to examine how working practices have changed among individuals involved in knowledge transfer within public organizations operating in hybrid work contexts. Furthermore, this contribution aims to understand whether, with the help of digital technologies, it is possible to promote and improve communication and collaboration among employees and easily share knowledge in the workplace, even in the public sector (Mäntymäki and Riemer, 2016; Sørensen, 2005). In particular, we sought to understand, through an empirical survey conducted among employees at the University of Salerno, the type of knowledge transfer practices that are integrated when working in hybrid modes through an exploratory approach (Weber, 1958). The authors conducted 15 semi-structured interviews aimed at obtaining more information (Qu and Dumay, 2011) from public employees working in hybrid mode. The analysis shows that for each phase of the SECI model, new knowledge transfer practices for public employees in hybrid mode have been identified, broken down by technology and mechanism (kTransfer technology and kTransfer mechanism). The interviews also revealed some interesting additional insights: The importance of face-to-face work in the initial stages of a job is less important when you have established knowledge of the activity. Everyone agrees that working from home does not impact productivity. This is because working from home is facilitated by all the tools available for interaction, such as messaging and calls. However, these new practices in a virtual context are facilitated by a peaceful atmosphere with colleagues, which facilitates collaboration.

Keywords: Hybrid work, knowledge transfer, public administration, workplace

Knowledge Ecosystem in a Hybrid Context: Insights From a Consultancy Project

Ernesto De Nito, Paolo Canonico, Andrea Caccialanza, Valentina Langella⁴

Università degli Studi di Salerno, Fisciano (Salerno), Italy,

Università degli Studi di Napoli Federico II, Napoli, Italy

Università di Bologna, Bologna, Italy

ALTIS Advisory, Milano, Italy

Abstract

This paper explores the concept of knowledge ecosystem created by Treedom, a pioneering B-Lab certified startup at the intersection of technology and environmental conservation. This research aims to provide a comprehensive understanding of how organizational dimensions play a role in a knowledge ecosystem settings where multiple logics coexist. In particular, we adopt the experience of a consultancy project carried out by ALTIS Advisory, a consultancy spin-off of Università Cattolica del Sacro Cuore devoted to promoting sustainability in established organizations and new entrepreneurial initiatives. This empirical study was based on a qualitative investigation. We carried out the analysis iteratively using a semi-grounded approach, and our data informed the selection of theories. Three data collection techniques were used: documentary analysis, participant observation and semi-structured interviews (one of the authors was part of the consultancy team during the project). The combination of social purpose and commercial strength equips Treedom to sustain, scale, and amplify the benefits generated throughout the ecosystem. Within this ecosystem, knowledge operates as a strategic asset that underpins the shared objectives of Treedom and its stakeholders. The social-impact assessment carried out by ALTIS Advisory thus became a collective learning exercise, enabling every actor to acquire deeper insight into their own capabilities, those of their counterparts, and the project as a whole.

Keywords: Knowledge creation, Hybrid organization, Consultancy project

Digital Transformation and Organizational Change in the Public Sector: Evidence from a Case Study

Paolo Canonico, Ernesto De Nito, Vincenza Esposito, Mario Pezzillo
Iacono, Carla Conte

Università degli Studi di Napoli Federico II, Napoli, Italy

Università degli Studi di Salerno, Fisciano (Salerno), Italy

Università del Sannio, Benevento, Italy

Università della Campania Luigi Vanvitelli, Capua (CE), Italy

Inps Direzione regionale Campani

Abstract

In the management of public sector, digital transformation is supposed to lead to new and better service delivery by increasing efficiency and transparency, and by improving accountability. The complexity of the transformation process increases, in terms of actors involved and effects on working practice and way of interacting and offering services. The pressure is more and more on the response to the changing needs and aspirations of the society, supporting self-governance for local communities to be able to govern themselves with no or little interference from government. This process is still ongoing, requiring a great effort from academics and practitioners to understand different dynamics. This paper copes with a case of organizational change "triggered" by a process of digital transformation. We are specifically engaged in the change management of INPS concerning the potential development of a technological application for managing disputes under the jurisdiction of the Court of Auditors, with the objective of monitoring the recovery of state damages caused by the fraudulent actions of public employees. In this setting, the focus is on the analysis of the reengineered business process in the effort to analyse jointly the digital transformation project and the organizational change. The paper may be located within emergent digital transformation literature.

Keywords: digital transformation, organizational change, public administration

Preliminary Study on the Impact of Artificial Intelligence in ESG Practices: A Multi-Case Approach in the Italian Market

Giovanni Spatola, Stefania D'Aprile, Maria Zifaro, Andrea Presciutti, Alessandro Broglia

Mercatorum University, Rome, Italy

Up2You Srl SB, Milan, Italy

Abstract

The integration of Environmental, Social, and Governance (ESG) principles into corporate strategy has emerged as a global imperative, catalyzed by regulatory frameworks, investor pressure, and increasing stakeholder expectations. However, the complexity of ESG data collection, analysis, and reporting poses significant challenges for organizations. Recent advances in Artificial Intelligence (AI) have led to the development of AI-enabled platforms, such as PlaNet, CliMax, and Choral, which promise to transform ESG management. This paper presents a comprehensive analysis of the adoption and impact of these platforms across a diverse set of Italian companies, drawing upon more than twenty real-world case studies from sectors including finance, consulting, manufacturing, events, and digital. Through a mixed-methods approach combining document analysis, platform review, and cross-case synthesis, we examine how AI supports ESG data management, stakeholder engagement, decarbonization strategies, and organizational learning. Our findings reveal sector-specific adoption patterns, highlight operational improvements, and document the emergence of new forms of transparency and cultural engagement. The study concludes with actionable recommendations for organizations seeking to leverage AI for sustainable business transformation and outlines avenues for future research on the digitalization of ESG.

Keywords: artificial intelligence, knowledge management, sustainability, ESG, innovation

Optimizing ESG Risk Assessment Processes with AI-Driven Process Mining: A Framework for Proactive Sustainability Management

Paola Campana, Riccardo Censi, Fulvio Schettino, Chiara De Puccio

Sapienza University of Rome, Rome, Italy

Abstract

The growing focus on sustainability and mitigation of environmental risks has made the ESG (Environmental, Social and Governance) framework a central element in the strategic and operational management of modern organizations. In a context marked by increasingly stringent regulatory pressures – such as the Corporate Sustainability Reporting Directive (CSRD) and the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) – companies are now called upon to integrate ESG metrics into their decision-making processes, in order to address global challenges such as climate change, biodiversity loss and the necessary ecological transition. However, the fragmentation of available data and the lack of adequate predictive tools continue to hinder truly effective and future-oriented ESG management. This study proposes an innovative operating model based on the synergistic integration between Artificial Intelligence (AI) and Process Mining, with the aim of improving monitoring, automation and transparency in ESG processes. AI allows the processing of large volumes of heterogeneous and unstructured data, while Process Mining allows you to map and optimize business flows, detecting inefficiencies and ensuring traceability. The model proves to be particularly effective for financial institutions and companies operating in sectors with high climate exposure, providing concrete answers to the needs of regulatory compliance and strategic sustainability. The adoption of this approach makes it possible not only to anticipate environmental risks, but also to strengthen organizational resilience and support the transition to a "sustainability-first" paradigm. The study highlights the transformative potential of AI-driven Process Mining in ESG management, offering scalable and replicable solutions for sustainable innovation that combines efficiency, responsibility and competitiveness in the long term.

Keywords: Artificial Intelligence, ESG, Process Mining, Environmental Risk Assessment, Climate Change

Digital Literacy of Gen Z Students in the Context of Project Management Education

Viktória Papp-Horváth

Corvinus University of Budapest, Budapest, Hungary

Abstract

It is a common experience for Generation Z (Gen Z) members born between 1995 and 2009 (Steigervad, 2020) that digital technologies, mainly the Internet and social media, have been present in their everyday lives from a very early age. Due to significant technological innovations, accessing information has become much easier for this generation. Adapting to this new technological era requires a lot of abilities, skills, and competencies, often called digital literacy (Reddy et al., 2020). In the past, paper and printed materials served as tools for learning (Chao & Chen, 2009), but this is no longer the reality for Generation Z (who are often called digital natives). They have encountered digital data and digital platforms early in their education (Szymkowiak et al., 2021). They not only read and learn digital content, but they create it. This study targets Gen Z students in higher education who are participating in project management courses and the primary objective is to assess their digital literacy concerning their project management work, focusing on three key thematic areas: (1) project communication, (2) organization of project work, and (3) creation of content (deliverables) within the framework of project work. Beyond identifying those digital devices, applications, and tools that the students use during their project work, it is equally important to understand how these digital platforms are used and the internal guidelines established by the groups for their usage. The research also addresses whether the Gen Z students involved in the study are critical of the online data (primarily from the Internet) or data generated by artificial intelligence (AI) platforms during their project work. It reveals their attitudes toward data validation and tracking for the self-produced digital materials.

Keywords: digital literacy, project management education, Generation Z

Emerging Roles for Public Research Organizations in Shaping Innovation Ecosystems

Petra Wagner, Marcus Jandt, Vitaliy Soloviy

AIT Austrian Institute of Technology, Vienna, Austria

Abstract

As innovation ecosystems emerge as central vehicles for addressing complex societal and technological challenges, public research organizations (PROs) are increasingly assuming pivotal roles beyond their traditional remit. This paper explores the evolving functions of PROs within such ecosystems, particularly in light of their capacity to act as system orchestrators, intermediaries, and enablers of transformation. Drawing on the conceptual lenses of dynamic and integrative capabilities, we analyse how PROs both respond to and shape their environment, focusing on a national case study: Austria's AI Factory initiative. The findings reveal that PROs play a critical role in structuring and sustaining emerging innovation ecosystems yet must continuously balance competing demands and expectations. By addressing the multidimensional roles and tensions PROs face, the paper contributes to a deeper understanding of how these organizations can strategically enable systemic innovation and sustainable transformation.

Keywords: innovation ecosystem, artificial intelligence, public research organisation

Enhancing Resilience in Agrifood Supply Chains: The Role of Technological Innovation for Risk Management

Roberto Mauriello, Livio Cricelli, Serena Strazzullo

Università di Napoli Federico II, Napoli, Italy

Abstract

The adoption of innovative technologies can help agrifood companies face crucial challenges related to meeting the food needs of a growing world population, adapting to and mitigating the effects of climate change, and increasing the resilience of supply chains against sudden disruptions. In fact, several studies highlight the advantages that technological innovation can bring to agrifood supply chains. At the same time, few studies examine the connections between technological innovation and risk management. This study aims to help bridge this gap by reviewing and organizing previous findings. Specifically, this paper provides a classification of the main risks affecting agrifood supply chains and investigates the role that technological innovations may play in helping agrifood companies address key risks. The results lead to the identification of five main risk categories: food safety, information management, environmental, geopolitical, and supply chain management risks. Furthermore, the literature review focuses on six key technologies, including blockchain, Internet of Things, big data, artificial intelligence, drones, and digital twins. From this perspective, the results show that blockchain tracking systems allow companies to monitor product conditions throughout the supply chain. This helps ensure product quality, combat counterfeiting, and support the management of information and product flows. IoT systems are especially useful for mitigating food safety risks by enabling real-time monitoring during cultivation, transport, and distribution. Big data and AI-based solutions mainly support precision agriculture activities, contributing to the mitigation of environmental risks. Finally, the study highlights emerging applications related to drones and digital twins. Ultimately, this study provides several relevant contributions. First, it helps organize the fragmented contributions on the impact of technologies on risk management in the agrifood industry. Second, it offers a solid theoretical foundation for analysing the implications of technological applications on different risk categories. Third, it provides useful insights for practitioners to assess how technological innovation may help manage and mitigate key risks.

Keywords: agrifood industry; risk management; Industry 4.0 technologies; supply chain resilience

Business Model Innovation and Digital Technologies in Agri-Food: Leveraging Boundaries for Sustainability

Stefano Marciano, Francesca Peluso

Parthenope University of Naples, Naples, Italy

Abstract

The study aims to investigate the digital transformation processes within the agri-food sector and their influence on business model innovation (BMI) as a pathway toward sustainability. Specifically, it analyses how agri-food companies are exploiting the potential of digital technologies (DTs) to reshape their value creation processes, enhance competitiveness, and address environmental and economic challenges. In order to exploit DTs and integrate them into business operations, it is essential to innovate the companies' business model by rethinking traditional operational and strategic logics. This underscores the necessity of both the adoption of new technologies and the transformation of the business model. Despite the multiple opportunities offered by DTs, their introduction in agri-food companies presents significant obstacles due mainly to a lack of knowledge, limited digital skills or to the high costs associated with their implementation. Addressing these barriers, requires a growing emphasis on knowledge co-creation-oriented approaches, that integrate diverse disciplines and sectors. In order to pursue this objective, the study adopts a theoretical approach, based on an analysis of the existing literature on DTs and their role in fostering BMI and sustainability, and boundary management within the agri-food sector. The research focuses on the role of company boundaries as collaborative spaces that can facilitate the adoption of DTs and promote co-creation dynamics. The findings of the research lead to the development of a theoretical framework aimed at guiding agri-food companies in their transition toward more innovative and sustainable business models. This study offers theoretical contributions to support companies in leveraging DTs for sustainable development.

Keywords: Business Model Innovation, Sustainability, Digital Technologies, Boundary Management, Agri-Food Sector

Exploring Sustainability Data Management Process: Evidence from SMEs

Patrice De Micco, Arianna Gabburo, Gianluca Vitale, Angelo Riccaboni

University of Siena, Siena, Italy

Abstract

Corporate sustainability poses important challenges, especially for SMEs. Among these, the definition of the indicators to be reported and the management of non-financial data are among the most relevant. Despite this, the literature is still in its infancy and new research efforts are needed in this regard. This paper, relying on a two-step methodology (i.e., survey and case study) and focusing on the agricultural sector, finds original evidence on which sustainability indicators are adopted or omitted by SMEs and on the internal data management process. Concerning the latter, the paper identifies the different steps in which data management is divided and which factors, internal or external to the company, intervene in each of them to hinder or favour the flow of non-financial data, consequently affecting the design of sustainability indicators.

Keywords: SMEs; Sustainability indicators; Sustainability data management; qualitative methods

Smart Responsible Innovative Cities: An Organisational Agenda

Mauro Romanelli

University of Naples Parthenope, Napoli, Italy

Abstract

Cities are identifying the smart city vision to develop the city an urban community and engine of responsible innovation. The analysis elucidates that European cities are rethinking on urban planning by adopting a smart city framework, leading to responsible urban innovation and future, fostering collaborative processes that contribute to sustainable and social urban growth and innovation to improve the quality of life. A smart city helps to shape the city a smart responsible innovative urban community. Cities are defining smart urban planning, enabling smartness as an ability to shape urban organisational, innovative and collaborative urban spaces. European cities are going smart, tracking a framework for collaborative innovation, leading to the urban community an engine of social innovation. Sustainable urban future relies on cities that will develop smart urban communities for responsible innovation and good life, promoting collaborative and multi-actor innovation, and following community-led and human-centred view to urban development and innovation.

Keywords: responsible innovation, smart cities, smart communities, organisational innovation

Managing Organizations between Artificial Intelligence and Technostress: A Typology Model

Raffaele Silvestre, Mauro Romanelli

University of Naples Parthenope, Napoli, Italy

Abstract

This study aims to model the relationships between the independent variables AI-implementation, techno-eustress and techno-distress and the dependent variable productivity, in business organizational context, to understand if an organization, that has, or not has, implemented AI-technologies, are more or less near the ideal organizational typology and to design the possible path to be competitive maximizing techno-eustress and minimizing techno-distress, deriving from the use of AI, impacting positively on productivity. The result is a Three-dimensional-Typology Model identifying 8 different organizational typologies that we named in a particular way for better to represent the situation identified and the distance from the ideal one of maximization of productivity. This work represents a framework for future research on the topic and offers a theoretical model for managers to understand which organizational typology is closest to their organization noting the level achieved by the productivity. In this way, they have the possibility to understand what actions to take to act on the independent variables to divert them towards the ideal typology of maximization of productivity identified as “Futuristic Oasis”.

Keywords: AI-technologies, Technostress, productivity, Typology Analysis, Three-dimensional-Typology Model

The Integration between Artificial Intelligence, Knowledge Management, and Collaborative Innovation for the Creation of Sustainable Value in Industry 5.0

Anna Turchetta, Sara Gigli

Independent PhD

University of Cassino and Southern Lazio, Cassino, Italy

Abstract

Over the past two decades, digital transformation has increasingly created links between human beings and technology (Nahavandi, 2019; Eriksson et al., 2024). We have moved from a company managed solely by human intelligence to a hybrid system where human talent is fused with artificial intelligence. At the same time, it is proven that the enhanced intellectual capital (eIC) helps intellectual property rights (IPR) intensive companies to innovate their business models (Trequattrini et al., 2022). Improving existing work and service experiences and enhancing sustainability are the goals of Industry 5.0 (Sindhwani et al., 2022). This led to a more efficient use of resources than Industry 4.0 (Demir et al., 2019) and a greater attention to human beings. While the Industry 4.0 model is firmly centred on technology, Industry 5.0 brings back the Human-Centric (HC) paradigm (Fani et al., 2024). In this Human-Centric (HC) perspective, human skills, interaction, critical thinking, and interpretation become a strong point again (Nahavandi, 2019). The lack of a Human-Centric (HC) paradigm can lose the potential positive effects of introducing new technologies (Carlsson, 2023; Olsson et al., 2025). Industry 5.0 is characterised by the importance of “concepts of sustainability, bioeconomy, and a collaborative environment of technology and human beings, thus establishing a resilient industry that incorporates human social values” (Sindhwani et al., 2022, p. 2).

This paper aims to study integration between artificial intelligence, knowledge management, and collaborative innovation for creating sustainable value, focusing on Industry 5.0. The interest is to see research progress on the Human-Centric (HC) paradigm.

The methodology used is content analysis (Krippendorff, 2018) on the final versions of demonstrators, pilots, and prototypes downloaded from the CORDIS EU website (<https://cordis.europa.eu>). The sample examined comprises six Effective Industrial-Human Collaboration Cluster Members projects. A quantitative analysis (counting the frequency of each category of codes, counting the words that make up each PDF file) and a qualitative (interpretation of the verbal expressions contained in the text) analysis were carried out. An analysis of the primary existing literature on the subject of artificial intelligence, Industry 5.0, and human intelligence was conducted before proceeding to the case study.

Among the limitations of this research is the availability of a small amount of information. It is crucial to notice that this is only the first step of the research on this subject. In the future, we want to have greater contact with companies operating in Industry 5.0 to carefully monitor the flow of knowledge in the internal system.

Keywords: Industry 5.0, Artificial intelligence, Human-centred approach, Knowledge creation, Knowledge management

Creative Urban Spaces: A Collaborative and Organisational View

Mauro Romanelli, Alexandra Zbucnea, Monica Bira

University of Naples Parthenope, Naples, Italy

National School of Political and Administrative Studies, Bucharest, Romania

Abstract

The urban development processes rely on cities and urban communities that make efforts to support initiatives and policies that enhance the aims and the implementation of sustainable issues within urban spaces. In particular, cities are going smart not only by investing human and organisational energies to make technology as a driver for sustainable urban growth, but also promoting cultural, civic and creative assets and inputs that make the city a culture-led and knowledge-driven socially innovative urban community, opening to creative urban spaces. Post-industrial cities increasingly are working to make and develop creative collaborative urban spaces. Cities of tomorrow will invest knowledge sources in driving creative-led and culture-driven initiatives that contribute to making collaborative urban spaces and driving sustainable and inclusive urban growth, leading to community development and engagement. The future of urban growth relies on promoting culture as an opportunity to develop inclusive and cohesive communities that contribute to making creative urban spaces. Creative hubs develop bottom-up initiatives, by involving artists and other creatives who are able to meet the needs of an artistic community, making creative meeting places as well as urban spaces. Creative urban spaces develop creativity-led processes and rely on creative cities and hubs as socially inclusive communities that rediscover the importance of collaborative innovation as a framework that helps shape wealthy urban spaces into engines of social innovation. The study aims at investigating the relationships between creative cities and hubs that are following a collaborative view to organisational as well as urban spaces, in order to drive social innovation and achieve social sustainability within creative urban spaces.

Keywords: creative cities, creative hubs, collaborative spaces

Narcissistic CEOs and Zombie Firms: Evidence from Europe

Fabrizio Rossi, Domenico Celenza, Elbano De Nuccio, Alessandro Sicali

University of Trieste, Trieste, Italy

University of Cassino and Southern Lazio, Cassino, Italy

LUM Giuseppe Degennaro University, Casamassima, Italy

Abstract

This study contributes to the growing body of research on the phenomenon of zombie firms by adopting a novel perspective that links corporate zombification to CEO narcissism. In line with the behavioral corporate governance approach and the Upper Echelons Theory (Hambrick & Mason, 1984), the analysis explores how CEO narcissism can influence a firm's likelihood of entering a state of zombification. In this study CEO narcissism is measured through a composite index based on unobtrusive indicators such as the size of the CEO's photograph in the annual report, the frequency of personal pronouns in shareholder letters, and the dimensions of the CEO's handwritten signature, following the methodologies proposed by Chatterjee and Hambrick (2007) and Ham et al. (2018). Zombie firms are identified according to McGowan, Andrews, and Millot (2018), using a dummy variable that takes the value of 1 if the Interest Coverage Ratio (ICR) is below 1 for at least three consecutive years during the observation period. Using a balanced panel dataset that includes 232 publicly listed firms across five European countries (United Kingdom, Italy, France, Germany, and Spain), covering more than 2,552 firm-year observations from 2013 to 2023, we find that CEO narcissism negatively impacts on zombie firms. Specifically, the results obtained support our hypothesis, highlighting a negative and statistically significant relationship between CEO narcissism and zombification, also confirmed by the positive relationships between CEO narcissism and indicators of financial strength such as Altman's z-score, ICR and ICR2. Our results, despite all the weaknesses of the case, contribute to extend the literature that recognises CEO narcissism as a positive acceptance for the company, especially in relation to financial distress.

Keywords: CEO narcissism; Zombie firms, Behavioral corporate governance, Financial distress, Upper Echelons Theory

Evaluating AI's Impact in Healthcare: a Systemic Approach through Key Performance Indicators

Giuliana Cavadi, Martina Vivoli, Federico Cosenz

Università degli Studi di Palermo, Palermo, Italy

Abstract

The combination of economic crises, a growing shortage of public resources, socio-economic disparities, and demographic shifts has significantly amplified the strain on healthcare systems globally. Rising healthcare demand and the goal of universal coverage highlight the need for improved resource allocation, infrastructure, and workforce planning. AI offers significant opportunities for enhancing efficiency and service quality, yet its integration is limited by regulatory, organizational, ethical, and environmental challenges. Although the literature broadly emphasizes AI's potential, empirical evidence on its actual impact on healthcare performance remains scarce.

Based on these premises, this study proposes a comprehensive set of key performance indicators (KPIs) to assess AI's tangible effects. The proposed set of KPIs provides a practical and adaptable toolbox for healthcare decision-makers to evaluate AI-driven changes and monitor their implementation.

This paper employs a Causal Loop Diagram (CLD) approach to explore how AI influences healthcare systems, focusing on two key areas: (i) optimizing resource allocation to improve efficiency and (ii) enhanced personalized care to elevate service quality. CLDs provide a structured and dynamic framework for understanding the complex interdependencies shaping healthcare organizations. The CLD approach serves as a foundation for developing KPIs to guide managers in evaluating AI integration. By combining systems thinking with the development of KPIs, this research provides a novel methodological framework for assessing the tangible impact of AI technologies in healthcare organizations. The resulting set of KPIs measures and evaluates the effect of AI integration within healthcare organizations. It is intended to guide future research regarding AI applications to healthcare management, as well as help managers assess the impact of AI implementation in healthcare settings. This research addresses the lack of empirical validation regarding the impact of AI in healthcare organizations by providing a set of indicators for evidence-based decision-making. Thus, it contributes to both academic research and practical applications of AI in healthcare management.

Keywords: Healthcare, Performance Management, Artificial Intelligence, Key Performance Indicators, Causal Loop Diagrams

Digital Evolution in Healthcare: A Scoping Review on Emerging Inequalities

Walter Vesperi, Marzia Ventura

University of Palermo, Palermo, Italy

University Magna-Græcia of Catanzaro, Germaneto, Italy

Abstract

The evolution of information and communication technologies (ICT) has introduced multiple benefits across all aspects of people's daily lives. No sector has been excluded from the digital revolution. In healthcare, the potential benefits of applying ICT advances are enormous, such as electronic medical records, HD images, digital reports, or even wearables that allow for the constant and rapid monitoring of health data and information. At the same time, however, technological diffusion creates new disparities and difficulties in accessing healthcare services.

This study aims, through a literature review, to understand how digital evolution, and the introduction of new technologies, contribute to the creation of inequality in the healthcare process.

To achieve the objective of this study, a literature review was set up with the aim of understanding the emerging inequalities linked to the adoption of digital technologies and analyzing their impact on knowledge management processes.

To outline the framework of academic contributions, a qualitative research design was defined (Śliwa, 2017; Bluhm, et al., 2011), of an exploratory nature, based on the literature review (Holzmann and Gregori, 2023; Munn, et al., 2018; Tranfield et al., 2003).

Two main scientific and international databases were used (a) SCOPUS and (b) Web of Knowledge (WoS). Scientific documents were extracted and retrieved on January 10, 2025. Only peer-reviewed journal articles published in English were considered (books, book chapters/reviews, professional articles, conference proceedings, working papers, reports, unpublished works were not considered; see in this regard (Munn, et al., 2018; Tranfield et al., 2003).

Finally, 64 scientific documents are selected.

An interesting result is the absence of explicit keywords of "ethics" or "data privacy". In fact, from the scientific landscape the connection between these two keywords appears to be still little explored. Furthermore, few strategies have emerged to bridge the digital divide and the impact on older populations.

Future studies should focus on further exploring the relationships between ethics and data privacy or strategies to reduce the digital divide in older populations.

Keywords: Digital Healthcare, Inequalities, Health equity, knowledge management, review

Evaluating Holistic Socio-Environmental Impact of Digital Health: Scoping Review of Decision-Making Frameworks

Sara Consilia Papavero, Concetta Lucia Cristofaro, Rossella Di Bidino, Fabrizio Massimo Ferrara, Giuseppe Arbia, Sabrina Bonomi

Università Cattolica del Sacro Cuore, Rome, Italy

Università degli Studi e-Campus, Novedrate, Italy

Fondazione Policlinico Universitario Agostino Gemelli IRCCS, Rome, Italy

Abstract

The 2030 Agenda for Sustainable Development highlights the transformative potential of digital technologies in accelerating human progress, reducing inequalities, and fostering sustainable knowledge societies. Within this context, Digital Health (DH) is recognized for enhancing healthcare systems' effectiveness, resilience, and equity—especially in addressing environmental and climate-related challenges. While various assessment methodologies exist—such as Health Technology Assessment, Health Impact Assessment, Social Impact Assessment, and Environmental Impact Assessment—the literature lacks reviews that explore the social and environmental impacts of DH. These dimensions are critical for evaluating healthcare systems' broader performance and alignment with long-term sustainability goals. This scoping review aims to map and synthesize existing frameworks and tools for evaluating the impact of DH, particularly in relation to social and environmental outcomes. The review is structured around the Sextuple Aim Framework, which extends the traditional Triple Aim by adding environmental impact. Following JBI methodology and PRISMA-ScR guidelines, searches were conducted in PubMed, Scopus, and the Cochrane Database. Eligible studies were published in English between 2014 and 2024 and had to address at least three of the six aims: Population Health, Experience of Care, Capital Cost, Care Team Well-Being, Health Equity, and Environmental Impact. Out of 8,243 identified records, 53 met the criteria and were included in the final review. None addressed all six aims comprehensively. Most studies focused on DH (30.19%) and m-Health (28.30%), with emerging technologies like AI and VR also represented. The most assessed aims were Experience of Care (98.11%) and Population Health (94.34%), while Environmental Impact appeared in only 11.32% of studies. Through thematic analysis, 157 unique items were identified, categorized into 17 domains, 62 topics, and 78 issues. The most developed topic was Experience of Care, particularly User Engagement and Process-related costs. In contrast, Environmental Impact was the least developed, with only two domains: carbon footprint and the clarity of environmental consequences of technologies. This review contributes to the development of a theoretical framework for evaluating the holistic impact of DH. By highlighting gaps—particularly in environmental and social dimensions—it supports more informed, balanced decision-making in DH strategies aligned with sustainability and equity principles.

Keywords: Digital Health, Performance Measurement, Artificial Intelligence, Social Impact Assessment, Environmental Impact Assessment

Exploring Cardiologists' Perspectives on Wearable ECG Devices: Evidence from an E-focus Group

Valeria Schifilliti, Veronica Marozzo, Alessandra Costa, Augusto D'Amico

University of Messina, Messina, Italy

Abstract

This study explores the propensity of cardiologists to adopt wearable electrocardiogram (ECG) devices in cardiovascular patient care. Using a qualitative exploratory design, we conducted e-focus group sessions to gather in-depth insights into cardiologists' perspectives. This approach enabled both individual reflections and group interaction, revealing diverse opinions on the clinical usefulness and integration of wearable ECG technology. The findings revealed varying attitudes toward the use and perceived value of wearable ECG devices. Several key factors were identified as influencing cardiologists' openness to adopting such technologies, including perceived usefulness, technical accuracy, the reliability of results, the availability of resources within healthcare organizations, the dynamics of the doctor-patient relationship, and individual patient characteristics.

The study underscores the importance of a multi-dimensional strategy to support the integration of wearable technologies in cardiovascular care. While wearable ECG devices hold significant potential to improve cardiovascular health monitoring, strategic planning and supportive infrastructure are vital to ensure their effective and sustainable implementation in clinical practice.

Keywords: Wearable technology, ECG, cardiologists' perspective, propensity to adopt

The Role of AI in Waste Reduction and Sustainability of Pharmaceutical Industry

Małgorzata Runiewicz-Wardyn

Kozminski University, Warsaw, Poland

Abstract

The pharmaceutical industry, characterized by complex manufacturing systems and resource-intensive development cycles, generates significantly higher emissions and waste compared to other sectors—up to 55% more per revenue dollar than the automotive industry. Approximately 30% of raw materials are lost during drug production, highlighting urgent sustainability challenges. In response to growing environmental pressures, this study investigates the potential of Artificial Intelligence (AI) technologies to reduce waste and enhance sustainability within the pharmaceutical sector. Through a combination of quantitative data analysis and qualitative insights from major pharmaceutical companies—including Novo Nordisk, Pfizer, GSK, and AstraZeneca—this research explores how AI can transform various stages of the pharmaceutical value chain to improve efficiency and environmental performance. The study identifies three core applications of AI in the industry: business process optimization, waste classification and recycling infrastructure, and decision and policy support. Drawing from the principles of industrial ecology and circular economy, it evaluates how AI can be used to reduce defective drug batches, improve the recyclability of pharmaceutical waste, optimize resource flows, and enhance supply chain efficiency. Case study demonstrates AI's ability to significantly reduce maintenance costs, avoid production losses, and cut emissions. AI's role in optimizing pharmaceutical processes at different stages of the pharma value chain – from clinical trial design using digital twin simulations to forecast drug demand and reduce waste, to manufacturing optimization, predictive maintenance, and sustainable supply chain management – enables data-driven decisions, improves efficiency, and minimizes environmental impact. Despite these benefits, the adoption of AI faces numerous barriers including high implementation costs, regulatory challenges, data integration issues, and resistance to change within organizations. Technical limitations, cybersecurity concerns, and the lack of standardized industry frameworks further hinder widespread implementation. The study argues that overcoming these challenges will require coordinated efforts among stakeholders, including public institutions, to provide funding, develop digital skills, and establish policy frameworks that support the responsible use of AI for sustainability. While AI contributes positively to circular and climate-resilient healthcare systems, its energy demands and digital divides must be addressed. The research concludes that AI has the potential to be a pivotal enabler of sustainable transformation in Big Pharma, but its integration must be managed carefully to maximize benefits and minimize unintended consequences. Public investment should focus not only on AI innovation but also on building community readiness for the digital and green transition in healthcare.

Keywords: Artificial Intelligence, Waste Reduction, Sustainability, Pharmaceutical Industry, Big Pharma

Impact of Work Experience on the Use of Generative AI for Knowledge Management

Kathrin Kirchner, Ettore Bolisani, Tomas Cherkos Kassaneh, Enrico Scarso, Nima Taraghi

Department of Engineering Technology - Technical University of Denmark, Ballerup, Denmark
Department of Management and Engineering - University of Padua, Vicenza, Italy

Abstract

The emergence of the latest generations of generative artificial intelligence (GenAI) systems, particularly ChatGPT, has prompted knowledge management (KM) scholars to investigate how these tools can be effectively integrated into organizational KM systems. However, as this field of study is in its infancy, the literature remains scarce and provides fragmented results. Empirical evidence is especially limited, and numerous research questions awaiting answers. One such question is how work experience influences the use of AI in new knowledge creation. To address this issue, this paper examines how and for what purpose GenAI is employed to support the creation of new knowledge, specifically focusing on how its use differs according to users' seniority levels. The hypothesis is that work experience, which shapes users' knowledge pools, affects how they utilize GenAI to support knowledge creation. Past empirical research highlighted that there are differences in AI usage between more and less experienced workers. Given the exploratory nature of the study, we employed a qualitative research method, conducting interviews with 22 software engineers from various companies who use GenAI systems in their daily activities. We choose software engineers as they are knowledge workers and are currently among the early adopters of GenAI systems. Based on a common guideline developed from knowledge creation processes, the interviews were conducted online and in person between July and November 2024. Each interview was recorded, transcribed and translated into English for analysis. Empirical research shows differences between more and less experienced workers, particularly with respect to the complexity of the tasks performed and the type of knowledge created with GenAI support. The study's results contribute to our understanding of GenAI's impact on KM and offer managerial insights for introducing and using the new technology within business contexts.

Keywords: Generative AI, Knowledge Management, Work Experience, Software Engineers, Interview Study

Generative AI Techniques for Data Aggregation and Summarization: Enhancing Decision Support in Healthcare

Giuseppe Loseto, Alessandro Massaro, Angelo Rosa

LUM “Giuseppe Degennaro” University, Casamassima (Bari), Italy

Abstract

Processing healthcare data presents significant challenges for clinicians, particularly in chronic disease management such as diabetes care. Traditional data aggregation and summarization methods often struggle to integrate the diverse data sources of health information, ranging from structured electronic health records to unstructured clinical notes. In response to this challenge, the paper proposes a reference framework that leverages generative Artificial Intelligence (AI) techniques and agentic AI architectures for enhancing health data management and decision support. By employing Large Language Models, the system is able to synthesize insights from collected data also deriving contextualized summaries and personalized recommendations useful for healthcare professionals. The paper outlines the architectural components of the framework and discusses key implementation strategies. Finally, a basic prototype has been developed to demonstrate the feasibility and usability of the proposed architecture in the context of tediabetology, supporting the management of diabetes patients during periodic clinical visits.

Keywords: Generative AI, Healthcare, Decision Support, Large Language Models

A Bibliometric Analysis of GenAI for Privacy and Information Security in Industry

Giuliana Barba, Marianna Lezzi, Mariangela Lazoi, Massimo Scalvenzi

University of Salento, Lecce, Italy

Leonardo S.p.A, Rome, Italy

Abstract

The rapid advancement of Generative Artificial Intelligence (GenAI) has attracted considerable attention in industry and academia due to its transformative potential to automate the generation of text and multimedia content. However, concerns have emerged about privacy and information security implications in industrial settings, where sensitive data and intellectual property are essential assets.

While prior works have examined GenAI or information security in isolation, few have systematically analysed how GenAI is being integrated into privacy-preserving and security-enhancing practices in industrial sectors. By conducting a bibliometric review, this study fills this gap and provides a comprehensive mapping of how GenAI relates to information security and privacy issues in industry.

Leveraging a structured methodological framework, the bibliometric analysis conducted follows a two-phase approach to analyse a sample of 426 papers collected from Scopus and Web of Science (WoS): a preliminary analysis to assess publication trends, disciplinary contributions, document types, and geographic distributions; and a co-occurrence analysis, conducted using VOSviewer, to uncover thematic clusters. The bibliometric analysis identifies five dominant thematic clusters: (i) Generative Adversarial Networks (GANs) and Cybersecurity, focusing on adversarial attacks and industrial system protection; (ii) Industrial Cyber Protection, addressing federated learning and critical infrastructure defence; (iii) Disruptive GenAI, emphasizing Large Language Models and real-time automation; (iv) Privacy Preservation, covering anonymization and synthetic data generation; and (v) Ethical AI, exploring societal and governance implications. Overall, the study reveals critical research gaps such as the underrepresentation of medicine and energy in research landscape, limited decision sciences attention, regional asymmetries, and a lack of ethical discourse, which give rise to a forward-looking research agenda. This agenda advocates for interdisciplinary integration, regulatory alignment, and the development of context-sensitive and ethically robust GenAI systems in industry.

This study offers both theoretical contributions, advancing a more holistic understanding of GenAI's role in information security, and practical implications aimed at ensuring the safe, effective, and socially responsible deployment of this technology.

Keywords: Generative Artificial Intelligence, Cybersecurity, Industry

Harnessing Large Language Models for Data Mesh Adoption in Multi-Organizational Data Ecosystems

Lucaleonardo Bove, Lorenzo Epifani, Angelo Corallo, Massimiliano Gervasi

University of Salento, Lecce, Italy
Politecnico di Milano, Milano, Italy

Abstract

The rapid increase in the volume, variety, and speed of data is driving organizations to turn their growing amount of information into valuable insights. The data-mesh paradigm, anchored in domain-oriented ownership, data-as-a-product principles, and federated governance, constitutes a promising response. However, it also introduces new operational challenges in data integration, quality assurance, and interoperability processes. This article proposes the systematic integration of Large Language Models (LLMs) within a data mesh platform, named LLM-Enhanced Data Mesh platform, and delineates four functional modules: Schema Mapping, Metadata Extraction and Cataloging, Dark Data Integration, Automated Data Quality and Validation, and a Data Product Consumption Layer. Two novel classes of data products are introduced, New Data Products and Special Data Products, expanding the analytical horizon beyond domain silos. The discussion outlines advantages, limitations, and risks, showing how LLMs can lower manual effort, increase transparency, and enable advanced use cases such as multimodal sales forecasting. Finally, future research avenues are identified, including the creation of heterogeneous benchmarks, quantitative explainability metrics, and strategies for managing model drift in dynamic environments.

Keywords: Data Mesh, Large Language Models, Sales Forecasting, Data Quality, Data Product

Generative AI in Data Management: Enhancing Data Quality Control for Business Data

Mariasimona Miglietta, Lorenzo Epifani, Marco Di Salvo, Angelo Corallo, Gervasi Massimiliano

University of Salento, Lecce, Italy

Polytechnic of Milan, Milano, Italy

Abstract

The centrality of data quality within data management, and more broadly in business decision-making processes, constitutes an essential prerequisite for the reliability of analyses and, consequently, for the effectiveness of business strategies. The growing complexity and heterogeneity of data flows make data quality management an increasingly critical challenge, aimed at preserving the accuracy and consistency of extracted information. In this context, efficiency and timeliness become fundamental requirements. However, data quality processes are often resource-intensive and require specialized expertise. In this perspective, the adoption of generative artificial intelligence models, particularly Large Language Models (LLMs), opens new opportunities to support data management and quality control activities. This study proposes a conceptual framework for modelling the use of an LLM Agent to assist Data Quality and Application Maintenance teams. The framework is designed to facilitate the analysis of anomalies and malfunctions detected within systems responsible for data quality controls. Furthermore, the agent can suggest a set of technical solutions, specifying the potential impacts on the existing infrastructure and scheduled processes. This approach provides a solid foundation for future applications, promoting more efficient anomaly management and a strategic use of existing technical knowledge.

Keywords: Generative AI, Data Management, Data Quality, Knowledge Management, Process Optimization

Individual and Organizational Factors affecting the Adoption of GenAI in Creative Contexts: an Explorative Study

Francesco Filippo, Francesco Paolo Lagrasta, Stefano Lisi, Barbara Scozzi

Politecnico di Bari, Bari, Italy

Abstract

Recent developments of Generative Artificial Intelligence (GenAI) are profoundly impacting the creative contexts, offering innovative tools that redefine how artistic content is conceived, developed, and delivered. Across visual arts, design, music, and storytelling, GenAI is being embraced for its capacity to accelerate ideation, facilitate rapid prototyping, and democratize creative processes, so allowing both professionals and novices to produce high-quality outcomes. Its algorithmic creativity could augment human imagination and opens new frontiers for experimentation and collaborative creation.

However, while the GenAI tools are being celebrated, its adoption is not without reservations. Creatives express apprehension over issues such as loss of creative autonomy, potential homogenization of artistic outputs, and ethical concerns related to authorship and copyright infringement. The question of trust is pivotal: without transparency in AI processes and assurance over the originality of AI-generated content, users remain skeptical about relying on GenAI systems for meaningful creative work. Furthermore, aesthetic satisfaction plays a critical role, as artists seek not just functional outputs but final works that align with their personal and cultural values.

The study investigates the conceptual foundations underlying GenAI adoption in creative contexts. Existing theoretical frameworks such as the Technology Acceptance Model (TAM) provide useful foundations for examining user attitudes towards new technologies. However, these models originally developed in contexts of general-purpose technologies do not fully capture the emotional, aesthetic, and autonomy-related dimensions that characterize creative practices. As such, this paper critically explores their applicability to GenAI adoption in creative fields and identifies the need for further contextualization. Based on a systematic literature review of peer-reviewed articles sourced from Scopus and from existing AI governance frameworks (e.g. OECD and NIST), the paper identifies a set of constructs—including perceived usefulness, ease of use, trust, creative autonomy, aesthetic satisfaction, and behavioral intention—that can inform the future development of a tailored survey instrument. The relevance of the core constructs to education and artistic production is discussed. The contribution of the study is twofold: it offers an academically rigorous synthesis of current knowledge on GenAI adoption within creative domains and proposes a refined conceptual framework that can inform future empirical studies. By aligning established theoretical models with the distinctive needs of creative practice, the study provides a critical foundation for educators, researchers, and policymakers committed to supporting a responsible, ethical, and inspiring integration of AI technologies in the arts.

Keywords: Generative Artificial Intelligence, Business Processes, Creative Industry, Technology Acceptance Model, AI Classification Frameworks

Forecasting Analysis for Technology-Driven Transition in Circular Packaging

Marco Scatto, Karen Venturini, Chiara Grosso, Alberto Petroni

University of San Marino, San Marino, R.S.M.

University of Rome "La Sapienza", Rome, Italy

University of Parma, Parma, Italy

Abstract

Today circular packaging represents a real opportunity for luxury industry. In particular, the recent European Packaging and Packaging Waste Regulation, which was officially published on January 22, 2025, calls for not only companies but also packaging users to be aware of all end-of-life opportunities for packaging. The EU's Eco-design for Sustainable Products Regulation (ESPR) aims to enhance product sustainability by improving circularity, energy performance, and recyclability. Accordingly, the EU recognize the role of Eco-design as pivotal in reducing the environmental impact in several industries sectors including packaging. These technological innovations collectively contribute to a more intelligent, adaptive, and data-driven approach to cosmetic packaging and production (Chandel and Gain, 2023). This study addresses the convergence of technological innovation, eco-design and packaging customization in the cosmetics industry. Product configurators, as expert systems, facilitate personalization by enabling consumers to design products that meet their specific needs (Dube and Dube, 2023). The scientific literature lacks a survey of packaging trends for cosmetic applications. Adopting an ISM MICMAC methodology, this paper aims to construct a future scenario in terms of new regulations, opportunities, barriers, and timelines through which industry trends can be reconstructed. Over the past three decades, impact matrices have become commonly used tools for scenarios and strategic planning. With the goal of investigating systems and their dynamics, ISM-MICMAC analysis is a combined approach of ISM (Interpretive Structural Modeling) - a structured process to identify and represent the relationships between factors in a hierarchical system- and MICMAC (Matrices Impacts Croises Multiplication Appliance Classement) - a dependence and strength analysis to assess the level of mutual influence and dependence between factors. ISM-MICMAC analysis enables the identification and visualization of hierarchical relationships among a set of complex variables, provides insights into how the variables affect the overall system, and which factors are the main drivers of future dynamics, and which are the consequences (Dube and Gawande, 2016). The ISM-MICMAC enables to anticipate future scenarios, define priorities and reduce uncertainty. In particular, this method has been applied to identify the enablers of sustainability or circular economy (Patel et al., 2021; Chandra and Shukla, 2024). In this study, variables were extracted through a systematic literature review and the opinion of 4 experts, with more than 10 years' experience in the packaging industry. The paper aims to be the first step in an ISM MICMAC matrix to better understand the dynamics in circular packaging system and future implications.

Keywords: circular packaging, eco-design, sustainability, technology, ISM-MICMAC, cosmetic industry

Digital Solutions to Support Transition from Linear to Circular Manufacturing

Michal Krčál, Sayyed Shoaib-Ul-Hasan, Farazee Mohammad

Abdullah Asif, Mikhail Monashev

Masaryk University, Brno, Czech Republic

School of Industrial Engineering and Management - KTH, Stockholm, Sweden

Abstract

The transition from linear to circular manufacturing systems (CMS) is essential for manufacturing firms aiming to enhance sustainability and mitigate resource depletion. Despite clear environmental and economic benefits, the adoption of circular economy (CE) principles within the manufacturing sector remains limited, largely due to significant technological, operational, and organisational barriers. This study addresses these issues by exploring the specific challenges that manufacturing companies face during their transition to CMS and proposes digital technologies to effectively overcome these barriers. Utilising an exploratory, qualitative, single-case study approach, we investigated a European white goods manufacturer implementing a refurbishment centre aimed at establishing circular practices within their laundry appliance segment. Through thematic analysis, we identified three primary challenges: uncertainty regarding the condition of returned appliances due to limited consumer data sharing, insufficient durability and longevity data from laboratory tests of new models, and operational inefficiencies due to inexperience with dismantling and refurbishing processes. To address these challenges, we propose advanced digital solutions leveraging Internet of Things (IoT), Artificial Intelligence (AI), and Augmented Reality (AR) technologies. Specifically, IoT and AI-based systems are recommended for comprehensive product tracking, real-time condition monitoring, predictive maintenance, and informed decision-making, significantly improving data availability and accuracy for refurbishment operations. Additionally, we suggest AR-enhanced workstations to assist workers in dismantling processes, enhancing operational efficiency, reducing error rates, and facilitating knowledge management across diverse product models. Our findings extend the current body of knowledge on CE barriers, particularly in relation to IoT capabilities and consumer data-sharing practices and highlight practical implications for manufacturers seeking effective digital interventions. This research underscores the critical role of technology integration and organisational readiness in achieving successful CMS transitions.

Keywords: Circular Manufacturing Systems (CMS), Circular Economy (CE), Digital Transformation

Shaping the Twin Transition: How Leading Innovators align Industry 4.0 and Circular Economy Practices for Sustainable Growth

Tamara Menichini, Gennaro Salierno, Nicoletta Maria Strollo

University of Rome Niccolò Cusano, Rome, Italy

Abstract

The Twin Transition (TT) refers to the simultaneous shift toward a green economy and digital transformation. It involves using digital technologies (like Artificial Intelligence, IoT, and big data) to drive environmental sustainability, improve efficiency, and support climate goals. Despite its relevance, empirical research on how leading companies integrate digital and sustainability transformations remains limited. The current study addresses this gap by examining how the world's most innovative companies, as ranked by the Boston Consulting Group (2023), prioritize the Green Transition (GT) and Digital Transition (DT) topics within their sustainability reports. Focusing on the materiality analysis, a quantitative content analysis was conducted using GRI Standards, the World Business Council for Sustainable Development framework, and standardized categories of I4.0 technologies to structure the coding frame. The results reveal a relevant imbalance: GT-related topics such as emissions, materials, and waste are widely and systematically disclosed, indicating a relatively mature materiality of CE practices towards the Green Transition (GT). In contrast, Digital Transition (DT) topics appear underrepresented and are often limited to cybersecurity, suggesting that I4.0 technologies are not yet evaluated as material to shape the TT. The study offers new insights into how innovation leaders integrate TT practices into their strategic view of corporate sustainability and contributes to the broader literature by using materiality analysis as a lens to evaluate the alignment of sustainability priorities with innovation.

Keywords: Twin Transition, Industry 4.0, Circular Economy, Sustainable Development, Materiality Analysis

AI-driven Knowledge Futures: Digital Innovation in Cultural Heritage

Aelita Skarzauskiene, Kristina Kovaitė, Monika Mačiulienė, Paulius Šūmakaris

Vilnius Gediminas Technical University, Vilnius, Lithuania

Abstract

The rapid advancement of digital technologies has opened new possibilities for cultural heritage institutions (CHIs), enabling digitization and AI-supported initiatives that improve preservation, accessibility, and public engagement. However, CHIs often face significant challenges in evaluating and selecting appropriate projects due to fragmented resources, institutional complexity, and existing decision-support frameworks prioritize financial and technical feasibility while neglecting cultural and social dimensions. This study addresses a critical gap by presenting a micro-level decision-support framework specifically designed to guide CHIs in the evaluation of digitization and AI-supported projects. The framework was constructed through a three-stage mixed-method research design that combined a systematic literature review (SLR), focus group discussions, and the Delphi technique. It draws on the expertise of professionals from the European cultural and creative industries, including representatives from CH institutions and ethnic minority groups. Their diverse perspectives ensured that the framework reflects both technical and cultural priorities. The process resulted in a validated set of 43 criteria, grouped into six categories: finance and investment, employment and personnel, market, accessibility, social impact, and cultural heritage object. The framework offers CHIs a comprehensive but context-sensitive tool to guide structured, evidence-based decision-making. It captures both tangible and intangible project dimensions and supports strategic planning that aligns with institutional missions and stakeholder expectations. The study contributes theoretically by operationalizing cultural value and institutional priorities in micro-level evaluation, addressing the limitations of market-oriented models. It also offers practical value by enabling CHIs to navigate trade-offs between innovation, feasibility, and cultural integrity. While grounded in project-level application, the framework also serves as a foundation for the application of multi-criteria decision-making (MCDM) methods and future research on institutional-level decision making. The findings improve CHI's ability to make informed, inclusive, and forward-looking investment decisions in a rapidly changing digital world.

Keywords: cultural heritage, digitization, AI-supported projects, decision making criteria, micro-level.

Transforming Hotel Innovation Management through Innovation Labs: Lessons from Spain

Matias Celdrán Bonafonte, Francesco Santarsiero, Gustavo Morales-Alonso

Universidad Politécnica de Madrid, Madrid, Spain
University of Basilicata, Potenza, Italy

Abstract

In this article, we will explore innovation management in such an important sector as tourism, focusing specifically on the hotel industry. Within the hotel industry, innovation has been a major focus for some years now, moving away from the popular phrase that traditionally circulates by word of mouth, "This has always been done this way." Proof of this is that highly important organizations in the sector such as ITH (Hotel Technology Institute in Spanish) are holding highly interesting events such as the one held in 2020: "Balance between technology and investment, common sense and people, key in ITH Hotel Virtual Innovation Lab". Because the current situation in the sector is changing, both for the hotelier and the customer, it is essential to be able to compare what has been studied so far with the current reality. In the past, guests would go to a hotel and find things they didn't have at home: a larger TV, a better mattress, a jacuzzi... this meant that innovation took a backseat to customer attraction. Nowadays, it's difficult to surprise guests with such basic items that they normally have at home that are just as good or better, so innovation has taken center stage and gained significant importance. We could say without fear of being wrong that today the hotel sector is one of the most interested in innovation in all its aspects (technological, marketing and processes) without a doubt. That's why we consider it important to conduct a study and see if the reality of the sector is surpassing the academic studies conducted on it. To contrast this reality, it is important to obtain information directly from the most relevant players in the sector and conduct as many interviews as possible.

Keywords: Innovation Lab, i-Lab, innovation, Hotel industry, Tourism

Assessing Digital Maturity in Rural Tourism: Insights from Pilot Areas in Basilicata

Francesco Santarsiero, Daniela Carlucci, Antonio Lerro, Rosaria Lagrutta, Vincenzo Orsi

Università degli studi della Basilicata, Potenza, Italy

Abstract

Building on a previously developed Digital Maturity Model (DMM) tailored for cultural tourism, this paper explores the application of the model in rural tourism contexts. While digital transformation (DT) is widely recognized as a strategic imperative, rural areas often face unique barriers—including limited infrastructure, digital skill gaps, and organizational inertia—that hinder their digital evolution. This study aims to assess the digital maturity of rural tourism operators in selected pilot areas in the Basilicata region, offering insights to guide targeted DT strategies.

The research adopts an empirical approach by applying the seven-dimensional DMM—comprising Strategy, Organization, Culture, Employee, Tourists, Technology, and Operations—to a sample of rural tourism and cultural operators. Data were collected through surveys and interviews conducted within pilot areas engaged in the Tech4You PNRR initiative.

The assessment reveals heterogeneous levels of digital maturity across rural operators. While strengths emerged in cultural orientation and visitor engagement, significant gaps were observed in areas such as strategic planning, technological infrastructure, and operational data use. These findings suggest a need for differentiated support policies and context-sensitive digital transformation roadmaps.

This paper extends the applicability of the DMM to rural tourism ecosystems, demonstrating its relevance beyond urban or institutionalized cultural tourism settings. It contributes empirical evidence to the literature on digital transformation in marginal areas, helping bridge the gap between maturity models and real-world application.

The study provides a diagnostic tool for local authorities, innovation agencies, and tourism stakeholders to map digital readiness, prioritize interventions, and co-design tailored DT strategies in rural contexts. It also opens pathways for replicability in other regions with similar territorial challenges.

Keywords: Digital Maturity; Rural Tourism; Cultural Heritage; Digital Transformation; Assessment Framework

Models and Tools to Support Innovation Processes in Cultural Tourism Ecosystems: Evidences and Implications for Basilicata

Antonio Lerro, Rosaria Lagrutta, Vincenzo Orsi, Francesco Santarsiero, Daniela Carlucci, Giovanna Andrulli

University of Basilicata, Potenza, Italy

Abstract

This study explores the role of models and tools in supporting innovation processes and digital transformation within cultural tourism ecosystems. It emphasizes the need for a shift for cultural tourism organizations towards digital innovation and innovation processes and highlights the importance of collaborative networks that actively engage stakeholders in the co-creation of smart tourism solutions. The research identifies participatory methodologies, particularly participatory events, as strategic levers to foster innovation and digital awareness in the sector.

A qualitative research design was adopted, combining desk-based analysis of existing literature with a multiple case study methodology. A series of thematic focus groups held in the Basilicata region provided empirical insights into how participatory formats can support digital transformation and innovation in cultural tourism.

The findings reveal key challenges and opportunities for fostering digital transformation and innovation in cultural tourism. The study outlines emerging models, tools, and participatory formats that enhance stakeholder engagement and co-design processes, while also identifying structural barriers and enablers critical to success.

The paper contributes to the literature by systematizing participatory practices as catalysts for digital transformation and innovation in cultural tourism. It offers practical guidelines and raises new questions for future research on innovation dynamics in rural tourism ecosystems.

Keywords: Digital transformation, cultural tourism, innovation, participatory events, co-creation lab

Digital Transformation in Rural Cultural Tourism: Insights from a SWOT Analysis in Basilicata

Antonio Lerro, Rosaria Lagrutta, Vincenzo Orsi, Francesco

Santarsiero, Daniela Carlucci

Università degli studi della Basilicata, Potenza, Italy

Abstract

This study investigates the dynamics of digital transformation in rural cultural tourism. It explores how rural territories can engage with digital innovation through context-specific strategies that enhance cultural heritage, territorial identity, and stakeholder collaboration.

The research adopts a qualitative methodology based on a SWOT analysis, drawing from semi structured interviews, participatory workshops, field observations, and desk research. This approach allows for a critical assessment of internal and external factors influencing digital transformation processes in rural tourism areas.

The analysis highlights a series of structural challenges, including limited digital infrastructure and skills gaps, but also identifies unique opportunities tied to community cohesion, authentic local narratives, and the potential for slow, sustainable tourism models. The findings emphasize the importance of bottom-up approaches and multi-actor engagement in shaping digital strategies that are both place-sensitive and innovation-oriented.

The paper contributes both to literature and to managerial and policy practices by offering a grounded perspective on rural digital transformation, moving beyond generalized frameworks to focus on localized innovation pathways. It positions cultural heritage not as a constraint but as a resource for co-creating digital solutions tailored to rural tourism contexts.

Keywords: rural cultural tourism, digital transformation, cultural heritage, SWOT analysis, innovation, participatory events

The Role of Incubators in the Innovation Ecosystem

Michele Modina, Anna Vittoria Formisano, Aysan Bashirpour

Bonab

University of Molise, Campobasso (CB), Italy

University of Cassino and Southern Lazio, Cassino (FR), Italy

Abstract

In this paper, we rely on multiple correspondence analysis (MCA) to explore a complex ecosystem of Italian innovative enterprises. In this respect, we analyze more than 11.000 innovative SMEs and start-ups. We find that the Italian innovation ecosystem is mainly structured along two dimensions. The first and most significant dimension emphasizes the opposition between structured institutional elements that are typical of SMEs and leaner, more flexible arrangements closer to the start-ups. The second axis is that of social inclusiveness and innovation as opposed to sociocultural sedimentation, which is more representative of well-established SMEs in the industrial/artisanal sector. An additional analysis of concentration ellipses revealed that start-ups are prone to rely on higher female representation and are closer to the service sector category. If we treat the latter as a proxy category for incubators, which were all designated as services, then the unfortunate conclusion is that Italian innovative enterprises tend to lose their social innovativeness aspects, which include but are not limited to social inclusivity, once past the start-up phase. The ramifications of these dynamics are yet to be sufficiently understood in relation to the broader ability of enterprises to innovate.

Keywords: innovation, start-ups, SMEs, incubators, social inclusivity, MCA

Resilience of Entrepreneurial Ecosystems (EEs) in Switzerland: Diversity, Coherence, and Digitalization

Eva Panetti, Viktoriia Apalkova, Maurizio Caon

University of Applied Sciences and Arts Western Switzerland (HES-SO) , Fribourg, Switzerland

Abstract

This paper investigates the factors that shape the resilience of entrepreneurial ecosystems (EEs) in the context of long-term structural and technological change. Drawing on a longitudinal dataset from the Global Entrepreneurship Monitor (GEM) for Switzerland (2003–2023), we examine how ecosystem diversity, coherence, and digitalization influence adaptive capacity in the face of external shocks. Building on recent literature, we conceptualize ecosystem resilience as the ability to sustain early-stage entrepreneurial activity over time, and explore whether digitalization contributes to resilience outcomes. We construct composite indexes for diversity, coherence, and digitalization, and estimate a series of linear regression models including interaction effects. Our results confirm that diversity has a significant positive impact on resilience, and that digitalization contributes independently and strongly to resilience as well. However, we find no significant interaction between diversity and coherence, suggesting that alignment and diversity do not always produce synergistic effects. Notably, we identify a negative and statistically significant interaction between coherence and digitalization, indicating that in ecosystems with high institutional alignment, the use of digital tools may be associated with reduced flexibility and adaptability. These findings contribute to the emerging body of research on entrepreneurial ecosystem resilience by introducing digital infrastructure as a dynamic moderating variable. The study also provides one of the few longitudinal assessments of ecosystem resilience in a European context, offering new insights into the interplay between diversity, institutional alignment, and technological capacity. We discuss the implications for theory, highlighting the conditional nature of resilience mechanisms and the need to account for ecosystem maturity and saturation effects. For policymakers, the results suggest that coherence-building and digitalization strategies should not be treated as universally beneficial, especially in already well-structured ecosystems. Instead, interventions should aim to balance structure with openness, and stability with experimentation, in order to enhance long-term ecosystem resilience.

Keywords: Entrepreneurial Ecosystems, Resilience, Global Entrepreneurship Monitor (GEM), Digitalization, Switzerland

Leveraging External Knowledge: How Business Incubators Facilitate Open Innovation in Start-ups

Antonio Sonetto, Silvia Tommaso, Antonio Ricciardi

University of Calabria, Arcavacata di Rende (CS), Italy

Abstract

Start-ups represent one of the main sources of innovation and, consequently, national competitiveness. However, due to their limited size, they face several challenges, such as the scarcity of technical and financial resources, which significantly constrain their innovation capacity. To overcome these challenges, start-ups should engage in the adoption of open innovation (OI) processes, which enable them to collaborate with external organizations and exchange resources and knowledge. The effectiveness of such processes is amplified when start-ups are embedded in solid innovation ecosystems. Among the various actors that compose these ecosystems, innovation intermediaries — such as business incubators (BIs) — play a key role. BIs, through targeted networking services, enable incubated start-ups to more easily develop OI collaborations, either with one another or with external organizations. This study aims to explore the role of BIs as OI intermediaries — a topic that has received limited attention in the literature — by identifying the main operational strategies implemented to foster the openness of their incubated start-ups. To achieve this objective, a case study was conducted on the incubator of the University of Calabria (UniCal), “TechNest”. The findings reveal a strong commitment by TechNest to supporting the development of both internal and external innovation networks. However, some limitations were observed in terms of openness among start-ups operating within the academic context. This research provides valuable implications. On a theoretical level, it contributes to the limited body of literature on the topic. On a practical level, it highlights the importance for incubator managers to integrate an OI perspective into their incubation programs, while also emphasizing the need for managers of incubated start-ups to open their innovation processes to external collaborations. At the same time, policymakers should work to improve innovation policies, providing greater support to incubators and, more generally, to local and national innovation ecosystems.

Keywords: Open innovation, Business incubators, Start-ups, Innovation ecosystems, Case study

How Emerging Technologies Drive Collaboration in Start-Ups' Innovation Ecosystems

Laura Monferdini, Benedetta Pini, Virginia Dolci, Eleonora Bottani

University of Parma, Parma, Italy

University of San Marino, Dogana, Republic of San Marino

Abstract

The dynamism and competition of organizations has triggered the need to accelerate technological transformations to foster innovation. In this context, Industry 4.0 technologies, technological advances, and the innovation ecosystem enable enterprises and start-ups to gain new opportunities and support them in their development process. Effectively leveraging artificial intelligence tools and building such ecosystems can provide significant support to enterprises. Ecosystems both drive and are driven by technological innovations, so the interaction between technology and the forces that shape ecosystem evolution is fundamentally dynamic and flows in both directions. In this context, artificial intelligence can play a key role in facilitating and optimizing these interactions, supporting the creation of innovative solutions relevant to start-ups.

The collaborative nature of innovation ecosystems relies on the integration of different actors, such as start-ups, large corporations, universities, research centres, and public institutions, each contributing unique knowledge, skills, and technological capabilities. Artificial Intelligence (AI) can accelerate this process by enabling more efficient knowledge sharing, automating decision-making, and improving communication across stakeholders. Moreover, AI tools can support start-ups in identifying market trends, personalizing customer experiences, and optimizing internal operations, all of which are crucial for maintaining competitiveness and scalability.

The aim of this article is to explore how emerging technologies characteristic of Industry 4.0, in particular artificial intelligence, deep learning, and machine learning, can promote growth and stimulate collaboration within start-ups and innovation ecosystems more generally. To achieve the results, a review of the existing literature focused on the topic was conducted, using various statistical and bibliometric analyses. This comprehensive review intends to highlight current research gaps and provide insights into how AI-driven collaboration can reshape innovation ecosystems in the future.

Keywords: Innovation ecosystem, open innovation, industry 4.0, collaboration, start-up

The Impact of Digitalization and Open Innovation on the Performance of Innovative Startups: A Systematic Literature Review

Serena Filippelli, Barbara Bigliardi, Virginia Dolci, Laura Monferdini, Benedetta Pini

University of Parma, Parma, Italy

University of the Republic of San Marino, Dogana, San Marino

Abstract

In a fast-changing and hyper-connected business environment, startups are increasingly challenged to innovate, scale efficiently, and remain competitive despite limited internal resources. This paper investigates how digitalisation and open innovation (OI) jointly impact the performance of innovative startups, with a particular focus on how digital technologies enable open innovation processes. To address this, the study adopts a systematic literature review (SLR) methodology, analysing 42 peer-reviewed articles retrieved from the Scopus database. The selected studies span various industries and geographic regions, although the majority are concentrated in developed economies and ICT-intensive sectors. The review identifies a growing interest in the role of technologies such as Artificial Intelligence (AI), Big Data Analytics (BDA), Internet of Things (IoT), Blockchain, and Cloud Computing as key enablers of both inbound (e.g., external knowledge sourcing) and outbound (e.g., licensing, platform participation) open innovation activities. Findings show that while digitalisation and OI are often studied in isolation, few models offer an integrated, startup-specific perspective. Moreover, most existing frameworks focus on financial performance, neglecting sustainable performance metrics such as environmental and social value creation. The analysis highlights several theoretical gaps, including a lack of longitudinal and cross-sectoral studies, and limited exploration of digital open innovation dynamics in early-stage firms. From a theoretical standpoint, the study maps the most frequently adopted frameworks—Resource-Based View (RBV), Dynamic Capabilities Theory (DCT), Knowledge-Based View (KBV), and Open Innovation theory—and proposes a conceptual model linking digital technology adoption, open innovation practices, and dual performance outcomes (financial and sustainable). This model provides a foundation for future empirical testing and theoretical refinement. On the managerial side, the paper offers practical insights for startup founders, innovation managers, and ecosystem developers, suggesting how digital tools can be strategically combined with open innovation practices to enhance agility, reduce costs, and drive long-term value creation. Overall, this study contributes to the literature by clarifying conceptual relationships, identifying key constructs, and outlining directions for future research at the intersection of digital transformation and collaborative innovation in startups.

Keywords: Digitalization, Digital technologies, Open innovation, Innovative Startups, Systematic Literature Review

Mental Models for Entrepreneurial Ecosystems: A Simulation Experiment

Maria Cristina Pietronudo, Eva Panetti, Andrea Caporuscio,
Daniele Leone

University of Campania “Luigi Vanvitelli”, Capua, CE, Italy

School of Management Fribourg (HEG-FR), Fribourg, Switzerland

Parthenope University of Naples, Naples, Italy

Abstract

Entrepreneurial ecosystems are increasingly seen as complex, dynamic environments requiring effective coordination by ecosystem orchestrators. While prior research has focused on structural and institutional elements, little is known about the cognitive processes guiding orchestrators’ decisions. This study addresses this gap by examining how mental models influence ecosystem performance. The study analyzes three key attributes of mental models: complexity, centrality, and accuracy. Data were collected through a simulation environment where eleven teams played the role of orchestrators across ten rounds of strategic decision-making. Using a fuzzy-set Qualitative Comparative Analysis (fsQCA), the study identifies two causal configurations sufficient for high performance: one based on high centrality and the other on high complexity, both combined with low accuracy. The findings suggest that orchestrators can adopt different cognitive strategies to achieve strong outcomes, challenging the assumed importance of accuracy. The study contributes to the literature on entrepreneurial ecosystems and managerial cognition, offering practical insights for those aiming to enhance ecosystem performance through cognitive and strategic design.

Keywords: entrepreneurial ecosystem; mental model; decision making

Orchestrating Digital Innovation Ecosystems: A Case Study on Asymmetric Collaborations in Pharma Logistics

Alberto Michele Felicetti, Salvatore Ammirato, Roberto Linzalone,
Laura Cutrì

University of Calabria, Arcavacata di Rende (CS), Italy

Abstract

The emergence of Digital Innovation Ecosystems (DIEs) is reshaping how innovation is generated, diffused, and scaled across sectors, especially within highly regulated domains such as pharmaceutical logistics. These ecosystems bring together startups, corporations, research institutions, and intermediaries to co-create digital solutions. However, such collaborations are inherently asymmetric—startups and corporates differ vastly in resources, legitimacy, and influence—posing challenges related to power imbalances, cultural misalignments, and governance.

This paper investigates how asymmetric collaborations are orchestrated within DIEs, drawing on a single in-depth case study: Logi-farma, a digital platform project aiming to optimize pharmaceutical distribution through AI, automation, blockchain, and data analytics. The case involves a large ICT corporation, an innovative SME, a logistics specialist, and a university research center. Guided by a conceptual framework derived from a prior systematic literature review on asymmetric collaborations, this study explores how stakeholders with diverging capabilities and motivations coordinate innovation efforts and mitigate power asymmetries.

Using semi-structured interviews, document analysis, and comparative assessments of digital innovation models, we investigate the governance mechanisms, collaboration dynamics, and innovation outcomes within the project. Findings are structured through a 6W-based framework—exploring who the actors are, how they collaborate and integrate technology, why they engage, and where/when the processes unfold. The analysis reveals that while startups benefit from legitimacy and scale, corporates leverage agility and niche expertise. However, unresolved asymmetries around data ownership, IP, and decision-making risk undermining trust and long-term viability.

This paper contributes to both theory and practice. Theoretically, it advances open innovation and ecosystem literature by integrating asymmetry as a structural component and proposing a novel conceptual lens for analyzing goal-oriented, multi-actor innovation networks. Practically, it offers guidance for ecosystem orchestrators, policymakers, and innovation managers on how to design inclusive governance structures that support fair value co-creation. The case study illustrates how digital health innovation can be scaled through collaborative orchestration, provided that power differentials are addressed and trust is actively managed. Ultimately, this work underscores the potential of orchestrated asymmetric collaborations to drive digital transformation and sustainability in complex, high-stakes sectors.

Keywords: Digital Innovation Ecosystem; Startup-Corporate Collaboration; Open Innovation; Case Study

Stress Management and Organizational Strategies: Promoting Well-Being and Innovation in Healthcare Systems

Filomena Riemma, Davide de Gennaro, Filomena Buonocore,
Rosario Marrapodi

University of Naples "Parthenope", Naples, Italy

University of Campania "Luigi Vanvitelli"

Abstract

The healthcare sector is characterized by intense emotional, cognitive, and physical demands that expose professionals to chronic stress, with significant consequences for their well-being and performance. Despite growing scholarly attention to stress in healthcare, little is known about the specific coping strategies that professionals employ and the organizational factors that facilitate or hinder these approaches. This study addresses this gap by examining how healthcare workers navigate daily stressors and how organizational structures can support or undermine their coping mechanisms.

Based on a qualitative research design, the study involved 41 semi-structured interviews with healthcare professionals—including doctors, nurses, psychologists, and other staff—operating in various settings. The findings reveal that organizational support plays a crucial mediating role between job demands and perceived job control. In particular, participants who reported supportive leadership, accessible resources, and open communication channels were better equipped to handle high workloads and emotional fatigue, even in contexts with limited formal autonomy.

The concept of perceived control emerges as a central theme, expanding traditional models of occupational stress. The study demonstrates that the subjective perception of being able to influence one's work environment—fostered by empathetic leadership and inclusive organizational culture—can significantly enhance resilience and reduce burnout risk. Moreover, the diversity of professional experiences in the sample underscores the importance of tailored organizational strategies that reflect the unique stressors and coping needs of different roles within the healthcare system.

By integrating insights from organizational behavior, human resource management, and health psychology, this research contributes to the development of more resilient and supportive healthcare organizations. The findings offer practical recommendations for policy-makers and managers seeking to promote employee well-being, improve job satisfaction, and sustain innovation in complex healthcare environments, particularly in the face of ongoing global health challenges.

Keywords: Stress management, Coping strategies, Healthcare, Organizational support, Professional development

A Randomized Controlled Field Trial: A Gamified Training Course on Workplace Health and Safety Prevention for Middle School Students – "Let's Play 81!"

Alice Mannocci, Guendalina Capece, David Shaholli, Jessica Pratavia, Lombardo Floranna Guarente, Ilaria Frantellizzi, Ramos Mren Quesada, Francesco Belsito, Bruno Gerace, Ginevra Duraturo, Claudia Sarcoli, Antonietta Monteduro, Giuseppe La Torre

University San Raffaele of Rome, Rome, Italy

IRCCS San Raffaele Rome, Italy

Universitas Mercatorum, Rome, Italy

Sapienza University of Rome, Rome, Italy

Abstract

Workplace safety is increasingly recognized not only as a matter of regulatory compliance but as a collective, knowledge-based infrastructure that must be cultivated early and systemically. In response to this challenge, the "Let's Play 81!" project introduces a school-based, game-driven educational pathway aimed at promoting occupational safety awareness among students aged 8 to 13. Developed in alignment with Italy's updated safety legislation (Legislative Decree 81/2008, reform 2024), the project reframes prevention as a civic competence rooted in shared knowledge, care, and responsibility.

The initiative was piloted in four public schools in central Italy, involving 198 students, 20 teachers, and 4 certified safety trainers. It employs analog games—developed and validated by occupational health experts—as tools to activate learning through play. Three distinct games simulate safety challenges in fictional yet relatable settings. These tools enable students to interact with roles, rules, and consequences, encouraging reflection, dialogue, and collective problem-solving.

The study adopts a mixed-methods approach. Quantitatively, it measures knowledge acquisition using a pre/post quiz (81Questionnaire), revealing a significant improvement in the intervention group (+4.43 points on average, $p < 0.001$). Qualitative data from teacher and trainer feedback underscore increased engagement, emotional involvement, and transversal learning outcomes (e.g., collaboration, attention, civic sense).

From a knowledge management perspective, the project demonstrates how structured play can serve as a conduit for transmitting tacit and explicit knowledge in early education contexts. It also fosters interinstitutional collaboration among schools, Universities, and training bodies, suggesting a model for distributed governance in prevention.

"Let's Play 81!" offers a replicable framework to embed safety culture through experiential, inclusive, and cognitively rich learning. It contributes to the broader discourse on how public value can be co-generated through educational innovation and how knowledge-intensive processes—like risk awareness and prevention—can be activated far beyond the boundaries of formal workplaces.

Keywords: Safety Culture, Gamification, Knowledge Transfer, Preventive Education, Public Value Creation

The Role of Digital Technologies on Corporate Governance Mechanisms

Cristina Cersosimo, Franco Ernesto Rubino

University of Calabria, Rende (Cs), Italy

Abstract

This study examines the transformative impact of digital transformation (DT) on corporate governance (CG) mechanisms. Using a twofold approach — bibliometric analysis and systematic literature review (SLR) — and following the PRISMA guidelines, we analysed 350 scientific papers from the Web of Science database, culminating in a focused review of 50 core articles. A growing publication trend is evident, with Chinese researchers leading in number of publications and UK studies leading in number of citations. All papers remark a positive relationship between DT and CG. Most studies have been published in the *Journal of Business Research* and on *European Business Organization Law Review*. Most studies have been published in a journal belonging to the Q1 best quartile. A key finding is that DT enhances governance across all dimensions, allow to reshaping the strategic oversight function of the Board. Considering the rigorous protocol adopted to the selection of papers, this general rule that DT enhance all field of CG, may be considered theoretically relevant. Digital technologies are not simply optimising existing governance mechanisms but redefining board roles, decision-making processes, accountability systems, and stakeholder engagement. Agency theory emerges as the most commonly applied lens, yet CG in the digital era suggests the need for new and innovative theoretical frameworks. We identify research gaps and proposes directions for future research. Practitioners are encouraged to adopt digital tools in CG. Finally, we suggest to regulators to make any changes that are deemed necessary to well adapt the current regulatory framework with the adoption of new technologies in CG.

Keywords: Digital Transformation, Corporate Governance, Board of Directors

Navigating Sustainable Corporate Governance in the Age of Artificial Intelligence: Primary Evidence from Italy

Giacomo Gotti, Angela Oksana Fiorella, Carla Morrone, Valerio D'Ovidio

Sapienza University of Rome, Rome, Italy

Abstract

In the current economic and business context, Artificial Intelligence (AI) becomes a debated topic among academic and practitioners. Although the specific literature has outlined the relationship between top management and digitalization, sustainability topics remain less scrutinized, particularly concerning AI. With these premises, this study intends to investigate whether sustainable corporate governance (SCG) affects disclosure about AI.

To test the research hypothesis, we adopted a mixed approach (i.e., content analysis, structural equation modelling, ordinary least squares and lasso regression) working on a sample of 104 Italian listed companies.

Firms with higher levels of SCG scores display a greater impact on AI disclosure, suggesting that sustainable boards are demonstrating greater integration of AI in their disclosures as well as in their decision-making processes.

Although the literature is becoming increasingly interested in sustainable corporate governance issues, research is still lacking. To the best of the authors' knowledge, no study has previously investigated possible relationships between sustainable governance and the digitization process, especially with regard to the implications of AI.

Our findings provide insightful contributions to SCG- and AI-related literature, enriching the UET framework. In doing this, this study provides important implications for managers – especially at a strategic level – and policymakers.

The research is not free from limitations. First of all, AI disclosure is assumed to be representative of effective AI implementation, leaving room for doubt as a level of AI disclosure does not guarantee the same level of actual integration. Furthermore, it falls into a single-year analysis (2023) and Country (Italy). Therefore, future studies, survey-based, could increase the accuracy of the AI index and expand the analysis over time as well as to other countries.

Keywords: Sustainable corporate governance, Artificial intelligence, Disclosure, SEM, UET

Costs and Benefits of AI Adoption in the Recruitment Process: Organisational, Recruiter, and Job Applicant Perspectives

Riccardo Michele Colangelo, Eleonora Petrazzuoli, Maria Menshikova, Vito Saverio Cicoira, Nunzia Cosmo

Universitas Mercatorum, Rome, Italy

Abstract

This paper explores the disruptive impact of artificial intelligence (AI) on recruitment processes within organizations, with particular attention to the opportunities, challenges, and implications arising from the digitalization of HR practices. The study considers perspectives from organizations, recruiters, and candidates, focusing on how AI is reshaping traditional approaches to talent acquisition.

From a methodological standpoint, the study adopts a Bibliometric-Systematic Literature Review (B-SLR) approach, following the parameters established by Marzi et al. (2025). This first level of analysis is enriched by an in-depth examination of the ten most cited articles on the topic.

The objective of this study is to highlight both the opportunities and challenges - the lights and shadows - of the multifaceted potential of artificial intelligence within organizational contexts, specifically focusing on its application in the recruitment process as part of human resource management (HRM).

Based on the findings from the Bibliometric-Systematic Literature Review (B-SLR) and the analysis of the most cited articles, a Cost-Benefit Analysis (CBA) aims to evaluate the overall impact of AI tools on recruitment processes, highlighting both the potential benefits and challenges arising from the use of AI in the recruiting process for organizations, HR professionals and job applicants.

In doing so, this paper aims to support evidence-based decision making by providing both a conceptual framework and actionable insights regarding these three critical perspectives, in order to guide the effective and sustainable integration of AI into HR practices, emphasizing the importance of a balanced synergy between human expertise and artificial intelligence, particularly within recruitment processes.

Keywords: Artificial Intelligence, recruitment, recruiting process, recruiter, job applicant, human-AI collaboration, cost-benefit analysis

AI-Driven Data Integration in Real Estate Development Processes

Matteo Barisone, Diana Rolando, Alice Barreca, Concetta Sulpizio

Politecnico di Torino (DAD), Torino, Italy

Less 4 more (Xori Group), Torino, Italy

Abstract

The fragmentation of data on the existing built environment is a critical obstacle to the governance of urban spaces. Although a wide range of data sources is available, from satellite imagery and environmental sensors to socio-demographic and cadastral datasets, these resources often lack interoperability and integration.

This deficiency limits the ability of governments and stakeholders to conduct accurate monitoring, implement informed real estate development strategies, and promote sustainable urban regeneration practices.

The research aims to explore how the integration of advanced Artificial Intelligence (AI) models, particularly Generative Adversarial Networks (GAN) based technologies, can contribute to the development of innovative approaches for urban management and the enhancement of disused building stock. In particular, the analysis aims to investigate the role of AI in Due Diligence (DD) processes, through a literature review in the areas of Smart Cities (SC) and Urban Management (UM), to define a theoretical-methodological framework to support data-driven urban regeneration strategies.

These technologies enable the generation of predictive urban models by combining heterogeneous inputs, such as geospatial frameworks, land-use data, environmental performance, and socioeconomic indicators. The research adopts a multidimensional approach based on a systematic literature review, which identified more than 1,200 academic contributions. Through a multi-stage filtering process, the most relevant analyses were classified into two main areas: “Artificial Intelligence and Smart Cities” and “Artificial Intelligence and Urban Management”, with a focus on “Due Diligence” and models for “Architectural Heritage Enhancement.” Integrating AI capabilities into the development of urban regeneration strategies has the potential to create resilient and smart cities. This can optimise resources while minimising land consumption and enhance inclusive and collaborative governance. Despite growing scholarly interest, analysis has revealed significant gaps in the development of these technologies.

The proposed approach is in line with emerging urban agendas and promotes a transition to resilient, circular, and smart cities. This study advocates for digital innovation that is not only technologically advanced but also ethically grounded and socially inclusive.

Keywords: Artificial Intelligence, Urban Management, Architectural Heritage Reuse, GAN models, Due Diligence

The Use of Artificial Intelligence in Recruitment Selection in Slovenian Organisations: An Exploratory Approach Analysing HR Managers' Experiences

Sandra Penger, Vlado Dimovski, Maja Meško, Judita Peterlin, Vasja Roblek

University of Ljubljana, School of Economics and Business, Ljubljana, Slovenia

University of Maribor, Faculty of Organizational Sciences, Kranj, Slovenia

Abstract

Integrating artificial intelligence (AI) solutions within organisational human resource management (HRM) substantially alters the personnel selection framework. In this regard, a study has been undertaken to investigate the role of AI in Slovenian organisations, elucidating its benefits and the ethical dilemmas it poses. This conference paper is based on a single case study, which is the basis for more extensive research among HR managers and specialists. The qualitative study, grounded in the insights of HR management experts, indicates that AI solutions function as essential instruments that enhance both efficiency and accuracy in the candidate selection process. However, this progression presents significant challenges concerning fairness, inclusion, and social accountability, highlighting the need for urgent further research and the active involvement of HR professionals in shaping the future of AI in HRM.

Keywords: AI, ESG, Ethics, Human resources management, Single Case Study, Slovenia

The Role of Chatbots in Enhancing Managerial Experience within Organisations

Lufuno Lugisani, Oluseye Jegede

University of Johannesburg, South Africa

Abstract

The integration of chatbots into corporate environments is progressively reshaping managerial experiences by simulating human-like interactions in workplace settings. This study investigates the internal utilisation of chatbots to enhance managerial efficiency within a South African fast-moving consumer goods (FMCG) organisation. Employing a qualitative research design, the study examines managerial perceptions, preferences, and challenges associated with chatbot adoption. Semi-structured interviews with 20 managers were conducted, although only 12 interviews were included in the final analysis. The findings indicate that 83% of participants perceived the chatbot's effectiveness positively. However, individual preferences varied, with some managers valuing the chatbot's efficiency while others favoured human interaction, particularly for complex or sensitive matters. These insights underscore the necessity for organisations to tailor chatbot integration strategies to suit diverse managerial needs, ensuring a balanced and optimised experience. Despite chatbots being a remarkable AI technology, their full potential within the South African business landscape remains underexplored and not entirely comprehended.

Keywords: Chatbots, Employee experience, Organisations, Deployment, South Africa

Global or Local Player? – Cultural Diversity and Barriers in STEM Studies

Petia Genkova, Henrik Schreiber, Edwin Semke

University of Applied Sciences Osnabrück, Osnabrueck, Germany

Abstract

The aim of the current study is to examine the perception of cultural diversity among German STEM students. Previous research has mainly focused on the attitudes towards gender in the STEM field. This study undertakes an innovative approach and explores the opinions of German STEM students with and without a migration background on cultural diversity and educational barriers. To test this, we conducted semi-structured interviews with 90 STEM students from two German cities. The data was analysed with a qualitative content analysis. The results show that both students with and without a migration background are to a large extent unfamiliar with the topic of cultural diversity. Most STEM students think that cultural diversity has a positive impact on work performance. Some of the barriers which students with a migration background face are unfair university structures, lack of support in the educational system, challenges of cultural adaptation, and insensitivity or hostility from host-culture members. This study shows the need for a more inclusive university culture in the STEM field. It also emphasizes that diversity trainings can successfully prepare students for intercultural experiences.

Keywords: Cultural Diversity; STEM; Discrimination; Students

A Country's Innovativeness as a Determinant of Income Convergence

Maja Bacovic

University of Montenegro, Podgorica, Montenegro

Abstract

Disproportion in the level of economic development is more of a historical fact than a recent phenomenon. The empirical analysis in this study, based on ten selected countries, six of which are the high-income and innovation leaders and four middle-income countries (of which one is the regional innovation leader), shows that in the last decades, the income gap has increased in absolute terms while decreasing slightly in relative terms. The income gap (absolute) increased less for middle-income countries ranked as more innovative. This study investigates whether the difference in knowledge becomes a more relevant determinant of income convergence than capital growth. This study's empirical analysis is based on two samples. To evaluate the impact of innovations on economic growth and income convergence, we used a sample of ten economies, which were grouped into two categories (high-income and middle-income), and compared their average income over time. It spans the period from 2004 to 2023. The income gap between the two groups of countries has increased from 41,330 (constant 2015 US\$) in 2004 to 49,989 (constant 2015 US\$) in 2023. If we compare individual middle-income countries with a group of high-income countries, we see that the gap has increased less in those more innovative. The analysis also shows a strong positive relationship between the average value of four Global Innovation Index components (Human capital and research, Business sophistication, Knowledge and technology outputs, and Creative outputs) and GERD per capita. Based on an evidenced positive relationship between innovativeness and expenditures for R&D, we estimated aggregate production function on a sample of 35 European economies from 2000 to 2023 (annual data). Estimation shows that gross fixed capital formation growth of 1% leads to output growth of 0.32%. Employment growth leads to output growth of 0.214% and R&D investment growth of 0.157%. Growth in other exogenous factors (TFP) contributes to output growth by 0.02%. The estimation results show a highly positive impact of expenditures on R&D on economic growth. The country's educational outcomes strongly determine research and innovative activities, especially regarding science education. Observing the strong relevance of the expenditures for R&D and the innovative potentials for economic growth, what are the options if a country cannot provide innovative growth internally? Technology transfer is one possibility, therefore, less innovative countries should encourage and support technology transfers through FDI or other forms to narrow the knowledge and income gap if they cannot increase R&D investments.

Keywords:

Towards a Unified Framework for Knowledge Worker Roles: A Systematic Literature Review

Behrooz Moradi, Ettore Bolisani, Juan-Gabriel Cegarra-Navarro,
Aurora Martínez Martínez, Tomas Cherkos Kassaneh, Furong Cai

Department of Management and Engineering, University of Padova, Vicenza, Italy

Department of Business Sciences, Polytechnic University of Cartagena, Cartagena, Spain

Abstract

This study tackles the absence of a unified framework for categorizing knowledge workers, a gap that constrains effective management and strategic alignment in knowledge-driven organizations. While these workers are central to innovation and value creation, existing definitions and taxonomies remain inconsistent and fragmented.

A systematic literature review of 26 peer-reviewed articles from Scopus and Web of Science was conducted. The study applied structured keyword searches and inclusion criteria to identify thematic patterns, classification criteria, and conceptual models relevant to knowledge workers and their roles.

The analysis uncovers a broad set of classification dimensions, including task complexity, educational background, organizational roles, and engagement with knowledge processes. It introduces a typology of eleven functional roles—knowledge Handlers—anchored in how individuals create, apply, and transfer knowledge. The study also delineates ten core processes and thirteen activities integral to knowledge work. These findings reflect a shift from static categorizations toward dynamic, context-sensitive interpretations of knowledge workers' roles.

The scope is limited to published literature, which may omit practitioner insights and sector-specific nuances. The absence of empirical validation also constrains immediate practical application.

The synthesized framework offers a structured basis for human resource management, knowledge management, and leadership strategies, enabling more precise role alignment, task design, and integration with digital tools in diverse organizational settings.

By consolidating dispersed research into an integrative taxonomy, this study advances theory and practice in knowledge management. It provides a foundation for future empirical studies and supports the development of adaptive classification systems for managing knowledge-intensive roles.

Keywords: Knowledge workers, Categorization, Systematic literature review.

Do Mentors Influence the Effects of the Entrepreneurial Programs of Early-Stage Start-Ups Pivot Decisions? An RCT Experiment

Micol Di Vita, Emilio Paolucci, Elisabetta Raguseo

Department of Management and Production Engineering, Politecnico di Torino, Turin, Italy

Abstract

Do mentors influence the effects of the entrepreneurial programs of the early-stage start-ups pivot decisions? We address our research question investigating the role of mentors supporting entrepreneurs' decisions in an early-stage training program, receiving the scientific method or the effectuation approach. In order to achieve our goal, we based our research on Kram's Mentor Role theory (Kram, 1985) and we applied it to the scientific method, according to the theory-and-evidence-based approach (Agarwal et al., 2024), and to Saras Sarasvathy's theory of Effectuation (Sarasvathy, 2008), related to the evidence-based approach. Previous research, in fact, has considered mentors as experienced people who can support mentees' decisions, career-development and activities within organizations, by coaching, challenging, and directing (Kram, 1985; Wilson and Elman, 1990). Moreover, mentorship is an important building block of educational programs within entrepreneurial support programs (Yitshaki, 2025). Nevertheless, little is known about the role of mentors in start-ups that have received an Entrepreneurial training (ET) program specifically based on the scientific and effectuation approach to decision-making. In this vein, we discuss how mentors' support can change decision-making processes, in terms of radical and incremental pivot decisions, of entrepreneurs adopting the scientific approach and the effectuation approach. To investigate our question, we collected evidence via a randomized control trial (RCT) in which 308 early-stage start-ups from Italy of a pre-acceleration program were randomly assigned to "treatment" (scientific, effectuation) and "control" group. Each start-up in treatment and control groups had from 0 to 7 mentors, from the beginning of the program. We observed firms throughout and post-training and we compared differences concerning radical and incremental pivot decisions between firms with mentors and without mentors in the treatment and control group, focusing on mentors' support. We find that start-ups with mentors are not more likely to pivot radically, on the other hand they make more incremental pivots than firms with no mentors. In particular, firms with mentors trained by scientific method are more likely to pivot incrementally than firms in the effectuation and control group. We suggest that it is due to mentoring that reinforces the scientific approach and realigns what entrepreneurs have learnt during the training program. These findings highlight important insights for mentorship research, showing how mentors can shape decision-making processes in ET programs, for the literature on entrepreneurial decision-making and for stakeholders involved in designing training programs that support entrepreneurs.

Keywords: decision-making, scientific approach, startup mentors, randomized control trial, pivot

Digital Leadership in the Era of Remote Work: Challenges, Strategies, and the impact of AI

Alfredo Castro, Roberto Sbragia, Elza Veloso

FIA Business School, Sao Paulo, Brazil

University of Sao Paulo, Sao Paulo, Brazil

Abstract

This review explores the strategies and challenges leaders face in managing remote teams, emphasizing the role of artificial intelligence (AI) in enhancing digital leadership. The hybrid model, blending remote and in-office work, has emerged as an optimal solution. Effective digital leadership relies on technology to foster collaboration, productivity, and communication. AI plays a key role in this transformation by streamlining processes, automating tasks, and providing data-driven insights. Ultimately, AI offers powerful tools to optimize remote team performance, ensuring seamless collaboration and enhanced efficiency in hybrid work settings. A major challenge in hybrid environments is delivering effective feedback, as the varying degrees of “hybridity” create a spectrum of complexity. Leaders must adopt adaptive models and alternative communication methods to support team members effectively. The study highlights the need for innovative leadership approaches to navigate these challenges. One of the main contributions is a proposed “framework” that translates the four main dimensions of a hybrid team and its spectrum of complexity and the benefits for applying AI.

Keywords: Leadership, Artificial Intelligence, Hybrid team management, Performance feedback, Future of work

How Artificial Intelligence Erodes the Tacit Dimension of Organizations

Roberto Grandinetti

Department of Economics and Management, University of Padova, Padova, Italy

Abstract

Artificial intelligence (AI) is a key component of the fourth industrial revolution or digital transition. In close connection with the internet of things (IoT), it is transforming operations and decision making in all kinds of organizations across all sectors, and we are only at the beginning of these disruptive changes. Given its inherently cognitive nature, AI has attracted the attention of knowledge management scholars since the beginning of this century. However, not enough thought has yet been given to the impact that the spread of this revolutionary technology has on the theoretical foundations of knowledge management. This paper aims to undertake such a reflection in relation to the tacit dimension of organizations, one of the founding concepts of the knowledge management discipline since the seminal contribution of Nonaka (1991). Specifically, drawing on previous contributions on tacit knowledge but also considering different applications of AI (+ IoT), the analysis focuses on three types of tacit knowledge: the first, which for simplicity's sake we call tacit-tacit knowledge, is the “pure” tacit knowledge that Polanyi (1966) placed at the core of his theory of knowledge; the second or tacit-explicit knowledge is knowledge that, although sticky, can be articulated; the third is collective tacit knowledge embedded in organizational routines. AI + IoT systems replace each of the three forms of tacit knowledge considered in our analysis with codified knowledge. This has important implications for both the theory and practice of knowledge management. The paper analyzes them by referring again to the three forms that the tacit dimension takes in organizations.

Keywords: Artificial intelligence, Robotic things, Internet of things, Tacit knowledge, Organizational routines

Navigating Uncertainty through Knowledge Sharing: Lessons from Tourism in Times of Pandemic. Case Study from Poland

Ewa Stolarek-Muszyńska, Malgorzata Zieba

Gdansk University of Technology, Gdańsk, Poland

Abstract

Crises in tourism have become increasingly common. Yet, COVID-19 stands out as the most disruptive event, causing significant damages to the global economy, severely impacting the tourism sectors across the regions. Even though it has been five years since the crisis started, the pandemic's influence on global tourism can still be noticeable. This study focuses on Polish tourism organisations with the purpose to explore in-depth the role of knowledge sharing processes and their usefulness in mitigating the effects of crisis in tourism.

Analysis of the case suggests that the organisation's key role during a crisis was to serve as a knowledge broker. The analysed case indicates that different types of information and knowledge were significant during that period. For the industry, key knowledge concerned the information related to legislation and the proposed changes. For municipal and governmental level, quantitative data from tourist traffic was important. For tourists, a focus was put on navigating the restrictions. Given the numerous constraints imposed by the pandemics, the organisation adapted to the new reality by increasing its dependence on ICT systems. This includes the creation of a dedicated subpage, ongoing e-mail and newsletters communication, video chats with training, regular online team meetings and employees' conversations via online chats.

This study is based on qualitative in-depth analysis and the semi-structured interviews with representatives of a local tourism organisation in Poland. This research employs a single case study design, focusing on the organisation as the unit of analysis.

This study contributes to the body of literature by expanding the understanding of the role of knowledge sharing processes within the context of the tourism crisis. It offers valuable insights for researchers exploring the application of knowledge management to crisis management.

Findings of this study deliver food for thought for both the academic community and tourism organisations eager to facilitate their operational activity during hazardous events. The results offer practical guidance for managers regarding the knowledge sharing practices on how to enhance the resilience and performance of their organisations during crisis, while simultaneously supporting the tourism industry.

Research output is limited to the analysis of a single organisation (illustrated through a case study example) and thus, the analysis presented may not fully capture the complexity of the entire sector. The organisation is operating in Poland, and this can additionally limit the usefulness of analysis to one country specifics.

Keywords: KM, Knowledge sharing, Crisis management, Tourism, COVID-19

AI Technology for Language Knowledge Discovery Built on Modified Spiral Model and DIK Hierarchy

Igor Zatsman

Institute of Informatics Problems, FRC CSC RAS, Moscow, Russia

Abstract

In the paper the modification of the spiral model and DIK (data, information, knowledge) hierarchy serves as a theoretical basis to create AI technologies for discovering hidden knowledge in big data. The objective of the paper is to describe the models of discovering hidden knowledge in big data in different subject areas. The scientific problem to which the paper is devoted belongs to the theoretical core of the knowledge management (KM) domain and is not associated with the application of AI technologies for knowledge management only in one subject area. The applied objective of our current project is to discover and describe new meanings of language units (words, collocations, and idioms) hidden in big volumes of German texts and their Russian translations using advanced technologies for discovering language knowledge. Descriptions of new meanings are necessary to update a German-Russian digital dictionary.

The main idea of creating the foundations to design AI technologies is that to modify and integrate the spiral model and the DIK hierarchy. The major feature of the spiral model is that transformations between implicit knowledge (the mental medium) and explicit knowledge as texts and other sign representations of knowledge (the sensory medium of the KM domain) are described. The major feature of the DIK hierarchy is that it contains data that can be potential sources of hidden new or known knowledge. Our approach uses these two major features and determines five postulates as theoretical foundations for discovering hidden knowledge in big data. The principal outcome of our study is the abstract model of AI technology for discovering hidden knowledge.

Keywords: spiral model, knowledge generation, AI technology, DIK hierarchy, knowledge discovery

Open Innovation for Virtual Worlds: A Design-Driven Theoretical Framework for the Creation of User-Generated Experiences

Riccardo Ventura, Ilaria Mariani

Politecnico di Milano, Milano, Italy

Abstract

This paper investigates the evolving role of users in Virtual Worlds (VWs), emphasizing their transition from passive consumers to active creators of immersive experiences. In the context of platforms like Roblox, Decentraland, and Fortnite, the study explores the dynamics of User-Generated Content (UGC) and User-Generated Experiences (UGEs), drawing on principles from Open Innovation and User-Centered Design, the research develops a design-driven framework that integrates co-creation, co-design, and co-production processes within the Double Diamond model and expands the theory with tailored design phases. Through a comparative analysis of three leading VWs, the study identifies key challenges and proposes a structured framework to enhance creativity, inclusivity, and business opportunities. The framework is validated against academic literature and case study insights, offering an approach to participatory innovation in digital environments. The paper concludes by outlining future directions for ethical integration and hybrid physical-virtual applications.

Keywords: Virtual Worlds, User-Generated Content, Open Innovation, Virtual economy

Managing Prices in the Age of AI: A Taxonomy of AI Applications to Support Pricing Decisions

Ludovica Nardi, Andrea De Mauro

Luiss University, Rome, Italy

Abstract

In an increasingly digitized and hypercompetitive market landscape, pricing is evolving from a static, cost-based process into a dynamic, strategic function powered by Artificial Intelligence (AI). Organizations are moving beyond traditional pricing models by leveraging real-time analytics, predictive modelling, and behavioural insights to enhance pricing decisions. AI enables large-scale automation and personalization of prices, allowing firms to adapt continuously to changes in demand, consumer behavior, and competitive signals. However, this shift also raises critical concerns regarding transparency, fairness, and algorithmic accountability—especially in consumer-facing markets, where price sensitivity and perceptions of justice directly influence trust and loyalty. This study shows how AI reshapes pricing across four impact areas—predictive modelling, real-time optimisation, behavioural adaptation, explainability and fairness—and, through a systematic literature review, distils a two-level taxonomy of AI applications in pricing. The findings demonstrate that AI-powered pricing enhances forecasting accuracy, enables granular and dynamic price optimization, and improves behavioural targeting through the integration of cognitive heuristics such as anchoring and loss aversion. These benefits, however, must be balanced against the heightened risks of opacity, unfair discrimination, and regulatory non-compliance, which can erode consumer trust. The study emphasises that AI is not merely a technological tool, but a transformative agent that reshapes market dynamics and redefines consumer expectations. As such, the adoption of transparent, explainable, and ethically aligned AI models is essential—not only to ensure compliance with emerging regulatory frameworks, but also to foster long-term consumer confidence and sustainable competitive advantage. The paper concludes by calling for interdisciplinary research to explore the longitudinal effects of AI-based pricing, ethical governance mechanisms, and the integration of social responsibility into algorithmic pricing strategies.

Keywords: Price Management; Behavioural Economics; Artificial Intelligence; Systematic Literature Review; Marketing

Bibliometric Ensemble-Based Community Detection Analysis of AI, Knowledge Management, and Emerging Technologies Convergence in Business Paradigms

Carlo Drago, Francesca Valentina Giglio Moro, Angelo Leogrande

University Niccolò Cusano, Rome, Italy

LUM University Giuseppe Degennaro, Casamassima (BA), Italy

Abstract

This work has investigated the convergence of the business paradigms of artificial intelligence, knowledge management, and emerging technologies. This work uses a relevant new database that considers the scientific literature on the field. The bibliometric methods used were related to the multiple correspondence analysis, which helped construct a conceptual map, and ensemble community detection clustering, which helped identify the relevant "cores" of the literature. As a relevant result, we found the key role of data-driven strategies but also the necessity of rethinking education and training. In fact, the rise of AI as a very relevant technology in knowledge management can impact how firms create and store knowledge. Of course, these changes necessitate adequate organizational changes to facilitate the integration with the systems, process, and, most, people.

Keywords: Artificial Intelligence, Technology, Knowledge Management, Bibliometric Analysis, community Detection

AI-Driven Knowledge Translation and Ethical Governance: Transforming Knowledge Management for Business Model Innovation

Selvi Kannan

University of Tasmania, Australia

Abstract

We are witnessing exponential change in the way of work as Artificial Intelligence (AI) infiltrates into mainstream work and driving innovative business models to enhance operational efficiency. As AI integrates into Knowledge Management (KM) systems, it presents a significant shift in how organizations, create, disseminate and leverage knowledge. Central to this discussion is that as AI becomes integral to knowledge intensive work, the ability to translate knowledge between humans and machines and vice-versa becomes critical focus. This paper sets the tone for Knowledge Translation (KT) as a bidirectional process that facilitates human-to-machine (H2M) and machine-to-human (M2H) interactions and one that ensures transparency, trust and continuous usability. This paper presents a conceptual framework that is grounded in socio-technical theory and knowledge-based resource view by emphasizing on the importance of AI-KM systems to reflect on technical and human interpretation robustness. The study is based on the case study of the Berry System in the agricultural sector where the discussions on data collection and analysis permit the close examination of knowledge flow, structure and practices. The Berry case demonstrates how governance roadmaps operationalize KT by linking strategic values such as quality, sustainability, and transparency brings innovation in the business model. Importantly it innovates the practical workflows using a simple matrix of Quality, Price, Brand Loyalty. The discussion leads to key mechanisms that include iterative AI training cycles, stakeholder feedback loops, real-time traceability features, and data integrity audits. In fields where human knowledge and artificial intelligence intersect, such as agriculture and supply chain innovation, there is a growing need to understand how insights are exchanged between people and machines. This paper draws from a real-world implementation of AI in Berry System farming to explore how knowledge is interpreted, adapted, and translated into action. Rather than focusing solely on the technical aspects, the case highlights the value of human judgment in shaping and responding to machine outputs. The research offers practical suggestions for decision-makers to build in moments for reflection and feedback during the development and rollout of AI systems and involve those affected by AI early in governance planning; and design systems that support conversation and decision making. These findings contribute to the conversation on how knowledge management and AI governance can work together, especially in sectors where human context still matters deeply for innovation.

Keywords: Knowledge Management, AI, Knowledge Translation, Innovation, Governance

Employee Withdrawal and Knowledge Management Processes

Martyna Skorupko, Malgorzata Zieba

Gdansk University of Technology, Gdansk, Poland

Abstract

This conceptual paper aims to identify and present the potential impacts of employee withdrawal on knowledge management processes in organizations i.e.: knowledge sharing & transfer, knowledge creation & development, knowledge application, and storage. Employee withdrawal is a subtype of counterproductive work behaviour and a critical issue for organisations. Specifically, it refers to a set of attitudes and behaviours used by employees when they stay at the job but for some reason decide to be less participative in duty engagement. Employee withdrawal may take either a physical or a psychological form and may begin with small and irrelevant actions like being late, or daydreaming, but they might culminate in more serious and significant behaviours like absenteeism, missing meetings, cyberloafing, or quitting that can be detrimental to the organization. Most research frames employee withdrawal behaviours as negative behaviours from the organizational point of view, mostly due to cost. However, a large proportion of organizational knowledge is personalized and resides in individuals' heads, therefore researching employee withdrawal behaviours is particularly critical in the context of knowledge management. To the best of the authors' knowledge, there are no publications that comprehensively describe the potential impact of employee withdrawal on different knowledge management processes. In the face of the above, there is a clear need to investigate how employee withdrawal behaviours may potentially harm knowledge sharing & transfer,, knowledge creation & development, knowledge application, and storage in organisations.

To do so, the authors of this paper related the found literature and described the potential impact of employee withdrawal behaviours on different knowledge management processes. Furthermore, the selected sources have been analysed in relation to each other, identifying conceptual overlaps which help in understanding how employee withdrawal behaviours may impact various knowledge processes.

Originality/value – The paper contributes to the understanding of the relationship between employee withdrawal behaviours and knowledge management processes.

Practical implications – The study provides food for thought for managers and owners on how the withdrawal behaviours of their employees might potentially hinder knowledge sharing, transfer, creation, development, application and knowledge storage in their organizations.

Keywords: Employee withdrawal, knowledge management, knowledge management processes

Generative Artificial Intelligence: Knowledge, Perception and Use among White-Collar Employees in Companies

Claude Meier, Ursula Häfliger

HWZ Zurich University of Applied Sciences for Business, Zürich, Switzerland

Abstract

For companies, it is critical that their white-collar employees develop the necessary skills and knowledge to leverage the potential of Generative Artificial Intelligence (GAI) to improve productivity and organizational performance. To explore how employees perceive and use GAI in their daily work, and what measures companies are taking to support skills development, we conducted a practice-oriented empirical study.

The literature discusses the impacts of GAI on the economy and employment, particularly regarding efficiency gains, job transformation, and evolving skill requirements (Budhwar et al. 2023; Gmyrek et al. 2023; Haase 2024; Bremen 2023; McKinsey 2023). Several studies highlight productivity benefits and the dissemination of best practices (Brynjolfsson et al. 2023), while others, such as Slack (2025), emphasize employee skepticism as a barrier to realizing these gains. A central focus across the literature is the need for skills and knowledge referring GAI models as such (Al Naqbi et al. 2024; Cardon et al. 2024; Chandra et al. 2024).

Against this backdrop, we surveyed white-collar employees in Switzerland to assess the actual state concerning skills and knowledge in the following three areas: (1) perception of GAI-relevant skills and knowledge, (2) application of GAI in daily tasks and corporate functions, and (3) employer measures for supporting skill development.

The survey was distributed among members of Switzerland's largest white-collar professional associations. After data cleaning, responses from 1,843 participants were analyzed. As participation was based on self-selection (opt-in), the sample is not fully representative; distortions were mitigated using iterative proportional fitting (Kolenikov, 2014; Choupani et al., 2016).

A key finding shows that 80% of participants perceive a need for more GAI knowledge (25% report to almost no knowledge; 55% to have only basic knowledge), while only 15% consider themselves sufficiently knowledgeable. A second key finding shows that GAI models are most used for writing, editing, and translating texts (48%). The most cited reason for non-use was a perceived lack of necessity (24%), though it remains unclear whether this reflects actual need or inexperience. Only 23% reported that their employer has a GAI strategy. Practical implications, including offering task-oriented GAI training, are discussed in the full paper.

Keywords: Generative Artificial Intelligence, skills and knowledge, white-collar employees, companies

Knowledge Management in Diverse Organizations: A Meta-Data Analysis

Amarildo Zane, Fátima Guadamillas Gómez, Mario Javier Donate Manzanares

Universidad de Castilla-La Mancha, Toledo, Spain

Abstract

The concept of Diversity in the Workplace (DiW) and the Knowledge Management (KM) concept have been the subject of extensive analysis from a wide range of perspectives, typically at the micro, meso or macro level. However, there remains a paucity of research addressing the interrelation between these two concepts. The present study adopts an exploratory approach, utilising a bibliometric co-citation and coupling technique in conjunction with a comprehensive literature review. This approach offers novel insights into the past and present dynamics of the intellectual structure. The co-citation study reveals three predominant clusters within the intellectual structure, two of which are associated with the primary variables, i.e. KM and DiW, while a third serves as a theoretical framework for the interrelation between KM and DiW. In contrast, contemporary research trends are oriented towards the role of the TMT (or upper echelons in general) in KM, the significance of inter-organizational collaboration, and the management of "distance" due to heterogeneity. This study aims to explore the interrelation between DiW and KM. The findings reveal that the intellectual evolution of research commences with the concept of DiW, progressing to KM, and culminating in the theoretical nexus between them.

Keywords: Knowledge management, Surface diversity, Deep-end diversity, Bibliometric approach, Literature review

Improving Clinical Evidence for Medical Devices: A Lifecycle Approach

Marco Praticò, Salvatore Tallarico, Luisa Pellegrini, Simone Lazzini

University of Pisa, Pisa, Italy

Abstract

Background: The European Medical Devices Regulation (MDR) 2017/745 seeks to minimize clinical uncertainty – especially regarding the generation, dissemination, and quality of clinical evidence – across all phases of the medical device lifecycle: pre-market, market approval, post-market, and disinvestment. Although the MDR promotes using gold-standard methodologies, such as Randomized Controlled Trials to address clinical uncertainty, healthcare organizations face significant challenges in applying these methods. These challenges affect the effectiveness of evidence generation, dissemination, and quality. As a result, healthcare systems must incorporate technological, organizational, and managerial tools to manage these difficulties throughout the medical device lifecycle. This study aims to identify the tools that can reduce clinical uncertainty associated with medical devices.

Methods: The research adopts a case study approach, focusing on the Tuscany Regional Healthcare System, which is recognized nationally for its effectiveness, efficiency, and appropriate care delivery.

Results: The findings indicate that the majority of the identified tools are concentrated in the pre-market and post-market stages. Examples include study coordinators (organizational tools), standardized templates (technological tools), and case report forms (managerial tools), all of which improve the quality of clinical evidence. In addition, tools such as patient diaries (managerial) and surgical trainers (organizational) play a crucial role in enhancing both the generation and dissemination of evidence during these phases.

Discussion and Implications: This research provides useful insights for policymakers in guiding healthcare organizations on how to implement the MDR effectively. A key takeaway is the importance of introducing clinical registries, surveillance systems, and data collection platforms to gather real-world evidence, which are essential in the post-market phase. The study contributes to the ongoing discourse surrounding medical devices' clinical uncertainty by identifying technological, organizational, and managerial tools that can strengthen clinical evidence for medical devices.

Keywords: Clinical uncertainty; MD; Medical devices; MDR 2017/75

Exploring Frugal and Reverse Innovation: A Bibliometric Review and Conceptual Proposal

Gustavo Morales-Alonso, Faisal Rasool, Yulissa Navarro-Castillo,
Antonio Hidalgo

Universidad Politécnica de Madrid, Madrid, Spain

Università degli Studi di Cagliari, Cagliari, Italy

Universidad Nacional Agraria la Molina, Lima, Perú

Abstract

This paper explores the growing significance of frugal and reverse innovation, two key concepts that address challenges in resource-constrained environments, particularly in developing economies. As businesses expand globally, these innovation models offer cost-effective and sustainable solutions. Frugal innovation focuses on creating affordable, efficient solutions in developing countries, while reverse innovation involves adapting innovations from emerging markets to developed economies. Though both aim for low-cost solutions, they stem from different contexts and raise important strategic questions about their integration into corporate strategies for growth, sustainability, and competitive advantage. The paper investigates how the intersection of frugal and reverse innovation can enhance the understanding of global business strategies in emerging markets. By examining both conceptual foundations and practical applications, this study highlights their roles in global business dynamics and their potential to transform industries such as healthcare, energy, and education.

The study reviews existing literature through a bibliometric analysis. Out of 554 publications, 365 are bibliographically coupled and assigned to 6 clusters. These interrelated clusters capture the multifaceted nature of frugal and reverse innovation, via the exploration of conceptual frameworks, organizational strategies, social impacts, real-world applications, product-market challenges, and specific sectors like water and sanitation. The findings reveal that frugal and reverse innovations are not isolated but interconnected processes that shape global innovation trajectories.

The paper contributes to both academic and practical knowledge, offering a synthesized understanding of the field, identifying gaps in research, and providing insights for businesses and policymakers. It calls for future research on the co-evolution of North-South innovation flows and empirical studies on user perceptions and adoption dynamics in reverse innovation pathways. Despite its limitations, this study provides a solid foundation for advancing the theory and practice of frugal and reverse innovation.

Keywords: Innovation Strategies, Emerging Markets, Comparative Analysis, Bibliometric Study, Corporate Strategy

The Use of Generative AI and Lean UX in Knowledge Engineering Projects

Ranieri Alves dos Santos, Fernando Alvaro Ostuni Gauthier,
Marcelo Macedo, Vanessa Roberg

Federal University of Santa Catarina (UFSC), Florianopolis, Brazil

Abstract

The need for user-centered and agile solutions has driven the adoption of methodologies such as Lean UX in knowledge engineering projects. While Lean UX focuses on thinking, making, and checking to enhance user experience, knowledge engineering is dedicated to building intelligent systems grounded in formalized expert knowledge. Despite the conceptual alignment between these approaches, the integration of Generative Artificial into this context remains underexplored. This study proposes a model that incorporates generative AI tools into the Lean UX process to accelerate and enhance the development of knowledge-based systems. Based on the Design Science Research (DSR) methodology, a narrative literature review and exploratory research were conducted to identify generative AI techniques applicable to each Lean UX phase: Think, Make and Check. A total of 10 generative AI approaches were mapped and organized into a model that supports small and agile teams in knowledge engineering projects. The model was instantiated through the development of GPT-based agents customized for specific tasks, such as persona generation, empathy mapping, requirements analysis, and prototype creation. These agents leverage prompts containing transcripts, observations, or interview data to generate detailed and realistic outputs, streamlining processes that are traditionally manual and time-consuming. One example presented is the Persona Generation Agent, which creates structured user profiles and illustrative images from simple textual input. This integration contributes both theoretically and practically by demonstrating how generative AI can be used to enhance user experience (UX) focused design processes in knowledge engineering. The proposed model promotes more efficient workflows, while keeping the user at the center of development. It also supports interdisciplinary collaboration, faster iteration cycles, and the creation of intelligent systems that are more aligned with user needs. Future work includes empirical validation of the model in diverse application contexts, aiming to refine its use and encourage widespread adoption in knowledge engineering and related fields.

Keywords: lean ux; knowledge engineering; generative ai

Food Waste Valorisation: A Comparative Study with a Hybrid AHP-Fuzzy Approach

Stefano Abbate, Piera Centobelli, Maria Di Gregorio

Pegaso Telematic University, Naples, Italy

University of Naples Federico II, Naples, Italy

Abstract

The wine industry generates different waste and by-products that can be converted into high-value goods, such as biogenic products or energy, offering new market opportunities and reducing the environmental implications. However, the variety of technologies available complicates the selection of the best valorisation option. An effective evaluation system integrating economic, technical, environmental, and social factors is essential for choosing appropriate valorisation strategies. In this study, we apply the Analytic Hierarchy Process and Fuzzy Set Theory to comprehensively assess food waste valorisation within the wine industry. Our results indicate that anaerobic digestion technology is the best option to valorise winery waste. This framework helps decision-makers evaluate waste valorisation strategies holistically, highlighting the need for investments in sustainable technologies tailored to specific company characteristics.

Keywords: Analytic hierarchy process; Fuzzy logic; Food waste valorisation; Sustainability; Technologies

What Drives Sustainability-Oriented Digital Platforms?

Giovanna Attanasio, Cinzia Battistella, Irene Bubbola, Francesca Di Pillo, Fabio Nonino, Giulia Palombi

University of Udine, Udine, Italy

Sapienza University of Rome, Roma, Italy

Mercatorum University, Roma, Italy

Abstract

Sustainability-oriented digital platforms (SODPs) offer a powerful means to address sustainability challenges by leveraging key digital platforms' inherent features, such as connectivity, knowledge sharing, and co-creation. Their effectiveness can be further amplified by identifying the motivations driving user engagement, thereby providing insights for fostering participation.

The paper identifies these motivational drivers, organizing them in a theoretical framework. A study of 44 SODPs was conducted to assess their effect on participation. By identifying recurrent combinations of drivers among platforms with similar scopes and sectoral orientations, a set of motivational strategies has been derived. These strategies reflect the underlying rationales guiding platform engagement and enable the construction of a taxonomy that captures the diversity of strategic orientations across the sample.

The identified strategies that concern the B2B context are called: Satisfying by redistributing, Turning waste into value, and Sustainability by learning. In the C2C contexts, two strategies emerged called Empowering by sharing, and Reintroduced for commercialization.

This study advances the literature on SODPs by shifting the focus from sustainable business models to the motivational strategies that underpin user engagement in three ways. First, it offers a novel perspective by exploring how SODPs encourage participation through targeted motivational drivers, responding to recent calls for research on the role of digital platforms in supporting sustainability transitions. Second, the study conceptualizes different combinations of motivational drivers, providing insights into the mechanisms through which digital platforms can promote sustainable behaviors and practices. Finally, it offers practical guidance for platform managers and designers, illustrating how specific design choices can enhance motivation, attract new participants, and strengthen the platform's sustainability impact.

Keywords: Sustainability-oriented digital platforms; motivations; user engagement; sustainable development

A Framework for Assessing the Sustainability of P2P Platforms

Fiengo Vincenzo, Passaro Renato, Quinto Ivana

University of Naples Parthenope, Naples, Italy

Abstract

The growing awareness of social and environmental topics such as climate change, social inequality, and poverty from humanity has driven global efforts toward sustainable development through concrete policy initiatives. In this changed socio-economic context and with the rise of IT technologies, the Sharing Economy model has spread thanks to digital economy platforms. The growth of digital sharing platforms has raised concerns about their role in supporting social and environmentally sustainable consumption. In line with this, the evaluation of the governance of these platforms also raises questions regarding the management of power and the balance between the interests of users and owners. In this context, current literature lacks a comprehensive framework for assessing the social-environmental sustainability of these platforms and the form of governance that characterises them. To tackle this issue, the paper proposes an innovative holistic framework to assess the sustainability of digital platforms, with a focus on Peer-to-Peer platforms. The framework is created adapting and integrating protocols, variables and framings already presents in the literature. The study aims to provide a comprehensive evaluation of the social, environmental impacts and types of governance of these platforms. Then the framework obtained is applied to a pool of forty P2P platforms, enabling a detailed assessment of their current sustainability practices and governance structures. The findings contribute to the literature by proposing a holistic framework to evaluate the sustainability of digital platforms in the sharing economy and provide a systematic approach to understanding their role in the global transition towards sustainability.

Keywords: Business Model Innovation, Circular Economy, Digitalisation, P2P Sharing Platforms, Sustainability

Innovation in Entrepreneurship and Performance: An Empirical Research on Italian Innovative Startups

Giovanni Baldissarro, Gianpaolo Iazzolino, Giuseppe Longo,
Donato Morea

University of Calabria, Rende, Cosenza, Italy

Amazon Italia, Milano, Italy

University of Cagliari, Cagliari, Italy

Abstract

Innovative start-ups play a crucial role in fostering innovation and driving economic growth while enhancing technological competitiveness. In Italy, the emergence of these start-ups has significantly influenced the landscape of economic development and technological advancement, acting as a key engine for generating and integrating knowledge into new products and services. This introduction sets the stage for a deeper exploration of the dynamics surrounding Italian innovative start-ups and their impact on the broader economic and technological landscape. This study analyzes the factors affecting the economic performance of these start-ups, with a focus on governance aspects and corporate resources, particularly team composition, company size, and the impact of gender diversity. It also investigates how sector and geographic location may influence access to resources, often linked to public policies and local innovation ecosystems. Using the AIDA (Analisi Informatizzata delle Aziende) database, managed by Bureau van Dijk—a leading global provider of financial information specializing in the collection and storage of economic-financial data on Italian companies—we studied a sample of 5,669 innovative start-ups across Italy. Through OLS regression models, the article reveals how regional context and policies can serve as either a competitive advantage or a barrier for firms. The findings indicate a positive effect of female leadership on business growth in terms of profitability and sustainability, suggesting that diverse governance and locations within developed entrepreneurial ecosystems can significantly enhance business performance. These insights are valuable for policymakers and entrepreneurs, contributing to a deeper understanding of the economic dynamics of innovative start-ups in Italy. To our knowledge, this is the first attempt to examine regional differences in the performance of Italian start-ups by including all Italian regions.

Keywords: Innovative Start-up, gender, regional development, economic growth, OLS

Meaningfulness Reshaping Technology, Knowledge Co-Creation, and Leadership

Mirva Hyypiä

LUT University, School of Engineering Science, Lahti, Finland

Abstract

The development of human skills through technology, knowledge co-creation, and meaningful work drives successful change, well-being, and societal cohesion. Technological advancements have raised concerns about job displacement and skills shortages, necessitating a human-centric approach to leadership. The study explores the relationship between meaningfulness and meaninglessness (m&m) experiences at work, emphasizing that meaningfulness is not tied to formal job descriptions and can be supported by leadership. Transformational leadership, with its four dimensions Idealized influence, Inspirational motivation, Intellectual stimulation, and Individual consideration, is examined for its potential to foster meaningfulness in education and elderly and caregiving sectors. The research, based on the "The m&m of work" project, aims to enhance organizational practices by leveraging employees' experiences of meaningfulness and meaninglessness. This research focuses particularly on transformational leadership (TL) entity of the survey and the identification of four dimensions of TL (visioning, challenging, engaging, and leading by example) in the real-life experiences of the education and elderly and caregiving sectors at both individual and organizational levels. The study found that Transformational Leadership (TL) had significant influence in the education and caregiving sectors. At the organizational level, TL influenced areas such as responsibility and ethics, work environment safety, and discussions about the meaningfulness of work. At the individual level, TL fostered trust within the work community, encouraged the use of employees' creativity, and supported their success. Additionally, a method was co-created during the research to enhance leadership, facilitate knowledge sharing, and promote discussions within organizations, addressing even challenging experiences of meaninglessness and their effects.

Keywords: Meaningfulness, Knowledge Co-Creation, Transformational Leadership, Change

A Network Epidemic Model for Fake News Diffusion: Agent-Based Insights for Responsible Social Media

Maione Vincenzo, Ponsiglione Cristina, Primario Simonetta

University of Naples Federico II, Naples, Italy

Abstract

This paper introduces an agent-based model developed as a computational laboratory to simulate and analyze the diffusion of fake news under realistic and heterogeneous conditions. The model integrates several conceptual building blocks: a SEIR-inspired contagion framework adapted for informational diffusion; a bounded-confidence opinion dynamics module, capturing belief evolution influenced by homophily, stubbornness, and exposure; and a role-based influence system grounded in the tipping point theory, enabling differentiated behaviors for Connectors, Mavens, and Salesmen. Network structures can be synthetically generated (e.g., scale-free, small-world) or empirically imported from real social graphs, offering both generalizability and ecological validity. The model also supports the simulation of both endogenous interactions and exogenous interventions—such as algorithmic visibility reduction and targeted immunization based on centrality measures—which reflect the logic of real-world platform governance. A key strength of the model lies in its ability to reproduce emergent phenomena, including cascades, echo chamber stabilization, belief polarization, and tipping point dynamics. These features position the model as a generative theoretical tool as well as a practical environment for testing policy interventions. The system is currently undergoing structured internal validation, where each building block is tested in isolation before being integrated. Upon completion, the model will be calibrated using empirical data from observed disinformation campaigns. The proposed model aims to bridging the gap between theoretical modeling and digital platform governance, supporting the design of context-aware moderation strategies and resilient information systems. Additionally, it can offer a data-rich environment to support the training of AI-driven, adaptive responses to misinformation in complex online ecosystems.

Keywords: Fake News, Misinformation, Design platform, Agent-based model, Virality, Tipping Point

Enhancing Organizational Knowledge Management through Retrieval-Augmented Generation and Large Language Models

Dijana Oreski

University of Zagreb, Varazdin, Croatia

Abstract

Retrieval-Augmented Generation (RAG) systems address critical limitations of large language models (LLMs) such as hallucinations, static knowledge, and context constraints-by dynamically integrating organizational data to enhance accuracy and relevance in knowledge management (KM). This RAG LLM development integrates the generative strengths of large language models with the precision of real-time information retrieval, enabling responses grounded in both structured and unstructured organizational data. The development process involves data collection, preprocessing, embedding, and indexing, followed by retrieval and prompt augmentation, ensuring that the model can access and utilize up-to-date, domain-specific knowledge at response time. By leveraging authoritative internal sources and advanced vector search, the RAG system overcomes the static knowledge and hallucination limitations of traditional LLMs, delivering more accurate, contextually relevant, and transparent answers. This approach not only enhances the reliability of generative AI in business scenarios but also offers a scalable, low-code framework adaptable to diverse enterprise needs. Our research employs low code approach for RAG system development and open source LLM.

Research results demonstrate how a low-code RAG architecture, leveraging open-source LLMs and real-time data retrieval, transforms KM through three key contributions: (i) enhanced accuracy and operational efficiency, (ii) cost-effective scalability and customization, (iii) managerial and strategic impact. The RAG system reduced hallucination rates compared to standalone LLMs, achieving higher accuracy in various tasks.

Future work aims to integrate multimodal data and hybrid architectures, further advancing collaborative human-AI knowledge ecosystems. Addressing these challenges involves robust system architecture, scalable data pipelines, advanced retrieval and ranking techniques, and strong governance over data quality and security.

Keywords: Generative artificial intelligence, Large Language Models, Retrieval Augmented Generation

Enhancing the Acceptation of Insects as Food: A Sustainable Strategy?

Fabrizio Baldassarre, Savino Santovito, Raffaele Campo, Pierfelice Rosato

University of Bari Aldo Moro, Bari, Italy

Abstract

Entomophagy, so the consumption of insects as food for humans, is a contemporary topic of discussions on food security, sustainability, and cultural adaptation. Scientific literature has shown growing interest in the acceptance of insect-based foods but also a marketing potential, also with reference to the 4Ps model, for example. Specifically, high prices have been identified as a significant deterrent to the purchase of insect-based food products while, in terms of products consumer responses are strongly influenced by packaging visuals and wording. In this paper, which represents an ongoing research, we further show the first results of a survey between Italian consumers.

Keywords: Food, Insects, sustainability, marketing, consumers

Materiality Analysis for SDG Prioritization: Is Multi-Criteria Decision Making Helpful?

Tamara Menichini, Gennaro Salierno, Nicoletta Maria Strollo

University of Rome Niccolò Cusano, Rome, Italy

Abstract

The UN Agenda 2030 and its 17 Sustainable Development Goals (SDGs) represent the most comprehensive framework ever formulated to address the global environmental, social, and governance (ESG) challenges. Prioritizing SDGs is crucial for companies to integrate SDGs into corporate decision-making by identifying the most relevant goals and making informed strategic decisions for corporate sustainability. Materiality analysis, as identifying the sustainability issues most relevant to a company and its stakeholders, becomes thus a valid tool to determine priority SDGs. Nevertheless, the existing international managerial guidelines that promote materiality analysis for aligning corporate initiatives with SDGs are often too generic difficult to implement, and open to ambiguous interpretation, which hampers its practical adoption. The present paper proposes an exploratory study by adopting the qualitative approach of semi-structured interviews to gather insights from strategic decision-makers on the relevance, applicability, and potential challenges concerning the adoption of a Multi-Criteria Decision Making (MCDM) method for performing materiality analysis in the process of SDG prioritization. As a result, the multi-criteria approach to materiality analysis is widely accepted by all involved interviewees, who agree on its usefulness in providing a standardized procedure for the prioritization of SDGs. In addition, as highlighted by the suggestions of the experts involved in the study, integrating the potentialities of Artificial Intelligence (AI) technologies into materiality analysis appears to be a promising direction for shaping future developments in the application of materiality analysis to SDG prioritization decisions.

Keywords: Sustainable Development Goals (SDGs), Materiality Analysis, Multi-Criteria Decision-Making Method (MCDM), Semi-structured interview, Artificial Intelligence (AI)

An Integrated Model for Defining and Monitoring ESG KPIs in Smart Buildings: A Methodological Approach to Sustainability Performance Management

Ettore Zini, Chiara Tognon, Angelo Zerega, Angelo Leogrande,
Nicola Magaletti, Giovanni Schiuma

Deloitte, Bari, Italy

LUM Enterprise, Casamassima, Italy

LUM University Giuseppe Degennaro, Casamassima, Italy

Abstract

In a context where sustainability has become a strategic priority for both public and private organisations, the ability to measure, monitor, and enhance ESG (Environmental, Social, Governance) performance is increasingly critical. This paper proposes a methodological and model-based framework for defining an integrated system of Key Performance Indicators (KPIs) capable of supporting ESG performance assessment, with a particular focus on smart buildings and real estate assets.

The proposed model is based on a critical review of existing approaches and utilises advanced digital technologies—including the Internet of Things (IoT), Digital Twins, Energy Management Systems (EMS), Business Intelligence (BI), and Artificial Intelligence algorithms—to collect, process, and interpret energy and environmental data.

The main contribution of this work is the development of a structured framework for defining and classifying ESG KPIs, articulated across three components: (1) a methodological approach to selecting and customising KPIs based on strategic objectives; (2) a data model for collecting and analysing energy and environmental parameters; and (3) a decision-support reporting system that enhances the environmental, social, and governance dimensions.

Special attention is given to the “environmental” dimension, which includes indicators related to consumption and emissions reduction (e.g., carbon footprint, energy use intensity), energy flexibility, and the integration of renewable sources. The “social” dimension is covered through KPIs related to indoor environmental quality and occupant well-being, while the “governance” dimension encompasses indicators on management transparency, cost control, and regulatory compliance.

The model employs an iterative and dynamic logic inspired by the PDCA cycle (Plan-Do-Check-Act), facilitating continuous performance enhancement and adaptive indicator systems in response to changing regulatory, technological, and organisational conditions. The methodological approach is bolstered by a systematic literature review (SLR) and real-world case studies, analysed to evaluate operational implications, return on investment (ROI), and the effectiveness of data-driven sustainability management solutions.

This paper aims to provide both theoretical and practical contributions to the literature on performance management systems, with an innovative focus on integrating smart technologies, sustainability, and strategic energy management. The development of a structured and meaningful KPI database is presented as a key foundation for informed ESG decision-making and for creating resilient, responsible, and ecologically focused business models.

Keywords:

Improving Revenue and Delivery Performance by Production Planning Using Mixed Integer Programming in a Plastic Manufacturing Industry

Panus Faroongsarng, Pornthipa Ongkunaruk

Kasetsart University, Bangkok, Thailand

Abstract

This case study delves into the operational challenges confronted by a company specializing in polyurethane products, particularly elastomers, and those demanding abrasion resistance. Persistent delays in product deliveries, stemming from inadequate production planning and insufficient capacity, underscore the need for a strategic solution. We advocate for the implementation of mixed-integer programming as a production planning tool, aiming to optimize resources and maximize revenue. The proposed mathematical model incorporates constraints related to machine utilization, time allocation, and demand fulfillment. An analysis of production data pinpoints May 2022 as a period of suboptimal efficiency. Following the three-month post-implementation period, the company witnessed a notable 5.85% increase in revenue and a 4.90% improvement in product delivery. Looking ahead, sustained improvement can be achieved by enhancing production capacity through measures such as increased shifts or optimized working.

Keywords: Production planning, Mixed Integer Programming, Plastic manufacturing

Trust, Transparency, and Technology: A Case Study of IQAV-Driven Quality Assurance in Thailand's Cosmetic Sector

Wuttipong Panitsettakorn, Pornthipa Ongkunaruk, Thaweephan Leingpibul

Kasetsart University, Bangkok, Thailand

Michigan University

Kalamazoo, MI, USA

Abstract

Thailand's cosmetics industry has shown steady expansion in recent years, surpassing 258 billion baht in market value by 2023. Bolstered by post-pandemic recovery, heightened consumer interest in wellness, and the government's Thailand 4.0 economic plan, the industry is poised to transform into ASEAN's beauty hub. However, this accelerated growth exposes persistent challenges: fragmented self-regulation, rising counterfeits, and lagging oversight for novel ingredients and production processes. Since 2023, new Thai Industrial Standards (TIS) for cosmetics and a revised advertising manual by the Thai Food and Drug Administration (Thai FDA) underscore the push for stricter quality assurance. Yet resource constraints and variable compliance highlight a growing need for Independent Quality Assurance Verifiers (IQAVs)—third-party entities charged with testing, certification, and standards enforcement.

This study adopts a qualitative case study approach to examine how IQAV-driven protocols can enhance the Thai cosmetic sector by reinforcing (1) Trust, (2) Transparency, and (3) Technology adoption across the supply chain. Drawing upon concepts in Knowledge Management (KM), Supply Chain Management (SCM), and Quality Management (QM), we explore how third-party verification catalyzes new business paradigms within a competitive market that increasingly prioritizes consumer safety, ethical sourcing, and regulatory alignment.

Data collection centers on in-depth, semi-structured interviews with senior executives, QA managers, and key stakeholders at a leading Thai cosmetic firm that has recently introduced IQAV services. This firm's decision to collaborate with an external verifier was driven by multiple factors: brand reputation, consumer awareness of questionable product claims, and newly tightened regulatory frameworks.

Initial findings suggest that IQAV-based verification enhances both trust and accountability among consumers, suppliers, and regulators. In particular, having rigorous external audits and standardized testing fosters more reliable label claims—critical in a sector where subpar formulations and exaggerated product benefits are not uncommon. Meanwhile, transparency emerges as a linchpin in responding to growing consumer demands for ethical sourcing, accurate ingredient labeling, and measurable product efficacy. Technology serves as a double-edged sword: it accelerates data sharing and product traceability but can burden smaller enterprises unaccustomed to digital infrastructure and systematic record-keeping.

In conclusion, this study contributes a fresh empirical perspective on IQAV adoption in Thailand's burgeoning cosmetics sector. By examining trust-building, operational transparency, and strategic technology deployment within a real-world case, our research offers key insights for practitioners and policymakers aiming to navigate tighter regulations and shifting consumer expectations. IQAVs stand out as a decisive factor in elevating Thai cosmetics beyond self-regulation, catalyzing new business paradigms rooted in consistent quality, sustainability, and global competitiveness.

Keywords: Independent Quality Assurance Verifiers, Thai Cosmetic Sector, Trust and Transparency, Cosmetic Supply Chain, New Business Paradigm

Knowledge Management for ESG-oriented Products and Sustainable Business Ecosystem Development

Min-Ren Yan, Yuhong Wang, Muh-Lin Tsai

National Chengchi University, Taipei City, Taiwan

Abstract

The transition towards sustainability has become a critical strategic imperative for businesses across industries. Sustainable business transformation necessitates a shift from traditional linear business models to more adaptive and resilient frameworks that incorporate environmental, social, and governance (ESG) considerations. This shift is driven by multiple forces, including regulatory pressures, consumer demand for sustainable products, and the need for long-term risk mitigation in a rapidly changing global economy (Mariani et al., 2022). Businesses must integrate sustainability not only as a compliance requirement but also as a strategic driver for competitive advantage and innovation (Iacovidou et al., 2021). Within this context, sustainability is no longer an isolated corporate social responsibility (CSR) initiative but a core component of business strategies that foster long-term growth and resilience.

A key challenge in sustainable business transformation is managing interdependencies between industries that have traditionally operated in silos. The integration of different industries within sustainable ecosystems presents an opportunity to leverage complementary strengths and achieve systemic sustainability gains. The distillery and tea industries serve as compelling examples, given their respective impacts on carbon emissions, resource consumption, and waste generation. Both industries have been adopting sustainability measures such as decarbonisation strategies, circular economy principles, and resource optimisation techniques (Gao et al., 2024; Liu et al., 2024). However, a holistic approach that facilitates cross-industry synergies can further enhance sustainability outcomes. By examining their interactions within a shared sustainability framework, this study explores how strategic collaboration between these industries can contribute to net-zero objectives.

Achieving sustainability in complex business ecosystems requires coordinated efforts among diverse stakeholders, including businesses, policymakers, consumers, and researchers (García-Agüero et al., 2024). The role of stakeholder management is crucial in aligning economic incentives with sustainability goals, fostering collaboration, and enabling the adoption of innovative practices. A systems-thinking approach offers a valuable perspective in understanding these interactions, as it highlights feedback loops, interdependencies, and unintended consequences within sustainability transitions (Ackoff, 1994; Williams et al., 2017). This study employs stakeholder theory and systems thinking to analyse how industry stakeholders can co-create value, optimise resource use, and drive sustainability transformations through integrated business strategies.

This research contributes to the literature on sustainable business ecosystems by investigating the dynamics of industry integration and stakeholder collaboration in achieving sustainability goals. By focusing on the distillery and tea industries as a case study, it provides empirical insights into how cross-sectoral partnerships can enhance environmental, economic, and social sustainability.

Keywords: sustainable system development, ESG, ecosystem, business transformation, systems thinking, regional revitalization

Driving National Well-being through Nutrition: Standard Foods Group's Approach to Taiwan's Sustainability Challenges

Angela Wen-Chi Chen, Hsi-Chin Tseng, Chasel Yu-Ting Cheng, Lilian Yi-Hsin Shen, Yu-Long Wang, Chuan-Han Chao, Min-Ren Yan

Standard Foods Group, Taipei City, Taiwan

National Chengchi University, Taipei City, Taiwan

Abstract

As Taiwan's foremost nutrition and health food manufacturer, Standard Foods Group (SFG), with leading brands like Quaker, NurturEssence, Fresh Delight, and Great Day, demonstrates a profound commitment to enhancing national health and well-being. Based on KPMG's Taiwan Sustainability Risk Survey in 2024, declining birthrate and rapidly aging society have been recognized as the top 2 and top 3 sustainability challenges in Taiwan. Recognizing these two top challenges, SFG strategically leverages its core competence as "a nutrition expert" to proactively address these complex challenges through integrated, nutrition-focused well-being education initiatives. This practical paper examines SFG's comprehensive approaches, which center on nutrition education and community engagement with ecosystem partners, exemplified by its impactful "GROW WITH LOVE" and "LIVE FOR GOOD" programs and collaborative ecosystem-building efforts.

GROW WITH LOVE: Imbalanced nutrient intake and insufficient nutrition knowledge are critical challenges for underprivileged children in remote areas of Taiwan. Good Health and Well-being, launched the "GROW WITH LOVE" Nutrition Education Initiative. This initiative directly addresses those critical challenges by providing systematic nutrition education and support.

LIVE FOR GOOD: This initiative aligns with the government efforts by leveraging nutrition education to empower seniors in maintaining their physical and cognitive health, fostering vital social connections, and cultivating a more vibrant and active lifestyle in their later years.

Beyond these direct educational interventions targeting specific demographics, SFG strategically focuses on building a sustainable ecosystem through collaborative partnerships with NGOs and media. A prime example is the ongoing collaboration with a popular media and app - "Hiking Note" for the "Mt. Jade Treasure Hunt," an innovative online and real-world activity with gamified approaches that promotes public health by encouraging 'smart eating and joyful exercise' among a wider population. Participants track their hiking through a dedicated platform, earning points and contributing to a collective virtual treasure hunt. Based on public participation in this engaging activity, SFG donates valuable nutrition education resources to communities in need, further amplifying the impact of its core expertise. In 2025, SFG expands its impact by collaborating with the World Masters Games and multiple NGOs for over 85 nutrition workshops, advocating for healthy BMI.

By seamlessly integrating its core nutrition competencies with strategic collaborations and social engagement initiatives, SFG demonstrates a practical and impactful approach to tackling Taiwan's critical sustainability risks in low birth rate and aging population. These initiatives enhance SFG's commitment to become the health and nutrition partners for every family in Taiwan and empower everyone to live with a life-time of well-being.

Keywords: Nutrition Education, Well-being, Sustainability, Partnership for the Goal, Social Impact

Managing Knowledge for Eco-Museum Education System in University Town and Learning Societies

Min-Ren Yan, Andrew Hartanto

National Chengchi University, Taipei City, Taiwan

Abstract

In the globalization era, sustainable development is becoming increasingly important to ensure that economic growth and social development do not damage the environment or compromise the well-being of future generations. Sustainable development has an important role in education because it is the foundation for holistic and responsible human development (Sterling, 2010; UNESCO, 2017). Educational institutions play an important role in educational development. However, local communities also play a crucial role in building sustainable education. Active community involvement can strengthen the learning process by providing relevant context to support students in understanding and addressing specific environmental challenges in their area (Tilbury & Wortman, 2004). In addition, effective knowledge management is essential to bridge the gap between formal education and community engagement, ensuring that local knowledge is systematically documented, shared, and used to address sustainability challenges (Enes et al., 2024, Rowley, 2000).

An eco-museum is a museum that focuses on local identity with the active participation of the local community and aims to improve the welfare of the community. In the early 1970s, Georges Henri Rivière and Hugues de Varine first developed this concept in France. The application of the eco-museum (ecosystem museum) concept has spread globally, and Taipei is one of the cities that has successfully implemented it. The Taipei Eco-Museum preserves and exhibits the city's cultural and natural heritage in the context of people's daily lives, making it a living museum (Yan & Wu, 2024).

Traditional perceptions about museums include their acquiring, preserving, researching, and exhibiting cultural heritage for educational purposes (ICOM, 2017). However, eco-museums expand this role by emphasizing local participation and community welfare. In Taipei City, Beitou District successfully implemented the eco-museum by preserving cultural heritage, fostering sustainable tourism, and bringing economic and social benefits to the local community (Yan & Wu, 2024). Knowledge management has been central to this success, enabling systematic documentation and sharing of cultural heritage, as well as encouraging innovative solutions to address challenges in sustainable tourism (Hopkins, 2020).

This research aims to explore the application of the CESI framework in promoting sustainable education by merging education, environment, and culture. In addition, it examines how knowledge management can be a bridge to overcome sustainability challenges, which will later produce recommendations on how knowledge management can support the integration of local values in education, strengthen community collaboration, and create sustainable innovation learning for societies.

Keywords: Knowledge Management, learning societies, Eco-Museum, University Town, Sustainable

Taipei Christmas Market System Design with Cultural Ecosystem Service Innovation Strategies

Min-Ren Yan, Jae Hsueh

National Chengchi University, Taipei City, Taiwan

Abstract

Urban development in the 21st century has evolved beyond the traditional focus on infrastructure and economic expansion, shifting toward a more integrated approach that emphasizes sustainability, cultural heritage, and public engagement. Many cities around the world are leveraging cultural events and the revitalization of historical assets to enhance urban resilience and foster stronger community connections. Within this context, the concept of the Eco-Museum has gained prominence as a means of integrating cultural assets into urban environments. Unlike conventional museums, an Eco-Museum treats the entire city as a dynamic cultural space, incorporating public participation and sustainability as core principles. The Taipei City Government has actively embraced this concept through the Taipei Eco-Museum Project, an initiative that transforms urban spaces into curated cultural experiences by linking historical landmarks, local traditions, and contemporary urban life. As part of this broader framework, this study explores how the Taipei German Christmas Market can be reimagined as a cultural ecosystem service that not only enhances the festival's appeal but also strengthens the city's identity, livability, and international visibility.

While Taipei's German Christmas Market has successfully introduced the European festive atmosphere to local audiences, its primary focus remains on commercial and entertainment aspects, leaving significant gaps in cultural education, historical storytelling, and interactive engagement. Unlike its European counterparts, which prioritize immersive learning experiences and active cultural participation, Taipei's market largely positions visitors as passive consumers rather than as engaged cultural participants. This study, therefore, seeks to explore how the Taipei German Christmas Market can transition from being a commercialized seasonal event into a cultural institution embedded within the city's urban fabric, aligning with the principles of the Eco-Museum concept.

To achieve this transformation, this research adopts the Cultural Ecosystem Service Innovation (CESI) framework, a strategic model that integrates cultural, environmental, and social values into event planning. By applying CESI principles, the study proposes a holistic approach to event design that not only enhances the festival's aesthetic appeal but also maximizes its educational, social, and economic benefits. Additionally, the research incorporates methodologies from the European Capitals of Culture (ECOC) initiative and the European Commission's Audience Development Study, which emphasize place-making, digital engagement, capacity-building, and participatory co-creation. These frameworks provide essential guidelines for structuring the market in a way that fosters deeper engagement with cultural heritage, encourages public participation, and promotes sustainability.

In conclusion, this study underscores the importance of reframing cultural events as holistic, multi-layered experiences that contribute to urban sustainability and public participation.

Keywords: European Capitals of Culture, Cultural Ecosystem Services Innovation, Cultural Ecosystem Benefits, Customer Choice Pipeline, Audience Development

A System Dynamics Study on the Transition from Kite Tethering to Social Network Weaving in Overseas Internships of AI Employment Program Students

Hui Fang, Nai

MeiYi Winnie Song

Zejingi, Liang

National Taiwan University, Taichung City, Taiwan
Shih Chien University, Taipei, Taiwan

Abstract

With the rapid development of the artificial intelligence (AI) industry, many higher education institutions have established AI employment programs to cultivate talent with practical skills. As a critical bridge between university education and career development, overseas internships provide students with cross-border industry experience and broaden their career prospects through professional skill enhancement and cultural exchange. However, the learning outcomes of overseas internships are influenced not only by individual capabilities but also by the interplay of mentorship, corporate resources, and professional networks. This study applies System Dynamics (SD) methodology to examine how AI employment program students transition from simple "kite tethering" connections (faculty-student relationships and corporate mentorship) during their overseas internships to the development of "social networks" involving key stakeholders in the workplace, driven by problem-solving, practical interactions, and policy support.

The study results indicate that while AI is a prevailing trend that strengthens students' abilities and represents a desirable human resource for enterprises, the diverse network connections among internship coordinators, overseas internship students, and corporate resources play a crucial role in fostering students' professional growth. Additionally, these social networks expand employment opportunities. Furthermore, cultural adaptability and technical proficiency during overseas internships exhibit dynamic changes, significantly impacting students' workplace competitiveness. By simulating the effects of various factors on employment outcomes through a system dynamics model, this study provides insights for educational institutions and enterprises to optimize the design of AI employment program internships, ultimately enhancing students' global competitiveness.

Keywords: AI Employment Program, Overseas Internship, System Dynamics, Kite Tethering, Social Network, Career Development

System Dynamics Analysis of AI Empowerment's Impact on Knowledge, Skills, and Abilities (KSA) and Technology-Skills-Knowledge (TSK) in Business Management

Chiung Chuan Lo

Shih Chien University, Taipei, Taiwan

Abstract

The rapid advancement of Artificial Intelligence (AI) technology is profoundly influencing the Knowledge, Skills, and Abilities (KSA) and Technology-Skills-Knowledge (TSK) frameworks within the field of business management. AI empowerment not only transforms corporate decision-making models but also reshapes the core competencies required of management professionals. However, the application of AI in business management involves dynamic variables such as technological advancements, organizational adaptability, employee learning curves, and policy environments, necessitating a systematic analysis to understand its impact mechanisms.

This study employs System Dynamics (SD) methodology to construct a dynamic model analyzing the impact of AI empowerment on KSA and TSK. It explores how AI technologies influence knowledge dissemination, skill development, and decision-making capabilities within organizations. This study further analyzes the system dynamics changes before and after AI-empowered business management training programs, focusing on their effects within the KSA and TSK frameworks and on overall corporate management. Additionally, it assesses the influence of policies, corporate culture, and market demand on the effectiveness of AI adoption.

The findings indicate that AI empowerment significantly enhances business management efficiency and decision-making accuracy while strengthening knowledge sharing and skill advancement through data-driven mechanisms. However, technological adaptability and employee reskilling programs remain critical factors affecting the success of AI integration. The system dynamics analysis in this study provides valuable insights for business management curriculum planning, corporate decision-makers, and policymakers, contributing to the optimization of AI application strategies and the enhancement of managerial talent competitiveness.

Keywords: AI Empowerment, Business Management, System Dynamics, KSA, TSK

The Use of Artificial Intelligence Tools in Early Childhood Education: A System Dynamics Analysis of Early Childhood Education Scenarios

C. F. Lin

National Taipei University of Education. Taipei City, Taiwan

Abstract

With the advancement of Artificial Intelligence (AI) technology, its application in early childhood education has been increasing, covering AI-assisted learning, interactive teaching, and personalized learning content recommendations. However, the unique characteristics of early childhood education mean that AI integration not only affects teaching effectiveness but also involves multiple factors, such as children's cognitive development, social interactions, and the evolving role of teachers. This study employs System Dynamics (SD) methodology to construct an AI application model in early childhood education scenarios, analyzing how various variables within the model may influence children's learning, AI tool utilization, teacher-student interactions, and child development.

The findings indicate that AI-assisted learning can enhance children's learning interest and personalized development. However, excessive reliance on AI may impact children's social interactions and emotional communication. Furthermore, as AI is integrated into education, teachers need to transition from traditional knowledge transmitters to learning facilitators to ensure the proper application of AI technology. Through system dynamics analysis, this study simulates the potential impacts of different AI implementation scenarios, identifying the possible influences of variables within the AI application system dynamics model. The findings provide valuable insights for educational institutions, policymakers, and teachers to optimize AI integration in early childhood education.

Keywords: Artificial Intelligence, Early Childhood Education, System Dynamics, AI Learning Tools, Educational Scenarios

System Dynamics Analysis of AI-Driven Marketing Planning

Wen-Chou Huang

Asia Eastern University of Science and Technology, Taipei City, Taiwan

Abstract

With the advancement of Artificial Intelligence (AI) technology, corporate marketing strategies are undergoing digital transformation, and utilizing AI-driven marketing plans has become a crucial tool for enhancing market competitiveness. AI applications in marketing leverage data analytics, consumer behavior prediction, personalized recommendations, and automated advertising to improve the accuracy and efficiency of marketing decision-making. However, the effectiveness of AI-driven marketing plans is influenced by multiple dynamic variables, such as market demand fluctuations, data quality, technological maturity, and internal resource allocation, necessitating a systematic analysis to evaluate their impact mechanisms.

This study references marketing theories and applies System Dynamics (SD) analysis to construct a dynamic model for AI-enabled marketing planning. It explores the key operational steps in AI-empowered marketing plan generation and simulates various Generative AI technologies within these steps to assess their impact on marketing strategy formulation. The study further examines the differences in marketing plans generated by different Generative AI models within the system dynamics framework.

The findings indicate that different Generative AI technologies and specific system dynamic model variables exert distinct influences, leading to variations in AI-generated marketing plans. Furthermore, data quality and differences in marketing theory-based prompts play a significant role in shaping the effectiveness of AI-generated marketing strategies.

Keywords: AI Marketing, System Dynamics, Generative AI Marketing Plans, Marketing Theory-Based Prompts

A Case Study on System Dynamics Analysis and AI-Enabled Differentiation in Industrial Water Conservation Solutions under the ESG Trend

Chiung Chuan Lo, Ju-We Chen, Yi-Chen Cheng

Shih Chien University, Taipei, Taiwan

Abstract

Driven by the Environmental, Social, and Governance (ESG) trend, industrial water conservation has become a critical issue for corporate sustainability. This study applies system dynamics analysis to examine the current water-saving strategies of a case study organization, exploring the impact mechanisms of different industrial water conservation solutions and comparing the differences between traditional water-saving strategies and AI-enabled solutions in water resource management. By constructing a System Dynamics (SD) model, this research analyses the effects of policy adjustments, technological upgrades, and resource allocation on water use efficiency and evaluates the advantages of AI technologies, such as machine learning and real-time monitoring, in water-saving initiatives. The study findings indicate that traditional water-saving solutions conflict with ESG energy-saving and carbon reduction goals. While the case study organization has achieved high water-saving efficiency, it has also resulted in increased carbon emissions, raising the unit carbon footprint of its products and, consequently, impacting the carbon footprint of the entire industry supply chain. Through system dynamics analysis, key influencing variables across critical processes of the organization's water-saving strategy can be effectively identified. Furthermore, the adoption of AI-enabled tools for intelligent monitoring and data-driven decision-making can optimize water allocation, enhance water resource recycling efficiency, and reduce corporate operational costs. Additionally, policy and market incentive mechanisms influence the willingness of enterprises to adopt AI technologies, highlighting the need for industrial water conservation under the ESG framework to integrate technological innovation with policy support. The study results provide valuable insights for corporate decision-makers and policymakers, fostering the development of sustainable water resource management.

Keywords: ESG, Industrial Water Conservation, System Dynamics Analysis, Artificial Intelligence, Sustainable Development

PARTNERS

Hosting Partners



Associated Partners



Organized by:

University of Naples Federico II
LUM University Giuseppe Degennaro
Arts for Business

Associated Partners:

Ipazia - Observatory on Gender Research
AiIG - Assoc. Italiana di Ingegneria Gestionale
MICS - Made in Italy Circolare e Sostenibile
Apeiron Aps
International Association for Knowledge Mngt
Institute of Knowledge Asset Mngt
National Chengchi University
Industry+Innovation LABORatories

