

A Meta-Analysis for an Interactive, Intersectional and Inclusive Exhibition Based on the SDGs

Original

A Meta-Analysis for an Interactive, Intersectional and Inclusive Exhibition Based on the SDGs / Degiacomi, Sergio; Zoccarato, Francesca; De Pascalis, Simone; Crovari, Pietro; Catania, Fabio. - In: DIID. - ISSN 2785-2245. - 1:(2023), pp. 268-277. [10.30682/diiddsi23t2f]

Availability:

This version is available at: 11583/2984118 since: 2023-11-27T11:18:34Z

Publisher:

Bologna University Press

Published

DOI:10.30682/diiddsi23t2f

Terms of use:

This article is made available under terms and conditions as specified in the corresponding bibliographic description in the repository

Publisher copyright

(Article begins on next page)

diid

disegno industriale
industrial design

theoria
pòiesis
praxis

diid.it

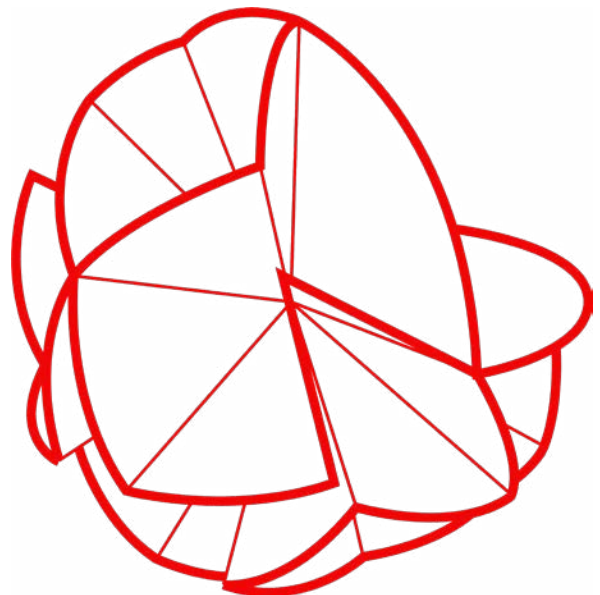
DIGITAL
SPECIAL
ISSUE
1

Disrupting Geographies in the Design World

Proceedings of the 8th International
Forum of Design as a Process

Alma Mater Studiorum — Università di Bologna

Editors
(Eds.)
Erik Ciravegna
Elena Formia
Valentina Gianfrate
Andreas Sicklinger
Michele Zannoni





Colophon

diid
disegno industriale
industrial design
Digital Special Issue 1
— DSI 1

Year
XXI

diid is an open access
peer-reviewed scientific
design journal

diid is published
three times a year

Registration at Tribunale
di Roma 86/2002
(March 6, 2002)

www.diid.it

Print subscription
(3 issues)
Euro 60,00
Subscription office
ordini@buponline.it

Editor-in-chief
Flaviano Celaschi
Alma Mater Studiorum
— Università di Bologna

**Deputy Editor-in-chief
and Managing Editor**
Elena Formia
Alma Mater Studiorum
— Università di Bologna

Editors
Erik Ciravegna
Elena Formia
Valentina Gianfrate
Andreas Sicklinger
Michele Zannoni
Alma Mater Studiorum
— Università di Bologna

Founded by
Tonino Paris

Associate Editors
Viktor Malakucz
Sapienza — Università
di Roma

Lorela Mehmeti
Alma Mater Studiorum
— Università di Bologna

Elena Vai
Alma Mater Studiorum
— Università di Bologna

Art Director
Davide Giorgetta

Editing Assistant
Olga Barmine

CC BY-NC-SA
Creative Commons
Attribution
NonCommercial
ShareAlike

Copyright © 2023
diid disegno industriale
industrial design

Publisher
Fondazione
Bologna University Press
Via Saragozza 10
40123 Bologna
Tel. (+39) 051 232 882
Fax (+39) 051 221 019
www.buponline.com
info@buponline.com

ISSN
1594-8528

ISSN Online
2785-2245

DOI
10.30682/diiddsi23

ISBN Online
979-12-5477-329-1

Scientific Board

Mariana Amatullo
Parsons School of Design
— The New School

Laura Badalucco
Università Iuav di Venezia

Alberto Bassi
Università Iuav di Venezia

Anna Bernagozzi
École nationale supérieure
des Arts Décoratifs, Paris

Paola Bertola
Politecnico di Milano

David Bihanic
Université Paris 1
Panthéon-Sorbonne

Andrea Boeri
Alma Mater Studiorum
— Università di Bologna

Olindo Caso
Delft University
of Technology

Manuela Celi
Politecnico di Milano

Erik Ciravegna
Alma Mater Studiorum
— Università di Bologna

Mirko Daneluzzo
Dubai Institute of Design
and Innovation

Claudia De Giorgi
Politecnico di Torino

Alessandro Deserti
Politecnico di Milano

Dijon De Moraes
Universidade do Estado
de Minas Gerais

Franco Fassio
Università di Scienze
Gastronomiche di Pollenzo

Daniele Fanzini
Politecnico di Milano

Luigi Ferrara
George Brown College

Carlo Franzato
Pontifícia Universidade
Católica do Rio de Janeiro
— PUC-Rio

Giuseppe Furlanis
ISIA Design Firenze

Claudio Germak
Politecnico di Torino

Valentina Gianfrate
Alma Mater Studiorum
— Università di Bologna

Miaosen Gong
Jiangnan University

Christian Guellerin
École de Design Nantes
Atlantique

Roberto Iñiguez Flores
Tecnológico de Monterrey

Çiğdem Kaya
Istanbul Technical
University

Giuseppe Lotti
Università degli Studi
di Firenze

Mario Losasso
Università degli Studi
di Napoli Federico II

Roberto Montanari
Università degli Studi
Suor Orsola Benincasa
di Napoli

Nicola Morelli
Aalborg University

Andrew David Morrison
Oslo School of Architecture
and Design

Spartaco Paris
Sapienza Università
di Roma

Daniela Petrelli
Sheffield Hallam University

Andreas Sicklinger
Alma Mater Studiorum
— Università di Bologna

Francesca Tosi
Università degli Studi
di Firenze

Ambra Trotto
RISE — Research
Institutes of Sweden

Michele Zannoni
Alma Mater Studiorum
— Università di Bologna

Main partners

Latin Design Process



DISEÑO | UC
Pontificia Universidad Católica de Chile
Escuela de Diseño



Related activities and projects



Endorsers



SID Società Italiana di Design

In collaboration with



Reviewers

The Proceedings of the 8th International Forum of Design as a Process have undergone a rigorous peer-review process to ensure the scholarly quality of the contributions contained herein.

The Editors extend their sincere appreciation to the following Scholars who served as Reviewers for this Digital Special Issue.

Tarek Abdellatif	Valentina Frosini	João Nunes Sampaio
Cosimo Accoto	Rossana Gaddi	Boon Ong
Elena Alfaro	Vanessa Galvin	Giulio Palmitessa
Giulia Allegrini	Silvia Gasparotto	Anty Pansera
Margherita Ascari	Pamela Gatica	Veronica Pasini
Margarida Azevedo	Gionata Gatto	Amina Pereno
Laura Badalucco	Angela Giambattista	Merav Perez
Silvia Barbero	Valentina Gianfrate	Pier Paolo Peruccio
Luca Barbieri	Clara Giardina	Bárbara Pino Ahumada
Esra Bici Nasır	Carlo Giardinetti	Davide Pletto
Alessandra Bosco	Debora Giorgi	Gregory Polletta
Saveria Olga Murielle Boulanger	Michael Gray	Alessandro Pollini
Sabrina Bresciani	Pablo Hermansen	Shalini Prasad
Elena Brigi	Oscar Huerta	Diego Pucci
Francesca Calabrese	Çiğdem Kaya	Nathalie Rodríguez Estrada
Alberto Calleo	Elif Kocabıyık	Valentina Rognoli
Alfredo Calosci	Christopher Kueh	Maximiliano Romero
Serena Cangiano	Kristina Lamour Sansone	Ludovica Rosato
Stefano Capolongo	Jennifer Lane	Ilaria Ruggeri
Lina María Cárdenas	Carla Langella	Francesca Sabatini
Paolo Cardini	Lorna Lares López	Mariana Salgado
John Cardozo	Beatriz Leal Ramos	Jorge Sanabria
Giorgio Casoni	Margo Lengua	David Sánchez Ruano
Andrea Cattabriga	Ruth Maribel León-Morán	Romina Santi
Manuela Celi	Beatrice Lerma	Andreas Sicklinger
Gabriel Cereceda	Ami Licaj	Leila Signorelli
Simona Colitti	Lígia Lopes	Ricardo Sosa
Pietro Costa	Anna Lottersberger	Frank Spencer
Doriana Dal Palù	Stefano Luca	Chiara Sponza
Giorgio Dall'Osso	Patricia Mann	Laura Succini
Dolly Daou	John Martin	Ermanno Tasca
Antonio De Feo	Martina Massari	Martin Tironi
Vanessa De Luca	Mauricio Mejía	Umberto Tolino
Barbara Del Curto	Paula Melo Signerez	Florencia Toro Silva
Özgen Osman Demırbaş	Riccardo Mercuri	Beatrice Turillazzi
Carmelo Di Bartolo	Leonel Merino	Elena Vai
Loredana Di Lucchio	Giuseppe Mincoletti	Virginia Vignali
Amir Djalali	Katharine Mollenhauer	Paula Wuth
Alice Donferri Mitelli	Pierluigi Molteni	Burcu Yahız
Sergio Donoso	Carlos Montaña	Nélida Yanet Ramírez Triana
Seyedarshia Eghbali	Roberto Montanari	Michele Zannoni
Paola Fabbri	Edgardo Moraga	Carola Zurob
Daniele Fanzini	Alfonso Morone	
Anne Farren	Erica Isa Mosca	
	Federica Natalia Rosati	

Contents

14

**The Latin Network for the Development
of Design Processes**

16

8th Forum Main Partners

18

**Disrupting Geographies
in the Design World**

20

People

26

Impact

Track 1

There's No Plan(et) B: Sustainable Transitions to Systemic Planet-Centric Design

30

**There's No Plan(et) B.
Sustainable Transitions to
Systemic Planet-Centric Design**
Erik Ciravegna, Clara Giardina, Davide Pletto

40

**Beyond Collaboration: A Network Analysis
of Local Stances and Global Frameworks
in the Collective Design of the City**
Francesca Sabatini, Martina Massari,
Saveria Olga Murielle Boulanger

50

**Alter_Azioni: Designing
between Biological and Artifactual.
Scenarios for a Short-Term Future**
Pietro Costa, Raffaella Fagnoni

62

**(Systemic) Design for Sustainable
Territorial Transition: A Literature
Review of State of the Art**
Asja Aulisio, Silvia Barbero, Amina Pereno

72

**Dasein ist Design:
An Ontological Discussion of Design
in the Ecological Crisis Time**
Sabrina Lucibello, Carmen Rotondi

80

**The More-Than-Human Trend
in Design Research: A Literature Review**
Annapaola Vacanti, Francesco Burlando,
Isabella Nevoso, Massimo Menichinelli

90

**Being and Nature.
The Aesthetic Ecocentrism**
Adriano Pinho, Francisco Providência

102

**Forward to the Primitive.
New Sustainable Design Processes
Characterized by Primitive Aesthetic**
Jurji Filieri, Elisabetta Benelli

110
How Long Does It Take For a Paradigm Shift. A Design-based Critical Essay on Materials and Fabrication Processes
Guilherme Giantini, Lígia Lopes

118
Sustainability Needs Service Efficacy
Chiara Olivastri, Giovanna Tagliasco

126
Systemic Design Applied to Medtech. Guidelines for Corporate Training on Sustainable Healthcare
Enrica Ferrero, Giulia Ferrero

138
Reducing Waste in Healthcare: A Systemic Design Approach for Sustainable Disposables Manufacturers
Gabriele Maria Cito, Angela Giambattista

150
A Framework to Design Appliances for the Circular Economy Scenario
Chiara Battistoni

162
Digital Fashion Technologies & Practices: Design Driven Sustainable Transition in Fashion Industry
Ludovica Rosato, Alberto Calleo

170
Material Resources as a Contextual Complex System
Michele De Chirico

180
Diffuse Micro-Factory: Circular Distributed Production System for Microbial Nanocellulose
Lorena Trebbi

190
From Sea to Fashion. Seaweeds as Material for a Sustainable Transition
Paolo Franzo, Clizia Moradei

198
The Sound of Sustainability. Biomaterials and New Sensory Frontiers
Giovanni Inglese, Sabrina Lucibello, Carmen Rotondi

208
Unpacking Ceramic History in Asia and Europe: Contribution to New Reusable Packaging Design
Raquel Gomes, Cláudia Albino

Track 2

Intersectional Design for an Accessible and Empowering World

220
Intersectional Design for an Accessible and Empowering World: Views from the 8th Forum of Design as a Process
Valentina Gianfrate, Lígia Lopes, Margherita Ascari, Simona Colitti

226
Viva! Colinas. Service Design for Tourism and Reconciliation in Communities of Former Colombian Guerrilla
Beatriz Bonilla Berrocal

238
The Digital Archive as an Inclusive Tool for Knowledge Construction Through Design Practices
Alessandra Bosco, Fiorella Bulegato, Silvia Gasparotto

248
Intercultural Design Approach. Narrative Design for a Multicultural Society
Irene Caputo, Marco Bozzola, Claudia De Giorgi

258

**From Wayfinding to Placefinding.
Orientation and Alterity in Urban Spaces**
Daniela D'Avanzo, Salvatore Zingale

268

**A Meta-Analysis for an Interactive,
Intersectional and Inclusive
Exhibition Based on the SDGs**
Sergio Degiacomi, Francesca Zoccarato,
Simone De Pascalis, Pietro Crovari,
Fabio Catania

278

**From Empathy to Inclusive Design:
Multisensory Solutions for (Not Only)
Socially Sustainable Projects**
Federica Delprino

288

**Etnography in Sever Do Vouga:
Reality->Change First Step to Engage
a Creative and Rural Community**
Pedro Fragoso Lopes, Gonçalo Gomes

298

**The Implementation of U.D. in a Metal
Processing Plant of the Metropolitan
Zone of Guadalajara (MZG)**
Luis Erik Hernández Sánchez, Enrique
Herrera Lugo, Jaime Francisco Gómez
Gómez, Francisco Javier González Madariaga

312

**Towards Better Public Sector Innovation.
Co-designing Solutions to Improve
Inclusion and Integration**
Ilaria Mariani, Francesca Rizzo, Grazia
Concilio

322

**Creating Methodological
Design Processes for Empowering
Artisans of Cali, Colombia**
Edgar Andrés Martínez Muñoz,
Diana Marcela Giraldo Pinedo

332

**Empowering Through Design:
Regional Development Strategy
of Los Lagos as an Intersectional Case**
Daniel Moreno, Katherine Mollenhauer,
Arturo Orellana

344

**Inclusive Merchandising.
A Storyteller for an Accessible University**
Monica Oddone, Marco Bozzola,
Claudia De Giorgi

354

**Geopolitics of Fashion. Glocal Power
Evidence and Design Activism for Leading
Disrupting Textile Debris in Chile**
Bárbara Pino Ahumada

366

**Intersectional Design in Practice: A Critical
Perspective on Sustainability for All**
Alessandro Pollini, Pilar Orero,
Alessandro Caforio

374

**Empower to Care or Care to Empower?
The Theory Behind the Practice
That Transforms**
Marcia Santos da Silva, Gustavo Severo de
Borba

384

**Perspectives of Sound: Promoting
Social Inclusion Under the Principle
of "Access for All" in Museums**
Yi Zhang, Raffaella Trocchianesi

Design and Responsive Technologies for Human Wellbeing

396

Design and Responsive Technologies for Human Wellbeing

Mirko Daneluzzo, Michele Zannoni, Giorgio Dall'Osso, Silvia Gasparotto

406

Counterpoint. Are We Sure That All These Data Are Good for Us?

Antonella Valeria Penati, Carlo Emilio Standoli

418

Sustainable Data-Driven Strategies and Active Well-Being: A Case Study

Giuseppe Mincoletti, Gian Andrea Giacobone, Michele Marchi

426

Are You Me? Re-Embodiment Process for Telepresence Robots

Lorenza Abbate, Claudio Germak

440

From Applications to Implications: Design as a Process for Humanising Future Robotics

Christiam Mendoza, Roberto Íñiguez Flores, Ruth León Morán

450

Data Driven Design: From Environment to the Human Body

Elena Cavallin

458

IF THIS THAN THAT Broken Linear Logic. Rethinking and Representing the Design Process

Margherita Ascari, Andrea Cattabriga, Simona Colitti, Ami Liçaj

468

Responsible Tech Innovation Through Design: A Participative, Reflective, and Systemic Approach

Jane Vita, Tiina Mäkelä, Teemu Leinonen

478

(Re)Active Materials. Well-Being's Concept Evolution and Advanced Material Innovations

Noemi Emidi

490

Mixed Reality as Activator of Collaborative Processes for Transcultural Future

Alessandra Miano

500

Exhibitions as Hybrid Environments. Exploring Situated & Embodied Interaction in Cultural Heritage

Letizia Bollini, Marco Borsotti

512

Ethnographic Study: Finger Food Systems, Contribution to a Project Program in Food Design

Lígia Afreixo, Francisco Providência

522

PASSO Project: Design of a Smart System Using Biofeedback to Train People with Parkinson's Disease

Silvia Imbesi, Giuseppe Mincoletti

532

Pathos: A digital service to improve women's hospital experience

Elisa L'Angiocola, Angela Giambattista

544

Brain Training, Mindfulness, and Wearables: Empowering Employee Wellbeing Through Neurotechnologies

Francesca Bonetti, Giorgio Casoni

554

The Augmented Body: Technological Contamination in the Fashion-Tech Paradigm

Elisabetta Cianfanelli, Margherita Tufarelli, Elena Pucci

564

Health Communication as Apo-Mediation. The Impact of Communication Design on Health Prevention and Perception

Daniela Anna Calabi, Alice Maturo

Design Values Out of the Mainstream: New Geographies of Influence

578

**Design Values Out of the Mainstream:
New Geographies of Influence**

Qassim Saad, Andreas Sicklinger,
Lorela Mehmeti

588

**An Analytical study to develop
the traditional craft in the field
of creative industries in Egypt**

Hoda Aman

600

**Enhancing social well-being through
social innovation approach and design
expertise: a case study for social
innovation in a local district in Turkey**

Yagmur Gizem Avci, Ece Cinar, Cigdem Kaya

610

**Cultural Factories: Conversion of Industrial
Areas into Cultural Hubs**

Eva Vanessa Bruno, Beatrice Lerma,
Doriana Dal Palù, Claudia De Giorgi

620

**Bahrain Knowledge Bay. Using Design
Thinking to Establish an Infrastructure
Towards Knowledge Economy**

Halim Choueiry

630

**Culture and creativity as assets
for inclusive growth in small
and remote places: a design-led process**

Annalinda De Rosa, Davide Fassi

640

**Culture-based Innovation:
A Localized Approach for Designing**

Alaa El Anssary, Ahmed Wahby

650

**Burning approaches to tensing
the present: a new political
dimension of design**

Fabiana Marotta

658

**Design Resistance. Material
Solutions for local remoteness**

Martina Taranto, Barbara Pollini,
Valentina Rognoli

668

**How Should Technology Follower
Companies of Developing Countries
Innovate Through Design Capability?**

Bilgen Tuncer Manzakoglu

680

**Subjectivation and cities: relationships
between local independent fashion
and Possible Future Scenarios**

Paula Visoná, Mágda Rodrigues da Cunha,
César Kieling

New Education Pathways for Future Designers in a Changing World

696

New Education Pathways for Future Designers in a Changing World

Valentina De Matteo, Elena Formia, Roberto Iñiguez Flores, Laura Succini

706

Decolonizing the Design Process: A Case Study in Authorship, Power, and Control

Scot Geib

714

OpenMind Handbook. A System of Design Tools and Processes to Empower Democracy Culture in Primary Schools

Valentina Facchetti, Laura Galluzzo, Ambra Borin

724

Architecture, Design and Community in Colombia. More Urban, More Rural, More Social: The Workshop Experience

Sasha Londoño-Venegas, Adriana Jaramillo Botero

736

Creative Community for Generation Z Teachers in Brazil Through Strategic Design

Lara Maria Luft, Debora Barauna, Gustavo Severo de Borba

746

Design Thinking and Career Development: A Comparative Study

Clio Dosi, Eric Guerci, Jacek Jakięta, Joanna Świętoniowska, Eleni Vordou, Maria José Varadinov, Matteo Vignoli, Gastão de Jesus Marques, Joanna Wójcik

760

Design Processes: From the Historical Perspective to the Application in Startups Companies

Isabela Moroni, Amilton Arruda

772

Design and Innovation: Where Do We Want to Play? Inquiry Into Some Design's Strengths and Weaknesses in Innovation

Marco Limani

782

Design Ecosystem in Portugal. Education, Research and Entrepreneurship

Marlene Ribeiro, Francisco Providência

790

The Design Posture: A Collaborative Learning-By-Doing Approach

Rita Duina, Marco Berni, Andrea Del Bono

798

Advanced Manufacturing for Sustainable Fashion. Developing Interdisciplinary Educational Experiences

Daria Casciani

810

Co-designing Contents With Situated Stakeholders: An In-Field Process in Nolo (Milan)

Davide Fassi, Francesco Vergani

820

Creativity and Mirror Effect: Teaching Creative Skills Through Non-traditional Pedagogies

Alejandra Amenábar Álamos

830

How Design Thinking Could Benefit Future Educational Environments in a Post-Pandemic Era?

Yuqing Zhu, Yunyu Ouyang

840

How a Technology Identity Can Enhance the Diffusion of Good Design Practices in Product Sound Design

Daphne Degiorgis, Marco D'Addario, Beatrice Lerma, Dorian Dal Palù

852

Learning and Teaching From and by Social Media. Instagram to Support Blended Learning Models

Vittorio Linfante, Andrea Manciaracina

864

Education & Practice in Open Design. Improving the Learning Experience Through Knowledge Connections

Fabrizio Valpreda

876

**You Can Never Solve Problems With
the Same Mindset That Created Them.
How Can We Change the How and the
What We Teach to Enable Our Students
to Become Truly “Terrestrial” Designers?
A Proposition Following Bruno Latour’s
“Terrestrial Manifesto”**

Angela Grosso Ciponte, Evelyne Roth

884

**Good for Good. Designing
Packaging in the Era of Deliveries**

Loredana Di Lucchio, Ivo Caruso

896

**Onboarding Future Systemic
Innovation Designers Through
Informal and Collaborative Activities**

Leonardo Moiso, Sofia Cretaio,
Cristina Marino, Chiara L. Remondino,
Paolo Tamborrini

908

**Material Practices in Transition:
From Analogue to Digital in Teaching
Textile and Fashion Design**

Delia Dumitrescu, Martina Motta

918

**Designing for the Future of
Education Through Cultural Heritage**

Nour Zreika, Daniele Fanzini

928

**We Need to Talk About Learning Design.
A Proposal for Critical Conversation**

Suzanne E. Martin

938

**Collaborative Learning of Ph.D.
Candidates in Design on Emerging
Scenarios in Scientific Publication**

Eleonora Lupo, Sara Radice

948

**Scenarios, Networks and Systems:
An Alternative to Dichotomous Patterns**

Liana Chiapinotto, Fernando Guimarães
Horlle, Tássia Ruiz, Celso Carnos Scaletsky

A Meta-Analysis for an Interactive, Intersectional and Inclusive Exhibition Based on the SDGs

Sergio Degiacomi

Politecnico di Torino

sergio.degiacomini@polito.it

ORCID 0000-0002-5422-753X

Francesca Zoccarato

Politecnico di Milano

francesca.zoccarato@polimi.it

ORCID 0000-0002-2825-4112

Simone De Pascalis

Politecnico di Torino

simodidepa@gmail.com

ORCID 0009-0001-0229-882X

Pietro Crovari

Politecnico di Milano

pietro.crovani@polimi.it

ORCID 0000-0002-6436-4431

Fabio Catania

Politecnico di Milano,

Massachusetts Institute of Technology

fabiocat@mit.edu

ORCID 0000-0002-5403-9002

Abstract

The main goal of the project is to create an interactive exhibition, innovative and technological in its approach, that aims to create awareness and promote the knowledge of the Sustainable Development Goals of the Agenda ONU 2030 – in particular, on the value of social and environmental sustainability. 178 Countries adopted a common agenda to preserve our planet for the first time in 1992, during the Rio de Janeiro Summit. From that moment, the concept of sustainability has changed forever and has been changing ever since. In this paper, after understanding the state of the art in the field of the interactive exhibition, it is going to be explained how the methodology is applied in order to evolve from a desk and field analysis to a concept definition. These key points will then help define the concept in the shape of an operative strategy with methodological guidelines and a structured solution. From this stage, a few considerations on the future of this proposal can be drawn.

Keywords

SDGs

Exhibition

Social and Environmental Impact

Systemic Innovation Design

Methodology

Project Management

Introduction

The purpose of this paper is to describe the process that allowed us to create an interactive exhibition based on some of the themes promoted by those SDGs that are focused on social themes, to sensitise young adults to the issues.

The Sustainable Development Goals, also known as SDGs, are 17 macro-topics that include 169 targets and more than 240 indicators. They set out a shared global agenda for human development that is fair, inclusive, and sustainable (UN Agenda, 2015).

The principal SDGs oriented in social matters are the fifth – “Gender equality” – and the tenth – “Reduce inequalities”. These main two can be supported by others like the first – “No poverty” –, the sixteen – “Peace, justice and strong institutions” – and the seventeen – “Partnership for the goals”. By delving into these goals, it is possible to underline some crucial topics in the different targets. Particularly from gender equality, we can highlight issues like equal opportunity in leadership roles or the need to eliminate all forms of violence against all women. From this, it is possible to shape even more different and specific topics to tackle. The goals of reducing inequalities are focused on social, political, and economic issues concerning everyone regardless of age, sex, disability, race, ethnicity, origin, religion, social status, or otherwise. It focuses in particular on the needs of developing countries, or those areas affected by unsafe migration.

These decisions defined the direction of the following steps. It helped in the research of case studies, grandly having a background of knowledge and inspiration (Tamborrini, 2017). Therefore, it is possible to convey a survey for a wide-public range or even more specific question that has the purpose of inclusivity and better comprehension.

State of the art

The first step has been the analysis of the state of the art, based on a selection of installations with an eye on how social matters are dealt with and how the interaction is built in the exhibits’ framework (Panafino, 2012). This step was translated into the analysis of some case studies like exhibitions, installations and artwork on social inclusions and related topics. In particular, the research was built upon two criteria, and each case study had to meet at least one element for each of them.

The first is related to the topic, which had to deal with inequality issues. According to the previously made analysis, it has to include aspects of gender balance (Hauspie, 2023) in order to provide a past or prevent view on the selected topic, especially considering specific related topics as gender discrimination, glass ceiling or gender pay gap. Another aspect in the inequality criteria is the LGBTQIA+ topics including social, political and economic discrimination, equal rights and visibility (Nicol, 2018). And finally, the diversity valorisation, a sort of intersectional aspect (Adichie, 2014) which considers gender, sexual orientations, but also any disabilities or anything that can be considered different from the statistical norm (Sytsma et al., 2012).

The second criteria is related to the human interaction design of the case study. They had to be a relevant example of interaction, through analog or technology-based support. The case study can involve AI supports (Gaia et al., 2019) able to generate a direct human-exhibit interaction. Other supports can be completely analog (Vaudetti et al., 2014), but with a strong value on human engagement and interaction. Some other could have a blended modality — also known as phigital — able to interact with the user through physical element, in order to guide them into a digital environment (Di Salvo & Arcoraci, 2020).

This led to an overall picture of how this theme is discussed, perceived, and how much it is integrated with the technologies, as well as an acknowledgement of the existing interactions.

On a concrete level, the analysis already shows some good practices in representing social issues through static exhibitions, showing societal stigmas in unconventional manners. Both in *One Man Show* (Juvani, 2018) and *CECI N'EST PAS...* (Verhoeven, 2013) the show-cased taboos and social outcasts are portrayed in such a way the visitors tend to change their perspective of reality. Going in-depth, *One Man Show* expresses the struggle of toxic masculinity through practical installations made of concrete, metal and flowers, but also intimate videos of the human body and non-conforming clothes and make-up. Meanwhile, *CECI N'EST PAS* analyse the concept of social outcasts, placing ten people in a glass cage. The showcase of these people — that represent specific socially marginalised experiences, like children at war — is managed electronically through an automatic shutter that rises, creating shock, discomfort and reflection in the visitors.

Interactive exhibitions on social matters seem to exploit technology to build an intimate or even individual place rather than to convey a collectively meaningful message. For instance, *How We Act Together* (McCarthy, 2016), held in Schirn Kunsthalle, Frankfurt and Online, readjusts the meaning of social interaction gestures to rebuild an intimate space to find others. Through simple gestures made in front of a camera, the visitor can upload their animation, which is widespread among other visitors. This cascade effect of videos of the same gesture, with time, is creating discomfort even from common behaviours.

On the other side, those exhibitions which label themselves interactive use technology to build an immersive path into the thematic area. *A come Ambiente* (i.e., E for Environment) Museum in Turin uses simple interactions to allow primary to high school students to better understand environmental issues in a more concise and impactful way rather than words (MAca, n.d.). In detail, the museum includes digital as well as physical individual exhibits that touch a specific topic (e.g. water consumption, recycling processes or energy production). With the practical approach, the exhibits invite visitors to interact and learn directly from them.

One key characteristic that we found interestingly recurrent was the disturbing element in the exhibits.

At the same time, it clearly emerged the lack of technological interactive exhibitions designed to make social matters clearer by these innovative means rather than words, as happened in the last cluster of examples. This new element, that can be considered as a “wow effect” (Rodrigues et al., 2022), can be defined as that technology that is so innovative or advanced that has been never seen before, or if it is not technological, there is anyway an element that you would never expect from such a context. Indeed, just a few elements and examples were present, but the technology did not stand as a best practice when dealing with these topics.

When looking for exhibits and museums on different topics, it was easier to find technological elements playing a more relevant role. Still, in this case, it was often science itself being the centre of the topic.

For this reason, it was possible to find the first relevant issue: technology had to be a tool to deliver the strongest message possible (Bonnardel & Zenasni, 2010), but we shouldn't have focused on the technology itself just to reach the “wow effect”, or it would have become the main subject, derailing from the focus on the SDGs.

Therefore, the focus was directed toward the users, and their interactions, and the message was fundamental to be delivered (Baldwin et al., 2004).

Methodology

To provide an effective and concrete outcome in this case study, it has been necessary to define a well-structured methodology that settles down rules and boundaries into the design phases. For this reason, it has been considered the systemic and innovative holistic design methodology, in order to understand and define the needs of users and stakeholders and, finally, to provide fundamental guidelines for the design strategies. This analysis is going to deal with the first stages — the methodology selection and the state of the art — that guided the process toward the definition of a concept (Tamborrini, 2019). In the future, the other phases will be considered. Starting from the realisation of a brand identity with the design of a logo, the promotion of social pages and the development of an app. As well, the economic phase will take place with the design of a business model canvas (Osterwalder & Pigneur, 2010) to make such an exhibit a viable business opportunity to other external stakeholders. Finally, the designed and developed application can be integrated into the rest of the technological elements of the exhibitions Fig. 1.

The initial requirement in the design phase, has been to select a well-structured topic that considered and gave value to the Sustainable Developments Goals. This allowed the definition of boundaries, setting the framework in which the fundamental topics would be explored. Indeed, the focus has been set on social sustainable issues. This selection happened due to the low concern that is often given to these topics with respect to those more strictly related to the environmental dimension. More specifically, the tight link between the social

dimension and the environmental one and the boost that the former can give to the latter one is often overlooked. Therefore, this under investigated area of research was identified as of relevance for this research.

In addition to this, still in the brief phase, it is fundamental to consider possible stakeholders and practical partners who are possibly willing to join the development of the project, and then become partners or collaborators in the executive stages. In this phase, the collaboration with academic and institutional actors plays a significant role for their key and active role in shaping the changes needed to face sustainable social issues. At the same time, individual and corporate-based collaboration are of significant relevance both in terms of fostering support toward such topics and of the availability of resources.

A second moment in the design phase has been the definition of holistic analysis, which is represented in the design phase below. This step is crucial to define what has already been done on the specific topic, and what can still be done or improved. Moreover, the combination of qualitative and quantitative data defined a well-structured network of information that could be further analysed and used as a base for the definition of the project. Data were collected both in the field and through desk research. The former approach was based on both an online survey distributed through different channels, and by interviewing part of the respondents who were available to further discuss their opinions. The latter approach was carried out throughout the whole process rather than following the first one, and it was mainly based on the constant scanning of diverse sources with the major aim of trying to find a quantitative scale for measuring the positive and negative impacts and changes in terms of social issues. In addition, a close confrontation with experts in scientific, managerial, and social topics provided feedback in the confirmation of the direction of this project (Acocella, 2018). Again, this phase should not be conceived as an ex-post design activity — rather a continuous loop of “build-confrontation” — to discuss the most relevant decisions along the process as well as continuously trying to not overlook any dimension of the project.

The last step of the design phase has been the identification of personas, pointing out the major characteristics of the typical user. This step allowed the design to be user-centric, by allowing the definition of methodological guidelines to be always focused on the actual need of the users rather than on the imagined ones.

Eventually, from the drafted guidelines the project was defined in its all characteristics.

Analysis and Results

The online survey was distributed through the networks of the participants in the design phase. Quantitative data were gathered from a survey that involved 249 people older than 14 — aligned with the future exhibit target. It was relevant to note that although 73% of the respondents were not aware of the SDGs, the totality of the respondents showed great interest in the social topic. Specifically, when asked to rank different social issues in terms of urgency, respondents were most concerned about overarching problems such as “Ensure equal opportunities for everyone” and “Adopt social protection policies, for greater equality” rather than specific ones such as “Balance the gender pay gap”, thus showing how social issues are felt as urgent in their overall nature rather than in some of their specific aspects. Fig. 2.

Some of the respondents were further interviewed about their opinions about the term “equality” and their expectations from a possible exhibition dealing with such topics, often highlighting possible risks such as going into too many details on some topics when no common ground with users is set, taking a non-neutral standpoint on the storytelling, and thus not incentivising users to put themselves in the discussion, rather close the experience.

To complete the framework qualitatively, it was necessary to receive qualitative feedback on the direction taken and on the selected topics. For this reason, some experts, either in the social topic or in science dissemination, were interviewed.

Three of them focused their suggestion on the experience. Thus, the importance of highlighting the three components of each interaction, namely emotional, experimental, and scientific. To stress the emotional component, these issues should be felt as if they were close to the visitors, and not on the other side of the world. Specifically, experiences of stigma and marginalisation should be collected from people who really experience them every day in their life, leaving them on the floor to really explain what it is like to be marginalised. For this reason, some unique people —here called with fictitious names, to preserve anonymity — were engaged: Andrea, a trans guy who has shared his life on social media, and Francesca, a girl sharing on the media the problems of her chronic disease.

The other three interviews with communication experts turned out to highlight the difficulties in physically building the interaction and the technology itself. For instance, while acknowledging the importance of storytelling, a science communicator was concerned about the risks of written sections, as people tend not to read and miss the experience. But at the same time, using a technology-based experience limits the choice of available places; besides, overusing technology might mislead the message itself. Thus, the interplay between physical and digital interaction would be the best choice.

While the last interview was mostly focused on the drafting of a possible business model allowing the exhibition to be economically sustainable and thus be moved to different places, an important consideration emerged. Indeed, people are already aware of most of the topics of SDGs, even if they do not know them by name; indeed, a lot of sustainable initiatives are being shared within the corporate world. But one of the most innovative aspects of this new agenda is

the integration among all the objectives, acknowledging that one cannot be reached without also working on the others. Indeed, all the messages should strictly intertwine the objectives, not deal with them one by one.

Thanks to this analysis, it has been possible to define a series of personas —archetypal figures able to combine all the knowledge from the preview phase and that can represent the possible use of the project case study. These personas, then, are helpful to create user or customer journeys, additional tools that provide hypothetical results on human behaviours, stressful moments, and trigger points of feedback (Pannafino, 2012).

In the last phase, methodological guidelines are defined. They can be listed according to specific topics —such as materials, usability, interaction, technological implementation, economical constraints and many more— to create cluster consideration, needs and then possible suggestions for the future strategy, and so, the project itself.

From guidelines to Solutions

Considering the results achieved by analysing the State of the Art and the development of the methodology proposed, this solution is going to approach an innovative human-digital interaction to deliver in the best way the message. Before going in-depth into the solution, a few guidelines can be listed, summarising the previous analysis and setting a new starting point for the project.

The following guidelines can be subdivided into four areas: first, a *physical context* in which the exhibition must be flexible, transportable and modular, but also reproducible and inclusive; the second area includes the *technical aspect*, so the exhibit must be self-explanatory, integrated with affordable technological elements, gamified and integrated with social media; a third area includes the *final user*, the visitor —they are the central focus, they have to be amused, but also provide feedback; finally, the *economical area* has to be tackled — a low budget and the use of local resources are two important project guidelines.

Therefore, the innovation can be seen in this solution through a personal guide, a storytelling provider and gamified reality (McCausland, 2022). It is a digital guide useful not only in teaching, but also educating through a mutual growth process. The app can introduce time by time “pills of knowledge” that gravitate around social matters, but in such a personal way that the visitor will try to rely on it. In fact, it provides different activities for each exhibition, from Q&A sessions to personal questions, to direct explanations of the context in which the visitors are temporarily placed. Moreover, with all the answers provided by the user and the survey they would take, the app itself will be able to “update” the pattern of knowledge of the visitors, as well as their level of inclusivity and sensitization. This will give the chance to readapt some part of the digital side exhibit nearly in real-time, while by various iterations the physical exhibit can be made more accurate and up-to-date.

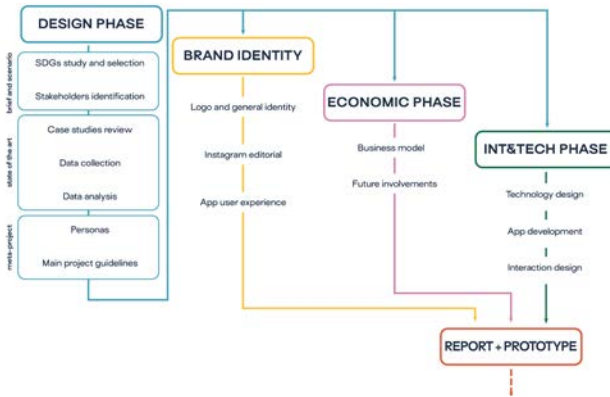


Fig. 1

Fig. 1
Methodology
Short description: Outline of the design methodology combined with a management-based approach
Acknowledgements: Designed by the authors

Fig. 2
Desk analysis
Short description: Infographics on the main outcome of the research analysis based on a survey
Acknowledgements: Designed by the authors

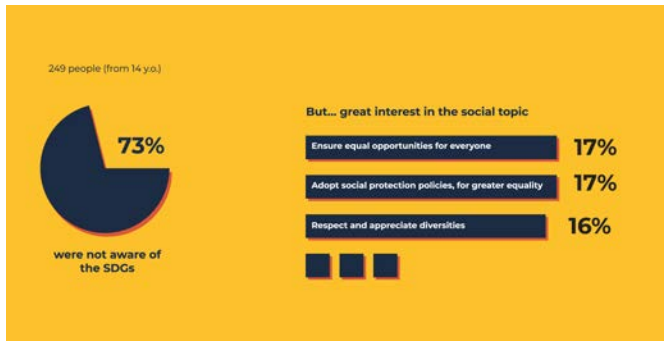


Fig. 2

Fig. 3
Interactive flow
Short description: A flow of the main interactions and topics that the exhibition project puts into effect
Acknowledgements: Designed by the authors

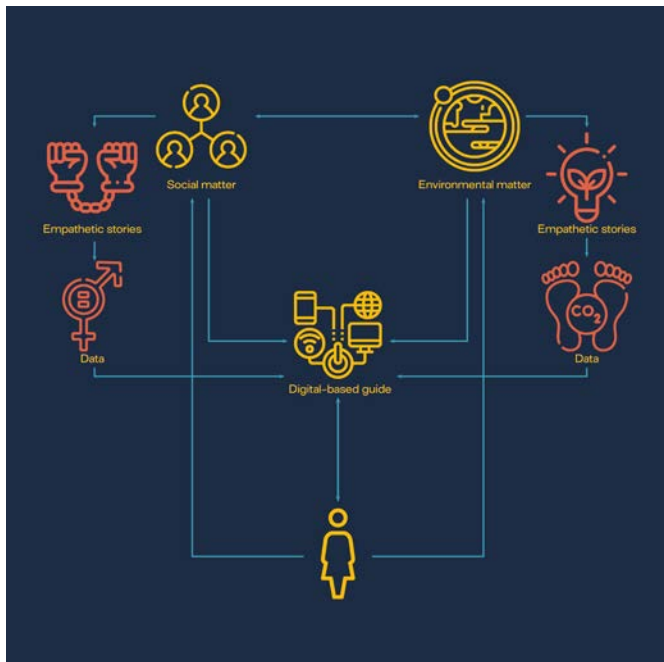


Fig. 3

Moreover, creating different interactive narratives that, time by time, evolve and create a sort of “social real-life book”, made of real-life stories and real-life data, is a very effective way to engage the audience not just as a passive visitor, but more as an active actor (Danks et al., 2007). To talk properly about different topics that are gravitating around the idea of social and environmental sustainability, it is crucial to create stories and narrations that can define an empathic link between the visitor and the experience. This can set the mood for slow but important behavioural changes and knowledge provision, that in a “longue durée” can be at the base of a change of social paradigms (Braudel, 1967).

Finally, a tool used in combination with the idea of the personal guide and the inner storytelling is gamification. With the implementation of smart objects composed of physical components and digital interfaces — such as RFID tags — the interactive role of the user is guaranteed. Moreover, it activates the process of a real-life scenario, able to push even more the consciousness of the visitor in his actions, and so in the understanding of the experience (López-Martínez et al., 2020). In addition to that, the app itself has a strong role in the gamification process and, combined with the other sensorial experiences — e.g. LED lights, sounds and tact feeling —, completes the immersive experience of the entire exhibition.

Technological innovation might seem a linear but constant growth, but the use of it in such a disruptive way — especially combined with the value of the Sustainable Development Goals — sets the basis for a functional engagement with the user and effectively delivering the message, not focusing the visitor’s attention only on the technology itself but in the experience as a whole. Fig. 3

Results and conclusions

Since the birth of the Agenda 2030 and the definition of the Sustainable Development Goals by the United Nations, many events and activities have been developed and carried out in order to increase the awareness of all people. Nevertheless, most of those activities focus on environment-related SDGs. Human rights and equality of opportunity between all humans, regardless of their ethnicity, gender, or social status, are topics that are just as important and strictly related to the previous ones. Public demonstrations are fundamental to spreading unheard voices out loud but may not attract all sorts of people. The exhibition presented in this work wants to convey the same message in a different, complementary way, by raising awareness, informing and sensitising people through a short, structured path along with the main issues that the current state of the world is facing in the context of inequality and discrimination.

In conclusion, this research moves towards a practical project, a solution that wants to be a call to action for all *active subjects*. Even if the experimentation of the interactions has yet to be developed, tested and corrected in case, the project has a strong qualitative value and important visual outputs. Some functional mock-ups and

Sergio Degiacomi

Bachelor’s degree in Industrial and Communication Design and Master of Science double degree in Systemic Design in Politecnico di Torino. They pursued for one year a research scholarship in Communication at Politecnico di Torino and in the city hall of Torino. They started a PhD in 2022 on the topic of creativity applied to innovative methodologies in territorial and educational contexts.

Francesca Zoccarato

She got a Bachelor’s degree in Management Engineering in the University of Padova. She then got the Master of Science in Politecnico di Milano, where she started a PhD in 2022 on the topic of Corporate Foresight and Strategic Planning.

Simone De Pascalis

His bachelor thesis “The One Man Band” dealt with multipurpose and all-in-one design, both from a historical and taxonomical point of view. Currently, he’s an ordinary member of Hackability, a nonprofit organisation involved in co-design and design for all, which in 2019 entered the ADI Design Index.

Pietro Crovari

He completed a Bachelor’s degree in Computer Engineering at the University of Genova. He then graduated in Computer Science and Engineering in Politecnico di Milano, where he is also completing his Ph.D. in Information Technology. He is in charge of many science dissemination activities and recently he became an SDG4Youth Network Member.

Fabio Catania

Fabio Catania received his Bachelor’s and Master of Science degrees in Computer Science and Engineering from Politecnico di Milano, Italy. He has achieved a Ph.D. in Information Technology at Politecnico di Milano, Italy. His research interests include human-computer interaction and the application of technology to promote inclusion.

prototypes have been created and presented to key stakeholders. In 15 minutes, ten people both from the academy and from other stakeholder groups could interact with the prototypes and assess the conveyed messages. However, due to the lack of time and space in the presentation, little data could be collected about the whole interactions with each exhibit, although some general feedback was provided. Indeed, the main features designed in each exhibit were effective in showing the key message of every exhibit, however, physical limitations due to the paper-based prototype did not allow further investigation of the dynamics of interactions. Several further considerations on such user-exhibit interactions and the dynamics of both actions and idea sharing would be suggested. There is confidence in the fact that the storytelling — that involves both social and environmental sustainability — managed in such an unusual, yet innovative way, is going to be an example of feasibility in the connection between technological innovations and human values.

References

- Acocella, A. (Ed.) (2018), *MD Journal 5. Design e territori*. Grafiche Baroncini. <http://mdj.materialdesign.it/index.php/mdj/issue/view/8>
- Adichie, C. N. (2014) *We Should All Be Feminists*. Fourth Estate, ISBN 978-0008115272
- Baldwin, J. R., Perry, S. D. & Moffitt, M. A. (2004). *Communication theories for everyday life*, 19 (1), 210. ISBN 978-0205348060
- Bonnardel, N. & Zenasni, F. (2010). The impact of technology on creativity in design: an enhancement? *Creativity and innovation management*, 19(2), 180-191.
- Braudel, F., (1967). *Le strutture del quotidiano*. Einaudi editore, ISBN 9788806180201
- Danks, M., Goodchild, M., Rodriguez-Echavarria, K., Arnold, D. B. & Griffiths, R. (2007). Interactive storytelling and gaming environments for museums: The interactive storytelling exhibition project. *Lecture Notes in Computer Science*, 4469 LNCS, 104–115. https://doi.org/10.1007/978-3-540-73011-8_13
- Di Salvo, A. & Arcoraci, A. (2020). Human connections. Design interactive artefacts through narration and speculation. *Agathón* (Online), 8, 254–261. <https://doi.org/10.19229/2464-9309/8242020>
- Gaia, G., Boiano, S. & Borda, A. (2019). *Engaging Museum Visitors with AI: The Case of Chatbots*. https://doi.org/10.1007/978-3-319-97457-6_15
- Hauspie, C., Schelfhout, S., Dirix, N., Fonteyne, L., Szmalc, A. & Duyck, W. (2023). Interactions of gender with predictors of academic achievement. *Contemporary Educational Psychology*, 74, 102186–. <https://doi.org/10.1016/j.cedpsych.2023.102186>
- Juvani, J. A. (2018). *One Man Show*, from <https://www.aboavetusarnova.fi/fi/nayttelyt/vuoden-nuoritaiteilija-2018-j-a-juvani>
- López-Martínez, A., Carrera, Á., & Iglesias, C. A. (2020). Empowering Museum Experiences Applying Gamification Techniques Based on Linked Data and Smart Objects. *Applied Sciences*, 10(16), 5419.
- MAcA. (n.d.). From <https://www.acomeambiente.org/>
- McCarthy, L. L. (2016). *How We Act Together*. From <https://lauren-mccarthy.com/How-We-Act-Together#>
- McCausland, T. (2022). Innovation Storytelling. *Research Technology Management*, 65(3), 61–63. <https://doi.org/10.1080/08956308.2022.2047488>
- Nicol, N. (2018). Overview. In N. Nicol, A. Jjuuko, R. Lusimbo, N. J. Mulé, S. Ursel, A. Wahab, & P. Waugh (Eds.), *Envisioning Global LGBT Human Rights: (Neo)colonialism, Neoliberalism, Resistance and Hope* (9-40). University of London Press. <http://www.jstor.org/stable/j.ctv51132j68>
- Osterwalder, A., & Pigneur, Y. (2010). *Business model generation: A Handbook for Visionaries, Game Changers, and Challengers*. John Wiley & Sons. ISBN: 978-0-470-87641-1
- Pannafino, J. (2012). *Interaction design book*. Assiduous Publishing, ISBN 978-0-9826348-2-0
- Rodrigues, A., Loureiro, S. M. C., & Prayag, G. (2022). The wow effect and behavioral intentions of tourists to astrotourism experiences: Mediating effects of satisfaction. *International Journal of Tourism Research*, 24(3), 362-375.
- Sytsma, J., Livengood, J. & Rose, D. (2012). Two types of typicality: Rethinking the role of statistical typicality in ordinary causal attributions. *Studies in History and Philosophy of Science. Part C, Studies in History and Philosophy of Biological and Biomedical Sciences*, 43(4), 814–820. <https://doi.org/10.1016/j.shpsc.2012.05.009>
- Tamborrini, P. (2017). *Sustainable and Collaborative Innovation for the Territory*. Allemandi. ISBN 978-88-422-2444-0
- Tamborrini, P. & Russo, D. (2019). *D&T - Design e Territori*. MD Journal ISBN 978-88-31919-91-3
- UN Agenda. (2015). *Transforming our world: the 2030 Agenda for Sustainable Development*. United Nations.
- Vaudetti, M., Canepa, S. & Musso, S. (2014). *Esporre Allestire Vendere*. Milano, UTET / Wolters Kluwer Italia S.r.l.. ISBN: 9788867501632
- Verhoeven, D. (2013). *Ceci n'est pas...* from <https://driesverhoeven.com/en/project/ceci-nest-pas/>

Published online in September 2023

The 8th International Forum of Design as a Process, themed “Disrupting Geographies in the Design World” was held in Bologna from 20 to 22 June 2022. The event was organised by the Advanced Design Unit of the Alma Mater Studiorum – Università di Bologna, Department of Architecture, in collaboration with two partner universities: Tecnológico de Monterrey (TEC) and Pontificia Universidad Católica de Chile.

The Forum engaged speakers from the Global Design community, expanding the original vocation of the Latin Network for the Development of Design as a Process to include researchers and designers of the Mediterranean Area, Middle East, IOR (Indian Ocean Region), and Global South regions. The goal was to share new perspectives on imagining design futures in a responsible and just perspective, at the forefront of change, while building strategic partnerships and creating accessible knowledge.

Structured around three pillars — seminars, workshops, and exhibitions — the Forum hosted meetings, reflection opportunities, networking activities. It involved designers, scholars, young researchers, design entrepreneurs, in an experimental format.

Speakers’ contributions not only inspired the practices of the designers’ community, but also resonated with students and the broad audiences. The presentations explored intersections of materiality and culture, post-coloniality, decoloniality, gender studies, and other areas of human thought and action which seek to analyse, question and challenge the disruptive geographies in the world, today.

The papers submitted to the five tracks proposed are published in the Digital Special Issue 1 of *diid. disegno industriale – industrial design*, celebrating during those days its 20th anniversary and serving as the fourth partner of the event.

The Editors

Erik Ciravegna, Elena Formia, Valentina Gianfrate,
Andreas Sicklinger, Michele Zannoni

DSI No. 1 — 2023

Year XXI

ISSN 1594-8528

ISSN Online 2785-2245

ISBN Online 979-12-5477-329-1

**DIGITAL
SPECIAL
ISSUE**
1



Bologna
University Press