

Meta-design in the complexity of global challenges

Original

Meta-design in the complexity of global challenges / Ciuccarelli, Paolo; Felde, Nathan; Pangaro, Paul; Barbero, Silvia. - ELETTRONICO. - (2022), pp. 1-4. (DRS2022: Bilbao Bilbao 25 June - 3 July) [10.21606/drs.2022.1076].

Availability:

This version is available at: 11583/2969284 since: 2022-07-03T07:01:52Z

Publisher:

Design Research Society

Published

DOI:10.21606/drs.2022.1076

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)

Jun 25th, 9:00 AM

Meta-design in the complexity of global challenges

Paolo Ciuccarelli
Northeastern University, USA

Nathan Felde
Northeastern University

Paul Pangaro
Carnegie Mellon University

Silvia Barbero
Politecnico di Torino

Follow this and additional works at: <https://dl.designresearchsociety.org/drs-conference-papers>



Part of the [Art and Design Commons](#)

Citation

Ciuccarelli, P., Felde, N., Pangaro, P., and Barbero, S. (2022) Meta-design in the complexity of global challenges, in Lockton, D., Lenzi, S., Hekkert, P., Oak, A., Sádaba, J., Lloyd, P. (eds.), *DRS2022: Bilbao*, 25 June - 3 July, Bilbao, Spain. <https://doi.org/10.21606/drs.2022.1076>

This Miscellaneous is brought to you for free and open access by the DRS Conference Proceedings at DRS Digital Library. It has been accepted for inclusion in DRS Biennial Conference Series by an authorized administrator of DRS Digital Library. For more information, please contact dl@designresearchsociety.org.

Editorial: Meta-design in the complexity of global challenges

Paolo Ciuccarelli^{a*}, Nathan Felde^a, Paul Pangaro^b, Silvia Barbero^c

^a Northeastern University, A+D Department, USA

^b Carnegie Mellon University, Human-Computer Interaction Institute, USA

^c Politecnico di Torino, Department of Architecture and Design, Italy

*Corresponding author e-mail: p.ciuccarelli@northeastern.edu

doi.org/10.21606/drs.2022.1076

A growing sense of crisis in the world, manifest in effects of climate change, depletion of living species, exhaustion of vital resources, extermination of indigenous peoples, disparity of wealth and privilege, a persistent rise of autocracy and demise of democracy — these all compound the urgency of asking what role design and designers must have in addressing these failures to account for the basic needs and rights of all humans, all species, and the environment. Should we reform design practices or is there a meta conceptual level within which we can better understand, evolve, and apply design principles? What are the limitations and risks of design as an increasingly popular practice? Where and when can the talents and skills of designers and the effects of design processes be more effectively applied? Who participates, and how, as the interconnectedness of our individual lives with and across social, biological, cultural, and political systems becomes more apparent? To what extent do design practitioners consider its consequences, intended and unintended?

The papers submitted to this track both question and propose “metadesign” as a concept and a practice, at different levels — from the conceptual discussion around the political dimension of design (“by whom”, “for whom”, and “for what”) to the interpretation of design as an innovation process with an emphasis on systems and relationships. Nold (‘The politics of metadesign’) explores (and questions) the notion of metadesign as *transcendent language* and *infrastructural practice*, interrogating some of its constituents, such as *open, fluid* and *democratizing*. He proposes a shift to a ‘practice-based’ approach and encourages the introduction of STS concepts, revising assumptions about materiality and immateriality in meta-design. Sacchetti (‘Anatomy of a “technology”’: Proposing a meta-design framework for sustainability literacy that addresses the issue of efficacy in modern socio-technical cultures’) — like Nold — takes meta-design as a reflective practice and proposes a meta-design



framework to educate students and practitioners about sustainability that is grounded in concepts of efficacy and agency. This challenges designers to understand both the ecological and systemic dimensions of modern technologies and their ontological, local, one. This paper is also the first of a set that revolves around the complexity of sustainability and climate change: Ortega Alvarado and Pettersen ('Designing for what? Approaching necessary production and consumption for a circular economy') questions the intrinsic goals of Circular Economy by assuming a systemic perspective and reflects on how design should be reframed and reformulated to effectively contribute to it. The proposed approach focuses on consumption and governance, applying participatory design techniques in (plural) futuring practices. Nowacki and Foissac ('Regeneration in action: Toward a new path for sustainable research projects') embrace regenerative design aiming for positive instead of net-zero impact, discussing UX/UI design in the context of climate change. The authors propose a 'compass' developed through participatory research to guide designers in regenerative practices.

The last two papers in the session look at universities as systems and apply meta-design and cybernetics to the assessment of students' wellbeing and related re-actions in the context of university governance ('Design for Wellbeing During COVID-19: A Cybernetic Perspective on Data Feedback Loops in Complex Sociotechnical Systems'), and to the (re)design of students' services in the broader context of the digital transformation of universities' processes ('A Meta-design research project to enhance the User Experience of university's digital services ecosystem'). Van der Maden, Lomas and Hekkert ('Design for Wellbeing During COVID-19: A Cybernetic Perspective on Data Feedback Loops in Complex Sociotechnical Systems') oppose *cybernetic-thinking* to *AI-thinking* and apply the first to the development of a novel, context-sensitive, human-centered assessment process, defining the measurements, the methods, and the tools to perform them. Colombo, Paracolli and Arquilla ('A Meta-design research project to enhance the User Experience of university's digital services ecosystem') assume meta-design — like others in this session — as an iterative and reflective process, aimed at re-framing both the problem at hand and the context of application (e.g., the university services system). As in other papers (Sacchetti; Ortega Alvarado and Pettersen), diagrams are offered here as tools to represent the interconnectedness and the intricacies of the system observed and to think through it.

The ensemble of papers offers a starting point for a fundamental question of relevance to be examined in a rigorous discourse. Our hope is to provoke examination of historical evidence, current practices, and futurist presumptions about the role of design and designers in creating, addressing, and resolving the challenges we face together.

About the Authors:

Paolo Ciuccarelli, Professor of Design and Founding Director of the Center for Design at Northeastern University, Co-Editor of *Big Data & Society*, senior affiliate at metaLAB Harvard, works at the intersection

of data and design to empower non-expert stakeholders and facilitate decision-making processes.

Nathan Felde, Professor of Design at Northeastern University is the proponent of eventual design at the intersection of information design and experience design and a practitioner in the fields of semiotics and cybernetics. He is design director for Humanica and partner in Concatenate, a design consultancy.

Paul Pangaro, Professor of the Practice in the Human-Computer Interaction Institute, Carnegie Mellon University. Is a designer practicing at the intersection of conversation and ethics across all media. He co-leads the #NewMacy Initiative of the American Society for Cybernetics where he is also President.

Silvia Barbero, Associate Professor in Design at the Department of Architecture and Design at Politecnico di Torino (Italy) and expert in systemic design for the circularity of industrial processes to achieve greater environmental, social, and economic sustainability. Since 2018, she has been President of the International Systemic Design Association.