

[Changing] Organizations and Policies: Equipping design for systemic transformation

Mortati, Marzia^a; Bresciani, Sabrina^{*a}; Kim, Euiyoung Kim^b; Kim; Junginger, Sabine^c

^a Politecnico di Milano, Department of Design, Milan, Italy

^b Delft University of Technology, Department of Design, Organization, and Strategy (DOS), Delft, The Netherlands

^c Hochschule Luzern, Design & Kunst, Luzern-Emmenbrücke, Switzerland

* sabrina.bresciani@polimi.it

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The track [Changing] Organizations and Policies of the 2023 IASDR conference encompasses 30 original papers that revolve around four main contributions of design in this domain: (1) design for public sector innovation; (2) transformative design for organizational change and customer experience; (3) design for social and environmental impact; and (4) theoretical explorations, positions, and methodological approaches. These key clusters and related papers are described in detail; discussion points are provided on how the resulting research agendas might be addressed to move the field forward.

Keywords: *public sector; organizational change; social impact; design theories*

1 Introduction

Design is a rapidly evolving discipline that has transcended its traditional focus on physical changes and user experiences to encompass intangibles such as services, interactions, organizations, environments, and systems. Arguably, in recent years, design has taken on new challenges that require a reflection and possibly a revision of principles and approaches, particularly when dealing with ill-defined problems within complex systems that demand transformation. The application of design to address these challenges is evident in various sectors. For example, design literature has explored approaches to support policy development, public service implementation, and organizational culture transformation in the public sector. Design research has opened new avenues, such as "design for policy" to bridge the gap between traditional public decision-making processes and the resolution of complex public challenges. This exploration extends to creative ways of tackling society's grand challenges, embracing public participation through co-creation and co-production, and considering different scales and contexts for collective design action. A critical review of these efforts is still outstanding but urgently needed to understand the pitfalls involved in designing in the public domain. Can there be an excess of participation? Can we guard against a lack of representativeness and



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consider the impact of our activities? Do we have means to recognize and counter a lack of balance presented by existing power dynamics?

Despite the rapidly accumulating wealth of research, there are still questions about the appropriateness and the merits of specific design methods. Methodologically, the prevailing literature often presents design approaches as temporary adjustments unable to address the specific long-term concerns and constraints of public administrations. With that, the merit of these design endeavours, particularly their impact on governmental and governance practices, including their influence on political and democratic life, remains largely unexplored. This is a call for empirical validation that overcomes a narrow euro-centric view and produces insights into a range of geographies, including Africa and the Global South.

There is a need for revised mechanisms to achieve outcomes that offer equality and social justice while paying dues to the digital and green transition. Amid a resulting rising political divide, organizations which want to thrive must learn to cope successfully with this complexity as they push for societal transformation. Addressing these challenges, organisations have recently started to explore new internal processes and capacities to engage in systemic transformations in novel ways. New transformative innovation policies or “mission-oriented” policies (Mazzucato 2018; McLaren and Kattel, 2022) have emerged as a means to support policy makers in their effort to design and implement new programmes that are marked by multi-faceted and dynamic socio-economic issues.

This landscape is also pushing ahead several areas of design research, exploring new linkages between policy, organization, and change, as proposed by this track. Proposing this topic, we want to turn the light on design itself to learn how designers, design educators, researchers and scholars currently equip themselves with approaches, methods, tools, and evaluation frameworks that support policy-level systemic transformation. What is their role in achieving a Just Transition that fosters social justice and sustainable development? How does design research challenge conventional notions of prosperity and well-being, for example by fostering discussions on design’s role in adopting a systemic, open and multi-level governance perspective? The track has welcomed contributions from various perspectives from the public and the private sector to share how sustainability and emerging theories inform and shape design today. Our aim is to identify what is needed within the design research community to equip individual actors to support systemic transformation.

The response to this challenge has been extensive, resulting in a collection of studies that can help us frame the emerging notions around four key clusters.

1. Design for Public sector innovation

In this cluster, the authors aim to advance research on design-oriented approaches and strategies to foster innovation in public services and governmental processes. Throughout the papers, it becomes evident that this field of research is still seeking further consolidation and requires a more structured academic discourse. Authors in this cluster explore two main aspects of the topic, the criticalities linked to adopting design processes and methods for innovating in the public sector context, and specific cases of application. All papers in the cluster discuss the disruptive potential of design-oriented approaches as a lever for transformation, demonstrating how the conflicts that might emerge from their application can act as drivers for organizational change.

2. Transformative design for organizational change and customer experience

In this cluster, the authors aim to advance research on transformative design for organizational change and enhanced customer and employee engagement. Of the eight papers constituting this cluster, four focus on organizational change by transformative design. This first sub-cluster focuses primarily on the role of design, underscoring the crucial role that this can play within organizations, particularly during challenging times. Four other papers in the second sub-cluster are centered around illustrating enhanced experience design for organizational change and the role of design within that change from the practical perspective.

3. Design for social and environmental impact

Eight papers outline the relevance of design for systemic transformation beyond economic impact, focusing on the strategic potential role of design to facilitate social and environmental positive systemic changes. Through case studies, action research, quantitative analysis, surveys and experiments, the benefits of deploying design for sustainability and wellbeing (in healthcare, inclusivity and poverty alleviation) is theorized and illustrated.

4. Theoretical explorations, positions, and methodological approaches

In this section, authors explore and develop theoretical positions for future design research and practice or propose new methodological approaches. The authors originate from different geographical and political contexts covering Asia, Europe, and the US, thus providing an interesting mix of perspectives. These works demonstrate how design research applies to financial, economic, and even national planning. Further, we gain insight into the role of design approaches to practical implementation as well, while a few reflections challenge us to consider alternative frameworks for the development of design practice. Methodologically the focus on transdisciplinary and interdisciplinary involvement in participatory design and co-creation stand out.

In the remainder of the paper, we introduce these clusters and propose a discussion on how the research area on design for systemic transformation might be supported and moved forward.

2 Cluster 1: Design for public sector innovation

The cluster discusses design as a pertinent approach for driving innovation in the public sector, with a primary focus on the development of citizen-centred policies and services and the exploration of several practical cases that can provide learning from both a theoretical and practical perspective. Two main areas of focus can be recognised. The first discusses design approaches as levers of transformation in the public sector, while the second showcases applications of design in diverse areas of innovation in which similar barriers can be recognised to extract relevant practical learning.

2.1 Design approaches as levers of transformation in the public sector

The public sector already leverages design capacities, encompassing service creation, delivery, and implementation. However, more challenging remains the effort linked to building a widespread understanding of design and its specific applicability to existing legal frameworks, regulations, and bureaucratic structures. Evident difficulties are also linked to the necessity of cultivating internal buy-in and capabilities before reaping the benefits of applying design principles. In their study, Suzan Boztepe, Per Linde, and Alicia Smedberg (2023) discuss the tensions in building design capacities in the public sector. Drawing on empirical evidence collected through the study of three Swedish municipalities, they focus on the tensions that designers face and the strategies they adopt to navigate

such complexities. The authors outline three main tensions: (1) the tension of positioning, which relates to how design enters the existing organizational structure (insider vs outsider); (2) the tension of performing, which concerns the difference in the ways of working between designers and public employees (human-centred vs expert-driven); (3) the tension of impact, referring to the desired change and stressing the contrasting demands of system optimization and radical change (incremental vs radical). The authors conclude that "design sits uneasily within the public sector", especially because having a real impact in large organizations requires more than a handful of professionals with a different mindset and no decision authority. Further efforts are needed to address these tensions and integrate design principles effectively into the public sector to drive meaningful change and innovation.

The necessity to cultivate internal buy-in and design capabilities is also explored in the contribution of Maïke Klip-Veltman, Jasper van Kuijk, and Maaïke Kleinsmann (2023). The authors focus more specifically on service design in the Dutch public sector, identifying five tensions influencing public service design practice: (1) the tension between collective and individual needs, (2) the challenge of inclusivity, (3) the top-down approach of the public sector vs the bottom-up focus proposed by design, (4) policy priorities vs user feedback, (5) the challenge of aligning services with the overall impact of the law from which services stem. The authors conclude that making excellent services and adding value following the tradition of service design "is unruly in the practice of public sector organizations" and is only possible if design is strategically used to change the organization rather than only being adopted at an operational level.

While human experiences and interactions are acknowledged as fundamental in shaping public sector design practices towards a more efficient and people-oriented approach, Ziwei Lin and Yuxuan Wang (2023) explore new territories with the introduction of speculative design to increase citizen engagement and collective imagination in public projects. In the perspective proposed by the authors, when introducing this approach designers transition from being facilitators to becoming provocateurs while promoting continuous learning among the stakeholders involved. The authors argue that introducing approaches linked to speculation can help steer public projects because they are capable of incorporating diverse perspectives and stimulating dialogue. Anticipation is thus proposed as an intriguing new approach to policy and public sector innovation, and it is a relevant frontier for research in the area, as speculative service design prototypes can go beyond testing and provoke people to consider future problems by adopting lateral thinking.

2.2 Showcasing design application in the public sector

Despite emerging topics and the availability of systematic reviews, there is still a lack of clear understanding and awareness of how design can be fully leveraged for the benefit of the public sector, encompassing the design of services, policy-making, and their implementation. Therefore, studying specific cases becomes relevant for providing valuable insights to the research community, exploring how design principles and tools can be adapted to suit the unique context of the public sector. Extensive research has examined the efforts of multiple governments and public administrations as they experiment with integrating design to bolster innovation and modernization endeavours. Several papers presented in this track further contribute to this area of research.

In their study, Kazuki Mori, and Hironori Iwasaki (2023) analyse five Public Sector Innovation (PSI) Labs in Finland, focusing on their capacity to gain legitimacy, which involves achieving approval, support,

and continuous project opportunities. The authors note that establishing legitimacy is a dynamic process that emerges from daily activities and interactions, including collaboration, networking, and organisational knowledge creation. They conclude that despite the proliferation of PSI Labs globally, their design-oriented approach continues to create conflicts with existing cultures in public organizations. However, this challenge can be overcome by empowering design principles to permeate the organization's practices over the long term.

Federico Vaz (2023) discusses the specific case of re-engineering the tax registration process in Nigeria, navigating the challenges of developing citizen-centric innovations while working within the practical limitations of existing procedures and infrastructures, such as integrating datasets from different governmental agencies. With the overarching goal of sustaining innovation in bureaucracies in the Global South, this case provides interesting insights into local motivations and incentives for public sector innovation, attitudes and behaviours of those engaged, and the organizational, managerial, and staff cultures. The study emphasises that the lack of design expertise should not be interpreted as a barrier in projects focused on the Global South, as innovation projects in this context require challenging the foundation upon which design principles have been built during the last fifteen years.

Michael de Kreek, Martijn de Waal, Gerd Kortuem, and Kars Alfrink (2023) focus on the complexity of identifying requirements for procurement mechanisms and stress the relevance of including requirements pertaining to the process rather than the output. The authors propose an ethical approach to procurement that promotes the introduction of ethical principles linked to the promotion of continuous civic participation to ensure the consideration of human values in public service design.

Young Ae Hahn, Byoungkwan Oh, and Inhye Hwang (2023) explore the process of designing public health communication materials through a layered approach that considers information accessibility, readers' health literacy and prior knowledge, and a depth-length that readers can process without feeling cognitive burden. The authors provide practical insights on effectively designing such artifacts for public communication and identify the objectives these artifacts should have, such as informing on scientific concepts, persuading to take action, clarifying widespread misunderstanding, or warn against misleading fake news.

Overall, the papers in this cluster demonstrate how, when applied to the public sector, the adoption of design principles, processes, and methods becomes a matter of rediscovering value creation to enhance how public organizations can provide better public services. In this context, value is conventionally defined in socioeconomic terms, emphasizing "value for money." However, design introduces tensions by shifting the focus towards people and their needs. This emphasis forces public organisations to re-evaluate existing procedures, integrating new ways of creating legitimacy and being accountable for public choices. All papers discuss the need to ensure better and more citizen-centered public policies and services. Principles of user-friendliness, security, accessibility, and efficiency are presented as pivotal in constructing a new generation of public services. Design offers a highly relevant approach in achieving this goal, but its full adoption in the public sector still requires mastery.

3 Cluster 2: Transformative design for organizational change and customer experience engagement

The authors of papers in this cluster aim to advance research on transformative design for organizational change and enhanced customer and employee engagement. Of the eight papers constituting this cluster, four focus on organizational change by transformative design. This first sub-cluster discusses organizational change by transformative design, with a primary focus on the role of design, underscoring the crucial role that design can play within organizations, particularly during challenging times. Four other papers in the second sub-cluster are centered around illustrating enhanced experience design for organizational change and the role of design within that change from the practical perspectives.

3.1 Organizational change by transformative co-design

Design plays a crucial role in fostering the creation of communities through its ability to initiate interpersonal social engagements, amplify feelings of connection, and establish bonds among individuals. "Meet me at the local shop: designing community anchors for customer engagement," authored by Eunji Woo, Chorong Kim, Hyejin Kwon, Yedam Ryu, Youngok Choi, and Ki-young Nam (2023), investigates the current methods employed by local creators to establish community anchors for their customers. The research also delves into potential design strategies to further enrich the implications of these approaches by identifying a set of community anchors: 'Exploiting Locality', 'Village Well', 'Sparkling Interest', 'Digging Interest', and 'Local Activism'.

Furthermore, the paper by Yedam Ryu, Chorong Kim, Eunji Woo, and Ki-young Nam (2023) identifies the roles that design can play in facilitating and sustaining local business commoning. Their research is based on case studies with 32 local business commonings. The thematic analysis results in the composition of local business commoning and the establishment of design roles. The authors claim that facilitating local business commoning in ways that local businesses, in partnership with the local community, can generate both commercial and social benefits.

In the recent work environment, business expects more than the workforce can provide. This often leads to higher resignation rates of employees due to increased burnout. A paper by Kimberly Tsen, Mauricio Mejia, Danielle Foushee, and Michelle Fehler (2023) illustrates the journey to prototype, analyze, and develop co-design facilitation for workforce satisfaction and the workshop results to investigate the employees' challenges.

Lastly, "Change management by design. Design as flow improver in turbulent times" by Valentina De Matteo (2023) explores the role of design in enabling the shape of organizational evolution and capacity building. The author argues that the change brought by design is akin to the field of fluid dynamics in that the designers play crucial roles as the flow improvers within organizations in complex environments and turbulent times.

3.2 Enhanced experience design: practical perspectives

Steffen Ristau, Pieter Desmet, and Frido Smulders (2023) address the question of how design for experience can be integrated into the product innovation practices of fast-moving consumer products, to increase impact and deliver additional (emotional) value to users. Three actionable approaches have been emulated in three distinct clusters: (1) actionable behavior, (2) organizational matters, and (3) strategic approach. The authors conclude that design for experience needs to become a conceptual

activity, changing the innovation currency from consumers' money spent on functionality (product) or convenience (services) to consumers' time and money spent on emotional well-being to make experiences a distinct economic offer.

Aniek Toet, Jasper van Kuijk, Klaas Boersma, and Sicco Santema (2023) report on a specific case study in the future mobility context in which they advocate the creation of passenger-oriented Multimodal Transport Hubs (MTHs). These integrate both infrastructure and services of multiple travel modalities ensuring high-quality transfers between the different transport modalities. The authors propose practical approaches to help the airport's organizational change towards the multimodal transport hub from the design researchers' lens, which is clustered in the five themes: 1) recognition of the importance of innovation and long-term outlook, 2) limited exploration possibilities, 3) the MTH concept being (too) abstract, 4) multi-system transition going slow, and 5) changes and transitions being a struggle for power.

The work by Yu-Ling Lien and Hsien-Hui Tang (2023) explores the relationship between customer experience and loyalty in digital-only banking, using a two-stage mixed method of qualitative and quantitative approaches. Their research aims to investigate the impact of digital-only banking experience on customer loyalty and develop the establishment of the framework to explore customer experience and deepen insights into customer internal needs. The results evidence that functional and spiritual values of digital-banking services significantly influence customer loyalty while service and environment experience have a strong influence on perceived customer value.

Michael T Lai and Hsien-Hui Tang (2023) delve into the experience-driven transformation and reflect on the evolution of the experience economy in China and the development of the experience strategy, from a design perspective, to address the challenges of an increasingly competitive market. They present four phases of user experience transformation to illustrate changes in problems and solutions and an Experience Strategy framework to elaborate on issues designers should focus on. The Experience-Driven Transformation Model is proposed to depict the future of user experience professionals in the fully-fledged experience economy.

In this cluster, we witness original papers in which organizations have sought transformative design for change and enhanced customer and employee engagement. The papers shed light on the understanding of how organizations can innovate from short-term to long-term perspectives in light of the ever-changing internal and external environments, which allow them to conceive, develop, and deploy more systemic transformations through design in turbulent times.

4 Cluster 3: Design for systemic transformation toward positive social and environmental impact

The world is confronted with grand challenges, including the climate emergency, poverty and inequality, with underachieving public services. The complexity of these challenges and inter-relations of the systems in which they are embedded, cannot be tackled with traditional analytic approaches only. Design provides a human-centred, iterative, collaborative approach which can bring systemic transformation; beyond the traditional focus on economic return, the triple bottom line of social, environmental and economic impact needs to be considered. Papers in this cluster focus on social and

environmental outcomes of design-led interventions and innovations, proposing frameworks and reflexivity, while deploying qualitative as well as quantitative methodologies.

4.1 Social impact

With a focus on mental health intervention methodologies through design, João Bernarda (2023) outlines how design applied to working with mental disabilities organizations can lead to novel intervention methodologies to adapt products to intellectual development disorders. The paper discusses the lack of creative and design techniques and processes for Intellectual and developmental disabilities in Portugal. This void presents an opportunity for the integration of product design professionals in this sector and, consequently, the creation of new methodological practices and adapted products. It presents the process and impacts of the “Defigne” project in Portugal, in which a collaborative protocol was established in a cross-sector partnership with multidisciplinary experts (including clients with mild or severe mental disabilities, technicians, therapists, etc.), with the aim to gather insights into the impact on the quality of life of users with mental disabilities and improve their interactions with existing products.

In the paper “The ripple framework: a co-design platform (a thousand tiny methodologies)” Luis Soares, Chris Speed, and Sarah Kettley (2023) identify the methodological challenge of tackling complex and interconnected problems, focusing in particular on long-standing issues in the healthcare sector in the UK, exacerbated by the Covid-19 pandemic. The paper presents the Healthier Working Lives (HWL) research initiative funded by the Healthy Ageing Challenge, Social, Behavioural and Design Research Programme (SBDRP). The study which took place in 6 care homes in Scotland, provides the basis for reflexivity: the authors propose a fundamental rethink of strategies for supporting the care sector in facing and overcoming challenges. They propose the Ripple Framework, a methodological platform to support the research team and workers in the care homes for working together meaningfully and effectively. The Ripple Framework focuses on dialogue, capacity-building, and empowerment. It could potentially be applied beyond the healthcare sector.

The social benefits of design in the healthcare domain are further explored by Minji Kim, Minhyeok Kim, Minjin Kim, and Byungkeun Oh (2023) who studied how information visualization can improve the usefulness of personal health record services. As Personal Health Records are increasingly available thanks to digitalization and the availability of apps, the specific information visualization formats in which personal data are provided play a role in users’ understanding and healthcare management. Focusing on South Korea’s national project ‘My Health Record’ app launched in 2021, the authors conducted user surveys (N=480) to investigate Personal Health Record (PHR) app services performances, assessing the visual dimensions of information delivery and processing. This specific study focused on hypertension. The authors further provide international case studies of International Public Health Examination Visualizations and a comparative experimental study, concluding that users preferred visuals that scored high in both intuitiveness and receptivity of information, which was enhanced by the use of graphic icons.

Daniele Busciantella-Ricci (2023) presents the concept of designing for inclusive attitudes as a means to change perspectives on social inclusion and design, for fighting discrimination and promoting diversity in society. Starting from acknowledging that traditional design for inclusion approaches do not address attitudes of inclusivity, the author presents the Design for Inclusive Attitudes (DxIA) framework and associated design principles. Case studies are presented and analysed according to the

proposed framework, matching the types of interventions or policies, with levels of change, identities, needs in terms of inclusion, and design domains and disciplines. The author further presents text analysis of interviews with the AI platforms on the topic.

The important role of design for enhancing the social impact of design interventions is further discussed by Yuhui Jin and Peng Xu (2023) who propose a design-driven poverty alleviation approach, turning poverty alleviation from a cost to a resource perspective. The authors propose a Design-driven Poverty Alleviation (DDPA) Framework and apply it with the action research method to the Dongxiang Autonomous County (located in the southeast of Gansu Province, China). They reflect on the Declaration on Design Poverty Alleviation which was issued at the 2nd World Industrial Design Conference in 2018, in which it was advocated that designers have the role and responsibility to deploy their knowledge and power for designing for poverty alleviation. The authors propose that designing products and services for users of regions in poverty requires to consider the three important design principles: use design from the strategic stage, introduce as many stakeholders as possible to build a new value network and build a product system considering the entire hierarchy of needs. The framework is applied to the commercialization of potatoes, developing strategic value networks.

4.2 Environmental impact

In the paper “Design-Led Sustainable Transition in Organization: A framework to guide and evaluate employee change” Mattia Italia outlines the strategic role of Design for Sustainability Transitions, or Transition Design, for guiding and shaping socio-technical systems towards increased sustainability through design. Design-Led Innovation is understood as a design approach which can influence individuals’ and organizational’ cultures and behaviours toward sustainability. The author presents a conceptual framework for guiding and assessing sustainable change in organizations. The framework is applied to a year-long intervention in a packaging company in Italy during a transformation project offering evidence of the value of Design-Led Innovation for sustainable transitions. The advantage of the approach is to be found in its ability to guide cultural transformation of companies, connecting strategic aspects with more pragmatic ones, such as products or services solutions. The paper further proposes the figure of the Design Innovation Catalyst as an agent of change who can introduce design as a driver of organizational change for sustainability.

Beyond sustainable product design, Kendon Jung and Mauricio Mejía (2023) discuss how service designers are positioned to design for sustainability. Starting from acknowledging that current systems impact the choice on the entire world population of 8 billion people, and they have “brought our world to the brink of collapse as a result”, they reason that, beyond products, also services and systems design can strategically address sustainability. Yet, they propose that methods and tools available in the literature might not be enough as they need extensive context adaptation. Through a critical literature review they discuss and structure extant contributions, and theorize on how service designers can find themselves in a strategic position to tackle climate challenges and sustainability, potentially providing key contributions by shifting logics from a linear economy to sustainable services. They conclude suggesting that future studies should investigate how service design education could focus on delivering sustainability as a core value.

Finally, Lisi You, Tie Ji, Binbin Shao, Han Meng and Yunyan Zhao, in the paper “Establishment of regional industry assessment system and design of Transformation path in the perspective of

sustainable Transformation: The case of Huaihua City, China” develop a quantitative study assessing the ecological footprint, human development index, and ecological welfare performance of Huaihua City. They present a detailed analysis of the industrial base, and identify the leading industries, suggesting that significant synergies and complementarities among the five leading industries could pave the way to integrated sustainable transformations. The study methodology is provided in detail and could be replicated in other regions for a structured urban or regional analysis. The authors conclude by proposing a schema of “Sustainable development mechanism of synergistic symbiosis among leading industries with differentiation driven by design”.

In conclusion, the eight papers in this cluster provide a comprehensive mix of theoretical, qualitative and quantitative contributions to design for systemic transformation toward positive social and environmental impact, showing how (service) designers can have a strategic role in designing for climate action, healthcare, inclusivity and poverty alleviation.

5 Cluster 4: Theoretical explorations, positions, and methodological approaches

Of all disciplines, design has emerged as the one most concerned with actively changing systems and achieving transformation across whole ecosystems starting from the human experience and human interaction. All along, design researchers have challenged and questioned the underpinnings of existent and lived paradigms. These are critical explorations and examinations of theoretical positions. Sometimes they are grounded in philosophical foundations, at other times they lead to new methodological frameworks and approaches. Cluster Four reflects the breadth of these efforts and activities. Accordingly, the papers in this section explore and develop theoretical positions for future design research and practice or propose new methodological approaches. It is encouraging to see authors originate from different geographical and political contexts covering Asia, Europe, and the US. These works demonstrate how design research applies to financial (Lee et al., 2023), economic (Ma et al., 2023), and even national planning (Jiang et al., 2023). But we gain insight into the role of design approaches to practical implementation as well (Mortati et al., 2023; Bejrananda et al., 2023; Bradely et al., 2023). In contrast, Wang (2023) challenges us to consider alternative frameworks for the development of design practice.

5.1 Theoretical positions and explorations

Clee Zhua Wang (2023) proposes and describes a new design proposition that a) redistributes power, b) builds knowledge in an open-ended process, and c) catalyses creative emergence. She unpacks entanglement as a concept ‘to reposition design practice from a method to produce (techne) to an invitation to co-becoming (phronesis)’. In doing so, she identifies three characteristics inherent to entanglement. She goes on to demonstrate the importance of these characteristics (relationality, co-becoming and blurred subject/object division) in an experimental design intervention centering on ecoliteracy education. Her work is informed by her field work part of an ecoliteracy program. She suggests that we may look at this work as a prototype for an entangled design approach in a sort of lab environment – though one that is connected with or rather embedded in the world. This allows us to come to terms with issues of anthropocentrism as well as with a range of ‘human entanglements’: patriarchy, colonialism, and racism.

Yuhao Jiang, Fangzhou Gu, and Danhua Zhao (2023) provide us with a deeper understanding of how design research is viewed and approached in China. They present what they call an object-paradigm analysis framework that traces the evolution of design research in China. They report on three typical models of Chinese design research they have identified in their literature analysis. These include a focus on things where research centers on design; symbols, where again research centers on design, but also on systems where research focuses on frame creation, i.e., framing and reframing. Assigning these 'models' temporal relevance, they are able to show the emergence of design understood as value in Chinese society – in contrast with an earlier focus on design as form.

Shuhao Ma, Valentina Nisi, and Nuno Nunes (2023) develop another theoretical position by inquiring into how the work of designers has an impact on the labor force. They offer an intriguing study on the contributions of researchers in Human Computer Interaction (HCI) to the gig economy to understand how these end up shaping the jobs of gig workers. Once thought of as a free for all, everyone can participate kind of economic model, the gig economy has revealed its tendency to challenge a number of worker rights and safeguards. Their approach is analytical and based on an extensive literature review. Ma, Nisi and Nunes present a preliminary landscape of gig work research that allows them to identify five types of HCI specific research contributions based on HCI methods (informing and designing) and objects (platform, outside-of-platform, and gig ecology). Their paper serves to initiate a much-needed discussion on the role of design research in the future of gig work (FoGW). The emerging research topics not only inform design researchers and practitioners but have the potential to activate them to engage in the creation of a sustainable, inclusive, and fair future.

5.2 Methodological approaches

Financial planning is a task that challenges not only financial institutions but especially for everyday people who are rarely experts on the matter. In a unique collaboration that reflects on the complexity of the questions and issues involved, Sheng-Hung Lee, Joseph F. Coughlin, Alexa Balmuth, Chaiwoo Lee, Lauren Cerino, Maria Yang, Eric Klopfer, Olivier L. de Weck and John Ochsendorf (2023) team up to explore how human-centered design methods may be used to increase financial literacy so people can be more confident in planning their finances across different intergenerational life-stage changes. They introduce us to the Longevity Planning Block (LPB), a financial planning toolkit they developed and tested to gain insights into how people can be supported across four phases they encounter when planning for their retirement. As they point out, we are part of ageing societies where both the provision of easy to understand and easy to use services are needed while everyone is encouraged to keep an eye on financial security in old age.

Another area where design methodological approaches are being explored as part of GovTech. The term GovTech captures digital and AI driven solutions specifically developed for the public sector and used by public administrations. They typically involve a collaboration between government and private business. Some take the form of Public Private Partnerships. There is a great desire for these solutions as they have the potential for large scale social, economic, and environmental benefits by increasing administrative efficiency, strengthening trust in government through high-quality services that work. From a business perspective, GovTech fosters the growth of innovative start-ups. Marzia Mortati, Ilaria Mariani, and Francesca Rizzo (2023) present a timely paper on how GovTech, driven by software engineers and developers can integrate design thinking, co-design and service design approaches to ensure citizen engagement in these solutions. They explore and discuss what would be

needed to arrive at an EU GovTech ecosystem through an experiential learning process. Their conclusions are of relevance for all GovTech actors: public administrations, start-ups, SMEs, nonprofits, and research centers – but above all for those designers who are eager to engage in this new domain of research and practice.

Jay Bradley, Sonya Lizbeth Joseph, Linda Shore, and Marlene Harkis (2023) investigate the value of design methodological approaches to improve healthcare services. The paper centers on people who receive care and on the people who care for them. These may be health and care professionals but as the authors point out, also includes a range of unaffiliated and unpaid carers outside of the profession. In their study, they bring together these various carers to examine how new digital technologies may better support them in gaining access to services and in co-ordinating them. Through this participatory design approach to service innovation, the authors generate novel insights into the situation of unpaid carers. Moreover, they report on four concepts that emerged from their work and they project will be developed for future use in the region. This adds another dimension to their work as they can share valuable insights into the process of procuring simulated healthcare services, which is very useful for designers who seek to foster organizational learning and improve the adoption of innovative service changes.

Many governments initiate well-intended programs that fail to meet their goals. Mathurada Bejrananda, Busayawan Lam, and Youngok Choi (2023) report on the ‘One Tambon, One Product’ (OTOP) grassroots enterprise development programme by the Thai government. The program was established to encourage the local population to create and sell products that use local resources. OTOP’s aim is therefore to promote and strengthen the local economy and local communities. The authors describe how a top-down execution produced a range of government-led activities and supporting services that did not match actual needs of local actors. Their paper reports and reflects on their effort to change towards a bottom-up approach to co-create OTOP elements together with all relevant stakeholders, including local authorities, entrepreneurs, and OTOP customers. The authors show how their approach allows for themes to emerge that can guide new training methods, inform communication strategies, open new distribution channels, and generate new customer engagement strategies.

6 Conclusions

The selection of the total of 30 papers together signifies comprehensive and diverse explorations of research topics within the realms of organizations, policies, and systemic transformation. Analysing this selection comprehensively, it is possible to highlight common points and differences that cut across clusters. A number of themes weave these works together. These include:

1. Design establishes itself as a meaningful approach for change across all sectors: In all clusters, design proves to be a potent force for innovation. Whether in the public sector, organizational change, or addressing social and environmental issues, design manages to catalyse positive transformations.
2. Designers need to be able to navigate implementation challenges: Each cluster acknowledges the hurdles associated with implementing design-driven solutions. These challenges range from overcoming cultural resistance and securing internal buy-in to the need for reimagining entrenched processes and structures.

3. A renewed focus on greater impact: The clusters collectively underscore the profound impact design might have on society, economy, and the environment. The research community sees design as a critical tool and approach for tackling complex issues like poverty, inequality, and climate change, with the aim of improving the quality of life for individuals and communities.
4. A rise in transdisciplinary and interdisciplinary approaches: this links to the greater impact design researchers demand and strive for in their work. Almost every methodological discussion centers on how to bring people together who have yet to collaborate despite a shared concern or problem. But this also matters to design researchers themselves – most papers are co-authored and many of the co-authors have different disciplinary backgrounds. They also join together from different disciplinary backgrounds for their research.

We also detect differences in the topics proposed and explored. Firstly, it is possible to identify differences in the domains that are being addressed. Cluster 1 chiefly explores design within the realm of the public sector, particularly in reshaping policies and services, while Cluster 2 pursues design's role in driving transformative changes within organizations and enhancing customer experiences. Cluster 3 delves into the broader implications of design for systemic transformation, covering diverse areas from mental health to regional sustainability. Finally, Cluster 4 examines and reflects on a more theoretical terrain with the aim to investigate various theoretical positions and methodological approaches in design research. This offers a more meta-level perspective and discussion.

Together with this, also geographical and contextual reach differ consistently. Cluster 1 draws its insights primarily from European contexts, spotlighting examples from countries like Sweden and the Netherlands and one example from Nigeria. Cluster 2 spans a wider geographical spectrum, featuring studies from Scotland and South Korea, and emphasizes practical case studies. Cluster 3 features research from China and Portugal, examining design's role in addressing global challenges such as climate change. Cluster 4 offers discussions from diverse geographical and political settings, reflecting on the evolving role of design globally.

Finally, the areas of impact of design research in each cluster stretch the discussion of what design for systemic transformation might mean and incorporate. Cluster 1 largely discusses how design influences public policies, services, and internal practices within the public sector. Cluster 2 moves its focus to the private sector, addressing the impact of design on workforce satisfaction, community engagement, and innovative transport solutions. Cluster 3 explores the multifaceted outcomes of design-led initiatives in health and sustainability domains. Cluster 4 addresses methodological considerations and opens up new ways to think about the ever-evolving nature of design research and its varied forms of practical application.

These commonalities and distinctions underscore the adaptability and growing significance of design as a driving force for innovation and positive change in a multitude of contexts, from government administration to sustainability and beyond. However, they also highlight a still fragmented nature of design research in this area, calling for the need to establish stronger conceptual and practice-based foundations to what it might mean to adopt and adapt design approaches to all of these diverse avenues of research and practice. We therefore extend a warm invitation to the design research community, encompassing both practitioners and scholars, to facilitate and engage in a collaborative dialogue in order to catalyse systemic transformation within organizations through collective and

designerly perspectives, also evidencing the extent to which design can offer fresh and robust methods of exploration for systemic transformation.

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About the Authors:

Marzia Mortati: is an Associate Professor at the Design Department of the Politecnico di Milano. She is one of the Executive Directors of the European Academy of Design and Deputy Director of the International Master in AI for Public Services.

Sabrina Bresciani: is a senior Assistant Professor at the Design Department of the Politecnico di Milano. She investigates the role of visual design thinking in organizations. She has been a visiting lecturer in Europe, Asia and America.

Euiyoung Kim: is an Assistant Professor - Design for Dynamic Stability, at the Department of Design, Organization, and Strategy (DOS) of the Faculty of Industrial Design Engineering, Delft University of Technology (TU Delft).

Sabine Junginger: is the head of the Competence Center Design & Management at the Hochschule Luzern, Design & Kunst in Switzerland. She is also a fellow of the Hertie School (Germany).