



THE 2023

IASDR Congress

Life-
changing
design

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PROCEEDINGS OF IASDR 2023

EDITORS:

Daniela De Sainz Molestina

Laura Galluzzo

Francesca Rizzo

Davide Spallazzo



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Life-Changing Design

Proceedings of the 10th Congress of the
International Association of Societies of
Design Research (IASDR 2023)

EDITORS:

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The Tenth IASDR congress. An Introductory Address from the IASDR Board

IASDR 2023 is the 10th biennial congress of IASDR, and the first to take place after the crisis of COVID-19. With this congress we re-confirm the importance of discussion and debate for the network of researchers in design, as well as the importance of developing younger researchers for the future of the Association.

The International Association for Societies of Design Research (IASDR) was established in 2005 through a collaboration of four academic societies: Chinese Institute of Design (CID), the Design Research Society (DRS), Korean Society for Design Science (KSDS) and Japanese Society for the Science of Design (JSSD).

The history of international collaboration in Design Research in the Asian region can be traced back to 1996 when JSSD organized the first Japan-China Industrial Design Symposium which was hosted by Beihang University in Beijing, 1996. This started a series of international conferences in design research known as the Asian Design Conference. Conferences took place in 1997 (Daejeon, Korea at KAIST), 1998 (Taichung, Taiwan at National Taichung University of Science and Technology), 1999 (Nagaoka, Japan at Nagaoka University of Technology), 2001 (Seoul by National Seoul University), and 2003 (Tsukuba, Japan at Tsukuba International Congress Center). At the 2003 congress – the 6th Asian Design Conference – the three Asian academic societies agreed to welcome the Design Research Society into a new association.

We thus began the International Association of Societies of Design Research for the field of design research in 2005, in Taiwan. Since that time, we have enhanced the network of researchers and fields of design research and promoted design research education. We will continue to build this incomparable network of design research as we move towards our 2025 congress, at Tapei, Taiwan.

Our deepest thanks go to Luisa Collina, and the entire Politecnico Milano team who have worked so hard, as hosts for IASDR2023, to ensure its success. Your leadership throughout the process has been excellent and we think the result will be much appreciated by the IASDR design research community.

Toshimasa Yamanaka
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On behalf of the IASDR Board
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Life-Changing Design.

Introduction to the Tenth IASDR congress

The International Association of Societies of Design Research (IASDR) has long been at the forefront of advancing design research, providing an international platform for researchers, scholars, and practitioners to engage in robust discussions, share insights, and explore the ever-evolving landscape of design research. IASDR 2023, the association's 10th Congress, stands as a pivotal juncture in the trajectory of design research, offering a comprehensive perspective on its current state while charting its future directions.

Over the past decade, design research has witnessed a remarkable transformation. From its roots in aesthetic considerations and form-centric approaches, design research has evolved into a multifaceted discipline, extending its influence beyond traditional boundaries. Contemporary design literature now encompasses a wide array of facets, each addressing critical aspects of design's impact on diverse domains, including organisational culture, public policies, product development, and the creation of immersive spaces, services and systems. This transformation underscores the dynamic nature of design research, as it continuously adapts to our society's changing demands and challenges.

The central theme of IASDR 2023, "Life-Changing Design", resonates profoundly in the wake of global events, particularly the unprecedented disruptions caused by the COVID-19 pandemic. This theme invites us to reflect on the profound transformations that have unfolded and continue to reshape our world. The pandemic has brought to the forefront questions about the role of design in navigating these changes, challenging us to explore how design can facilitate adaptation, resilience, and innovation in a rapidly changing world.

IASDR 2023 has been organised and host by Politecnico di Milano, where design keeps strong roots in the made in Italy tradition and where at the same time design opens up to the new territories of design research and to the new trajectories of innovation.

IASDR 2023 encompasses an array of thematic tracks, each dedicated to exploring critical dimensions of design research. These tracks serve as focal points for discussions and investigations, providing a framework for researchers to delve into specific areas of interest.

The following thematic tracks guide our exploration:

[Changing] Organizations and Policies

This track examines the transformative potential of design in the realm of public sector organisations and policies. It aims to foster social justice and sustainability by challenging traditional notions of prosperity. Researchers investigate how design equips itself with tools, methods, and frameworks to support systemic transformation, thereby promoting well-being and addressing complex societal challenges.

[Changing] Products and Production

This track focuses on the transformation of manufacturing processes and their impact on products and

systems. It explores the proliferation of digital fabrication and digital craft, analysing their potential to revolutionise product development, sustainability, and business models. Researchers delve into how design can envision emerging materials, artefacts, and future scenarios from a sustainable perspective.

Identities and [Changing] Identities

Cultural identities and their evolution in an increasingly multicultural world take center stage in this track. Researchers delve into the roots of design's influence on identity, considering factors such as authorial identities, identity hegemony, and the implications of design on gender, class, and religion. Additionally, this track explores the role of design in translation processes, which involve revising systems, tools, and programs for communicating and preserving identity.

[Changing] Ecosystems

Addressing the imperative transition toward sustainability, this track examines how design contributes to the socio-ethical and economic dimensions of sustainability. It explores design for sustainable materials, energy, business models, and transitions, focusing on fostering positive environmental and social change.

[Changing] Communities

Community empowerment and sustainable behavioural change through design interventions are central to this track. Researchers investigate how design can enhance collaborative processes, co-design knowledge, and tools while addressing urgent public interest issues. The track emphasises shared decision-making, democratic participation, and the evolving roles of individuals, communities, and entities in supporting systemic transitions.

[Changing] Education

This track reflects on the evolving landscape of design education, recognising the complexities and challenges inherent in this domain. Researchers explore the inspirations for change in design education, the transformations it engenders, and the existing gaps and issues. This track seeks to foster clarity, identity, and adaptability in designing educational goals while embracing diversity and differentiation.

[Changing] Spaces and Services

Integrating spatial and service design to create innovative living environments and services is the central concern of this track. It explores how design interventions across various scales, from micro to macro, can drive transformative actions, enhance public participation, and guarantee inclusivity and diversity in service offerings.

[Changing] Interactions

The dynamic interplay between technology, social changes, and design forms the core of this track. Researchers investigate how digital technologies, augmented reality, virtual reality, and mixed environments impact interactions, communities, processes, and professions. This track emphasises the role of Interaction Design in shaping technology-based innovations responsive to social and contextual changes.

[Changing] Heritage

Preserving and reinterpreting cultural heritage in the face of global change is the central focus of this track. Researchers explore how design research can offer novel approaches to knowledge preservation and cultural experiences related to tangible and intangible heritage. This track seeks to activate participation dynamics that reintegrate relevant portions of cultural heritage excluded from current development paradigms.

IASDR 2023, with its overarching theme of "Life-Changing Design" and its diverse thematic tracks, presents an exceptional opportunity for researchers, scholars, and practitioners to engage with the dynamic landscape of design research. The conference serves as a platform for robust discussions, knowledge sharing, and the exploration of innovative solutions to society's complex challenges.

By examining these thematic tracks and their intersection with the central theme, “Life-Changing Design,” we aim to contribute to the ongoing dialogue surrounding design research and its transformative potential, fostering a deeper understanding of design’s role in shaping our world.

Luisa Collina
Alessandro Deserti
Francesco Zurlo

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Michelle Fehler, Arizona State University, USA

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Design making its way to the city hall: Tensions in design capacity building in the public sector

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Design-driven poverty alleviation: an approach that turns Poverty Alleviation from a cost perspective to a resource perspective

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Design-Led Sustainable Transition in Organization: A framework to guide and evaluate employee change

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Designing Longevity Planning Blocks through experimental participatory observation and interviews

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Establishment of regional industry assessment system and design of Transformation path in the perspective of sustainable Transformation: The case of Huaihua City, China

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Experience design's transformation towards experience-driven transformation: a practical perspective

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Exploring the Relationship between Customer Experience and Loyalty in Digital-Only Banking

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Features of Chinese design research: an “object-paradigm” interactive relationship perspective

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How Design Thinking can support the establishment of an EU GovTech ecosystem

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How do PSI Labs establish legitimacy? Dynamics, approaches, and knowledge creation

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<https://doi.org/10.21606/iasdr.2023.160>

Inspiration for developing Service Design prototypes through Speculative Design - a case study in the field of carbon neutral in the UK

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Introducing design for public sector innovation in nigeria's federal government

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Living entanglement: toward an entangled design nexus

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Mapping the Research Landscape of the Gig Work for Design on Labour Research

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Meet me at the local shop: designing community anchors for customer engagement

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More than the process, exploring themes in Dutch public service design practice through embedded research

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Participatory Design of Service Innovation to Support People and their Carers in Moray

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Rediscovering Mental Health intervention methodologies through Design

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The information visualization to increase the usefulness of public PHR services

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The ripple framework: a co-design platform (a thousand tiny methodologies)

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Themes for an airport hub in the transition towards a multimodal transport hub – an embedded researcher’s perspective

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Unlocking the experience economy: Integrating design for experience knowledge into fast moving consumer goods (FMCG) product innovation

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When ‘doing ethics’ meets public procurement of smart city technology – an Amsterdam case study

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Why design matters in local business commoning

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[Changing] Products and Production**Front Matter**

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AI Logic of Care: premises for upgrading the smart bandages for diabetic chronic wounds

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Analysis of the Menotech and Femtech markets for menopausal women in Japan

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Assessing a mobile and modular negative pressure ward (Mobile Clinic Module) for COVID-19 outpatient treatment

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Co-creation through digital fabrication technology: A systematic literature review

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Design principles for a workshop using 3D food printers: participatory digital food design research

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Designing Ambi-Bracelet - an Interactive Bracelet for Ambient Communication between Partners

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Differences in the use of analogies by designers at different stages of conceptual design

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Dynamic personalities for elderly care robots: user-based recommendations

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Exercise Characteristics of Older Adults and Considerations for Exercise Equipment Design for them

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Exploring the design applications of key emerging materials from natural Sciences through a design ideation workshop

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Exploring the effect of softness and weight of materials on positive emotion regulation: a case study of LEGO

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Forming bacterial cellulose: a research activity exploiting digital fabrication technologies

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From Bio-inspired Design to Microbiology-inspired Design: a Conceptual Model-based Case Study on biological Materials informed by Emotions

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Haptic aesthetics in product design: designing headphones that feel beautiful

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Head shape design of Chinese 450 km/h high-speed trains based on pedigree feature parameterization

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Prototyping a 7-meter frameless dome as emergency shelter: Test build viability and devise team strategies

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<https://doi.org/10.21606/iasdr.2023.297>

Raising the ceiling: the impact of design-based differentiation on product pricing

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<https://doi.org/10.21606/iasdr.2023.128>**Shifting Spaces in Fashion: Approaching digitised design spaces from a bodily perspective**

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<https://doi.org/10.21606/iasdr.2023.507>**Identities and [Changing] Identities****Front Matter**

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<https://doi.org/10.21606/iasdr.2023.894>**Community voices in visual identity. A reflection on the social significance of dynamism in Visual Identity Design**

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<https://doi.org/10.21606/iasdr.2023.373>**Contributions of Slow Design to the valorization of local identities in sustainable processes**

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<https://doi.org/10.21606/iasdr.2023.569>**Decolonizing creativity in the digital era**

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<https://doi.org/10.21606/iasdr.2023.307>**Evolving Identity: A Study on changing choices in the Clothing of Tribal Women of Tripura India**

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<https://doi.org/10.21606/iasdr.2023.499>**Fictional Brand Design. Evolution, Strategies, and an Attempt to a History of Visual Identities in Audiovisual Narratives**

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<https://doi.org/10.21606/iasdr.2023.278>**Is gift a token of gratitude or an imposition of identity? Facilitating positive consequences of gift-giving with receiver-centred design**

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<https://doi.org/10.21606/iasdr.2023.329>**Pursuing positionality in design**

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<https://doi.org/10.21606/iasdr.2023.371>

Shifting identities: new materialities of power and control

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<https://doi.org/10.21606/iasdr.2023.501>

Speculating gender in conversational interfaces

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Textile Autobiographies: Crafting shifting identities with refugee communities

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The Brand as a Place. For a Model Interpreting Identity in the Digital Age

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<https://doi.org/10.21606/iasdr.2023.288>

The impact of identity construction and diversification of Chinese craftspeople on the design innovation of traditional handicrafts – a case study of Dong Brocade in Tongdao, Hunan

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Wearing Black when feeling Blue: An exploration of the relationship between clothing and mood

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[Changing] Ecosystems**Front Matter**

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An explorative multiple case study of smart-circular PSS – status quo in industry

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<https://doi.org/10.21606/iasdr.2023.191>

An investigation into the product attachment between single-person household and their home appliances

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Aqueous logics: Towards a hydro feminism approach to sustainability

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Arousing “Arts of Making” in design: cultivating growing material societal meanings for sustainable transitions

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<https://doi.org/10.21606/iasdr.2023.558>

Bio-Brutalism; five case studies framing the emergence of new raw aesthetics at the intersection of material regeneration, environmental design, and craft

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Circular Futures: how can design nurture more sustainable production and delivery systems for social micro enterprises?

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Collaborating with an Amazonian tree: a bio-product design experiment with ancestral references

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Creating national strategy for circular design through co-design: An Australian perspective

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Digital transition, Sustainable Product-Service System (S.PSS), and environmental sustainability - A systematic review

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Exploring a framework in designing smart circular ecosystems in the waterborne passenger mobility

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<https://doi.org/10.21606/iasdr.2023.462>

Exploring and facilitating Daoism's contributions to design prototype, a case study from a "More-than-Human" social innovation project: Hokkhi

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Global goals, local future stories: unpacking contrasts and visions of circular economy activities in neighbourhood makerspaces

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Material connaissance as a tacit knowledge co-creation method

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<https://doi.org/10.21606/iasdr.2023.427>

More than human empathy: a caring approach to ecosystemic design

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Navigating circularity in practice: proposing a decision-making tool for guiding circular product development

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<https://doi.org/10.21606/iasdr.2023.324>

Out with the new, in with the old: Future directions for Design for Sustainability

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<https://doi.org/10.21606/iasdr.2023.378>

Planet-Oriented Design: a proposal for new ethical transitions in Design Education

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<https://doi.org/10.21606/iasdr.2023.506>

Small fish in a big pond: Product Longevity Design Strategies for Smart Speakers

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<https://doi.org/10.21606/iasdr.2023.290>

**Sustainable design strategy of Chinese old Town community based on landscape ontology:
A case study of Daojiao Community in Chongqing**

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<https://doi.org/10.21606/iasdr.2023.260>

The social influences of digital technologies in the Design of S.PSS and DE: A literature review

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The use of life cycle assessment for lightweight product design based on functional unit

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Emerging decentralized infrastructure networks

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**User decision making for end of use product: Exploring the reasons for keeping and care
motivations for responsible sharing**

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<https://doi.org/10.21606/iasdr.2023.362>

[Changing] Communities

Front Matter

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<https://doi.org/10.21606/iasdr.2023.888>

**A design-driven approach to distributed ledger technologies for small farmers communities:
A case study in Portugal**

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Against the norms: designing violence prevention through engaging men

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**Approach or Avoid Away from Kiosks for the Elderly? A Study on Acceptance and Behavioral
Intention of Self-Service in Hospitals**

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'Becommoning': a design-framework for the initiation of new commons

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Breaking barriers to sustainable costume design: a community-driven approach with German theatres

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Can't spell 'medicine' without 'me': Finding the spirit of co-design in multidisciplinary collaboration

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Co-design for interdisciplinary research communities

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Co-designing for whom? Exploring the benefits of city-led participatory art practices in disadvantaged neighbourhoods of Madrid

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Co-designing strategic ritual in craft beer: Churches, Denominations, Sects, and Mystics

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Community Empowerment: Lessons learned from a Local Health Programme

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Design activating agency: a study on rural community co-creation in China under non-anthropocentrism

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Embedding and embodying narratives in the collaborative development of life-changing healthcare technologies

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Design for social imagination

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Design Interventions are not Received Equally: SSI and Mediated Influences in Decision-Making

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Design sprints for assistive technology; a discussion advocating co-creation between design, lived experience and occupational therapy

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Design teams' behaviors and idea development in using "IDEATOR"

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Designing chatbot as observation media of elders' cognitive health in daily activities

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Developing a child-friendly outdoor public playground for children aged 4-8, through co-creation mindset

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Developing a community-engaged homemaking approach to elicit a sense of belonging in people with dementia

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Dualities of co-design in the context of dementia: Can handover approaches provide an answer?

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Embedded actors in design objects: reflexivity in design for social innovation

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Fostering social inclusion: empathic approaches for migrant-centred design

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Future Systemic and Value Mapping as a Tool for Peace and Deliberation

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Immigrant Integration through Codesign – A Journey Map of integration into working life

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Inclusive harmonies: Co-creating accessible music experiences with deaf or blind advisors through interdisciplinary design workshop

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Increasing preventive care through increased access to healthy foods

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Innovative collaboration and co-designing with Santhal and Mohli tribes of Dumka, India

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Offline and online collaboration in providing service design projects for social innovation to villages: a co-creative action in Quanzhou

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Relational design practices in design for social innovation: a place-centred approach

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Seniors with early AD in China: study of a Design for All (DfA) approach for a transformed, happier family life

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Shaping Social Design with communities

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Social innovation for climate neutrality in cities: actionable pathways for policymakers

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Social innovation through regenerative perspectives: a theoretical approach on gender-based violence system

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Systemic design for sustainable community care for older adults: A case study in Turin, Piedmont, Italy

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The role of participatory transition design in mitigating erosion of participatory democracy

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Transformative effects of co-design: The case of the “My Architect And I” project

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[Changing] Education**Front Matter**

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A production pipeline for an AI-powered design course

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An analysis of international design education programs training students' competencies and skills for tackling complex social challenges

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An interdisciplinary design framework for creative collaboration

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Building design agency through bodystorming

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Climate Adaptation in Design Education: Applying a four-step Research by Design Strategy

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Combination of Experiential Learning to investigate design students' design thinking ability

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Compass for the Voyage of Ideation: Unlocking the Stimulation Potential of Service Design Heuristics

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Confidence and doubt in doctoral research: The temptation of certainty

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Design Education 4.0: Technology-driven design futures & the future of design education

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Design fiction and the art of anticipation

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Design Futures to support Sustainable Food practices

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Design laboratories system as a tool to enable interdisciplinary design learning: analysis of common approaches and new perspectives

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Designerly activity theory supporting research-through-design

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Designing collective racial healing spaces

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DIP into the Future: Building a Design Curriculum to Enable Design Students to Work with Machine Learning

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Enhancing design competencies for students with special educational needs for future career development

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Explore the online interdisciplinary co-design in higher education

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Exploring an innovative apprenticeship model in design education : a case study in transportation design

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Guiding into the unknown. A dialogue between design and yoga for mindful design education

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How might we design alternative worldviews? Assessing a design education program for business professionals

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How students perceive lecturers' gestures? An exploration in gesture-meaning matching toward embodied pedagogical agent design

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Investigation of creativity and Experiential learning composition in design teams

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Learning technology with beginner-friendly software: design students' on attitude towards software alternatives

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Next generation textile designers. A research project to connect the textile-knitwear manufacturing system with future design talents and its impact on education

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PhotoReflexivity: supporting Reflexivity for Students in Design Education

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ProVi – a transforming vision emerging from reflective practice

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<https://doi.org/10.21606/iasdr.2023.361>

Teaching to transfer causal layered analysis from futures thinking to design thinking

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The challenge of facilitating short-term Design Thinking Workshops for Higher Education in the New Normal Era

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The challenge of hyperdistraction for Design Education

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The problems of design-based interdisciplinary learning

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<https://doi.org/10.21606/iasdr.2023.289>

The role of human-centred design in promoting understanding of local contexts: a study of Japanese students addressing social issues in Bangladesh

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<https://doi.org/10.21606/iasdr.2023.508>

Towards a Design Observatory in Portugal – results, reflections and future steps

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Uncovering key aspects of process gains and losses in team-based design thinking workshops

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Unleashing a creative explosion: channeling expert strategy into Service Design Heuristic Cards

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Unlocking creative potential: idea generation training for design students

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<https://doi.org/10.21606/iasdr.2023.409>**Usage of Service Design Pattern Language as a method for beginners to effectively acquire their behaviors towards design**

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<https://doi.org/10.21606/iasdr.2023.505>**[Changing] Spaces and Services****Front Matter**

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<https://doi.org/10.21606/iasdr.2023.892>**Data Challenge. Re-thinking the library as a learning space to intersect youth, culture and gender diversity**

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Simona Colitti, University of Bologna, Italy

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<https://doi.org/10.21606/iasdr.2023.471>**Design Characteristics in Outdoor Seating Areas – A study of coffee shops in Hong Kong and Copenhagen**

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<https://doi.org/10.21606/iasdr.2023.216>**Designing therapeutic and social spaces for older adults facing Mild Cognitive Impairment: Priorities in spatial and furniture layout**

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Machry Herminia, University of Kansas, USA

Leandro M. Tonetto, Georgia Institute of Technology, USA

<https://doi.org/10.21606/iasdr.2023.174>**Mapping urban regeneration through multiple dimensions of temporality: A visual analysis of three approaches to Theory of Change**

Hadas Zohar, Aalborg University, Denmark

Luca Simeone, Aalborg University, Denmark

Amalia de Götzen, Aalborg University, Denmark

Nicola Morelli, Aalborg university, Denmark

<https://doi.org/10.21606/iasdr.2023.105>**Metro interior design to reduce the occurrence of metro congestion**

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Yuxin Wen, Hunan University, China

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<https://doi.org/10.21606/iasdr.2023.548>

Office space design based on Kano Model, AHP, QFD Methods

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<https://doi.org/10.21606/iasdr.2023.166>**Visual and spatial design for proximity healthcare: the meta-design book of “Case e Ospedali di Comunità” of Regione Lombardia**

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<https://doi.org/10.21606/iasdr.2023.430>**Yearning for Revival_Using Healing as the Linking Strategy to Recreate Emotionally Resilient Communities**

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<https://doi.org/10.21606/iasdr.2023.148>**[Changing] Interactions****Front Matter**

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<https://doi.org/10.21606/iasdr.2023.887>**A personality-centred design approach for virtual humans on correspondence with roles and behaviors**

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<https://doi.org/10.21606/iasdr.2023.411>**A Study on the Sense of Being Alive Expressed in Motion**

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Youngil Cho, Hokkaido University of Science, Japan

<https://doi.org/10.21606/iasdr.2023.463>**AIXE. Building a scale to evaluate the UX of AI-infused products**

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Davide Spallazzo, Politecnico di Milano, Italy

<https://doi.org/10.21606/iasdr.2023.355>**Colour in virtual classroom: Effects of colour schemes and interior elements on students' preference and attention**

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<https://doi.org/10.21606/iasdr.2023.472>

Design considerations for supporting social interaction in algorithmic social media feed

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<https://doi.org/10.21606/iasdr.2023.536>

Designer Empathy in Virtual Reality: transforming the Designer Experience closer to the User

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Designing an interactive system based on pose-estimation to support rhythmic gymnastics basic coaches in enhancing their learning

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Designing interfaces for text-to-image prompt engineering using stable diffusion models: a human-AI interaction approach

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Designing the interaction between humans and autonomous systems: The role of behavioral science

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Designing the prosthetic appearance in virtual reality with the collaboration of participants and users

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<https://doi.org/10.21606/iasdr.2023.177>

Designing visuo-haptic illusions for Virtual Reality applications using floor-based shape-changing displays

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<https://doi.org/10.21606/iasdr.2023.466>

E-Motioning: Exploring the Effects of Emotional Generative Visuals on Creativity and Connectedness during Videoconferencing

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<https://doi.org/10.21606/iasdr.2023.101>

Elderly's Perceptions of a Meaningful Interaction with Voice-Based Conversational Agents: Integrate into daily routines, Support relatedness, But do not hamper autonomy

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<https://doi.org/10.21606/iasdr.2023.344>

Embracing digital offboarding as a design challenge

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<https://doi.org/10.21606/iasdr.2023.393>**Examining the affordance effect of shifting symbols on the virtual buttons of smartphones**

Ming-Da Wu, National Cheng Kung University, Taiwan

Hsi-Jen Chen, National Cheng Kung University, Taiwan

<https://doi.org/10.21606/iasdr.2023.482>**Exploring multimodal technologies to engage elderly people in remote communication with their family**

Baihui Chen, Southern University of Science and Technology, China

Xueliang Li, Southern University of Science and Technology, China

<https://doi.org/10.21606/iasdr.2023.441>**Fixing the Future: Cultivating a Capacity to Repair IoT Devices through Experiential Futures**

Matthew Pilling, Lancaster University, UK

Michael Stead, Lancaster University, UK

Paul Coulton, Lancaster University, UK

Thomas Macpherson-Pope, The Making Rooms

<https://doi.org/10.21606/iasdr.2023.474>**For who page? TikTok creators' algorithmic dependencies**

Laura Herman, University of Oxford, UK

<https://doi.org/10.21606/iasdr.2023.576>**How smart is the Italian domestic environment? A quantitative study**

Annapaola Vacanti, Università Iuav di Venezia, Italy

<https://doi.org/10.21606/iasdr.2023.206>**How to promote consumption in city metaverse? Research on XR experience design and consumer behavior of commercial streets**

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<https://doi.org/10.21606/iasdr.2023.103>**Human-AI system co-creativity for building narrative worlds**

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<https://doi.org/10.21606/iasdr.2023.293>**Identifying meaningful user experiences with autonomous products: a case study in fundamental user needs in fully autonomous vehicles**

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<https://doi.org/10.21606/iasdr.2023.434>**Improving the healthcare experience: Developing a comprehensive patient health record (PHR)**

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<https://doi.org/10.21606/iasdr.2023.311>

Introducing the third space of design for well-being: Exploring the intersection between problem- and possibility-driven design through a design case on online dating experience

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<https://doi.org/10.21606/iasdr.2023.513>

Investigating the effectiveness of Peripheral Vision in reading digital speed limit information displayed in AR-HUD technology

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<https://doi.org/10.21606/iasdr.2023.117>

Multi-view visualization layout design method for large displays based on quantitative analysis of situation awareness

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Olfactory Stimulus as Design Material: designing an engaging interaction between user and AI chatbot

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<https://doi.org/10.21606/iasdr.2023.504>

Performance evaluation of QWERTY keyboards on foldable smartphones: keyboard layout and phrase complexity

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Plant Playmate: exploring effects of interactive plants for mental wellness microbreaks during knowledge-based work

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Play with data: Using haptic properties of artifacts to augment data representation

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Post-pandemic era: evaluation of Quality of Life and Usability Testing for elderly rehabilitation app design

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Preserving theoretically-grounded functions across media platforms in interaction design

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Research on user needs for gesture interaction of foldable smartphones: comparison between current and potential users

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Rethinking designer agency: A case study of co-creation between designers and AI

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Scalable eHMI: Automated vehicles-pedestrian interactions design based on gestalt principles

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Techno-social correlations in responsive environments

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The Dronetic Moment: Future of drone light show & lighting design in concerts

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<https://doi.org/10.21606/iasdr.2023.208>

The Russia-Ukraine war and climate change: Analysis of one year of data-visualisations

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<https://doi.org/10.21606/iasdr.2023.431>

Threshold space design: Using water element for phase transition from physical space to virtual space with different law of gravity

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Touchy-feely: A designerly exploration of haptic representations of three mood states

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<https://doi.org/10.21606/iasdr.2023.325>

Transforming resilient healthcare systems: mapping the pathway forward with healthcare 4.0 technologies

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Understanding the relationship between in-car agent's embodiments and information with different criticality

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<https://doi.org/10.21606/iasdr.2023.579>

Using AR HMD in exhibition: Effects of guidance methods and spatial relative positions

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What's the Social Trust Mechanism Blending Virtual and Reality in the Context of Digital Media?

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<https://doi.org/10.21606/iasdr.2023.425>

When to say bye: A qualitative study of older adults' discontinuation of technology use after the pandemic

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<https://doi.org/10.21606/iasdr.2023.351>

[Changing] Heritage**Front Matter**

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<https://doi.org/10.21606/iasdr.2023.896>

AI Promotes the Inheritance and Dissemination of Chinese Boneless Painting—Research on Design Practice from Interdisciplinary Collaboration

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Applying generative art to cultural and creative product design to construct human-product relationship

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Design and the reframing of participatory approaches in Cultural Heritage and museums beyond pandemic crisis

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Digital for Heritage and Museums: Design-Driven Changes and Challenges

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Educating the attention of museum visitors through non-verbal art mediation

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GIAHS Metaverse: innovative digital transformation of agricultural heritage

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Graphic standards in graphic heritage: Scope, scale, and unity through multiplicity in Islamic design

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Inheriting the Intangible Cultural Heritage and embracing innovation: Digital Rubbing leads a new Experience of Audience Interaction in museums

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Museums at a crossroads

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Museums on-chain? A designerly contribution in the development of blockchain-based digital strategies in cultural institutions

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Places of worship digital information dissemination design strategy in communication ritual view

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Product design proposal for a relaxation space with 'Mindfulness' meditation

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Research on Urban Brownfield Landscape Design from the Perspective of Environmental Interaction - Taking the Former Site of Jiangnan Cement Factory as an Example

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Review: design reshape the relationship between museum collections and visitors in digital age

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Service co-design to envision the transformation of museums

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Study on key elements of kids cartoon design in Min-nam (Hokkien) language

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Study on the development strategy of HuiShan clay figurine from the perspective of urban symbolism-taking the design strategy of NANIMOMO blind box series as an example

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Study on the Status Quo and Sustainable Renewal Strategies of the Zhoutie Historic District in Wuxi, China

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<https://doi.org/10.21606/iasdr.2023.193>

Pictorials**Front Matter**

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<https://doi.org/10.21606/iasdr.2023.889>

Convergence research and participatory design of a study furniture system for small living environments

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Domestic infrastructure of food: thoughts on community engagement through food, furniture, and architectural exhibition

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Exploiting co-design, game thinking and citizen science in a workshop-like experience for stimulating reflections with teens

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<https://doi.org/10.21606/iasdr.2023.846>

From Urban Development to the Pluriverse – Ontological Design for Natural and Cultural Heritage

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Glitch Pluriverse

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Hitonami: Speculative design for overcrowded mobility arenas in the 6G era

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Hydrogen aviation: Imagining future air travel experience scenarios

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Making a scene: Representing and annotating enacted interfaces in co-performances using the screenplay

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Pedagogy of Experimental Design: Scientific research methods in architectural education

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Picturing interactivity: design exploration of a highly interactive picturebook

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ShapeChips: Value formation in material ecosystem using buffer materials generated from wood chips

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<https://doi.org/10.21606/iasdr.2023.694>

Stories from an unfinished prototype: a seemingly never-ending loop of practice and research

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<https://doi.org/10.21606/iasdr.2023.131>

Sync: Novel BCI design for neural synchrony, connectedness, and empathy

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The full and the empty. A dialogue between Chinese painting and design

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The future archives: a speculative approach for visualising the impacts of 6G-enabled infrastructure in Japan

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Tools for a Warming Planet

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Towards a Design Toolkit for Exploring and Specifying Close-proximity Human-robot Collaboration as Leader and Follower: the Case of Collaborative Drawing

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Using cultural probes to understand students' mental wellbeing

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UX design approach to guide parametric product customization: a case for eyeglass frame design

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Short Papers**Front Matter**

Erminia D'Itria, Politecnico di Milano, Italy

Silvia Maria Gramegna, Politecnico di Milano, Italy

Xue Pei, Politecnico di Milano, Italy

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A field guide to visualisation-supported information disorders for media and information literacy

Elena Aversa, Politecnico di Milano, Italy

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**A holistic co-design model engaging multi-stakeholders for the rural revitalization in China —
A case study of Qingshan Village, Hangzhou**

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<https://doi.org/10.21606/iasdr.2023.710>

A study on Technology Acceptance Model of AI speakers among middle-aged people

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<https://doi.org/10.21606/iasdr.2023.491>

A systematic thinking on evaluation of community service facilities in the context of design

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A systemic perspective on designing for well-being in dementia care: learning from the case of Dementia Friendly Communities

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A systems thinking approach to codesign at a Montessori School

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Adapting future designer curricula: A comparative analysis of design future skills in learning outcomes

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An investigation of empathy in face-to-face and remote co-creative design processes

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Archives of dyeing katagami used in the inheritance and creation of traditional patterns

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Are all Pokémons created equal? Assessing the value-neutrality of Pokémon TCG design process

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Changing the Narrative: Co-designing awareness about Environmental Sustainability with children in Denmark

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Co-Designing Mental Health Futures: A case study on the development of a Residential Eating Disorders Facility

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Co-designing with children with cerebral palsy: context and co-design principles

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Cocreate: a co-design toolkit to design with and for adolescents together

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Combining Evaluation Grid Method to investigate the attractions of traditional crafts in Taiwan

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Cross-device system design based on stylized 3D map for intangible cultural heritage in Yunnan of China

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Design for expanding interaction and cognitive enhancement in virtual reality

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Design intervention to aid young Indians in identifying triggers of generalised anxiety disorder (GAD)

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Designer-researcher’s positionality; materialities matter

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Designing adaptable consumption: a new practice to foster food system transitions

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Designing effective interventions to encourage older adults proactively participate in physical activity and promote sustainable behaviour change

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Developing future kitchen for older adults: a model and participatory design approach based on literature review and ethics framework

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Development of “Amamizu Drink” as a Tool for Awareness regarding Rainwater conservation, and Investigation of the Effectiveness of Different Label Designs

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Development of a “Facial Rock-Paper-Scissors” Program for Rehabilitation of Swallowing and Cognitive Functions that Has Psychological Effects

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Development of an interactive teaching tool for woodworking course on components arrangement and sawing techniques using Augmented Reality technology

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Digital cultural heritage conservation: sampling stilt houses in Tai O Village

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Digitalized intangible cultural heritage preservation – reinventing the design practice of Hong Kong men’s cheongsam

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Educating the mindful designer: Exploring Mindfulness Practices in Design Education

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Enhancing elderly with Communication impairments: Exploring visual and voice communication tools

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Envisioning sustainable smartphone alternatives: a plurishop approach

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Expanding the boundaries of service design to assist re-design the short-term strategy for sustainable development

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Exploring the Influence of Aesthetic interaction using Personal Information Devices at Work

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Exploring the use of a digital twin in theatre stage design

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Fears, Desires and Visions of Prague Residents: Transition to Age-Friendly Community Centres in 2050

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Fostering collaboration between start-ups and students for mutually beneficial inspiring learning

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From Bodies in Technology to Digital Subjectivity: Research on the Identity Construction of Digital Humans

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From the mothers' movement to cradlr: an interaction design for refugee children

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Generative AI in creative design processes: a dive into possible cognitive biases

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How the GenAI sex education advisor became feasible: exploring the future design principles for child sex education in the community

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How to adopt Design Thinking within organizations? Mapping facilitators to activate an organisational transformation path

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Ideal model and everyday life: interior decoration of the modern home in early twentieth-century Shanghai

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(im)Mobile gendered identities: The relationship between mobility and identity

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Improving the patient-doctor relationship to fight antimicrobial resistance through data literacy promoted by a women-centred participatory practice

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In-house designers to break out public sector auditing in a manageable way

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Influence of lighting colour on visual evaluation of landscape paintings - Focus on some Claude Monet's artworks

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INTO: a remote communication tool featuring body language and the fusion of the real and the virtual

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Introducing hope in design for health and well-being

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Investigating the Impact of Digital Fabrication on Architecture Design Practice through a Taxonomy

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Kirisense: making rigid materials bendable and functional

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Living the Life: Evidence-based design and evaluation of psychosocial interventions with people with dementia

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Looking for the true nature of academic research on design: a systematic review of 27 PhD theses

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Measuring designers 'use of Midjourney on the Technology Acceptance Model

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Ontological design approach for Alternative soil-human relations

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Optimizing user experience in online payments: the relationship between wait time and psychological uneasiness

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Particling Night: The Design of an Emerging Media Artwork as a Tool for Reflection on Superficiality of Social Media

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Perception change for circular economy through the practice of plastic recycling system with local residents

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Preliminary study of participatory and nature-inclusive design approaches

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Product design for cultural digitization - the example of salt-making portrait bricks from the Han Dynasty in China

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Promoting Sustainable Practice through Video-Based Social Media: an Exploration of Food-Oriented R-Strategies for Domestic Consumption

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Sonic memories: towards a participatory memory archive

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Sparkling Creative prowess through a peculiar design challenge: a mocktail design charrette

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Stairway to Heaven: Designing for an Embodied Experience with Satellite Data

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Taller than the trees: Growing a biophilic sensibility in a photo-graphic design studio course

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The agency of graphic design towards promoting collective awareness of heritage inscriptions: A study on the erosion of Palestinian traditional iconography

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The designer's role in fashion system transitions: A critical review of transition design

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The existence and potential of woven banana stalks furniture in Trangsan village Indonesia

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The Language of Tables: Pneumatic Interface Design for physical-digital experiences

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The lonely island: A design game to explore loneliness through co-creation

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The role of service design in designing and developing AI applications: Scoping review

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The use of collaborative media in societal crises – towards a conceptual framework

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The value and impact of stakeholder networks in exploring the complexity of government public services: A case study of Stray Dog Population Management

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Towards a framework for innovation in craft-design practices

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Tracking Acts of Kindness through Comics: an Experimental Study

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Unpacking Dominant Design: A critical analysis of power and dominant discourse in Design

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User-Centred Study on Over-the-Counter Medicine Purchasing System Design from the Perspectives of Consumers and Experts in Japan: A Codesign Case

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Utilizing ambiguous visual stimuli for creative expression in collaborative teamwork

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We've never learned to talk about it': Considerations for design researchers to address intimacy and sexuality

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Weighting key driving forces of consumers choosing coffee chains in different scenarios

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What is the Effect of a Slant Shape in the Design of a UGV Delivery Robot? - UGV Robots and the Effect of Shape on the Perceived Safety

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Doctoral and Postgraduate Consortium Abstracts**Front Matter**

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A time-based approach for the social spatialization strategies in retail design

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Changing People's behaviour toward Littering in the Egyptian Community

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Co-Creating Narratives of Usefulness

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<https://doi.org/10.21606/iasdr.2023.816>

Co-Designing with Immigrant Women to imagine an Equitable Mental Health Service Ecosystem

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<https://doi.org/10.21606/iasdr.2023.796>

Design mediating printing technology and food culture: a small paper box linking "eating" and "mobility"

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<https://doi.org/10.21606/iasdr.2023.632>

Designing Healing from Eating Disorders: Systemic and imaginative approaches

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<https://doi.org/10.21606/iasdr.2023.803>

Digital patient experience: understanding, improvement, and evaluation from a human-centered design perspective

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Digitally fabricated Design Interventions for ALS/MND

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From E-waste to Jewellery: creating emotionally durable jewellery with the metal recovered from electronic waste

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<https://doi.org/10.21606/iasdr.2023.634>

Immersive Reading in VR

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Investigating strategies for delivering change through the practice of co-design with communities in the Northern Ireland context

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Investigating the adoption of autonomous processes in the context of organizations

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Longing for: Exploring intimacy and sexual expression in long-term care through Participatory Design approaches

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Mindfulness for designers. An integration of mindfulness, design education and reflective practices

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Participatory design for craft sustainability in rural areas: a multi-sited approach

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Personhood: defined, collected, and integrated

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Queer cities. Designing inclusive public spaces through participative and social innovative actions and practices

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Queering Futures with Data-Driven Speculation: the design of an expanded mixed methods research framework integrating qualitative, quantitative, and practice-based modes

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Service Design to promote a systemic and dynamic perspective of well-being in dementia care

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Snapping (identities) through design forward

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Responsible tourism experiences: Designing solutions to improve communities-based tourism services from global to local scale

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Technological mediation analysis on Constructive Design Research: A case study of trust

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The body gets the notion: performative design practice for human computer integration to encourage innovation in the domains of health and well-being

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Tools for opening the lonely black box and changing young adults' perspectives of their loneliness

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Utilizing patent data for enhanced design creativity and reduced fixation in product design

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