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EDITORS:
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Life-Changing Design

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EDITORS:

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Designing with and for communities is a broad and multifaceted topic. In this introductory paper to the track Changing Communities, we discuss a series of studies that employed collaborative processes to tackle urgent public interest issues while empowering communities at the same time. A variety of themes emerged: one main transversal area is about cocreation and co-design methodologies that have demonstrated to have a transformative potential in addressing complex societal challenges. Another theme is about social innovation, considered both as the process of change of social practices and as the outcomes in terms of new products, services and policies. In particular healthcare arose as one of the main application fields of numerous papers, being discussed in different contexts such as medical device design, healthcare service design, health information systems and others. In addition, there was an area addressed by some papers that was about how to take care of the commons, tackling issues related to public space, placemaking and collective heritage, to mention a few. The studies of this track have illuminated the way forward, emphasising collaboration, empathy, and community empowerment as cornerstones of design practices that shape a more inclusive, sustainable, and innovative future.

Keywords: sustainable social innovation; codesign; healthcare; commoning

1   Introduction

The track titled "Changing Communities" has a central aim to gather studies showcasing innovative collaborative processes that empower diverse communities to address pressing public interest issues. This involves exploring co-design methods and tools within these processes while understanding the pivotal role of design in guiding and supporting communities toward systemic transitions, considering both social and environmental sustainability.

The contributions to this track span various fields, including healthcare, food, migration, democracy, and more. However, they are all united by a shared emphasis on co-creation and co-design methodologies, often applied experimentally. To provide a structured introduction to the papers in this track, we propose a categorization into four main areas: a transversal area focusing on co-creation and co-design methods and tools, another area encompassing studies related to social innovation, a significant cluster centred around healthcare, and a category dedicated to commons, both urban and rural, and commoning activities. Surprisingly, the most extensive cluster of papers revolves around healthcare, highlighting the significance of participatory service design. These papers delve into the roles of communities in supporting patients, caregivers, medical service providers, and the broader network of stakeholders. Topics include dementia care, healthcare technologies, and the communication of healthcare information, underlining the importance of design for improved healthcare experiences.

The cluster about social innovation gathers contributions on different themes such as migration, gender-based violence, climate change and others, all reflecting on the possibility to tackle these issues through collaborative processes that can support the development of possible social innovations.

How to take care of the commons through collaborative processes that also led to the empowerment of communities is the main issue faced in the cluster about commoning: here there are papers about the design of public space, placemaking, relational art, collective heritage, dealing with both urban and rural territories.

The transversal area about co-creation gathers numerous contributions that discuss in depth co-design approaches, methods and tools: who participate, to what extent, how long and intense are these processes, which kind of artefacts and technologies are employed are issues that are touched in all papers, also focusing on the role of designers in steering and/or facilitating such activities. This also the subject of a reflection that we propose at the end: ideating and developing effective collaborative processes considering the current and future socio-technological transformations is a big challenge that as designers we have to face, it is a continuous work of experimentation, inclusion, engagement and empowerment to be conducted with and within our communities.

2 Changing Communities through co-designing

TBD Co-creation in Design and in Design research represents a dynamic and transformative approach that has reshaped the way we conceive, develop, and understand the design process. This collaborative and participatory framework places the user, stakeholders, and communities at the very heart of design innovation. Over the years, it has evolved into a powerful methodology that informs the creation of products, services, and environments while fostering deeper connections between designers and communities. The concept of co-creation transcends traditional notions of design as a top-down, expert-driven endeavour. Instead, it recognizes that the best solutions emerge from a shared dialogue and creative exchange between designers, users, and diverse stakeholders, valuing diverse perspectives, cultural sensitivities, and unique insights. In the mid-20th century, designers like

Charles and Ray Eames and institutions like the Bauhaus school promoted collaborative and interdisciplinary approaches to design, laying the foundation for modern concepts of co-creation.

Sanders and Stappers (2008) have conceptualised co-design as a participatory and collaborative approach that emphasises the active involvement of end-users and stakeholders throughout the entire design process, introducing concepts like 'Participatory Design' or 'Collaborative Design.' However, the contemporary concept of co-creation in design has evolved significantly in recent decades, influenced by trends in open innovation, user-centred design, and in social and environmental territories. It has been a collective evolution driven by designers, researchers, and organisations worldwide. Today, co-creation is a fundamental principle in design thinking, widely adopted in various design disciplines, including product design, service design, user experience design, spatial design, healthcare, and more.

In this track Changing Communities, the common ground for almost presented research has been cocreation in its multifaceted applications. We can acknowledge all its profound implications for innovation either in new design tools, social endeavours, sustainability, and empowering communities. By embracing co-creation, designers and researchers unlock new realms of creativity and empathy, leading to more meaningful and impactful solutions that better address the complex challenges of our ever-evolving world.

On other hand, workshops seem to play a pivotal role in the papers presented, serving as the methodology approach to the design process. These dynamic and interactive sessions bring together diverse groups, including communities, artists, designers, and stakeholders, to collaborate, ideate, innovate, or test new interactive tools. The importance of workshops in co-creation design processes cannot be overstated. Several key reasons demonstrate their essential role, along with case studies and the introduction of new tools. The evidence suggests:

- Facilitating Collaboration: the following articles provide a structured environment where designers, communities, users, stakeholders, and experts can come together to collaborate effectively. They encourage open dialogue and the exchange of ideas, fostering a sense of teamwork and shared ownership of the design process.
- Generating Ideas: Workshops are excellent idea-generation platforms with local communities, other researchers, university environments, as some papers show.
- Empathy and Understanding: the papers presented to this track often incorporate activities that allow participants to gain a deeper understanding of users' needs and experiences. This can include activities like workshops, empathy mapping, or specific tools such the "Ideator", approaches to interdisciplinary research communities, work on people's decision-making under technology-mediated social influence, or "mediated influence", or into tools to improve the experience of architectural design services for single-family housing projects, to mention some of the following articles. These experiences show how we can design experiences that help build empathy and inform design decisions.
- Iterative Feedback: Some of the related experiences have interesting outcomes on how workshops and lead practices facilitate rapid prototyping and idea testing. Participants provided immediate feedback on concepts and prototypes, allowing quick iterations and improvements. This iterative process is essential for refining designs and revealing interesting conclusions on the final design solution.
- Alignment of Vision: Another aspect that came out in this track, is the alignment of stakeholders around a common vision. Through some examples of collaborative exercises,

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participants show a coalescence around a shared understanding of project goals, objectives, and desired outcomes, reducing the risk of miscommunication or misalignment. In co-creation design, various stakeholders brought different expertise to the table. Workshops created an environment where this cross-functional expertise was harnessed, ensuring that the outcome benefits from diverse perspectives. "Co-creation not only produces better design outcomes but also helps build strong relationships among participants. Collaborative experiences can lead to increased trust, communication, and a shared sense of purpose. This is evident in a paper that presents a "meso-theoretical model of community participation influencing factors," where it is pointed out that "systematic participation incentives should be realised by activating human resources within the community, cultivating community cultural resources, improving information effectiveness and service profile, and constructing accessible public spaces."

- Real-World Context: using co-creation approach to research and design practice often incorporate real-world scenarios and contextual information, helping designers and stakeholders better understand the practical implications of their decisions, and foremost give to the audience more interesting and compelling outcomes, contributing to a large-scale frame of experiences and local, social, cultural, and economic real knowledge.
- Enhancing User-Centred Design: Ultimately, some of the presented papers enhance the usercenteredness of the design process, when testing new technology and tools. By involving endusers and stakeholders directly, researchers show valuable insights that lead to outcomes that are more relevant, usable, and aligned with contemporary society.

Within this track, 'Changing Communities,' we have witnessed how co-creation finds multifaceted applications across diverse design areas. The profound implications for innovation, sustainability, and community empowerment have been evident. Co-creation unlocks new realms of creativity and empathy, enabling the development of meaningful solutions that address the complex challenges of our ever-evolving world.

3 Transforming community practises through social innovation

The notion of social innovation is recurrent in many papers of this track dedicated to communities. It has been approached in different ways, but every time it has been connected to the idea of a collaborative process for achieving a variety of outcomes connected with community empowerment.

To better frame this discourse, we build on one of the most recent definitions of social innovation: we are aware that social innovation is a blurred concept subject to a variety of interpretations (Phills et al, 2008; Murray et al, 2010; Westley & Antadze, 2010; de Bruin & Stangl, 2013; Moulaert and Van den Broeck, 2018; Howaldt et al, 2018; to name a few), yet, here we intend to highlight that social innovation may refer "to both a process of the transformation of social practices (i.e., attitudes, behaviours, networks of collaboration) and to the outcomes in terms of new products and services (i.e., novel ideas, models, services, and new organizational forms)" (Ravazzoli et al, 2021, p.2). This conceptualisation is particularly meaningful for this track because it describes social innovation both as a process and as an outcome, as Meroni and Selloni state "…the purpose of social innovation of meeting social needs, creating public value and social relations, is achieved not only through the services and practices actually implemented, but also through the collaborative process that takes

place to design them" (Meroni and Selloni 2022, p. 13). Most of the social innovations described in the papers of this track present co-design processes engaging different actors and producing as a result a wide range of solutions composed of a combination of products, services and policies.

While linked by the same co-design approach, the papers related to social innovation cover diverse topics, such as migration, gender-based violence, climate change, agri-food systems, and also present some transversal reflections about social design and design for social innovation.

The issue of migration is explored under various lenses: for example, one paper proposes the use of co-design to enable the process of immigrants' integration by presenting a co-creation process positively employing journey mapping and focusing both in host communities and immigrant communities. Another paper discussed the experience of migrants with technology by reflecting on how barriers in the journey of migration can be crossed using a methodology named 'participatory wireframing' that supports the development of technologies to facilitate social connectivity, foster integration and provide information about daily life.

Some papers tackle the challenge of overcoming gender-based violence and discuss the possible design's role in this field, which has been limited yet gaining traction. For example, it is presented in a recent study with designers designing to deal with intimate partner violence: the idea emerging is to engage with men in a dialectical space of critical reflection and implement alternative behaviours, both at individual and community level. Another paper provides a more theoretical reasoning about the possible uses of regenerative theories applied to the gender-based violence system and its relevance in social innovation: the value of the regenerative approach is that it elaborates on social action and cohesion to create new perspectives and design original ways to propel active social participation and engaging multiple stakeholders.

There are several papers that focus on the importance of empowering communities in shaping sustainable behaviours, tackling issues such as climate change and agri-food systems. For instance, a paper discusses the importance of promoting social innovation at an urban level for reaching climate neutrality by presenting a set of social innovation pathways composed of ten categories: it is an actionable framework to support public administrations and policymakers in making informed decisions in creative favourable ecosystems of social innovation for sustainability. A further paper presents a case study about the empowerment of rural and underserved farming communities by enabling the creation of a more environmentally sustainable and socio-economically inclusive food system. This papers precisely discusses the issue that the current research approach in using Distributed Ledger Technology in agriculture is mostly technology-driven, while a paradigm shift that goes beyond technological development is needed by designing together with users (i.e. farming communities) and, thus, supporting social innovation in the agri-food sector.

Finally, there are some papers that are not specifically related to a topic, but they touch more transversally social design and design for social innovation by building, engaging and empowering communities. For example, a paper provides a reflection on the importance of including designers in the communities for social innovation: instead of 'standing outside the system', designers should be embedded in the social structure they wisht to change. Through the analysis of the experiences of three practitioners, this paper discusses how reflexivity arises in the context of social innovation and the specific impacts it has on active design (especially community-based) practices. Another paper

explores and defines the directions that are currently shaping the social design research of a group of scholars. Building upon a set of case studies about underserved communities from all over the world, they identify some major challenges for social design: upgrade designers' skills about community engagement, learn to better implement co-design processes, re-think community empowerment and ownership, and tracking and ensuring positive social impact.

As pointed out, a common feature of the mentioned papers is that they share the same process: it appears as fundamental the idea that social innovation is an activity that requires collaboration, also because, as Manzini states (2015) basically any social innovation is actually co-designed (even by adopting and testing different models and structures of creative collaboration). It also emerges that a typical and possible result of social innovation is a service solution actually co-produced by the members of a community. Not by chance, the notion of collaborative services (Manzini and Jégou, 2008) is highlighted in various papers, and it exemplifies an idea of a deeper collaboration that is not confined to co-creation but it implies co-production, and in some cases also co-management and coownership. It follows that this extension of the collaboration to the implementation phase can play a vital role in ensuring the long-term prosperity of community-based social innovations.

4   Co-Design for healthy communities

Design for Healthcare can be discussed in different contexts, including medical device design, healthcare service design, health information systems design, the design of complex socio-technical systems (Norman & Stappers, 2015) as well as participatory design in such areas. Healthcare has emerged as one of the prominent themes in the [Changing] Communities track, particularly in the context of participatory service design, due to the impact of the stakeholder network on the effectiveness of healthcare, including the patient, their families, medical service providers and caregivers alike (Franco-Trigo, et al, 2020).

In this context, perhaps it is no surprise to find design for dementia care has emerged as a main subtheme in the healthcare theme, since the role of the stakeholder network around the patient in patient care is particularly important for the people with dementia (Heinrich et al, 2015). One paper discusses how Design for All (DfA) approaches can help enhance the quality of life of the elderly in an early stage of Alzheimer's Disease. Various stakeholders including the families, patients and institutional experts were involved in co-designing a Product-Service System concept with its prototyping and testing. Another paper raises the question of whether or not co-designing with dementia patients is always feasible from a methodological point of view. This issue has been a significant dilemma in user research, let alone co-design - engaging the users with cognitive difficulties or immaturity, not only those suffering from dementia, but young children and people with disabilities poses significant challenges (Hendriks, 2014). Yet these people are the greatest beneficiaries of codesign - it is very difficult to generate effective solutions for them without deeply understanding them first, and it is very difficult to understand them without engaging them in the participatory design process. So how do we engage 'the unengageable' from cognitive, emotional and logical points of view? The research identifies three dualities of co-design, addressing three benefits and three barriers when involving people with dementia in the design process, with the proposal of alternative approaches to increase the accessibility of designing for people with dementia in design practice. Much easier to engage in the participatory process are the elderly before or at a very early stage of dementia. A study

discusses the use of chatbot for monitoring cognitive changes of such people in daily activities so that necessary measures may be taken without the condition being overlooked and unnecessary advancing. A prototype of the proposed recording system was tested with people over 60 and validated with their families, enabling the designer to better design such recording systems. While dementia may not be prevented altogether in many cases, this way of using design for dementia care may well lead to delaying the development of the disease by taking necessary measures early on, taking the approaches of preventive healthcare (Ghayvat & Gope, 2021). There is a discussion of preventive healthcare, whereby design research is carried out to develop a service to bring healthy foods to disadvantaged communities, in order to prevent food-related chronic diseases such as obesity, diabetes, and heart disease.

Discussions of healthcare technologies are also present. Design methods can be effectively implemented in designing for healthcare in terms of technology (Bazzano et al., 2017; Holeman & Kane, 2020). One paper discusses the use of narratives in an inclusive mobility design project, while another discusses the potential for design practice to support social change for human rights within assistive technology for People With Lived Experience of Disability (PWLED). The former addresses narratives as a design methodology for conveying user needs in hardware design in a healthcare context, viz. the design of upper limb exoskeleton for children and youngsters. The latter ran participatory design sprints with PWLEDs, designers and occupational therapists for designing assistive technology together and discusses their effects and challenges. Kiosk design poses great challenges to be inclusive of the digitally underprivileged, particularly of the elderly and the cognitively challenged. There are many studies and design cases on the matter (e.g. Lee et al, 2023; Jeong & Yu, 2022; Steenhuyse et al, 2012), but a study in our track investigates the acceptance and behavioural intention when the elderly deal with the digital technology of self-service in the hospital setting. Understanding their behaviour and 'inner demands' toward the technology will contribute to better design of the self-service systems in hospitals for successful technology adoption and digital transformation for the ageing population. Co-creation approaches were also used in another study to explore innovative ways for blind or deaf people to better perceive, perform and create music through multi-sensory experiences.

The communication of healthcare information is another area in which design can play a vital role, as mentioned earlier. A study in the track discusses the issue in the context of clinical pharmacy, where the accurate conveyal of information is critical. Last, but not least, we have a study that deals with healthcare at a community level befitting the title of the track. Using the design research methods, the study attempts to uncover the success factors of a community empowerment programme aiming at improving the mental and physical health of the community members, in order to replicate its success in other communities.

5   Participatory design for common goods

Many research studies conducted within the field of Design and Communities and reported in the papers presented below are related to participatory design for the development of projects that represent a collective interest for local communities. This area of study could be defined as closely related to the theme of Design for Common Goods, which refers to "those facilities—whether material, cultural, or institutional—that the members of a community provide to all members to fulfil a

relational obligation they all have to care for certain interests that they have in common" (Hussain, W., 2018). The design skills for common goods respond to social, cultural, and ecological needs (Bruyns, G., & Kousoulas, S., 2022); they promote sustainable development of territories and cities and the "new commons" (Hess, C., 2008). Over the past decade, the framework of the "urban commons" (Foster, S. R., & Iaione, C., 2019) has emerged as a way to address contemporary urban challenges ranging from housing to urban inequality, and how to sustain and maintain public welfare in the face of dwindling resources.

These initiatives can be driven by goals of solidarity or civic engagement ("civic design," Di Salvo, C., & Le Dantec, C., 2017; MIT, 2020) and almost always involve open processes for community participation. Such projects are often referred to as "commoning," highlighting the procedural aspect and the developmental nature over time that characterises them. They have a strong relational nature and engage communities not only in the materiality of goods and services but also in the values and immaterial aspects they represent (Meroni, A., Selloni, D., 2022).

In this context, papers bring contributions of various kinds, experimenting with tools and processes aimed at promoting sustainable and co-designed development.

Many authors emphasise the procedural dimension of the conducted projects. In this regard, a compelling concept is presented by a paper that introduces a framework for the design process defined as "becommoning," which refers to the process of creating a commons. While illustrating the potential phases of the process, the role of designers is likened to that of facilitators and orchestrators of actors and actions, but also to translators who transform the community's values and contexts features into tangible design proposals.

The designer-facilitators are, in many projects mentioned in the articles, often also involved in addressing ethnographic research, participatory observation and storytelling approaches, in order to deeply experience the internal knowledge of the reference context. This is particularly evident in some studies aimed at enhancing the territorial resources of rural areas and improving the quality of life of local communities. By dealing with strategic issues for economic growth such as the technicalproductive development of consolidated craft traditions and local natural materials, design contributes not only to respond to urgent and immediate needs, but also interpret desires and aspirations. This recognizes and enhances the value of the identity and heritage of places and communities. The co-designing and creation of public spaces are considered crucial settings for our sustainable living, and many papers address this topic. Specifically, it is interesting to observe that the proposed approaches are transdisciplinary in nature, and in particular, processes are experimented with and analysed in which co-design draws from public art and relational art with the aim of promoting territorial and urban regeneration starting from community residents. Although many government or bottom-up initiatives are currently being promoted, reflections on the impact of these initiatives appear insufficient. In particular, some authors address the theme of evaluating effects of participatory design and public art projects in the urban peripheries of a major European city in the medium to long-term, questioning who really benefits from city-led co-design projects in disadvantaged neighbourhoods, and exploring the risks that some actions entail. Other authors deal with the theme of designing collective spaces starting from the involvement of the reference users. The more codified processes of placemaking of urban public spaces are translated into "homemaking"

processes to cultivate spaces that carry great intensity, meaning and attachment. In one case, the project of a playground is developed together with the target of children who contribute, with their creativity, to identify needs, dreams and narratives for the design of the public space. In another case, the engaged community includes not only end users - individuals affected by dementia - but also their caregivers, striking a balance between fundamental elements of human existence and personal memories. In both cases, the role that the collection of stories and the visualisation of narratives play is evident. By inspiring creativity and dreams, and by collecting individual memories and personal narratives, the creation of secure, enjoyable, and desirable places is facilitated.In the work of codesign with the communities of the multiple commons considered by the studies presented here, a wide variety of tools, processes and possible modes of interaction emerge. It is clear that at the centre of the reflection of designers and researchers is the prioritisation of the commons that takes place through the enhancement of the relational aspects of the processes and the empowerment of the participants. A characteristic of almost all the studies is that of the interest for the inhabited, urban and rural territory, understood as a material heritage to be preserved but above all as a heritage of implicit and explicit knowledge and social relations. In the territories, in the inhabited spaces, in the established traditions there are processes of innovation starting from within the communities that are active, guided by design, for sustainable change.

6   Conclusions

The Changing Communities track has offered a comprehensive exploration of co-creation and codesign methodologies' transformative potential in addressing pressing public interest issues across various fields, including healthcare, social innovation, and the commons. This collection of research papers has shed light on the profound implications of these collaborative approaches and their ability to empower communities, promote sustainability, and drive innovation.

Co-Creation is the common ground for the carried research through this paper As noticed, Co-creation in design, has evolved significantly over the years to its current status as a fundamental principle in various design disciplines. The selected papers demonstrate how co-creation transcends traditional top-down design processes, placing users, stakeholders, and communities at the centre of innovation. Workshops emerged as a pivotal methodology, facilitating collaboration, idea generation, empathy, iterative feedback, alignment of vision, real-world context, and the enhancement of user-centred design. As showcased in these papers, co-creation fosters creativity and empathy, leading to more impactful solutions for our evolving world.

The concept of social innovation was another recurring theme in many papers, with a focus on collaborative processes that aimed to empower communities. Social innovation was framed as both a process of transforming social practices and an outcome that generates new products, services, and organisational forms. Various topics, such as migration, gender-based violence, climate change, and agri-food systems, demonstrated the potential of collaborative approaches to address complex societal challenges. These studies highlighted co-design processes engaging diverse actors and producing a wide range of solutions, combining products, services, and policies. They highlighted the importance of community involvement in shaping sustainable behaviours and promoting social change. Additionally, the papers underscored the role of designers as facilitators, embedded within

the communities they aim to support, and underlined the need for ongoing collaboration, learning, and tracking of social impact.

Within the healthcare domain, participatory service design took centre stage, emphasising the critical role of stakeholders, including patients, caregivers, and medical service providers. Papers in this cluster focused on dementia care, healthcare technologies, communication of healthcare information, and preventive healthcare. They demonstrated how co-design approaches could enhance the quality of patient care, particularly for individuals with dementia. These studies also delved into the challenges of engaging individuals with cognitive difficulties and highlighted the importance of early intervention and preventive healthcare. Healthcare technologies were another focal point, showcasing how design methodologies can drive innovation in assistive technologies, clinical pharmacy, and self-service systems. Communication of healthcare information emerged as a vital aspect, with research highlighting the need for accurate conveyance of information in critical medical contexts. Furthermore, community-level healthcare initiatives were explored, aligning with the overarching theme of community empowerment.

The papers addressing commoning activities accentuated the development of collective resources and the importance of collaboration in sustainable community projects. These initiatives often integrated ethnographic research, participatory observation, and storytelling to deeply understand community needs and aspirations. Designers played roles as facilitators, orchestrators, and translators, transforming community values into tangible proposals. Projects ranged from addressing access to clean water to revitalising craft traditions and local materials in rural areas. Public spaces were central to several studies, demonstrating how co-design processes could transform urban and rural spaces into meaningful and attachment-rich environments. These projects often prioritised storytelling, creativity, and memory collection as essential elements in creating secure, enjoyable, and desirable places. Across these studies, the importance of community engagement and the enhancement of relational aspects of processes were evident, ultimately contributing to sustainable change driven by the communities themselves.

In conclusion, this track has showcased the transformative potential of co-creation and co-design methodologies in addressing complex societal challenges. These papers have illuminated the way forward, emphasising collaboration, empathy, and community empowerment as cornerstones of design practices that shape a more inclusive, sustainable, and innovative future. Designers, researchers, and communities must continue to work together, experiment, and learn to drive positive social impact and promote the well-being of individuals and societies worldwide.

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