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Systemic & Futures-Oriented Service Design: emerging design patterns for complex and uncertain transformations

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In the contemporary landscape, designers are increasingly dealing with intricate global challenges of varying complexity, engaging directly with the tangible facets of an uncertain and fragile world. This orientation towards complexity and uncertainty regarding the broader repercussions of the design output pushed practitioners to widen the scope of their design activity both temporally and spatially, necessitating the delivery of more effective, equitable, and sustainable solutions. Within this landscape, also Service Design (SD) confronts escalating complexities alongside significant challenges stemming from dynamic shifts within and beyond service systems.

In response to these challenges, western service design practitioners are adopting novel frameworks and methodologies aimed at going beyond short-term thinking and linear cause-and-effect paradigms. These practices signal an expansion of Service Design towards systemic and futures-oriented perspectives, drawing from the disciplines of Systemic Design and Design Futures.

This research delves into this evolutionary trajectory from a phenomenological standpoint, presenting preliminary findings of an inquiry into how service design practices are evolving (or might evolve). It explores the underlying rationale driving practitioners' needs to embrace diverse design strategies while investigating their practical manifestations in terms of tools and frameworks.

Nine interviews were conducted with expert Service Design practitioners from design studios, consulting agencies, or academia.

The outcome of this preliminary research is the identification of three emerging transformative patterns. The themes that emerged dealt with the evolution of processes (from standardised processes to adaptable paths, towards holistic strategies), design solutions delivered to clients (from single solutions to multi-level solutions, towards platforms) and focus for their results (from outcome to impacts, towards multifaceted effects). These patterns encompass both short-term adjustments currently underway and long-term pathways that are reorienting future aspirations within clients' work. By delineating the contours of this ongoing transformation, this study lays the groundwork for future discourse within the (Service) Design community regarding the risks, opportunities, and constraints confronting design practitioners amidst uncertainty.

Keywords: service design, systemic design, design futures, uncertainty, transformative patterns

RSD: Cases & Practice

Introduction

Lately, our societies encountered escalating challenges connected with different degrees of complexity. Global disasters within the last decade, such as climate change, a pandemic, genocides, and economic crises have increasingly led to the recognition that the high level of uncertainty for the future shatters its conventional images of something that can be planned; in other words, the future feels more uncertain than ever. This orientation towards complexity and uncertainty broadens the scope of the design activity both temporally and spatially. Drawing on the insights of philosopher Bertrand Russell, Daalhuizen et al. (2009) assert that design and design research, employing both formalized and informal procedures, occupy a privileged position in grappling with ambiguity coming from individuals, the social context, and some elements of the design activity. Viewing design as an ontological force of world-making (Willis, 2006) indicates that the designer will engage with the materiality of this

uncertain and vulnerable world. In this context, designers must evolve their professional practices to effectively engage with the challenges at hand (Light et al., 2017) and extend their responsibility beyond the single human and the present (Tekogul, 2022).

In the current landscape, Service Design meets increasingly complex challenges coupled with this rising level of uncertainty regarding the future also facing large-scale issues stemming from dynamic shifts within and beyond service systems (Lin & Villari, 2023; Sun et al., 2022). The reflexive crisis connected to the evolutionary and dynamic complexity of the design outputs' impacts places service design practitioners in a state of unpredictability concerning the long-term and broader effects of their work. Translated into practice, this viewpoint shows the difficulty of designing in linear cause-and-effect thinking and how the current practice of design is drawn by contingency (Mozuni & Jonas, 2017); short-term, sporadic design thinking approaches are less likely to be effective in providing a long-term and holistic answer to systemic problems (Bühring & Liedtka, 2018). Therefore, complex transformations cannot rely solely on linear and short-term responses but demand comprehensive planning that considers their future long-term effects on broader contexts and future stakeholders involved.

A previous paper by Lin & Villari (2023) highlighted how, in facing such complex and uncertain scenarios, Service Design might take up a more holistic and anticipatory dimension by incorporating Systemic Design and Design Futures, two design fields considered to have the capacities to deal with systemic complexity and critically account for future ambiguity.

Signals that practitioners are intertwining the three approaches are noticeable. In recent years, leading European service design consultancies have gradually introduced novel offerings to their clients in terms of frameworks or approaches. Examples vary from the newly introduced Strategic Foresight View from frog (Egea & Shukla, 2023), or the established Design Over Time (DOT) process from Sketchin (Sketchin, 2024), as well as the Futureframe Guide from Accenture (Beeman et al., 2021). These examples testify to uncertainty impacting practical tools and methodologies within mainstream Service Design practices.

This paper explores this integration from a practical point of view, focusing on analysing real-world practices, where this connection took the form of approaches and frameworks applied. The aim is to better understand the state of the art of how Service Design (SD), Systemic Design (SYD) and Design Futures (DF), are currently employed to face complex systemic transformations. This paper reports the early findings of the Unsee research (Uncertainty in Services) developed within the Department of Design of Politecnico di Milano. The results presented stem from the analysis of case studies and interviews with service design experts. Three emerging transformative patterns are presented as testimonies of the ongoing transformation that service design practice is undertaking. The current and future implications of such transformation are discussed as new interrogatives emerge from the research.

Literature review

Service Design (SD), Systemic Design (SYD), and Design Futures (DF) address different aspects of complexity. Service Design, in its advanced conceptualizations, deals with the inherently complex nature of services with a systemic lens (Vink, 2021). SYD and DF, on the other hand, tackle complexity respectively from a holistic and an anticipatory viewpoint. Their integration at the operative level and concrete contribution remain underexplored. Together, these three approaches lead (or might lead) the transformation that SD is undertaking, moving towards what in this paper is called Systemic & Futures Service Design.

Service Design

In recent years, Service Design evolved towards a service ecosystem perspective grounded in the Service-Dominant (S-D) logic (Vargo et al., 2017; Vargo & Lusch, 2016) emphasising the complex, dynamic, and multi-actor nature of value co-creation within service ecosystems (Koskela-Huotari et al., 2021; Vink et al., 2021). This perspective has been adopted by service design scholars and conceptualized as Service Ecosystem Design (Vink et al., 2021). Through this integration, service design scholars highlighted the ability of SD to understand and design complex service systems (Sangiorgi et al., 2017; van der Bijl-Brouwer, 2017, 2022), and consequently, its ability to facilitate service system transformation (Koskela-

Huotari et al., 2021; Patrício et al., 2020). Service system transformation encompasses an inherent uncertain feature generated from emergence that sits beyond any control of the service system's actors (Koskela-Huotari et al., 2021; Polese et al., 2021; Vink et al., 2021). This feature can become an opportunity for Service Design to open new potential pathways (Sangiorgi et al., 2017) and deal with the matter of uncertainty.

Systemic Design

From another angle, Systemic Design is a design field that integrates systems thinking with design principles to focus on the holistic and interrelated view of systems and address value conflicts among stakeholders to foster collective action (Jones, 2018; Ryan, 2014). By strengthening relationships between different actors in the system, Systemic Design can support actors' relational thinking (Aguirre-Ulloa & Paulsen, 2017) and help them to develop new value systems consequently contributing to systemic change (Drew et al., 2021). From these definitions, we can see how Systemic Design can complement Service Design by augmenting its holistic dimension to manage the complexity of service ecosystems.

While Service Design emphasises the systemic nature of service ecosystems, Systemic Design offers tools and frameworks to address systemic complexity and facilitate systemic change within these ecosystems. Integrating these approaches enhances our understanding and ability to navigate the challenges of complex service ecosystems effectively. Considering the wider temporal extent of the systemic paradigm, we soon come to understand that a forward-looking perspective is essential to assess service ecosystem transformation beyond a present standpoint (Griffel, 2020). Futures-oriented design practices, therefore, fit this perspective.

Design Futures

Although often seen as a future-oriented practice as well, contemporary Service Design practice focuses on the near future of service conception, concerned with improving the status quo (Downe, 2020) and often falling short in imagining alternative service futures (McGee et al., 2021). Complementing this perspective, Design and Futures involve the exploration and creation of the unknown (Celi &

Morrison, 2019). Design and future also share their inclusion as cultural facts (Appadurai et al., 2013), Polak (1973) asserted that futures are crucial for the creation of plural images. The conception of futures in the plural (Dator, 2019; de Jouvenel, 1972; Masini, 2010), emphasises the existence of alternative and imaginative possibilities for the future. Similarly, the reinterpreted Futures Cone by Voros (2003) elucidates the multiplicity of possible paths, emphasising the role of design in navigating these potential futures (Candy, 2010). Hence, Design Futures practices, in this paper, are framed as anticipatory practices able to provide new ways of thinking and to re-frame issues into focus by channelling imagination and crafting long-term visions of possible future(s) scenarios (Auger, 2013; Dunne & Raby, 2013; Mitrovic, 2015). Design Futures is open to the unpredictable and emergent, prioritising the creation of inclusive, flexible, and sustainable future scenarios that involve a constant negotiation with design processes to foster empathy, aspiration, and proactive engagement with forthcoming challenges (Celi & Morrison, 2019).

The integration of Design Futures with SD can assess the aspirations of actors regarding their futures with the opportunities and criticalities in their service ecosystems (Lin & Villari, 2023). By doing so, Design Futures provides Service Design with a new perspective that is long-term, critical, and systemically open to the wide array of possibilities that futures hold, encouraging reflections on how to best unpack the high level of uncertainty that comes with designing interconnected service (eco)systems transformations.

Towards systemic & futures-oriented service design perspectives

Working in this way, the transformation of Service Design is happening both in terms of the material of its practice (service ecosystems) and its analytical lens. This lens is required to expand between a holistic examination of the stakeholders' (or human and non-human actors') relationships, and the period in which such relationships develop, to create solutions that facilitate service systems transformation and value co-creation (Koskela-Huotari et al., 2021; Patrício et al., 2020). The two influences that stretch the reach of service design practice work in tandem; hence, designing future service ecosystems implies that transformations will happen along multiple future trajectories

that need to be considered holistically (Mozuni & Jonas, 2017). To this end, crafting long-term visions helps foster partnerships for systems-level transformation while orienting the efforts in the present (Tekogul, 2022). The value of this integration lies in the strategic envisioning of future service ecosystems that include challenges and opportunities emerging over a wider time horizon (Bühring & Liedtka, 2018).

Recognising how (and if) the integration of the three approaches creates value is at the basis of the research. While we recognise the possible theoretical integration of the three approaches, there is little understanding of how this is impacting the practitioners' field (Bühring & Liedtka, 2018). This paper explores such a gap in understanding from the context of mainstream service design practices. Focusing on mainstream design approaches, in this case, serves as an indicator of this shift to measure the gap between theoretical perceptions and actual practices.

Consequently, the research questions aligned as follows: How is the professional practice of service design evolving through the inclusion of system-oriented and/or futures-oriented perspectives? Why do practitioners feel the need to adopt different design strategies? And how do these transformations manifest in practice?

By focusing on what enables the current evolution of SD, this study adopts a phenomenological approach. In the following sections, we will briefly introduce some approaches that, in their professional practice, integrate service design with systems and futures thinking. Subsequently, we discuss three transformative patterns that emerged from a series of interviews guiding service design practitioners to deal with complexity and uncertainty while fuelling their aspirations towards a more holistic and futures-oriented transformation of SD.

Methodology

The research aimed to empirically identify service design practices that explicitly incorporated systemic and anticipatory aspects to understand how professionals systematically integrate these approaches. In the first phase of the process, desk research was conducted to pinpoint concrete examples where Systemic Design and Design Futures were part of the Service Design process in its broadly understood form (Ackermann, 2023). The research was conducted online and included academic

publications, proprietary websites, project reports, and personal blogs. A total of 56 resources were identified, encompassing various process types, scales of application, and tools, but unified by the explicit integration of the three approaches. This initial survey of practices outlines a growing diffusion and interest in such approaches within professional settings. Evidence of this is reflected in the geographically diverse examples gathered, spanning all continents, albeit with a predominance of experiences within the European context. Additionally, the actors mapped represent diverse standpoints, ranging from individual professionals to small design agencies, large multinational consulting firms, as well as businesses and academic contexts.

The criteria for identifying such experiences included:

- The presence of an explicit description of frameworks or specific experiences where Service Design, Systemic Design, and Design Futures approaches coexisted.
- The availability of accessible online documentation (websites, reports, documents).
- Recognizability of organizations, authors, or professionals involved in the process.
- Diversity of service design applications (e.g. public and private spheres, micro and macro scales).

Key actors were then identified from this selection and proposed to conduct in-depth semi-structured interviews. Based on the interviewees' availability, the team was able to conduct 3 semi-structured interviews. The creation of the interview script was informed by our preliminary interpretation of the reference material that the team was able to gather from the desk research. Where necessary, documentation was supplemented by additional materials provided by the interviewees. In each interview, participants were asked to (1) share their perspectives and motivations behind their integrated (SD+SYD+DF) approach, (2) describe what kind of transformation was achieved thanks to their novel approach, and (3) provide their perspective on the possible evolution undertaken by SD practice.

Simultaneously, to consolidate the reasons behind the adoption of such approaches, 6 semi-structured interviews were held with experts coming from design practice or

merging design practice and research. These interviews aimed to obtain an additional perspective on how the SD discipline is evolving while exploring further doubts as they emerged from the first set of interviews.

Each set of interviews lasted from sixty to ninety minutes and was carried out with at least two members of the team, while video and transcript were acquired using dedicated software. Table 1 presents the total number of interviewee and their profiles to better contextualize their contribution to this research.

TYPE OF INTERVIEW	NUMBER	ROLE	ORGANISATION	GEOGRAPHICAL CONTEXT
Case-study Based Interviews	1	Chief Executive Officer	Service Design Consultancy	China
	2	Design Lead	Service Design Consultancy	Switzerland
	3	Head of Product	Startup	Argentina
SD Expert Interviews	4	Strategic Advisor	Public Ministry	United Arab Emirates
	5	Co-founder & Head of Strategic Foresight	Design Consultancy	Italy
	6	Co-founder & Head of Innovation by Design	Design Consultancy	Italy
	7	Co-founder and Futurist	Anticipatory Consultancy	Italy
	8	Futures Lab Director & Private Practitioner	Private University	Italy
	9	Service Designer & Researcher	Public University	Norway

Table 1. Overview of the interviewees' profiles.

All the interviews were interpreted through a coding process. During this process, the scripts were scanned by highlighting different practitioners' strategies and approaches that would clarify one of the three themes advanced in the research questions – how practice is evolving, why it is evolving, and how this evolution manifests. Different codes were then assigned to these parts of conversations which helped further articulate the practitioners' perspectives. Codes varied from "Critical Perspective", to better explain the practitioner's view towards the evolution of SD, to "Design Approach" or "Design Framework" to better contextualise what the practitioner referred to in their projects.

The interviews' results were merged with the topics from the literature analysis to construct the findings presented in this paper. Three emerging transformation patterns were delineated to describe how practitioners are currently exploring paths to expand and evolve Service Design-driven processes amid uncertainty. Although the nature of these results is biased by the preliminary state of the research and by the limited series of interviews, plus their geographical spread, the research can help contribute to the ongoing disciplinary debate.

(Early findings) Three emerging patterns guiding practitioners

The analysis uncovered the adoption of various strategies aimed at integrating systemic and futures-oriented approaches and tools into Service Design. However, there remains a fragmentation in defining terms, indicating a lack of a common language unifying diverse practices in terms of processes. What emerges is a field in ongoing transformation, where professionals strive to meet renewed demands from both public and private organizations in terms of innovation, strategies, and concrete solutions. Despite coming from different organizational and cultural backgrounds, the interviewees contribute to describing a transformative process that unites various practices. This is recognised as an evolutionary journey that starts with rethinking past professional practices in the face of new contextual changes.

Experimentations from practitioners incorporated strategic processes aimed at analysing and visualising complex systems such as system maps, complex relational maps, or socio-economic analytical tools like PESTEL analysis. These were coupled with

approaches from futures studies and strategic foresight, such as Three Horizons Mapping or scenario building. The solutions that these new approaches generated posit within medium to long-term scenarios addressing both organizational aspects and the social and environmental implications of organizational change, beyond purely economic objectives. Moreover, the practitioners express a renewed awareness and an urgent need to reconsider, adjust, or reframe certain aspects of the design process to address planetary challenges or the evolving relationship between human-made environments, technology, and natural ecosystems. Such perspectives highlight the differences between how service design processes and approaches have been handled in the past, how they are currently handled, and what the experts' aspirations are towards their future evolutions. This transformation aligns along three key patterns, each transitioning from past, to present, towards future(s) approaches.

From standardised processes to adaptable paths, towards holistic strategies

The first shift concerns the way design processes are handled by SD practitioners. The uncertainty stemming from the dynamic complexity of the design processes and outcomes creates a state in which practitioners cannot solely rely on a one-size-fits-all model to guide their design processes. In this context, practitioners are revising practical models by crafting new adaptable frameworks that try, on different levels, to include the element of time along with a more systemic understanding of the project dimension. During our conversations, an interviewee testified to this shift with the framework they are currently adopting:

> "The added value of our framework is that on the one hand, it moves, it is not static, and it moves on the vector of "innovation" that is guided by the purpose of the company. The direction describes the desirable futures [...] adding the dimension of time, and not only space" (Interviewee 5).

Such reframing expands the adaptability of service design processes, accounting for unexpected impacts along their planning; practitioners started to work in this way by first deciding with their clients the intent of their work in a long-term perspective. In this case, the intent is usually fixed in a time and space ahead of the present moment and it is often co-created by using, as starting points, macro-scale goals such as the SDGs or specific KPIs for the organisation. An important feature of this intent is that, with its placement in a distant

future, it remains open to the multiplicity of actions that the project can perform to reach it. With a desired transition to enable, practitioners allow their processes to adapt contextually as obstacles arise, doing so by crafting adaptable paths that aim at the same intent decided at the beginning of the project.

Recognising the potential to embed and set the ground for future-oriented and systemic transformation of SD processes, this approach, according to some interviewees, still embodies some criticalities. For instance, top-down elements are present in the way the direction is set at the very beginning of the project, together with short-term elements from how adaptability comes into play only when the path towards the final intent is at risk. In highlighting such criticality, interviewees shared how future-oriented and systemic features should be considered with every action programmed to address the barriers that come when working inside multi-actor systems such as international organizations:

> "Our portfolio approach implies that decisions must be taken continuously and in a constantly different way from the past [...] the first step is to include a systemic dimension, which then leads to deciding on possible patterns. [...] So, instead of deciding on the individual merit of a particular initiative you decide whether each initiative makes sense in the context of the system and whether it brings value." (Interviewee 4).

While the interviews supported an ongoing transformation of service design processes, they also highlighted possible misalignments between the practitioners' ambitions and the context in which they operate. For example, scalability difficulties arise when balancing different scales within a multi-actor system: crafting long-term and holistic strategies calls for a constant reformation of the organisation's intent, while also guiding the effort in the present through each micro-scale initiative.

What emerges is, therefore, a transformation (whether necessary or desired) that adapts the process of Service Design to specific circumstances and different contexts, in a change that is nonetheless unpredictable. Thus, efforts are directed towards pathways to be tailored to emerging circumstances and needs in a scenario where complexity serves both as an element of analysis and as the very object of the design solution.

From single solutions to multi-level solutions, towards platforms

The systemic design dimension expanded the vision of what SD can achieve with its transformative capability, showing the insufficiency of considering one single solution as the final aim of any design process. This understanding serves as the basis for the second transformative pattern, causing service designers to orient their expected results to multi-level solutions. What is being delivered is, more and more often, a broader strategy that articulates across multiple actions encapsulated in different user journeys or service blueprints. In this optic, one of the interviewees described aiming at these kinds of solutions with their client in multiple projects.

> "[Talking about the project's final delivery] It was basically a five-year road map. We visualised how long each initiative could last and if this would have been functional enough to build another one on it. We also connected all these ideas with areas of interest. So, we created different maps to let them understand that everything was interconnected, and the multiple ways in which they could develop each initiative." (Interviewee 2).

While sharing this approach, the interviewee also manifested how the intent was directed at delivering well beyond defined strategies, as often organizations struggle to implement them organically after the design team leaves. To deal with such barriers, they propose the creation of an internal unit within the client's organisation to follow along complex transformations and facilitate their progress over a longer period of time, building a long-term legacy with the initial project. A similar concept was forwarded by another interviewee who described their work in terms of facilitating "platforms". This concept involves creating innovative spaces within their clients' ecosystems where ongoing activities are coupled with futures thinking. They aim to seamlessly integrate new directions, products, and services while preserving the core of the organisation's culture. These platforms serve as testbeds for radical ideas, testing speculative concepts and long-term strategic initiatives.

> "The idea is to understand how you can activate, how to make actionable future scenarios inside an organisation. We are talking now about creating a new platform inside an organisation that functions as an organisational substructure. (...) If you are working with a real transformative approach, you are probably

> creating something completely new for the organisation or something that will imply a big change in their futures, hence this change needs to be facilitated properly." (Interviewee 8).

However, interviewees also expressed the difficulties in directing design processes towards this platforming intent. What they highlighted is the struggle of their clients to recognise the value generated by directing design processes towards a more holistic vision for the design solution. This is because designing towards platforms requires them to visualise a project output that is fragmented, distributed, and belonging to multiple futures, which in turn entails embracing uncertainty as an integral element in their strategies.

From outcome to impacts, towards multifaceted effects

The third pattern of transformation deals with the expansion of the focus for assessing the value of design processes and solutions in a long-term perspective, considering human, social, economic, and natural instances. As the design processes and their outcomes grow in complexity, the metrics used to assess their values change as well. This prompted practitioners to consider broader temporal horizons for their way of measuring values in their projects entailing a deeper reflection on the unexpected consequences of design action. Therefore, the concern shifted from short-term outcomes to long-term impacts that consider individuals, communities, and organizations.

To further build on this shift, we witnessed a deeper systemic awareness of practitioners towards multiple forms of unexpected impacts that Service Design can have. This ambition prompted practitioners to see the interconnected elements to which a project is bound that go beyond the human stance to embrace a wider planetary and post-anthropocentric point of view. To support this expansion, an interviewee highlighted how their concern towards multifaceted effects must be systemic as well:

> "Enhancing the exploratory part [of service design] in terms of empowering the inclusion of humans and non-humans, alive and not alive elements is fundamental. [...] Being systemic and adopting a long-term perspective is

> something that should be more widespread, more common. We should be as systemic as possible because we are just one part of many larger systems." (Interviewee 2).

Professionals acknowledge that solutions have a direct impact on individuals' well-being and lifestyles. From practitioners' perspectives, a growing recognition of the effects on the global environment and the obligation to foster resilience for future generations is emerging, where short-term perspectives are frequently not sufficient to grasp the entirety of the complexity embedded in long-term changes. Practitioners showed how such an attitude can prompt challenging conversations with their clients, influencing in this way their perspectives on business transformation, also going beyond economic performance and profit maximization to comprehend other metrics, including ethical, inclusive, and equitable standpoints.

In the realm of environmental sustainability, long-term measurement transcends mere tracking of short-term emissions reductions; it entails establishing long-term objectives and benchmarks to monitor progress towards attaining carbon neutrality, zero waste, or analogous goals. The shift from focusing solely on impacts to acknowledging multifaceted effects is evident in a collective learning process, wherein the apprehension of uncertainty transforms into a shared resource within the ecosystem, influencing corresponding adaptation strategies. Regarding this aspect, one of the interviews underscored the importance of raising awareness of the diverse potential transformation trajectories, facilitating the elucidation of implicit anticipatory processes, and bolstering decision-making processes.

> "(one of our contributions) is to unveil the expectations (of the various actors involved), the implicit prognostications, and reframe long-term strategies to consciously reconsider them, integrating micro and subjective decision-making aspects with macro and collective transformation strategies." (Interviewee 7).

In a perspective that integrates service design, systems, and futures thinking, therefore, arises the necessity to broaden the horizon within which to embed solutions, striking a balance between acknowledging what is happening in the present and projecting towards possible futures. The still open challenge is to generate real impact in, for, and

with evolving contexts, namely having the genuine capacity to influence the change of social structures and thus regulatory, normative, and culture-cognitive mental models.

Discussion

The paper presents initial research findings aimed at investigating how the current practice of Service Design is evolving by integrating elements from Systemic Design and Design Futures to face widespread uncertainty towards design processes, their outcomes, and the values they generate. The objective was to comprehend the tensions guiding the shift: from predominantly linear and standardized design patterns in favour of new holistic and future-oriented design models, wherein Service Design needs to intertwine both systemic and future-oriented approaches and tools, to reinforce its transformative capacity in complex systems. Dialogues with experts and practitioners have identified various possible trajectories for transforming disciplinary approaches, encompassing a reassessment of their processes to contemplate a potentially profound change in their project's systems. Further reflections to continue exploring the transformative nature of Service Design concern critical aspects arising from these preliminary conversations that will require further exploration. This section presents the initial stage of these reflections aimed at starting a conversation on a much wider scale.

Beyond (service) design thinking?

Observations within the first depicted transformation pattern revealed tension between the aspiration to embrace more comprehensive strategies and the challenges associated with reforming organizational intent following incremental actions. The retraction of ambitions within normative (and safer) constraints may reinforce the 'business-as-usual' attitude, manifested with conventional linear design thinking approaches, albeit under new labels. Considering the design process, the integration of systemic and future-oriented methodologies might not resolve the limits of still perpetuating linear design processes without catalysing a profound systemic transformation in line with new emerging planetary, social and ethical concerns.

Questions to explore in the future might deal with investigating how the two perspectives (SYD & DF) can create the space for more radical SD approaches to emerge

against the reproduction of dominant design models. It will be important to understand at what point they position and through which tools, ultimately answer whether new radical praxis can emerge beyond rational, linear logic applied as Systemic & Futures Service Design.

Actionable futures & systems

Another element to be discussed is the difficulty of embedding a pluralist, while practical take on futures and systems. As Audun Formo Hay and Josina Vink discuss in their paper (2023), there has been an underlying assumption in recent Service Design's systemic shift that coupled systems thinking with the necessity of a zooming-out perspective. Such an approach could potentially overlook situated and small-scale actions that are integral parts of the system and contribute to shaping system transformation in the present (Hay & Vink, 2023). By analysing what emerged from the interviews we could argue that a similar phenomenon can occur when systems thinking is coupled with a futures-oriented approach. The risk of integrating the two perspectives is to build a series of approaches and strategies that might lose the grip of reality and actual effects on the present context. Fostering futures literacy can be seen as a way to empower both practitioners and organizations with reflexivity to understand futures' values, anticipate effects and constraints, activate the agency required to coordinate and structure actions in the present (Mangnus et al., 2021; Morrison et al., 2023; Poli, 2021).

More empirical research in this direction might be directed at understanding how to facilitate the adaptability and versatility of processes by reconciling the long-term and holistic vision with small-scale interventions, and how acquiring reflexivity within a futures perspective can enhance the incisiveness of present practitioners' strategies.

Another point to be underlined is the difficulty in initiating a critical analysis of the very origins of the future that professionals have contributed to or are contributing to creating. Despite attempts to support systemic, multispecies, pluralistic perspectives that consider and respect the viewpoints of each actor involved in the (service) ecosystem, the visions of the futures still appear to follow an inherent anthropocentric or neo-colonial stance dictated from the point of view of the designers. These risks perpetuate oppressive and dominant models in their projects. More research is needed

in this direction to understand how practitioners and organizations can facilitate new ways of thinking and practising reflexively that will allow a critical examination of the future systems they are designing.

Conclusion

This article presents the early findings of a study aimed at understanding how and why the practice of service design is evolving or can evolve by integrating systemic and futures-oriented perspectives while identifying opportunities and limitations. What emerges is a professional context undergoing significant transformations, both in terms of demand and supply. Through the contribution of practitioners involved in this phase, three transformational patterns have been identified, highlighting, on one hand, a renewed awareness of the inadequacy of current design models in response to the uncertainty of social, economic, environmental, and political contexts, and on the other hand, a tension foundational to define new practices and design models that can contribute to creating a more equitable society. This translates not only into a change in design practices as a response to complex needs, but also into new relational modes among actors. Catalysing relational change between organizations and clients, institutions and citizens, designers and projects, where short and long-term challenges intertwine, and where different design approaches seem to coexist and adapt to situated and evolving needs, challenges and contexts.

These initial reflections serve as a starting point to further explore how professionals (and organizations) contribute to this ongoing disciplinary transformation in practical terms, reforming tools, skills, and capabilities. It represents the starting step for a wider research program that will expand on these results with more data and more precise insights from emerging SD practices across the world. Observing worldwide practices will serve as a stimulus to inform the new research agenda, bridge any gap between the realms of education, research and the professional world, and strengthen cultural discourse on the value that Service Design brings to society.

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Additional sections

The paper is the result of collective work, in particular Villari and Torta coordinated the work on a theoretical-methodological and operational level, Sangiorgi and Celi contributed to the theoretical and methodological framework, Lin, Rodriguez Schon and Huda contributed to the analysis of the literature, the collection of cases and the conduction of the interviews.