
ServDes2018 - Service Design Proof of Concept
Politecnico di Milano
18th-19th-20th, June 2018

The PhD Special Seminar on service design: unfolding a proof of concept

Annalinda De Rosa, Stefano Parisi
Design Department, Politecnico di Milano
annalinda.derosa@polimi.it

Camilo Ayala García
PhD candidate - Politecnico di Milano, Italy and Assistant Professor - Universidad de los Andes, Bogotá, Colombia

Abstract

The PhD Special Seminar of “ServDes.2018 Proof of Concept” Conference (June 18-20, 2018, Politecnico di Milano) was a unique space dedicated to PhD candidates and Early Career Researchers within the Conference. It aimed to be an occasion of reflection on the different nuances that guide service design research to further discussion on the topics launched by the conference, conceived with the ambition to build a connection with the contents and the structure of the conference itself and, especially, with the ambition to strengthen the growing international community around the Service Design discipline. It was curated and managed by a team of PhD candidates and young doctors from the PhD programme in Design in the Politecnico di Milano - Design Department, with the support of the ServDes.2018 management and organization team.

KEYWORDS: service design scenario, community building, PhD community, PhD seminar

Unfolding a proof of concept

Scope of the seminar

As the ServDes 2018 Conference Call states, Service Design (SD) is no longer considered an emerging discipline. The conference presents itself as a proof of concept:

“it is time to validate and review the models, processes and practices developed and used in the service design ecosystem, from its academic community to practitioners, companies and organizations at large”. (“ServDes.2018 Proof of Concept” theme, call for papers).

Therefore, discussions around contributions and reflections that advance the knowledge of a field in constant evolution became the primary resources of the doctoral and young

researcher. PhD candidates and Early Career Researchers from across the Service Design discipline who are interested in open discussion around this evolution in the field were invited to participate in a three-hour debate and warm-up the conference.

As stated above, the main purpose of the seminar was:

- to strengthen the growing international community around the SD discipline,
- to build a link with the conference topics and structure, and
- to create a space to reflect on the different nuances that guide SD research,

with research questions (defined in this paper as “incoming”) from the participants as a starting point.

In fact, the seminar acted as a bridge: it took place on June 18th, just before the grand opening of the conference, and it “unfolded the proof of concept” by warming-up participant reflection and transforming it into shared questions (defined in this paper as “outgoing”) to be launched in the conference sessions.

Building dialogues with the conference

The core aim and primary interest of the event was to create a network and community of researchers interested in SD, giving them the chance to discuss and exchange ideas, research questions and interests, and expose them to the visibility offered by a conference like ServDes. After a fruitful discussion inside each cluster, each team generated other more robust “outgoing” questions enabling further discussions around the conference tracks through the Ambassadors.

The Ambassadors were representatives of each cluster selected to bring into the ServDes Conference sessions a series of open questions developed during the three hours of the PhD Special Seminar activities. These representatives worked as a bridge between the results of the event and the core of the conference.

Each of the participants brought their reflections around service and SD research to share with others and enable discussions. The discussions provided all participants with new, valuable reflections for their research, as well as for their knowledge and view of the SD discipline.

Having an active voice inside the conference not only creates a younger research community but also gives it an active role in the service design proof of concept. The event was not developed for participants to present their research and explain it, but rather to highlight their research in an international peer environment, enabling a coordinated questioning from the PhD and young researcher community to the conference debates around the field of SD. These open questions (outgoing) stimulated the track chairs to spark discussions inside the conference sessions with fresh topics. (Fig.1)

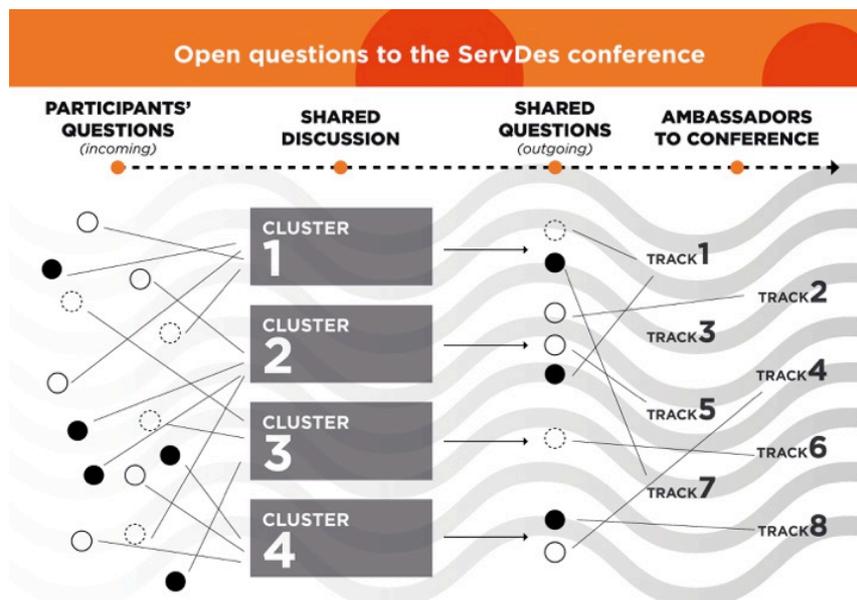


Fig.1: Diagram showing how the incoming questions built the clusters' definition, went through their shared discussion, generating outgoing questions to be launched into the sessions of the conference via the Ambassadors.

A growing international community

The PhD Special Seminar was curated and managed by a team of six PhD candidates and 2 young doctors from the PhD programme in Design in the Politecnico di Milano - Design Department. During the seminar, we defined ourselves as “navigators”, in line with the metaphor of the event as illustrated below.

The Seminar call summoned 22 participants out of 25 applications. Among them, 19 were PhD candidates and 3 held senior positions: one Adjunct Professor, one Assistant Professor and one Associate Professor, all interested in SD as a contributor to their career and thus in the seminar to get useful insights.

Participants were from 17 universities in 11 countries (Fig.2):

- Europe (18): Italy (Politecnico di Milano, Università La Sapienza - Rome, Università di Bologna), Portugal (Universidade do Porto, Universidade de Aveiro), Germany (KISD - Köln, University of Wuppertal), Switzerland (Università della Svizzera Italiana - Lugano), Finland (University of Lapland - Rovaniemi), UK (Loughborough University, University of Hertfordshire, Royal College of Art - London), Denmark (Aalborg University), and Turkey (Istanbul Technical University);
- North America (2): Texas (Texas A&M University - College Station);
- South America (1): Brazil (Universidade Federal de Juiz de Fora);
- Australia (1): Western Australia (Edith Cowan University, Joondalup).

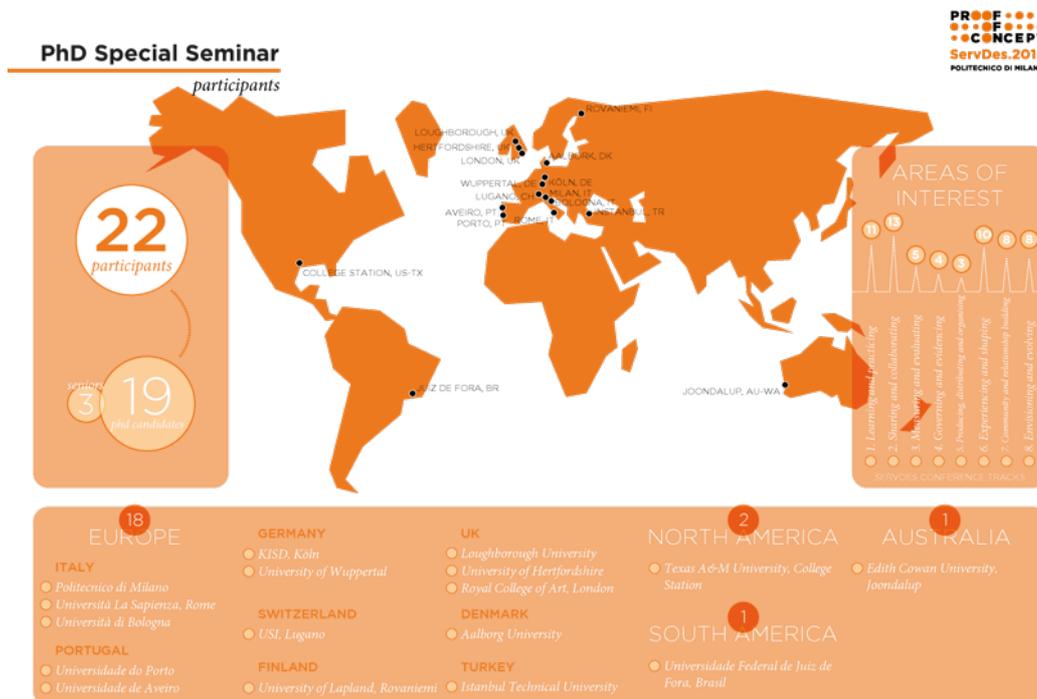


Fig.2: Diagram mapping the participants.

Additional participants to the conference who were interested in the seminar and joined, were from: the Art Academy of Latvia, the RMIT - Royal Melbourne Institute of Technology, the Tokyo University of Technology and a consultancy agency in Taiwan.

The clusters: a possible scenario

Together with a short description of their research, applicants were required to send research questions they wish to explore by attending the ServDes conference (*What research question would you like the ServDes conference to contribute to answering?*), to guide the PhD Special Seminar organization and activities. Since these incoming questions summarised an aspect of their research, in order to make them more relevant to the discussion during the seminar, it was a necessary step to turn their focus to the theoretical reflection underlying them and around the cluster.

Initially, the incoming questions were analysed and matched with one or more of the 8 conference tracks, and then mapped (Fig.3) to highlight the relevance of the theme and topics investigated by ServDes.2018 within them.

The conference tracks were:

- 1. Learning and practicing
- 2. Sharing and collaborating
- 3. Measuring and evaluating
- 4. Governing and evidencing
- 5. Producing, distributing, and organising
- 6. Experiencing and shaping
- 7. Community and relationship building
- 8. Envisioning and evolving

This action was the first step in the process of building the seminar from the participants' contribution. Right from the beginning, the primary intention of the curators had been not to generate a top-down event but, instead, to design it according to the panorama identified from the applications. Of course, the mapping process built a “possible” scenario (as illustrated below), since the short descriptions were subject to interpretation by the curators. However, it tried to sketch a quantitative interpretation of qualitative data, as a starting point for clusterisation. The outgoing questions developed through the seminar operated as a preliminary act, prior to the “proof of concept” - meaning the conference - that the seminar aimed to trigger among its participants.

The 8 tracks of the conference were meant to be extensive areas of discussion to frame the multifaceted action field of the SD discipline and, within them, to reflect on its evolution and impact in academia, in consultancies, in labs and innovation units, and in organizations at large.¹ Tracks explore SD as a back and forth knowledge transfer: both in building the service designer profile, investigating the cross-disciplinary nature of the discipline (and of design as a whole) and its renewed relationship with universities, business and corporations and design practices (Muratovski, 2016), and in a co-design and human-centred perspective within diffuse design (Manzini, 2015). They explore the transformational role of service designer on collective levels when engaging multiple stakeholders and when involved in public sector innovation, going beyond user-centred design and towards a renewed attention to design and democracy (Bonsiepe, 2006) - (Margolin, 2012), to agonism in co-design (DiSalvo, 2010) - (Munthe-Kaas, 2015) - (Hillgren, Seravalli, & Eriksen, 2016) and to design for policymaking (Boyer, Cook, & Steinberg, 2011) - (Manzini & Staszowski, 2013) - (Mulgan, 2014) - (Avelino et al., 2015) - (Selloni & Manzini, 2016). The conference also investigates theoretical frameworks for service evaluation (Drew, 2017) - (Foglieni, Villari, & Maffei, 2018), and data use for policy making. It pointed out the key qualities of SD and how complements from other disciplines may strengthen its analytical components: in its evolutionary path within the so-called Fourth Industrial Revolution (Costa, Patrício, Morelli, & Magee, 2017) - (Morrar, Arman, & Mousa, 2017), in its relationship with the physical realm, going across the spatial design discipline (Pine & Gilmore, 1998) - (Felix, 2011) - (Fuad-Luke, 2012) - (Blomkvist, Clatworthy, & Holmlid, 2016), and the human-to-human and human-to-digital interactions. The conference was a moment for establishing a step

¹ Here follows an overview of the topics explored in the conferences' tracks, with brief reference lists to frame the concepts.

further in these reflections – since the constant evolution of the object of SD is affecting SD practice and identity, methods and approaches – to foster a participatory mind-set and a behavioural change in organisations and complex service systems.

By organizing the applicants' profiles around the 8 tracks, the curators attempt to identify a wide range to address the unfolding of the proof of concept around the discipline. Which are the main geographies in which the doctoral and the post-doctoral research is moving in? What diversity of interpretation do the current reflections have around the positioning of the discipline in design education, in practices, in institutional and organizational levels, in global and local social/economic/political environments and design research as a whole?

The academic community around SD assumes the multi-faceted subject matter of the design discipline since it deals with continuously evolving, expanding contexts and with possible worlds, and is shifting away from fixed and defined entities – technology-centred – to processes and complex living entities – human-centred (Buchanan, 1992), (Krippendorff, 2005), (Brown, 2009), (Manzini, 2015). However, how is this conscious complexity and its effects on such a variety of settings nowadays understood, embedded and explored? How can we take advantage of the plurality of voices within a seminar addressed worldwide and turn these resonant backgrounds into valuable areas of interest for discussion?

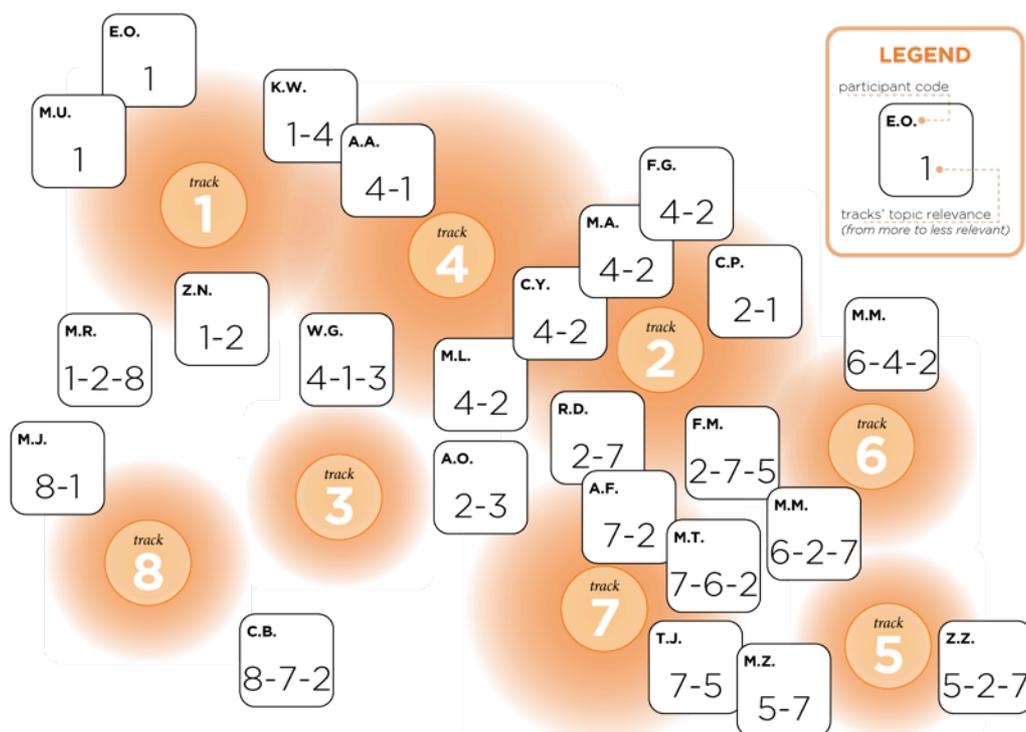


Fig.3: Incoming questions and research topics mapped by relevance around the theme and topics of the conference tracks.

By mapping the applications with the track topics, the following indicators emerged:

- Attention towards the transformational role of service design and service designers within a diffuse design perspective;
- A predominance of this attention within public sector innovation and supporting the democratic challenges that co-design entails;
- Interest in the tangibility/intangibility labels of the discipline and its relationship with enabling technologies and, more widely, to interaction design with and without digital material (Holmlid, 2009);
- A feeble focus on cutting-edge topics such as service evaluation, and the discipline entailment within the Fourth Industrial Revolution and within physical and virtual environments;

- A non-specifically framed debate on the future evolution of the discipline within more theoretical research.

These indicators turned the curators' attention to the discipline itself, away from specific research areas and towards an evaluation of its positioning in levels of complexity settings, crossing academic research, practice, and education:

- How does it enter small-medium-large scale systems?
- How is it enabled?
- How is it recognised and integrated?
- How is it critically explored?
- How does it intersect with other disciplines?

By crossing these layers in various settings and the complexity of human, social and technological systems, four clusters emerged identifying common approaches and reflections:

- Enabling situated services
- Enhancing service systems
- Organizational integration & recognition
- Investigating service design theories

The clusters have been visualized with a metaphor evoking a type of iceberg (Fig.4) representing a possible service design action field. Three clusters compose the iceberg surface: one is above the “line of visibility” – above the water – and two are below. These two clusters are under the surface of the iceberg: they tend to have less visible impact and recognition, but the situation could reverse in the near future. The fourth cluster is the core of the iceberg.

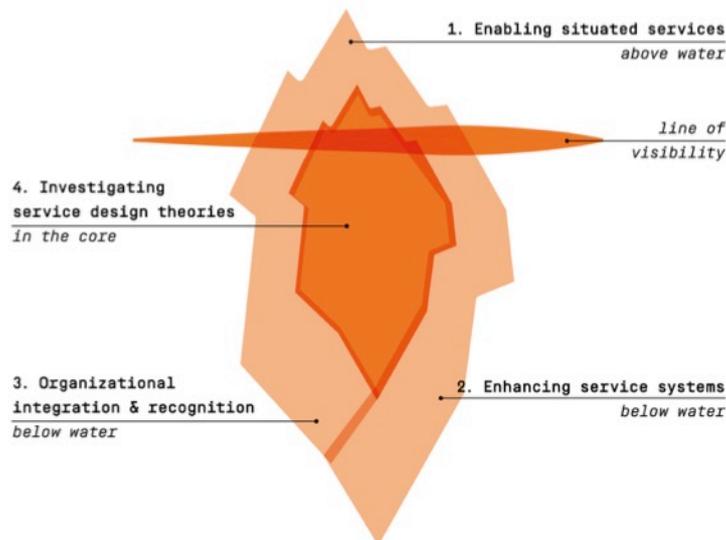


Fig.4: The Iceberg metaphor mapping the participants' applications: a possible scenario for the discipline action field.

The four clusters identify the wide areas of exploration in which participants are researching, and incoming questions are positioned and attempt to frame themselves within a possible scenario for the discipline action field.

By grouping the different submissions into these four clusters (Fig.5), it was possible to divide the participants into a homogeneous team to enable discussions around the discipline's wider scenario and not around particular research practices.

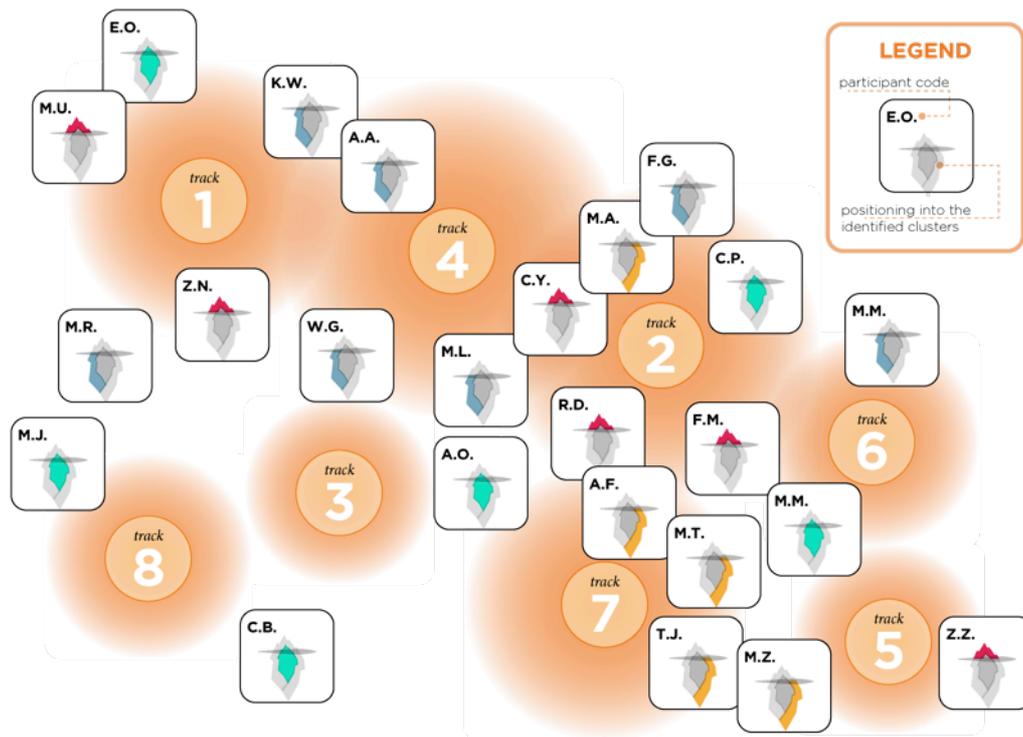


Fig.5: Participants' mapping has been reframed around the identified clusters (this diagram refers to one of the steps in the reframing process).

The first cluster, "Enabling situated services" - *when service design enables situated services* -, is the one which appears above the line of visibility in the SD action field. All the issues included in this cluster are exploring the discipline when embedded in specific fields of application or investigating particular approaches. Indeed, situated learning theories connect processes of knowledge with contextual approaches (Lave, Wenger, & Wenger, 1991) and contextual design, thus including relational and environmental components. This steers our attention towards social anthropology, community psychology and education science, which - in the context of this seminar - leads to reflections on product-user interactions as a precursor to developing a design solution and to its context as a container of ideas, lives, culture, nature, society, and technology (Aranda Jan, Jagtap, & Moultrie, 2016), approached within a holistic and diffuse design perspective.

The second and the third clusters are below the line of visibility and they are not so easy to read as they explore *when service design merges into systems* and, with the system as a focal point, how it can incorporate an SD approach, methods, and tools. It explores opportunities, challenges, and the meaning of approaching complex sociotechnical arenas when necessarily addressed with the added value of design thinking and human-centred design perspective (Norman & Stappers, 2015). In this sense, diffused design and expert design (Manzini, 2015) discourse came into play, questioning the effectiveness and limits of community engagement, thus including participatory action research and participatory design methodologies and tools, grounded theory as qualitative strategies and co-creation/co-design/co-production perspectives.

The "Enhancing service systems" cluster explores when service design enters into complex dynamics; through this integration, regulatory systems, public services and the societal dynamics of the socio-technical systems are questioned. In this cluster, emerging technologies, Artificial Intelligence and Data appear to play a considerable role in redefining how service systems could be designed and enhanced.

The "Organizational integration & recognition" cluster raises the bar of complexity by *questioning big infrastructures and organizational complexity*. The research in this area investigates organisational changes and, nowadays, acts in a context already favourable to a systemic approach, since infrastructural changes are taking place. These two clusters focus on the perception of complex systems as permeable platforms favourable to (and in need of) organizational and infrastructural changes. They both pay attention to settings characterized

by physical proximity – linked by a geographical, political and/or administrative system – or without it – where typological similarities link transnational communities and identities (Sassen, 2011).

The fourth cluster, "Investigating service design theories", is related to the *disciplinary implications of service design*, and all submissions inside this cluster express interest in contributing to the theory building of the field, also starting from delimited areas of exploration. Its purpose is to explore the current landscape of design which SD is moving in and dealing with: the alignment and interdependency of local and global processes, the shifts towards multidisciplinary and cross-disciplinary in design research, practice and education, and the impact of collaborative models on the regulatory system. This cluster aims to add a diverse perspective or, better, to frame possible reflections on the future evolution of the discipline around more theoretical discussions.

Development

The structure of the seminar

In this section, the structure of the seminar is described highlighting the subdivision into steps, their specific aims, the activities planned and the tools designed.

The seminar took place in three significant steps. The first one - "Cluster shared interpretation" (duration: 45 min) - established as an icebreaker, focused on the initial discussion around the interpretation of the cluster. The second step - "Outgoing questions" (duration: 1 hour) - went on to develop the outgoing questions, while the third - "Matching questions/sessions/ambassadors (duration: 30 min) - aimed to combine these questions with the corresponding tracks' session and the tuning of the ambassador's role. (Figure 6). After the kick-off, each cluster worked separately from the others in different rooms. Then, at the end of the seminar, they met together again for the wrap-up and final discussion.

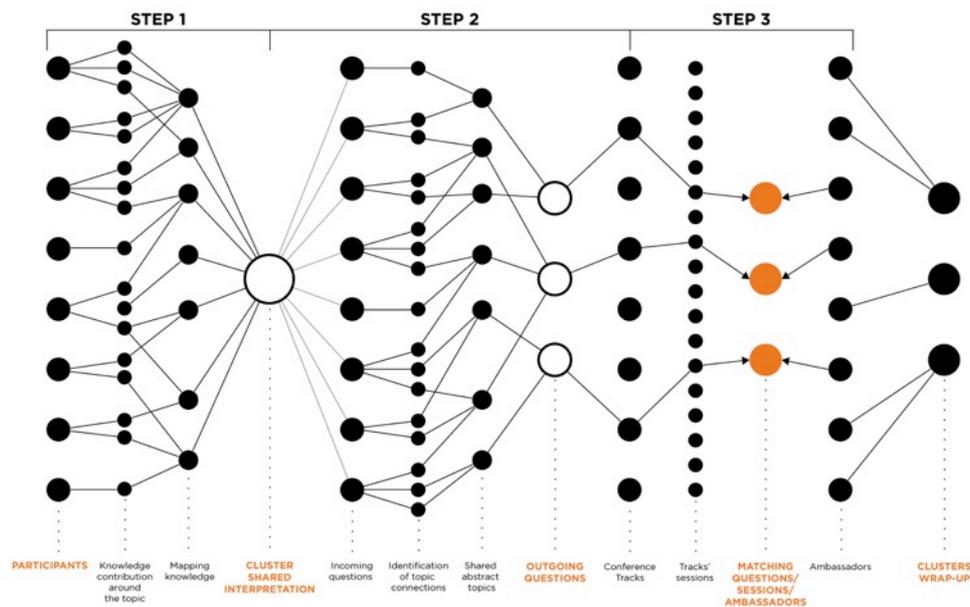


Fig.6: Diagram representing the seminar process conducted by the tutors (navigators).

Specific tools, e.g., question cards, posters, and canvas, were designed to facilitate the activities and are described in the following sections. A poster was designed with the aim of summarizing and communicating the outcomes of each step, to be read from the bottom (first step) to the top (final step).



Fig.7: PhD Special Seminar: kick-off of the event at Appartamento Lago, June 18th, 2018.

Step One: Mapping Knowledge and Shared Cluster Interpretation

The first step aimed to map participants' knowledge about the cluster topic and produce an interpretation of it shared by all its participants. As explained above, grouping participant's submissions into similar areas and not dedicating time to each research topic was vital for the step to produce immediate results. Right from the beginning discussion developed around the cluster's name and the possible relationship between participants.

First, using keywords and short sentences, each participant in the clusters identified and presented their relationship with, and knowledge of, the cluster topic according to their experience and research topic. This activity helped to build a shared background among the participants in the cluster. A board with the cluster's name, description, and position in the "iceberg" model was provided. The participants were also provided with sticky notes (post-its) to write down keywords and sentences and a board to arrange them on. Then, in the second activity, the name proposed for the cluster was discussed collectively, aiming either to confirm its name or rename it. In this first part, a collective agreement on the name of the cluster was of great importance. Therefore, the output of the activity was the shared interpretation of the cluster declared with an adaptation of the original title or a new title in the form of a short sentence.



Fig.8: PhD Special Seminar: cluster discussion at Appartamento Lago, June 18th, 2018.

Step Two: Identification of Connections and Shared Questions

Step two aimed, firstly, to identify connections between the shared interpretation of the cluster and the individual incoming research questions and, secondly, to produce outgoing questions from each cluster that would enrich and target the discussions inside the different tracks of the ServDes conference. This step began with a screening of the incoming questions proposed by the participants in their seminar application forms. This was followed by the identification of connections between these incoming questions and the cluster to which the team belongs, and finally the production of outgoing questions. Cards presenting

the individual incoming questions were provided, together with sticky notes (post-its) on which to write them down and arrange on the poster. There was also a blank space on the poster to fill in with the resulting outgoing questions.

The second was probably the most crucial step, as it was necessary to understand the relevance of the PhD event to the possible discussions that could spark within the different tracks. The role of the navigators in this part was also of extreme importance, as they were asked not only to facilitate the team activities but also to avoid dispersion, which is a common risk when researchers of such complex topics try to find an agreement. The focus was to produce a minimum of two outgoing questions for each team, but all of them exceeded this requirement.



Fig.9: PhD Special Seminar: clusters discussion at Appartamento Lago, June 18th, 2018.

Step Three: Outgoing Questions positioning

The aim of the third step was to assign the outgoing questions to the ambassadors and to place them in suitable sessions of the conference. With all questions set and with heated discussion in the rooms, the third step started by analysing the 8 conference tracks. We deliberately decided to reveal the track information only at this stage, as it was essential to create a discussion free from pressure regarding the conference topics. Leaving the tracks visible during the first two steps might have led the teams to force the questions to match their desired tracks of attendance, or would probably have made any ambassador push for a particular topic to gain control over the following task inside the conference. Instead, by leaving the description of the tracks for the last part, when the questions had already been developed, made for a very smooth closure of the event. In general, the teams were focused on matching the questions to the possible tracks, as it was agreed that one question could be formulated in two or more tracks. As we will see in the conclusions, the different answers to the same question in different tracks were able to assure proofs of concepts. Papers with track descriptions and the session schedule and details, including the chairs' names, the authors and titles of the paper presented, were provided. The resulting assignment of the outgoing questions and related ambassadors to the conference sessions was written down in a blank space on the poster.

After this phase, the intermediate results from the seminar were presented to the rest of the clusters in a wrap up moment.

The Ambassadors were given an Ambassador's diary to fill in and to take notes during the selected session, to record the session's discussion. Ambassadors were responsible for bringing the outgoing questions into the ServDes Conference sessions. They worked as a bridge between the results of the event and the core of the conference. Some advice was provided, e.g., for each presentation, they were asked to focus on finding relationships to the question. The question/s were proposed in the session in different ways according to the structure intended for the session, in collaboration with the session chairs. The questions were expected to stimulate the track chairs to spark discussions inside the conference sessions with fresh topics. In every moment of debate or Q&A, they were asked to focus on how the speakers are indirectly answering the question/s. Both in the presentations and discussions, they were asked to try to link the different answers and perspectives given by the

speakers. The ambassadors were advised that at this level of complexity and uncertainty, one can confirm, reinforce, complete or refute the others. After the conference, diaries were sent to the moderators and were used to draw up the final results of the seminar. In the next sections, the intermediate results from the seminar and the final results retrieved from the diaries are illustrated.



Fig.10: PhD Special Seminar: clusters discussion at Appartamento Lago, June 18th, 2018.

Intermediate results: insights from the shared discussions

The process set up enabled participants to progressively move away from their personal research areas towards a discussion in a broader scenario, where their more theoretical reflections, assumptions, and hypotheses around the discipline could nurture, and be nurtured by, the conversation.

Due to few last-minute delays and nonattendance, the curators had to suppress cluster n.4 “Investigating service design theories”, the more theoretical one. Insights relevant to the topic were pinpointed within the discussions in the other three clusters.

In Cluster 1 “Enabling situated services”, the discussion first focused around the word “situated”, as all participants agreed the word does not represent services since they are more dynamic than static and stuck in a situation. Even when referring to situated learning and contextual approaches, the word in itself was not felt to be representative of services seen as living organisms, since they change continuously in shape and in their relations with actors and design elements in what was defined as a “flux”. As a result, the name of the group was changed to “Nurturing existing services”. This nurturing occurs at all steps and touch points. Cluster 1 went on to produce three outgoing questions grounded in the discussion on how SD nurtures existing systems. The first question emerged when a discussion about considering elements of the system as spaces or places was on the table. The different research topics and the incoming questions of the participants stressed the importance of places inside systems; it was crucial to consider how interventions within them could lead to nourishment and improvement of the whole service experience. The question emerging from this discussion was: *How can the value of physical spaces as a service design element be communicated to people?* This question was positioned in *track 6. Experiencing and shaping*, the one focusing more on the relationship between spaces and services.

The second and third questions focused on the idea of sharing knowledge in SD, as a way to collaborate and engage with people. Assuming that when working in a situated and specific domain designers actually need to “scale down” (Myerson, 2017), sharing knowledge may create value in service and for designers, creating opportunities to discover, learn, build and discuss. This should be done in a critical way, addressing people's real needs and adopting a grassroots approach even for small entities (Sanders & Stappers, 2008). Needs appear to be a complex concept to be considered critically.

The questions developed are: *How can we critically share knowledge with different actors to shape services and generate value? How can we support the development of grassroots approaches to service design for small entities?* These questions were positioned in the *track 2. Sharing and collaborating* and *track 7. Community and relationship building*.



Fig.11: PhD Special Seminar: wrap-up step at Appartamento Lago, June 18th, 2018.

Cluster 2, on the other hand, warmed up the discussion by putting a fruitful debate on the table around the role of SD as a strategic tool for service systems. It not only supports the design process inside the system but also enables elements within the service ecosystem. Different tools and a holistic approach make the design contribution a plus. The team added a word to the cluster name leaving it at the end as "Enabling and enhancing service systems", highlighting the connection to Cluster 3 and blurring boundaries. The discussion highlighted the complexity of mapping knowledge around SD conversation and practice into systems, and the main reflections focused on the interrelated connections between actors and resources within it and the need for open, human-centred and holistic approaches to ensure inclusion.

Assuming that, participants were guided into highlighting meaningful connections among the incoming questions. Two main reflections emerged: multidisciplinary as a turning point for the discipline within the system logic, and the ethical implications of emotional and digital aspects. The first investigated into whether multidisciplinary is meant as an "in" or "out" aspect of the discipline: does it concern the discipline components from other disciplines, as an "in" of its understanding, or does the discussion focus on what the embedding of SD into complex technological systems generates on multi-levels? As a matter of fact, one strengthens the other and the discipline appears to be a passing point for the transformation and generation of critical understanding of settings through the quality criteria it adopts. A systemic approach made the infrastructure visible by understanding it, by developing it and by building it; through that, it encompasses resilience as well as the shifts towards strategic skills for problem-solving (Muratovski, 2010), towards open collaborative innovation (Baldwin & Von Hippel, 2011) and within an economy of scale (Whitney, 2015). The questions reflected from this discussion entitled: *How can SD integrate multidisciplinary contributions - e.g., tools, approaches - address the reachable (e.g., touchpoints) and unreachable (e.g., institutions) in service systems? How do we establish the boundaries of what a reachable or unreachable service design is?* They were addressed to track 1. *Learning and practicing* and to track 8. *Envisioning and evolving*.

As Fiksel (2003) stated, a system approach is required for sustainable development and that opens the way to the second reflection on ethical implications: the discussion oscillated

between the concepts of artificial intelligence, technologies and digital, and the concepts of emotional, humanity and environmental awareness. By provoking the conversation on the appearance of what is traditionally seen as positive or negative from a moral point of view (tangibility as human and emotional / intangibility as non-human and un-affecting), it was clear that the emotional connection among key actors in a service ecosystem, and the communication of abstract values in the development of public services are not separated and detached from digital and technological aspects. On the contrary, there is no sense in separating them and it is fundamental to understand how to merge them together in business as well as in social practices through value co-creation within a participatory mind-set. The questions emerging in this discussion were: *How can designers set up their design goals in our data-driven world? How can we “instrumentalise” emotions to drive value co-creation between human and non-human through SD? How can technology and human values be brought together through SD in developing AI enabled services?* They were addressed to track 8. *Envisioning and evolving*. A more specific reflection on that and physical spaces produces the question *How can we communicate to people the value of physical space as a service design element?* addressed to track 6. *Experiencing and shaping*.

In Cluster 3, the discussion started by considering word integration and recognition as separate entities: the first to understand human organizational change, and the second to embrace complexity. From this observation, the first vital element of the discussion was the relationship between human resources in organizations (Buchanan, 2015): integrating SD into organizations is a way of building capabilities through collaboration between human resources.

Thus, the discussion focused on the implications of relationships between employees with different roles in the company: in particular, the need to explore the relationship between designers and employees other than designers (Deserti & Rizzo, 2014) in order to widen critical understanding of diffused design (Manzini, 2016) within organizations, and the impact of SD in other departments in the companies (Boland Jr, Collopy, Lyytinen, & Yoo, 2008). The question emerging from this discussion was: *How do we define and communicate the value of integrating design into organisations (public, private, spectrum)?* addressed to track.1 *Learning and practicing*.

The widest reflection concerned the need for a shift from a Human-centred approach to a Human-centred mind-set, since the infrastructural change that is already growing into place can only be fostered by a participatory mind-set in society, in order to raise awareness about issues of public interest within the democratic nature of processes as well as issues of power relationships and empowerment (Selloni, Corubolo, & Seravalli, 2018). On the other hand, within the complexity of the management of organizations, SD can be considered as a method to provoke changes in the organizations themselves (Junginger & Sangiorgi, 2009). The outgoing questions are: *How might we (as service design researchers) establish service design as a main mind-set (approach) to be applied in organizational change management?* addressed to track.1 *Learning and practicing* and *What would it mean for an organisation and its workers to integrate service design?* to track 4. *Governing and evidencing*.

SD becomes a tool not only to reshape organizations and understand the complexity of such large systems, but also allows different stakeholders to be involved in the ecosystem of the public sector and its relationship with private and non-profit organizations, communicating between them and enhancing initiatives (i.e. making results visible and communicating values in the organizations as a measurement of results on "What is good business") between people from different levels.

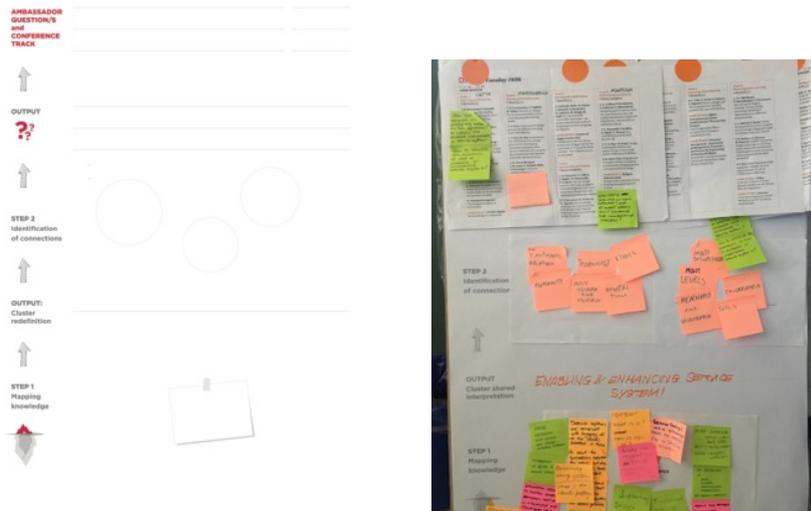


Fig. 12: Canvas designed to facilitate the activities and with the aim of summarising and communicating the outcomes of each step, to be read from the bottom (first step) to the top (final step).

OUTGOING QUESTIONS of the PhD Special Seminar		
CLUSTER N.1	CLUSTER N.2	CLUSTER N.3
<p>How can System design guarantee an open approach? And what levels can enhance the collaborative process?</p> <p>to Track 2. Sharing and collaborating session: day 2 (11:00 - 13:00)</p> <p>Ambassador: Marisabella De Castro Abello (University of Hertfordshire)</p>	<p>How can SD integrate multidisciplinary contributions address the reachable (e.g. touchpoints) and unreachable (e.g. institutions) in service systems? How to establish the boundaries of what a reachable or unreachable SD is?</p> <p>to Track 1. Learning and practicing session: day 2 (11:00 - 13:00)</p> <p>Ambassador: Cátia Pereira (Universidade de Aveiro)</p>	<p>How do we define and communicate the value of design integration to the organisations (public, private, spectrum)?</p> <p>to Track 1. Learning and practicing session: day 3 (15:45 - 17:30)</p> <p>Ambassador: Martina Rossi (Politecnico di Milano)</p>
<p>How can we critically share knowledge with different actors to shape services and generate value?</p> <p>to Track 2. Sharing and collaborating session: day 3 (15:45 - 17:30)</p> <p>Ambassador: Can Uckan Yuksel (Istanbul Technical University)</p>	<p>How to communicate to people the value of physical spaces as a service design element?</p> <p>to Track 6. Experiencing and shaping session: day 3 (10:30 - 13:00)</p> <p>Ambassador: Martina Mazzarello (Politecnico di Milano)</p>	<p>How might we (as service design researchers) establish service design as a main mindset (approach) to be applied in organisational change management?</p> <p>to Track 1. Learning and practicing session: day 2 (11:00 - 13:00)</p> <p>Ambassador: Lisa Overton (RMIT)</p>
<p>How can System design guarantee an open approach? And what levels can enhance the collaborative process?</p> <p>to Track 6. Experiencing and shaping session: day 2 (11:00 - 13:00)</p> <p>Ambassador: Mariane Garcia Unanue (Universidade Federal de Juiz de Fora)</p>	<p>How designer can setup their design goals in the data-driven world? How can we instrumentalise emotions to drive the value co-creation between human dan non-human through SD?</p> <p>to Track 8. Envisioning and evolving session: day 2 (16:00 - 18:00)</p> <p>Ambassador: Titta Jylkäs (University of Lapland)</p>	<p>What would it mean for an organisation and its workers to integrate service design?</p> <p>to Track 4. Governing and evidencing session: day 2 (16:00 - 18:00)</p> <p>Ambassador: Fanny Giordano (Aalborg University)</p>
<p>How can we support the development of grassroots approaches to service design for small entities?</p> <p>to Track 7. Community and relationship building session: day 3 (12:00 - 13:00)</p> <p>Ambassador: Zichao Nie (Politecnico di Milano)</p>	<p>How technology and human values be brought together through SD in developing AI enabled services? How can SD integrate multidisciplinary contributions address the reachable and unreachable in service systems? How to establish the boundaries of what a reachable or unreachable SD is?</p> <p>to Track 8. Envisioning and evolving session: day 3 (10:30 - 11:45)</p> <p>Ambassador: Maira Prestes Joly (Politecnico di Milano - Universidade do Porto)</p>	

Fig. 13: The outgoing questions elaborated during the seminar, the tracks and sessions they were addressed to and the related Ambassadors.

Results

The result of the seminar is reflected in the different outgoing questions that emerged during the sessions. However, the result was not only their formulation, but also the way a preliminary event with very little time was able to generate a meaningful contribution to the discussions in some sessions of the conference. The whole team was engaged in producing

questions that were not only able to nurture the conference, but in one way or another the possible answers were also able to nurture participants' research.

Going through the Ambassadors' diaries, it is interesting to point out how the indicators that emerged in the map of the applications (see paragraph above "The clusters: a possible scenario") remained the trend topics of the seminar discussion and then of the insights that emerged from the sessions.

The attention towards the transformational role of service design and service designers within a diffuse design perspective triggered many questions around the issue of sharing knowledge when SD empowers and trains a company and human resources (non-designers). Mainly, the current answer is that a complete knowledge transfer is neither achievable nor needed. In fact, it is important to implement SD strategies to stimulate personal motivation (design as a living agent in communities) towards change and to make room for co-design through their (non-designers) own action. However, the role of service designers within organizations should be more focused on "changing" managers and business people through "practices of learning" (cfr. Nicola Morelli), in order for them to be more eager to understand the value of service design as a practice, and not only as a discipline, and to promote its application in the organization. This application, however, will never replace the presence of professional service designers since any support to other professional roles is ineffective without design capabilities. This is about understanding the limits of SD, as well as its real value, when integrated into any kind of system. In addition, the definition of an "SD mind-set" was called into question, in favour of a "social construction" definition of service design that also includes psychology, social sciences, and philosophy in the design process. The emerging interest in the human and non-human in SD calls for greater attention to the responsibilities and roles of service designers, and an empathic view, a concern with diversity and the consequential design implications came out as fundamental.

The interest in tangibility/intangibility labels in the discipline was explored in relation to the capacity of SD to integrate multidisciplinary contributions, especially in terms of service design objects (strategy, interfaces, technology, and interactions). If SD is the application of resources for the benefit of another party and service designers design to enable new services to happen, then SD objects could range from tangible to intangible things. In this sense, multidisciplinary professionals tend to focus on the objects according to their backgrounds, which in the case of service is helpful when creating and increasing the possibilities for value co-creation. Thus, the focus on cutting-edge topics such as the discipline's entailment within the Fourth Industrial Revolution were explored in this way during the seminar in response to the outgoing questions and embracing the relationship within physical, virtual environments and human spheres.

Conclusions

The Special Seminar developed for the community of researchers interested in SD became a place to discuss and exchange ideas, research, and interests. It was an exciting element connecting young researchers and their work with the actors in the conference. By putting different questions related to SD, this group of researchers was able to highlight proofs of concepts related to the discipline. A continuous questioning of the role of the discipline in the different complex systems where it intervenes is crucial for the subject, and the event proved how vital it is to bridge consolidated research with preliminary research. After all the fruitful discussions in each cluster, and the different questions that emerged in the seminar, the selected ambassadors became representatives of each cluster in the conference. During the ServDes Conference sessions, all the various open questions developed during the seminar sparked fruitful discussions in the conference tracks. As a result, the whole conference was viewed as an active scenario where presenters, track chairs, and ambassadors, enriched the debate about what SD is and will be, by trying to answer questions. The special seminar worked as an additional tool to prove what SD is, and it will be recognized as a

relevant discipline that can intervene in small, medium and complex systems to propose innovation by nurturing the system with creative and analytical approaches.

Acknowledgement

The authors would like to thank the ServDes.2018 management and organization team: in particular, our thanks go to Anna Meroni, conference chair, for giving us the chance to build this seminar within the conference programme and for the exchanges during its realization, and to Ana María Ospina Medina, conference manager assistant, for the organizational support. Many thanks also to Paola Bertola, coordinator of the PhD programme in Design at Politecnico di Milano, for her encouragement in building up the seminar team and her confidence in its management.

A heartfelt thanks to Elisa Bacchetti, Carmen Bruno, Daniele Bucci, Michele Melazzini and Xue Pei for their committed collaboration in the final creation of the event. Finally, thanks to the technical sponsor Lago for hosting the event in Appartamento Lago in Brera and its tenant Ilaria Bollati, and the volunteers Federico De Luca and Georgia Gkini for collaborating in its set-up.

Figures 1-5, 13: diagrams by Annalinda De Rosa

Figure 6: diagram by Daniele Bucci

Figure 12: diagram by Carmen Bruno

Figures 7-11: ph. Federico De Luca and Georgia Gkini

Curatorship and Management

Annalinda De Rosa Camilo Ayala García Stefano Parisi *PhD candidates, Department of Design, Politecnico di Milano, Italy*

Navigators

Camilo Ayala García Carmen Bruno Daniele Bucci Annalinda De Rosa Michele Melazzini Stefano Parisi *PhD candidates, Department of Design, Politecnico di Milano, Italy* **Elisa Bacchetti** *PhD, Department of Design, Politecnico di Milano, Italy* **Xue Pei** *PhD, Research Fellow, Department of Design, Politecnico di Milano, Italy*

Participants

Andrea Augsten, *University of Wuppertal, Germany* **Ilaria Bollati**, *Politecnico di Milano, Italy - University of Nova Gorica, Slovenia* **Marisabella De Castro Abello**, *University of Hertfordshire, UK* **Anton Fedosov**, *Università della Svizzera Italiana, Lugano, Switzerland* **Mariane Garcia Unanue**, *Universidade Federal de Juiz de Fora, Brazil* **Whitney R. Garney**, *Texas A&M University, College Station, USA* **Fanny Giordano**, *Aalborg University in Copenhagen, Denmark* **Titta Jylkäs**, *University of Lapland, Rovaniemi, Finland* **Cecilia Lee**, *Royal College of Art, London, UK* **Martina Massari**, *Università di Bologna, Italy* **Martina Mazzarello**, *Politecnico di Milano, Italy* **Zichao Nie**, *Politecnico di Milano, Italy* **Anna-Sophie Oertzen**, *Köln International School of Design, Germany* **Erica Ormsby**, *Edith Cowan University, Joondalup, Australia* **Cátia Pereira**, *Universidade de Aveiro, Portugal* **Maira Prestes Joly**, *Politecnico di Milano, Italy - Universidade do Porto, Portugal* **Martina Rossi**, *Politecnico di Milano, Italy* **Momoko Tamada**, *Loughborough University, UK* **Kelly L. Wilson**, *Texas A&M University, College Station, USA* **Can Uckan Yuksel**, *Istanbul Technical University, Turkey* **Ziyu Zhou**, *Politecnico di Milano, Italy* **Mariia Zolotova**, *Università La Sapienza, Rome, Italy* **Vineta Kreigere**, *Art Academy of Latvia* **Marjukka Makela Klippi** *Aalto University, Helsinki, Finland* **Lisa Overton**, *RMIT Royal Melbourne Institute of Technology* **Yuriko Sawatani**, *Tokyo University of Technology* **Arthur Yeh**, *consultancy agency in Taiwan*

Location

Appartamento Lago, Via Brera 30 - Milano

Thanks to

ServDes.2018 management and organization team

References

- Aranda Jan, C. B., Jagtap, S., & Moultrie, J. (2016). Towards a framework for holistic contextual design for low-resource settings. *International Journal of Design*, 10(3), 43–63.
- Avelino, F., Wittmayer, J., Dumitry, A., Longhurst, N., Hielscher, S., Weaver, P., ...
- Haxeltine, A. (2015). Transition towards 'New Economies'? A Transformative Social Innovation Perspective. Presented at the 6th International Sustainability Transitions (IST) Conference, 25-28 August 2015, University of Sussex, Brighton.
- Baldwin, C., & Von Hippel, E. (2011). Modeling a paradigm shift: From producer innovation to user and open collaborative innovation. *Organization Science*, 22(6), 1399–1417.
- Blomkvist, J., Clatworthy, S., & Holmlid, S. (2016). Ways of seeing the design material of service. In *ServDes. 2016* (pp. 1–13). Linköping University Electronic Press.
- Boland Jr, R. J., Collopy, F., Lyytinen, K., & Yoo, Y. (2008). Managing as designing: lessons for organization leaders from the design practice of Frank O. Gehry. *Design Issues*, 24(1), 10–25.
- Bonsiepe, G. (2006). Design and democracy. *Design Issues*, 22(2), 27–34.
- Boyer, B., Cook, J. W., & Steinberg, M. (2011). *In Studio: Recipes for Systemic Change: Helsinki Design Lab*. Sitra.
- Brown, T. (2009). *Change by Design. How Design Thinking Transforms Organizations and Inspires Innovation*. HarperCollins, New York.
- Buchanan, R. (1992). Wicked problems in design thinking. *Design Issues*, 8(2), 5–21.
- Buchanan, R. (2015). Worlds in the making: design, management, and the reform of organizational culture. *She Ji: The Journal of Design, Economics, and Innovation*, 1(1), 5–21.
- Costa, N., Patrício, L., Morelli, N., & Magee, C. L. (2017). Bringing Service Design to Manufacturing Companies: Integrating PSS and Service Design Approaches. *Design Studies*.
- Deserti, A., & Rizzo, F. (2014). Design and the Cultures of Enterprises. *Design Issues*, 30(1), 36–56.
- DiSalvo, C. (2010). Design, democracy and agonistic pluralism (pp. 366–371). Presented at the Proceedings of the design research society conference.
- Drew, C. (2017). An Iterative, Experience and Practice-led Approach to Measuring Impact. *Touchpoint Journal of Service Design*, 9(2), 22–25.
- Felix, E. (2011). Learning Space Service Design. *Journal of Learning Spaces*, 1(1). Retrieved from <http://libjournal.uncg.edu/jls/article/view/284>
- Fiksel, J. (2003). Designing resilient, sustainable systems. *Environmental Science & Technology*, 37(23), 5330–5339.
- Foglieni, F., Villari, B., & Maffei, S. (2018). *Designing better services. A strategic approach from design to evaluation* (Springer International Publishing). Cham, Switzerland.
- Fuad-Luke, A. (2012). Co-designing Services in the Co-futured City. *Service Design: On the Evolution of Design Expertise. Lahti University of Applied Sciences Series A, Research Reports, Part, 16*,

101–120.

Hillgren, P.-A., Seravalli, A., & Eriksen, M. A. (2016). Counter-hegemonic practices; dynamic interplay between agonism, commoning and strategic design. *Strategic Design Research Journal*, 9(2), 89–99.

Holmlid, S. (2009). Interaction design and service design: Expanding a comparison of design disciplines. *Nordes, Design Inquiries 2007 Stockholm*, (2).

Junginger, S., & Sangiorgi, D. (2009). Service design and organisational change. Bridging the gap between rigour and relevance. In *International Association of Societies of Design Research* (pp. 4339–4348). KOR.

Krippendorff, K. (2005). *The semantic turn: A new foundation for design*. crc Press.

Lave, J., Wenger, E., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation* (Vol. 521423740). Cambridge university press Cambridge.

Manzini, E. (2015). *Design, When Everybody Designs: An Introduction to Design for Social Innovation*. (R. Coad, Trans.). Cambridge, Massachusetts: Mit Press.

Manzini, E. (2016). Design Culture and Dialogic Design. *Design Issues*, 32(1), 52–59.

Manzini, E., & Staszowski, E. (2013). *Public and Collaborative: Exploring the Intersection of Design, Social Innovation and Public Policy* (DESIS Network). Library of Congress Cataloguing-in-Publication Data.

Margolin, V. (2012). Design and Democracy in a Troubled World. *Lecture Presented at the School of Design, Carnegie Mellon University*, 11.

Morrar, R., Arman, H., & Mousa, S. (2017). The Fourth Industrial Revolution (Industry 4.0): A Social Innovation Perspective. *Technology Innovation Management Review*, 7(11), 12–20.

Mulgan, G. (2014). Design in public and social innovation: what works and what could work better. Retrieved from www.nesta.org.uk

Munthe-Kaas, P. (2015). Agonism and co-design of urban spaces. *Urban Research & Practice*, 8(2), 218–237.

Muratovski, G. (2010). Design and Design Research: The Conflict between the Principles in Design Education and Practices in Industry. *Design Principles & Practice: An International Journal*, 4(2).

Muratovski, G. (2016). Paradigm Shift: report on the new role of design in business and society. *She Ji: The Journal of Design, Economics, and Innovation*, 1(2), 118–139.

Myerson, J. (2017). Scaling Down: Why Designers Need to Reverse Their Thinking. *She Ji: The Journal of Design, Economics, and Innovation*, 2(4), 288–299.

Norman, D. A., & Stappers, P. J. (2015). DesignX: complex sociotechnical systems. *She Ji: The Journal of Design, Economics, and Innovation*, 1(2), 83–106.

Pine, B. J., & Gilmore, J. H. (1998). *The experience economy*. Harvard Business Press.

Sanders, E. B.-N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *CoDesign*, 4(1), 5–18. <https://doi.org/10.1080/15710880701875068>

Sassen, S. (2011). *Cities in a world economy*. Sage Publications.

Selloni, D., Corubolo, M., & Seravalli, A. (2018). Sharing and collaborating in service design. In *Proceedings of the ServDes.2018 Conference*. Linköping: Linköping University Electronic Press.

Selloni, D., & Manzini, E. (2016). Policy constellations as ecosystems of design actions: Exploring three cases of social innovation policies in Italy. *Strategic Design Research Journal*, 9(2), 128–136.

Whitney, P. (2015). Design and the economy of choice. *She Ji: The Journal of Design, Economics, and Innovation*, 1(1), 58–80.