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Learning and practicing in service design

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Abstract

The paper analyses the contributions to the "learning and practicing' track of "ServDes.2018 Proof of Concept" and categorises them by identifying convergences and defining six emerging topics. As a result, new roles and responsibilities emerge. They can be summarised in a few directions: 1) beyond learning - where more and more, service designers are explicitly or implicitly requested to play the role of educators within organisations; 2) beyond human centred design – where the need to better understand the role of and the interaction with 'non-human agents' emerges; 3) beyond organisational change – where the transformational role of design seems to expand from within organisations to the relationships that organisations establish with external actors.

KEYWORDS: service design, learning, designer skills, stakeholders, big data, impact, emotional intelligence

Introduction

The 'learning and practicing' track of "ServDes.2018 Proof of Concept" Conference was designed with the ambition to investigate two apparently traditional topics, coming out with new ideas and trajectories. This was done in the first place by putting the topics together, in order to investigate their interplay within a context of fast change in the role of a service designer. The risk, for a track that explicitly aimed to "... explore the evolution of the skills a service designer must acquire and which education is expected to provide", was to tie learning and practicing respectively to education and professional practice, ending up with two disconnected sets of papers, focused on the one hand on the formal training of designers and on the other hand on the new skills of practitioners. In reality, in most of the contributions, the two concepts have been interpreted as intertwined.

In our view, this is not only grounded in the established idea that design as practice can be learnt only through practicing, but also in a powerfully emerging interest in the transformational role of service design, both at the individual and at the collective, organisational and network level. In this perspective, the papers confirm that learning stands

at the core of the design process (Beckman & Barry, 2007) and that service designers operate in interconnected flows of 'knowledge building' and 'knowledge using' (Owen, 2006), but at the same time they document an implicit and explicit transformational role (Yee, Jefferies & Michlewski, 2017) of service design, rising upwards from individuals to organisations, communities, networks and society as a whole.

Moreover, learning is interpreted in a multi-dimensional and multi-directional mode, which means that service design creates and transfers knowledge across different projects and across diverse actors and stakeholders that take part in its practice, including the designers themselves. Contrary to Owen's idea that "producing works" (i.e. designing) is a matter of exploiting existing knowledge, in contemporary service design learning and practicing seem to occur in a continuum in which knowledge flows back and forth.

The papers overall show a transversal co-design and human-centred perspective, which implies the involvement of a significant number of non-designers in the design process. Here, a subtle transition from engaging non-designers in design to introducing design to non-designers seems to emerge, which calls for a better understanding of the interaction between expert and diffuse design (Manzini, 2015), as well as between design knowledge and functions, and other forms of knowledge and functions. This brings us to the incorporation of design into organisations, a phenomenon which has already been described in its recent evolution (Muratowski, 2015), and which seems to occur both implicitly, in a bottom-up fashion, establishing an internal design culture through projects (Deserti & Rizzo, 2014), and explicitly, creating new dedicated functions in organisations that are traditionally quite distant from design: managerial consultancies, big corporations and, more recently, public bodies. Even though these organisations may be interested in different design capabilities, service and interaction design emerge as the most powerful engines of the expansion that is taking place.

At the same time, it seems that both the scope of single projects and that of single organisations are too narrow to render the current complexity of service design learning and practicing: learning occurs across projects, and networks are playing an increasingly important role, with particular reference to service design, where co-creation and co-production have become the norm rather than the exception (Akaka, Vargo & Lusch, 2012; Stickdorn et al, 2017, Patrício, Figueiredo de Pinho, Grenha Teixeira & Fisk, 2018). In addition, we can notice this happening at an unprecedented scale, which often implies iterative and complex processes, where the flow of data and people engaged and produced is massive (Meroni, Selloni & Rossi, 2018).

The need to co-create and interact with a multiplicity of subjects, from different cultures, (within organisations) sub-cultures and disciplinary backgrounds, is calling for a deep change in the skill set of service designers. The "T-shaped" model of design skills (Madhaven & Grover, 1998; Heeseok & Byounggu, 2003; Kelley, 2006) is somehow confirmed by the papers, but there seems to be an emphasis both on the vertical stack of capabilities that are relevant to service design (in a broad sense and with reference to specific domains of application), and on the horizontal or transversal set of capabilities which are connected with those soft skills that hark back to empathic design (Mattelmäki, Vaajakallio & Koskinen, 2014) and emotional intelligence. More precisely, after a period in which the emphasis was placed on expanding horizontal skills, now the focus is on strengthening the vertical stroke and clarifying what is essential in the horizontal one. In some of the papers the acquisition and management of empathic skills is introduced in a problematic perspective, while others are more focused on the need to renovate and expand the "traditional" ability of service designers to facilitate work across organizational or knowledge silos and somehow to "train and educate" the people in the organisations.

Finally, the question of how to deal with complexity seems to be powerfully re-emerging from the era of cybernetics and to inform the debate on new challenges for service design and on the shift from user- to human-centred design. This has broadened views on

stakeholders and contexts far beyond traditional UCD (User Centred Design), embracing the co-design perspective and recognising that co-design typically involves a multiplicity of subjects that may have different and, sometimes, conflicting views and objectives. In the light of the arguments that we have briefly outlined, we tried to categorise the contributions under this track, identifying convergences and similarities among them and defining emerging topics, which led us to the following clusters:

Service design as a means for learning and transformation;

Service design as an epiphany that impacts on organisations;

Service design and broadened views on stakeholders and context;

Service design and new ways of gathering, using and making data accessible;

Service design as a way to impact on communities and cultures;

Service design in relation to emotional intelligence and empathy.

In the following, we will briefly introduce these emerging topics one by one, trying to describe the underlying idea that connects the different papers and draw a few conclusions.

Service Design as a Means for Learning and Transformation

Design thinking, in the broader sense, is adopted by public and private organisations with the aim to transform both processes and outputs of a variety of human-centred activities, including the management of human resources. Service design, in particular, is increasingly used to build internal competencies and/or collaborate with service design agencies, in order to deliver on the promise of service design thinking. How the learning process occurs, and how service design can stimulate learning is a practice-based process that passes through real-life experimentation. This experiential learning occurs when people are not just told about the benefits of design, but also engage in design activities as a way of learning.

This creates an impact beyond successful implementation of projects: Cipolla (2018) presents a comprehensive perspective on impact that looks beyond project implementation, to focus on 'broader systemic impact'. Lima and Sangiorgi (2018) address this topic too and focus on the 'disseminative capacity' of the knowledge source, mostly a designer, and the 'absorptive capacity' of the receiver in an organisation. The framework the paper proposes combines recipients' absorptive capacity (the ability of a firm to recognise the value of external information, assimilate it, and apply it) with the knowledge sources' disseminative capacity (to make design capabilities relevant and operable), to understand how the best knowledge transfer can occur. This also takes into account how different knowledge receivers might be prepared to adopt and explore the same design capabilities in different ways.

Holmlid and Malmberg (2018) focus on how design helps organisations in the public sector to change through the integration of design in the organisations and the development of design capability. The paper considers integrating design into an organisation to be a cumulative process, giving rise to the formation or transformation of communities of practice within the organisation. These new communities need to acknowledge and appreciate the practices within which design has been integrated in a specific way, to avoid watering down and losing the power of design as it spreads through the organisation.

Becermen, Grøndal and De Götzen (2018) analyse the client-designer relationship with a focus on the briefing process in service design projects. The authors explore this perspective through a specific use case. They reflect on how a collaborative design process fits three general but crucial points of client-consultant relationships: the fit between client needs and consultant skills, a good interpersonal fit and agreement on some ground rules. These points indicate what service design consultants should be aware of and cannot escape from, but can make their own. It demonstrates that also service designers have some experiential learning to do if they act as consultants.

In industry, among clients of service design agencies, the "demand" for learning service design skills is becoming more explicit, as the growth of service design masterclasses and professional courses demonstrates. Design schools and service design agencies offer more and more training to professionals and clients. Previously, in the first ten years of service design, most clients outsourced entire projects and despite being part of workshops and fieldwork, they did not really engage in learning service design skills internally. This has changed as organisations start to see the strategic and also permanent importance of service design. This changes the role of service designers, who have now started to take on a role as educators too.

Service Design as an Epiphany that Impacts on Organisations

The idea that (service) design, in a practice-based or in a strategic view, may impact on organisations and call for their transformation, is today well established (Junginger & Sangiorgi, 2009; Buchanan, 2015).

While the explicit quest for the introduction of design thinking is growing and sometimes assumes the characteristics of a managerial fad, it seems that service design is being introduced into organisations through side or back doors. This process moves from an initial understanding of service design to its more comprehensive adoption throughout the organisation, in which we can observe both its transversal diffusion and its upward climb to higher levels of engagement.

Budd, Della Maggiora and Vollmer (2018) present an academic/industry partnership in which service design was used to explore the impact of online shopping on brick-and-mortar retailers. This case is the prototypical example of what we would call a "service design epiphany": both parts (the school and the company) benefitted from the collaboration beyond their original expectations, which led to unexpected organisational transformation. In particular the company, which was not formally exposed to the new methodologies corporate-wide, began incorporating aspects of the service design language and approaches in their cross-functional conversations without realising it. In the authors' view, the positive uptake demonstrates the hunger and willingness for older technology companies to consider new customer-experience focused methods to rethink innovation and go to market more quickly. Beyond the aspects connected with the innovation of the offering and of the forms and channels of relationship with the customers, the paper underlines that the collaboration led to internal process improvements, and that it emerged that Service Design can help expedite internal change management initiatives.

Prendiville (2018) introduces an interesting exploration of design's contribution to science and technology innovation services (STI), which is of peculiar interest in a moment in which STI policy making is looking at co-creation and at design-led processes to expand the engagement of society in science and innovation beyond consultation. The paper introduces The Satellite Applications Catapult, a UK Government's science and technology innovation centre established in 2013 with the objective of supporting economic growth through the exploitation of space with the application of satellite technologies. This sector is emerging with activities focused 'downstream' on developing digital services, which involve people, technology, artefacts and organisations to be configured in a human centred and business orientated way, to achieve economic and social value. The paper highlights that to coordinate this complexity, there needs to be a high level of co-creation of knowledge between different actors, in which service design can play a significant role. In particular, the paper locates design practices on three conceptual levels within the organisation, in line with extant models of the evolution of design knowledge (e.g. the Danish Design Ladder), progressively enabling learning and transformation towards a human centred organisation that maximises its knowledge sharing capability: i) visualisation and communication activities, coupled with the review of innovation processes, to consolidate a human centred design approach across

the organisation and make its working practices more agile; ii) learning-by-doing through codesign activities, extending design practices and processes across the organisation, and externally with clients, to enable knowledge flows in both directions; and iii) facilitation of strategy through visualisation and the identification of priority areas that may be market- or technology-focused within different projects. This helps the organisation to think about how they plan their business and how to organise and prioritise their work in a way that allows it to adapt and respond.

Service Design and Broadened Views on Stakeholders and Context

The diffusion and expansion of the notion of co-design seem to have been playing a significant role in broadening the traditional focus of service design on the end-users. Indeed, the very essence of co-design is to shift the focus from a specific actor to an action and attitude that can be transversally applied to the whole system of actors taking part in the design process, including service employees (Steen, Manschot & De Koning, 2011). Analysis of the transition from user- to human-centred design has already recognised this (van der Bijl-Brouwer, 2016), but recent evolutions seem emphasise organisations as something more than just ordered groups of people. In this perspective, the papers that we have gathered under this topic form a continuum with those dealing with transformational learning and organisational transformation.

Herfurth and Sinclair (2018) illustrate the results of an ethnographic research engagement in which a researcher from the Glasgow School of Art inquired into the practice of FutureGov, a public sector service design agency, shadowing its activities, conducting interviews and drawing implications for service design education. The paper suggests going beyond the user- and human-centred design focus, to place attention on a wider range of stakeholders involved in service design, implementation and delivery, and on aspects connected with organisational transformation. The paper highlights challenges and opportunities for service designers when operating in a context of organisational transformation, and proposes four ways of extending current studio design education practices, which are actually already integrated in many curricula, even though not always in combination: i) Simulating the designer-client relationship, exposing students to client interactions; ii) Integrating specialised and sector-specific knowledge alongside studio design education; iii) Extending studio teaching with internships, placements and live projects; iv) Organising collaborative courses with other university faculties, such as business schools.

Komatsu Cipriani and Rossi (2018) reflect on the ongoing transformations of the object of service design, the spaces in which it is conducted, the actors involved, the stages in which it operates and the value it delivers. The paper proposes an initial prototype of a skill framework, organized around the different aspects of contemporary complexity, to guide service designers in preparing themselves to deal with complex challenges. Overall, the paper describes a mix of transversal and vertical skills that service designers should possess, in line with the T-shaped knowledge perspective. At the same time, it underlines the need to strengthen vertical skills in connection with the peculiar context/sector/industry in which the designer operates, going back to a focus on the output rather than the process.

Santamaria, Escobar-Tello and Ross (2018) investigate how a better understanding of the cultural context could support service designers in identifying opportunities and developing strategies to scale up solutions. The paper underlines their context-dependency, and suggests applying a sociocultural lens through which to make sense of the relationship between value propositions, users and the culture they are immersed in. The paper suggests an early

adoption of this approach, to avoid the emergence of ill-defined services or start-ups that struggle to be self-sustainable. Moreover, it suggests the shift from a user- to a context-centred approach to enhance the strategic skills of service designers and build stronger capability, in order to leverage the acceptance and diffusion of innovations.

Service Design and New Ways of Gathering, Using and Making Data Accessible

The design profession is changing as much as most other professions in the context of varying working methods and the growing role of technology in the workplace. Three papers apply this general understanding to the role of designers in service design. The changes concern traditionally specific design skills, such as many types of visualising, as well as giving rise to new skills that designers must develop, such as working with big data when designing services. Other general skills that are not specific to designers, such as collaborating with experts in other disciplines, are changing too. Several papers express this, and point to education as the locus where the changing design practice should be shaped as much as in the professional world.

Costa, Patrício and Morelli (2018) state that some of the key principles of designerly thinking, namely collaboration and visual thinking, are paramount in understanding, discussing and sharing evidence gathered from fieldwork in service design. Designerly thinking is a way of reasoning and making sense of things in a collaborative manner. The analysis that the authors perform indicates that a designerly qualitative research approach better supports the identification of relevant actors, enables a more intuitive data triangulation, and is strong at triggering collaborative and multidisciplinary discussions. Visualisation tools pay a crucial role in all of this. They are not only used to communicate data with other people and organisations, but also help to draw conclusions in service design research and proceed to the creation of hypotheses, sketches or models that represent possible future services and interactions people have with them.

De Götzen, Kun, Simeone and Morelli (2018) wonder what kind of data literacy is needed to equip a service designer in this era of "living services" that digest big amounts of data to predict what will happen next. Two perspectives of data literacy in education are proposed. Firstly, students must be equipped with the tools needed to understand, analyse and transform data; they will also require tools with which to design with this data, informing the process at every step. Secondly, data must be seen as a resource for design, sometimes openly available as a commons. The intersection of those two perspectives creates a new working area, in which we must define new tools and practices that raise the level of data literacy among students and can give rise to a higher, more purposeful integration of data into the design of services.

Roxburgh and Irvin (2018) explore what visual skills designers need to develop for service design. Visual skills seem to be taken for granted in service design, and are seldom explicitly addressed beyond the general importance of making things visible and tangible. Some de facto industry standards have emerged, like the stakeholder map and journey map and the ubiquitous 2-by-2 diagram, without paying much attention to the aesthetics of these artefacts. They seem to be considered mainly functional tools, as they are mostly sketched roughly on a whiteboard rather than delivered as carefully crafted artefacts. This certainly empowers everyone, since anyone can engage in these very basic visualisations. However, it

also constitutes a missed opportunity: designers know that carefully crafted visualisations can express deeper meanings and raise more intricate questions.

Photography and film are another good example (Raijmakers, Miller et al. 2016). Generally, they are considered to be indispensable in service design, but the material that is shot, edited and presented is mostly point-and-shoot or over-stylised concept films all with similar music. It seems a much broader view on the visual in service design is needed. Education is a good arena to explore what is important, possible and desirable, to then raise the bar for service designers accordingly.

Service Design as a Way to Impact on Communities and Cultures

How service design can impact and transform communities and cultures is an emergent topic in the debate around the role of designers in the contemporary social landscape. This largely focuses on design for social innovation, but not only, and touches upon concepts such as activism, behaviour change, and cultural shift.

Ostergaard (2018) discusses whether there is evidence that a service designer could effectively act as an "Agent of the Community" addressing social challenges with a focus on the environment, social innovation and sustainability. In fact, according to the authors, despite the diffuse practice and discourse about design, social issues (including design for social innovation) and the distributed character of agency by individuals or organisations (Haxeltine et al, 2016), a number of scientists believe that designers do not have the skills required to address big, multidisciplinary societal challenges, because their curricula lack adequate competence in social sciences. This calls not only for the introduction of social sciences in education, but also for a more systematic involvement of social-science related skills in network-based forms of collaboration in the civil sector.

Part of the expertise called for to support designers when acting on communities, is a basic knowledge of behaviour change theory. In order to meet today's social challenges, Mahamuni, Khambete and Mokashi-Punekar (2018) acknowledge the need to influence and change user behaviours at individual and society level by bridging this gap in theoretical knowledge. This could lead to an approach shared by both service design and behaviour change. In so doing, a set of method and tools could be developed to guide service conception, taking into account psychological mechanisms right in the core elements of a service (Kahneman, 2011). While the discourse about integrating these two disciplines is increasing in importance, there has so far been little experimentation of a joint approach. However, according to the authors, the foundation for the professionals to venture into service design for behaviour change is in place.

In the research and practice of design for social innovation, reflection about the impact of design in support of social innovation processes is a key point. Cipolla (2018) discusses the design approach adopted by the Labs of the DESIS Network - Design for Social Innovation and Sustainability. Cipolla argues that DESIS uses service design to: i) scale out social innovations, by understanding social innovations as services and using design to promote their dissemination as new service models; ii) scale profound social innovations through services that work to change relationships and cultural values as social innovations do; iii) explore how to scale up processes and the transformative changes they bring about. As a conclusion, the author advances a proposal for a theoretical service framework, inspired by the cultural values of social innovation, to design services with higher relational and interpersonal qualities and based on collaborative principles.

Therefore, when looking at the actual impact of service design in transforming communities in relation to wicked problems, including environmental and social sustainability, reflection inevitably regards broadening expertise to include social and behavioural sciences. This integration of the curriculum could help designers to better tackle complex societal challenges and to design services that purposefully nudge people in the direction of more sustainable and relational behaviours.

Service Design in Relation to Emotional Intelligence and Empathy

When the activity of service designers extend into social and psychological areas, the importance of developing emotional intelligence becomes evident, as the horizontal part of the "T-shaped" knowledge model previously mentioned. A designer may require emotional intelligence for two main purposes: to design services that are more sensitive to the circumstances and to the health, comfort and happiness of their users; to increase awareness of the well-being of all those implicated in a project, including the designers themselves. With reference to the framework proposed by Goleman, (2006), the emotional intelligence components of self-awareness and self-regulation, empathy and social skills require particular attention.

Self-awareness and self-regulation, meaning the ability to recognize and understand personal moods and emotions, and their effect on others, and therefore to control or redirect disruptive impulses and moods, are particularly important in the perspective introduced by Dhir (2018). The author discusses well-being in service design: moving from the observation that service design often has to tackle sensitive issues (from young people in care to mental health, unemployment, homelessness, overcrowding, crisis and domestic violence, to name but a few). Dihr emphasises the importance of adapting normal project practice to protect the mental health and well-being of all those involved in a project, designers included, and not overlooking these aspects. As a conclusion, the author suggests creating project rituals to look after the participants, which requires a cultural shift, valuing mental health and well-being and seeking to reduce staff stress and trauma.

A lot has already been discussed in the service design community with regard to the importance for service designers of developing empathy (another component of the emotional intelligence framework). The ability to understand the emotional makeup of other people and treat them accordingly is, in fact, a paramount skill for designers for many purposes. Santos, Muller Garcia, Carneiro Alves and Lima Silveira (2018) present a tool, Bodystorming, which helps designers to deal with the multiple interactions that occur throughout a service and the complexity of bringing together the perspectives of various stakeholders. In this technique, designers and other stakeholders use their bodily expression to create or represent ideas about the interactions and configurations around a given experience. Bodystorming helps to develop empathy and leverage it to design a service, because it increases the effectiveness of the ideation process and the pre-evaluation of a service experience, by helping the designer to put him/herself in the role of other stakeholders. Resonating with the tradition of the Forum Theatre (Boal, 1974) it falls into the category of "enacting" tools (Brandt, Binder and Sanders, 2012), which facilitate participation in the work-in-progress of design projects and seems particularly relevant for service design projects, where time and interaction are key elements.

Finally, social skills (another pillar of emotional intelligence) can be mentioned here as a way to bring together the previous considerations of self-awareness and empathy in service design. In fact, proficiency in managing relationships and building networks, and the ability to lead change are preconditions for an effective use of design thinking to improve the quality of the experience and the well-being of all those serving in and served by

organisations. In such a vision, service design could contribute to the reform of organizational culture (Buchanan, 2015).

Conclusions

Over the last decade and a half, wherein the profession of service designer has become a recognised practice, we can see how the related profile and role have emerged and got configured in the relationship with different organisations, companies, public bodies and communities.

As a result, new roles and responsibilities emerge. These can be summarised in a few directions that open also research opportunities:

Beyond learning: more and more, service designers are explicitly or implicitly requested to play the role of educators within organisations, acting to transform not only services, but also (and sometimes mainly) how people work and their motivation to act.. This sheds light on designers' capability to train other people, to disseminate design and to spur people to action. As such, this implies for the designer the acquisition of new skills and of a collaborative mindset that often must bridge different worlds.

Beyond human centred design: from many perspectives, the need to better understand the role of and the interaction with 'non-human agents', from the planet to A.I.s, seems to emerge. In fact, enlarging the scope of the design action implies considering concepts, entities, things and "values" that transcend the individual, to comprise bigger ecosystems, communities and networks aggregated in new bio-socio-technical systems.

Beyond organisational change: the transformational role of design seems to expand from within organisations to the relationships that organisations establish with external actors. Service design seems to primarily operate through networks establishing new connections within a "co-" paradigm, which leads to transformations that go beyond the borders of the single organisation and involve entire networks. These networks may initially take shape for a specific scope (project) but often live in an evolutionary way beyond a single project.

References

Akaka, M.A., Vargo, S.L. & Lusch, R.F. (2012). An exploration of networks in value cocreation: A service-ecosystems view. *Review of Marketing Research*, 9: 13–50.

Becermen, B., Grøndal, E. & De Götzen, A. (2018). The Briefing Process: Examining the Client-Consultant Relationship through a case. *Service Design Proof of Concept. Proceedings of the ServDes.* 2018 Conference. Linköping: Linköping University Electronic Press.

Beckman, S.L. & Barry, M. (2007). Innovation as a Learning Process: Embedding Design Thinking. *California Management Review*, 50(1): 25-56.

Boal A. (1974). Theatre of the Oppressed. London: Pluto Press

Brandt E., Binder T. & E. B-N. Sanders (2012). Tools and techniques. Ways to engage telling, making and enacting. in Simonsen, J. and Robertsen, T. (eds.). Routledge International Handbook of Participatory Design. New York and London: Routledge, p. 145-181

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.

Budd, J., Della Maggiora, P. & Vollmer, F. (2018). Exploring the Future of Consumer Retail. Service Design Proof of Concept. Proceedings of the ServDes. 2018 Conference. Linköping: Linköping University Electronic Press.

Cipolla, C. (2018). Desis Network: Strategies to Advancing Systemic Social Innovation Through Service Design. *Service Design Proof of Concept. Proceedings of the ServDes.* 2018 Conference. Linköping: Linköping University Electronic Press.

Costa, N., Patrício, L. & Morelli, N. (2018). A Designerly-way of Conducting Qualitative Research in Design Studies. *Service Design Proof of Concept. Proceedings of the ServDes.* 2018 Conference. Linköping: Linköping University Electronic Press.

Deserti, A. & Rizzo, F. (2014). Design and the cultures of enterprises. *Design Issues*, 30(1): 36-56

De Götzen, A., Kun, P., Simeone, L. & Morelli, N. (2018). Making Sense of Data in a Service Design Education. *Service Design Proof of Concept. Proceedings of the ServDes. 2018 Conference*. Linköping: Linköping University Electronic Press.

Dhir, A. (2018). Put on Your Oxygen Mask Before Helping others: Mental well-being in Service Design. *Service Design Proof of Concept. Proceedings of the ServDes. 2018 Conference*. Linköping: Linköping University Electronic Press.

Goleman D. (2006) Emotional Intelligence: Why It Can Matter More Than IQ. New York: Bantam

Haxeltine A., Avelino F., Pel B., Dumitru A., Kemp R., Longhurst N., Chilvers J. & Wittmayer J.M. (2016). A framework for Transformative Social Innovation. TRANSIT Working Paper # 5. November. Available at: http://www.transitsocialinnovation.eu/downloads

Heeseok L. & Byounggu C. (2003). Knowledge Management Enablers, Processes, and Organizational Performance: An Integrative View and Empirical Examination. *Journal of Management Information Systems*, 20(1): 179-228

Herfurth, L. & Sinclair, K. (2018). From User-Centred to Stakeholder-Oriented Service Design: Implications for the Role of Service Designers and Their Education Based on an Example from the Public Sector. Service Design Proof of Concept. Proceedings of the ServDes. 2018 Conference. Linköping: Linköping University Electronic Press.

Holmlid, S. & Malmberg, L. (2018). Learning to Design in Public Sector Organisations: a Aritique Towards Effectiveness of Design Integration. *Service Design Proof of Concept. Proceedings of the ServDes.* 2018 Conference. Linköping: Linköping University Electronic Press.

Junginger, S. & Sangiorgi, D. (2009). Service Design and Organisational Change. Bridging the gap between rigour and relevance. *Proceedings of LASDR09 Conference*, 19-22 October, Seoul, 4339-48.

Kahneman, D. (2011). Thinking, Fast and Slow. New York: Ferrar Straus & Giroux

Kelley, T. (2006). The Ten Faces of Innovation. New York: Random House.

Komatsu Cipriani, T. & Rossi, M. (2018). Working with Complexity: a Contemporary Skill Framework for Service Designers. Service Design Proof of Concept. Proceedings of the ServDes. 2018 Conference. Linköping: Linköping University Electronic Press.

Lima, F. & Sangiorgi, D. (2018). Fostering a Sustained Design Capability in Non-design-intensive Organizations: a Knowledge Transfer Perspective. *Service Design Proof of Concept. Proceedings of the ServDes.* 2018 Conference. Linköping: Linköping University Electronic Press.

Madhaven, R. & Grover, R. (1998). From embedded knowledge to embodied knowledge: New product development as knowledge management. *Journal of Marketing*, 62(4): 1–29.

Mahamuni, R., Khambete, P. & Mokashi-Punekar, R.. (2018) Service Design for Behavioural Change - Current State of the Discipline and Practice in India. *Service Design Proof of Concept. Proceedings of the ServDes.* 2018 Conference. Linköping: Linköping University Electronic Press.

Manzini, E. (2015). Design, When Everybody Designs: An Introduction to Design for Social Innovation. Cambridge, MA: The MIT Press.

Mattelmäki, T., Vaajakallio, K. & Koskinen, I. (2014). What Happened to Empathic Design? *Design Issues*, 30(1): 67-77.

Meroni A., Selloni D. & Rossi M. (2018) *Massive Codesign. A Proposal for a Collaborative Design Framework*. Milano: FrancoAngeli. Available at: https://www.francoangeli.it/Ricerca/Scheda_Libro.aspx?ID=24979

Muratowski, G. (2015). Paradigm Shift: Report on the New Role of Design in Business and Society. *She Ji: The Journal of Design, Economics, and Innovation*, 1(2): 118-39.

Ostergaard, T. (2018). The Designer as Agent of Community. Service Design Proof of Concept. Proceedings of the ServDes. 2018 Conference. Linköping: Linköping University Electronic Press.

Owen, C. (2006). Design Thinking: Notes on Its Nature and Use. *Design Research Quarterly*, 2(1): 16–27.

Patrício, L., Figueiredo de Pinho, N., Grenha Teixeira, J. & Fisk, R.P. (2018). Service Design for Value Networks: Enabling Value Cocreation Interactions in Healthcare. *Service Science*, 10(1): 76-97.

Prendiville, A. (2018). The Satellite Applications Catapult: Design's Contribution to Science and Technology Innovation Services. *Service Design Proof of Concept. Proceedings of the ServDes.* 2018 Conference. Linköping: Linköping University Electronic Press.

Raijmakers, B., Miller, S. & STBY (2016). Viewfinders; Thoughts on Visual Design Research. London: STBY.

Roxburgh, M. & Irvin, J. (2018). The Future of Visual Communication Design is Almost Invisible or Why Skills in Visual Aesthetics are Important to Service Design. *Service Design Proof of Concept. Proceedings of the ServDes. 2018 Conference*. Linköping: Linköping University Electronic Press.

Santos, A., Muller Garcia, A., Carneiro Alves, M. & Lima Silveira, E. (2018) Bodystorming: Lessons Learnt from its Use on the Classroom. *Service Design Proof of Concept. Proceedings of the ServDes.* 2018 Conference. Linköping: Linköping University Electronic Press.

Santamaria, L., Escobar-Tello, C. and Ross, T. (2018). Navigating the Sociocultural Landscape in Service Design. *Service Design Proof of Concept. Proceedings of the ServDes.2018 Conference*. Linköping: Linköping University Electronic Press.

Stickdorn, M., Hormess, M.E., Lawrence, A. & Schneider, J. eds. (2017). *This is service design doing*. Sebastopol, CA: O'Reilly.

Steen, M., Manschot, M. & De Koning, N. (2011). Benefits of Co-design in Service Design Projects. *International Journal of Design*, 5(2): 53-60.

van der Bijl-Brouwer, M. (2016). The Challenges of Human-Centred Design in a Public Sector Innovation Context. *Proceedings of DRS 2016*, 6: 2149-64.

Yee, J., Jefferies, E., and Michlewski, K. (2017). *Transformations: 7 Roles to Drive Change by Design*. Amsterdam: BIS Publishers.