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Crafting Sustainable Futures. The Value of the Service Designer in Activating Meaningful Social Innovation from within Textile Artisan Communities

Francesco Mazzearella^{a*}, Val Mitchell^a, Carolina Escobar-Tello^a

^aLoughborough Design School, UK

*Corresponding author email: F.Mazzearella@lboro.ac.uk

Abstract: In order to tackle complex sustainability challenges, top-down one-size-fits-all services and strategies do not always effectively address the diverse needs of local communities. It is increasingly recognised that multi-disciplinary stakeholders need to draw on their locally situated knowledge and cooperate towards achieving a social aim. With this in mind, and moving beyond the designer's 'parachuting' into projects that do not grow or develop, this paper explores how the service designer can contribute to activate meaningful routes for the transition of textile artisan communities towards sustainable futures. This paper proposes a service design framework for better understanding local contexts, making sense of visions for the future and reframing them into meaningful actionable realities. For the purpose of this paper, the theory is here presented through its application to a community of Nottingham lace artisans, chosen as unit of analysis for this participatory case study research.

Keywords: Service Design Anthropology, Social Innovation, Sustainable Futures, Sensemaking, Textile Artisan Community

1. Introduction

The global economic and environmental crises, interwoven with social inequalities, are leading us to live in a transition phase, where the mainstream ways of thinking and doing of the twentieth century are subject to change (Manzini, 2015). In order to tackle the 'wicked problems' (Kolko, 2012) embedded in the current and future value chain, design for social innovation – a "process of change emerging from the creative re-combination of existing assets [...] the aim of which is to achieve socially recognized goals in a new way" (Manzini, 2014) – is gaining currency and recognition. A shift from product-oriented well-being to service-oriented well-being, paired with a deep search for our roots and identity, is encouraging a transition towards small, local, open and connected practices shaping resilient and sustainable societies (Manzini & M'Rithaa, 2016). With this in mind, this research argues that, if deeply rooted in the locale (made of people, skills, resources, times and places), social innovations are likely to organically flourish over time.

In this scenario, the designer is challenged to adopt more social and moral responsibility in his/her work (Fuller, 1969; Papanek, 1971) and consequently broaden his/her role and skill-set to address social issues (Tan, 2012). However, methods have become a way to legitimise the field of service design, resulting in the perception that these can be 'commodified' for repeatability and separated from the design practitioner (Akama & Light, 2012). In reality, methods cannot be reduced down to a formula and applied to any context expecting similar results, but the value lies in the service designer's ability to become immersed in a context and enact such tools.

This contribution intends to overcome the shortage of research on service design as a sensemaking process, that enables the co-creation of meaningful contexts for social innovation by linking innovation with the personal and social needs and aspirations of communities and the ecosystem of local stakeholders (Verganti, 2009; Zurlo, 2012). Beyond the operative role of designing thinking, such an approach opens up further reflections on the cultural and critical sensitivity of the designer. Such an approach differs from traditional expert design-led social innovations in its proposition of an anthropological lens to bridge from top-down visions to bottom-up situated service propositions through a process of sensemaking with local community and stakeholders. In this paper, these issues are explored in the context of transitioning textile artisan communities towards sustainable futures.

2. Service Design for Social Innovation

Current literature allows to draw a picture of the endangered sustainability of textile artisanship and the isolated and precarious condition of the artisan (Scrase, 2003), who is placed at the 'bottom of pyramid' (Prahalad & Hart, 2002) of an unfair fashion system that does not take the people, the heritage or the environment into account (Mirza, 2015). This is creating a need for envisioning sustainable future strategies for the textile artisanal system. Moreover, textile artisan communities are sought to contribute to sustainable development, rescuing cultural heritage, providing social engagement, making local economies flourish, and enhancing environmental stewardship. Here, the designer's responsibility is summoned to build not only an external mechanism of involvement, but also an internal mechanism of change, bridging participatory design (Ehn, 2008) with transformation design (Sangiorgi, 2011), through shared ownership of the design outcomes, but also of the process and methods themselves, to shape a culture of resilience (Manzini & Till, 2015).

Within this research context, service design (Morelli, 2002; Meroni & Sangiorgi, 2011) is proposed as a human-centred, strategic and systemic approach which could be applied to textile artisan communities to tackle complex challenges. In fact, service designers are envisaged to have the skillset suitable to interpret local contexts, design enabling tools and platforms and generate scenarios, which provide a vision for diverse stakeholders to collaborate. This means focusing not only on the tangible evidences of textile artisanship, but also on intangible values, such as trust, empathy, empowerment, collaboration and systemic relationships (Lo, 2011). Within the service design landscape, this research focuses on its contribution to social innovation (Manzini, 2014), adopting the concept of 'community-centred design' (Manzini & Meroni, 2012) and its relevance to 'communities of practice' (Wenger, 1998), approaching services as value co-creation in social contexts among various economic and social actors (Vargo & Lusch, 2004). In line with Grönroos (2006), this research goes beyond the notion of services as discrete objects of design that designers shape and specify, and explores services as a way of thinking and approaching innovation and doing business that artisans can develop while collaborating with the designer. Given the recent emergence of research on the 'service system' – a complex configuration of people, their competencies and resources, that co-create value within and across businesses (Maglio et al., 2009) – a 'middle-up-down' approach (Staszowski, 2010) – bridging bottom-up initiatives with top-down

support – seems a promising model for sustaining and scaling up social innovations. However, borrowed from business literature (Nonaka, 1988), this requires further investigation within the design discipline.

Current literature has evidenced that services are generally conceptualised in an overly neat way, omitting the social life embodied into services. Instead, this research builds on Blomberg & Darrah's (2014) discourse on an 'anthropology of services', intended as a messier, socially framed view of service innovation. From this perspective, this research responds to the need – also highlighted by Sangiorgi & Junginger (2015) - for a more situated and embedded way of understanding contexts and the relational structures that support the design of locally situated services (Prendiville, 2015). Building on Pink (2013), this research proposes collaboration as a key issue in design anthropology, through the sharing of tacit and embodied knowledge and empathy with co-researchers.

2.1 A Design Anthropological Perspective on Service Design

This research reconceptualises service design as a context-specific sensemaking process of assemblage, entanglement, local learning. This implies an anthropological understanding of design as a socially and culturally framed human activity rather than a business logic (Sangiorgi & Prendiville, 2015). For the purpose of this research, a conceptual framework for an anthropological approach to service design for social innovation and sustainability was developed (Table 1). This was tested by applying it within the context of textile artisan communities and investigating its implications for the service design discipline.

Table 1. Conceptual framework.

key features	description
anthropological	It is an anthropological act of weaving together past, present and future, taking responsibility in the present, towards the future
mundane	It elicits tacit knowledge of everyday life through a journey of discovery and actualisation of mundane reconfigurations of existing assets
situated	It is grounded on co-design, situated on local people, practices and cultures
transformative	It adopts a transformative worldview, socially constructing realities and visions for the future
interventionist	It triggers a collaborative intervention towards social change
co-created	It gathers people together and triggers them to co-create shared values
resilient	It enables different agendas to co-exist, based on co-dependencies, and building resilience, rather than resistance to innovation
open	It is an open and flexible model that local stakeholders can design into, instead of a fixed toolkit designed onto them

3. Participatory Case Study

Due to the exploratory purpose of this investigation on service design situated in diverse contexts, case study was chosen as research strategy to guide this project (Yin, 2004). This strategy was chosen

because it suits the need to provide an in-depth understanding of textile artisanship, drawing on the sub-discipline of design anthropology (Gunn & Donovan, 2012). The case was here studied using a participatory design research approach, which consists of the collaboration between the researcher and participants to explore a social problem within the research context, aiding communities rather than building on theories to influence designs (Creswell, 2007). Combining the two approaches was deemed an effective way of learning about the context and generating realistic visions of the future. Throughout the case study, multiple service design and co-design data collection methods were adopted as they complemented each other, and adapted to meet the objectives of this research.

3.1 Ethnography

In line with the design anthropological perspective adopted for this research, ethnography was used in order to identify a suitable scope for the case study and plan the collection of data regarding the current state of the art of the local textile artisan community. Mattelmäki (2006) defines ethnography as an exploratory, rather than evaluative, method which takes place in natural surroundings, and is open to changes and refinement throughout the process as new learning shapes future observations. This ethnographic scoping activity involved participants' observations and informal interviews with diverse stakeholders (i.e. artisans, retailers, members of support organisations, educators and consumers) in their natural settings (i.e. in their work routines and spaces) with the aim to investigate the network of stakeholders and yield real-world experiences.

3.2 Storytelling

Storytelling was used as data collection method with the aim to map the current state of the art of Nottingham lace artisans and identify challenges and opportunities for their transition towards a sustainable future. Such a method builds on the work of philosopher Arendt (1961), who defines storytelling as an opportunity to collect the fragments hidden behind the mainstream, weave them together in a narration and communicate it. Storytelling (Stickdorn and Schneider 2011) was conducted in the form of contextual interviews to collect qualitative data *in situ* and develop compelling and holistic narratives around the artisanal businesses. The contextual interviews were conducted in three artisans' workspaces; tools and spaces were regarded as prompts to provoke a comprehensive discussion around the artisans' work routines. During the sessions, a combination of questions and observations was used to collect insights, following a mind-map organised in the following themes: cultural, social, environmental and economic sustainability. The map was translated into a storytelling protocol, yet allowing for flexibility to accommodate the direction the contextual interviews would have taken (Robson 2002). Finally, the data interpreted was displayed in form of storytelling photo-diaries shared with the artisans (Figure 1); the intention was to make the narratives accessible and resonant to a wider public.



Figure 1. Storytelling photo-diaries.

3.3 Sensemaking

After the initial ethnographic understanding of the artisans' past and present, a future orientation was sought in the use of a sensemaking method. Sensemaking is defined as "a motivated continuous effort to understand connections in order to anticipate their trajectories and act effectively" (Klein et al. 2006). Sensemaking encompassed subsequent exercises, aided by suitably designed tools (Figure 2). At first, drawn from Kolko (2010), a 'reframing' activity was conducted to trigger the artisans to reflect on their businesses and discuss 'what a sustainable future may look like for them'. Then, a 'concept mapping' tool was used to develop a formal representation of the artisans' concepts in relation to future trends. Therefore, some connections were woven between the artisans' current practices and eight future trends suggested by 8 statements used as prompts, related to the theoretical proposition of sustainable futures developed in a previous scoping study (Mazzarella et al., 2016). Using a 'What if...' technique (Stickdorn and Schneider 2011), the artisans were asked to answer the question "What would happen to your business if such trends occurred?". Finally, through the use of an 'insight combination' tool, the researcher facilitated the artisans to create ideas challenging the sustainable future visions framed before.



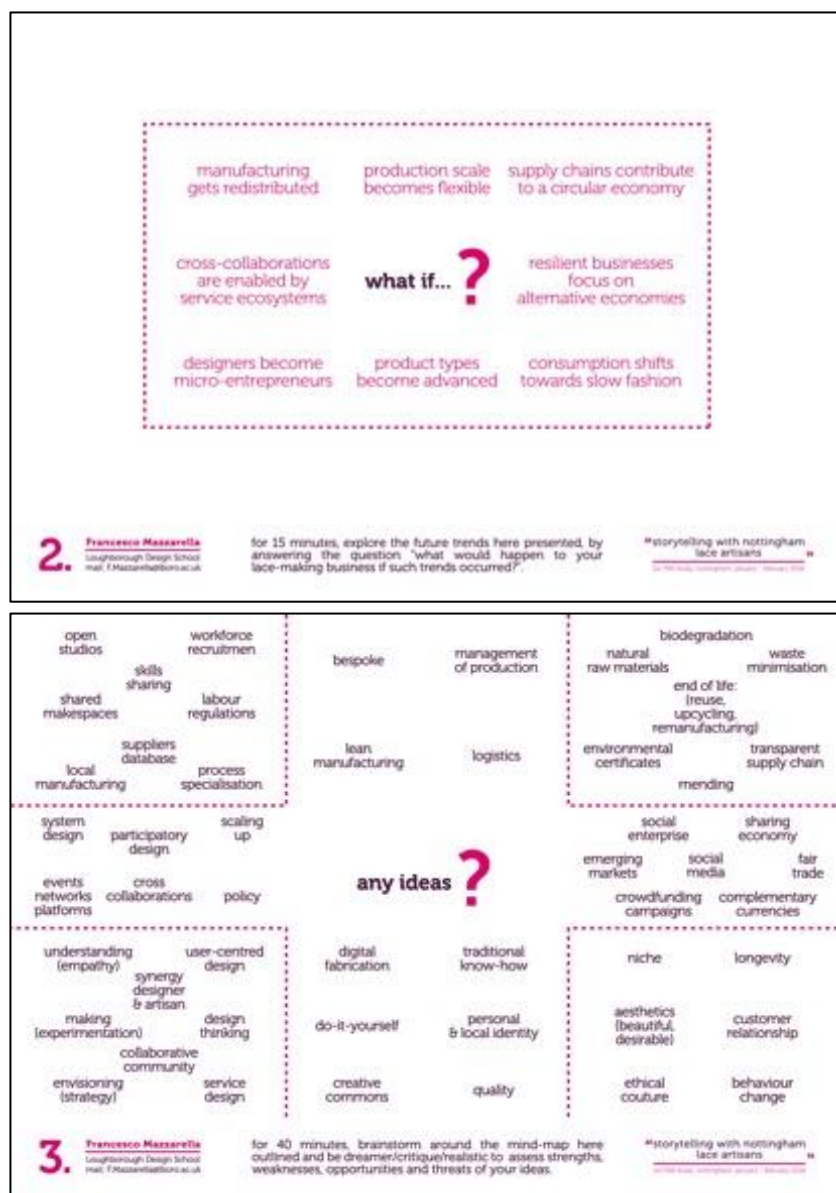


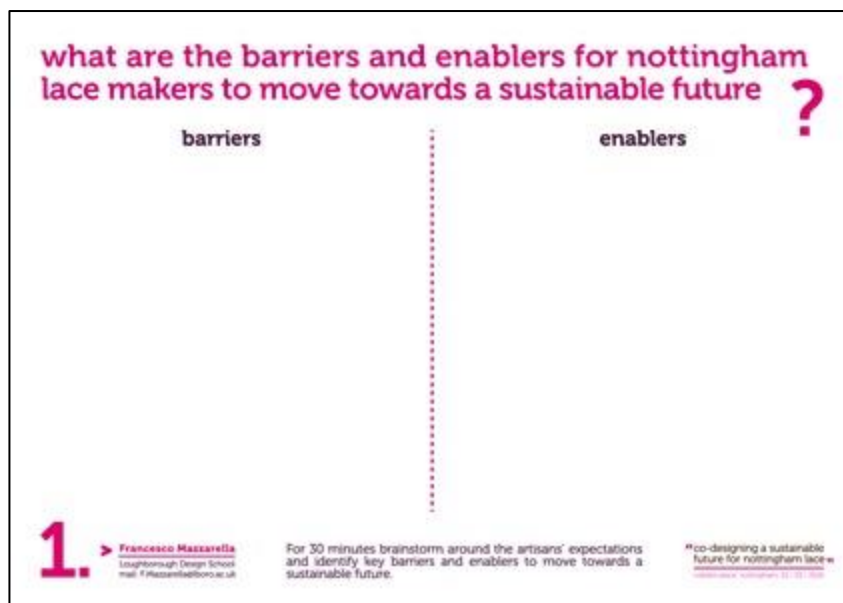
Figure 2. Sensemaking tools.

3.4 Co-creation

The artisans' visions for the future collected in the discovery phase informed a co-creation workshop (Stickdorn and Schneider 2011). This aimed to co-create situated service strategies for the transition towards sustainable futures. Building on Mattelmäki and Visser (2011), such a co-design approach engaged designers, users and stakeholders collaborating towards exploring, envisioning and developing solutions, with the aim to give voice and tools to those who are not usually involved in a design process. In line with Sanders and Stappers (2008), 'co-creation' is here referred to the act of collective creativity applied and shared by people.

Diverse tools (Figure 3) were used during the co-creation workshop. Firstly, the participants were asked to collectively discuss the artisans' expectations, and write down in a given template key barriers and enablers for Nottingham lace artisans to move towards sustainable futures. The aim of this activity was to identify key issues and translate them into opportunity areas for a service design intervention. Therefore, the participants were asked to brainstorm around different design directions that Nottingham lace artisans could follow to achieve sustainable futures. Adapted from IDEO (2015),

a tool was used to reframe the challenge, by taking into consideration target beneficiaries of the innovation, socio-cultural factors around the problem, evidences to support an investment in this direction, and possible solutions to the issue. Having identified a design direction, a tool was used to outline a strategy for encouraging Nottingham lace artisans towards sustainable futures. Therefore, the participants were asked to identify why to pursue the strategy, who could have supported it, what activities could be proposed, and how they could be implemented. This method was used to meaningfully frame the strategy, in a way that participants could think creatively about possible services. In order to map the target stakeholders who could have supported the chosen strategy, a 'stakeholders map' tool, inspired by the 'Platform Design Toolkit 2.0' (Cicero 2016), was chosen as a way for drawing a picture of the overall system around Nottingham lace. The participants were asked to note down all the actors who could drive, contribute to, or be impacted by the identified strategy. This tool prompted the participants also to prioritise among the stakeholders according to their impact level, based on their roles, skills, motivations and benefits. At this point, the workshop participants brainstormed around potential services that could have enabled the implementation of the future strategy. A suitably designed tool was used to plot the participants' ideas along two separate axes: the x-axis as individual versus collaborative, while the y-axis read offline versus online. Finally, reflection was held in order to collectively discuss around the core values that the artisans wanted to share as a community and to co-design a manifesto guiding further developments of the service.



what directions could nottingham lace makers follow towards achieving a sustainable future ?

what is the key issue that you are trying to address, why is it important?	who is that problem for?	what social or cultural factors shape this problem?	what evidence do you have that this is worth the investment?	can you reframe the problem?

2. > **Francesco Mazzarella**
Loughborough Design School
mat.f.mazzarella@lboro.ac.uk

For 30 minutes, based on the opportunity areas mapped before, brainstorm around different design directions which nottingham lace artists could follow to achieve a sustainable future.

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nottingham.lboro.ac.uk/designschool

what strategy would you propose to encourage nottingham lace makers towards the chosen direction ?

3. > **Francesco Mazzarella**
Loughborough Design School
mat.f.mazzarella@lboro.ac.uk

In 30 minutes choose one of the design directions identified before and outline a strategy (i.e. identify why/who/what/how the sustainable future can be achieved).

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nottingham.lboro.ac.uk/designschool

which stakeholders could support the chosen strategy ?

4. > **Francesco Mazzarella**
Loughborough Design School
mat.f.mazzarella@lboro.ac.uk

In 40 minutes map the target stakeholders (and their skills, motivations, benefits) to support the chosen strategy, and prioritise among them according to their impact level.

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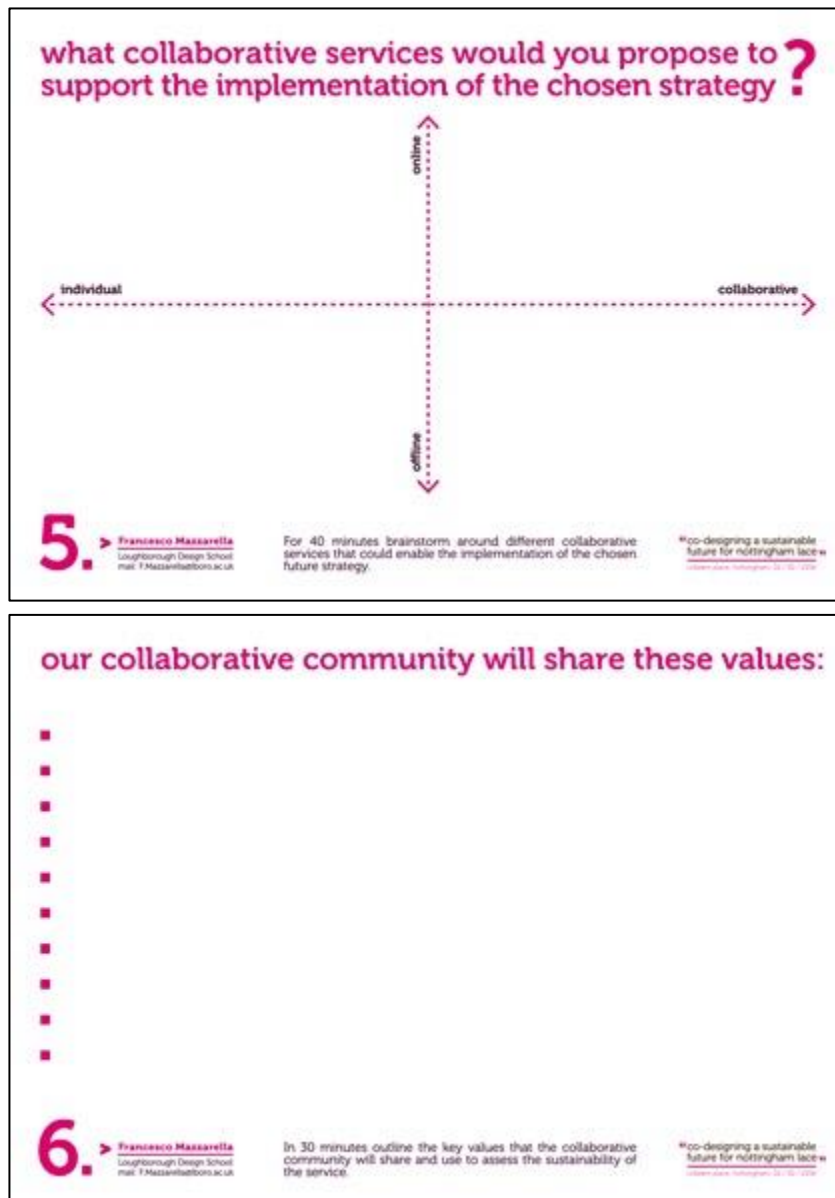


Figure 3. Co-creation tools.

4. Crafting a Sustainable Future for Nottingham Lace

The aim of this study was to develop a service design framework for bridging from visions of the future to actionable realities. This study sought to understand the current state of the art of Nottingham lace artisanal businesses and make sense of a flourishing future for the sector. The focus on Nottingham lace was chosen due to its heritage textile know-how which has played a key role on the local economic and social history since the Industrial Revolution (Briggs-Goode & Dean, 2013), and due to its abundant hidden potential in terms of cultural heritage, social engagement and creative economy. On the other hand, the sector has been seriously endangered by overseas competition, causing the closure of most of the factories and the disappearance of heritage know-how among current generations (Fisher et al., 2016). Furthermore, the lace-making businesses still active in the territory live in an isolated and precarious condition, yet the stakeholders participating in this study recognised the formation of a collaborative community of lace artisans as a way to revitalise the local heritage and contribute to Nottingham's sustainable development. In

particular, three artisanal businesses participated in the initial stage (i.e. 'Storytelling with Nottingham Lace Artisans'), and eleven stakeholders working around Nottingham lace (i.e. artisans, design practitioners, students and educators, members of public organisations engaged in heritage, place-making and tourism) participated at the workshop 'Co-designing a Sustainable Future for Nottingham Lace' (Figure 4).



Figure 4. Study participants.

4.1 A Middle-Up-Down Framework

A critical reflection on this study guided the development of a service design framework for activating meaningful routes towards a sustainable future (Figure 5). Such a framework was conceived to be 'middle-up-down', as it bridges from top-down visions for the future to bottom-up current practices. The framework was applied for the first time in this study and will be continuously refined throughout subsequent studies.

Situating the Intervention

In order to root the designing of services in the reality of people, the study evidenced the importance for the designer to play the role of an anthropologist to pursue an initial scoping activity. This can be conducted through observations and informal discussions with local stakeholders (Segelström et al., 2009), yet there is still room for formalising this research stage into a more purposeful method grounded on ethnographic research. Although the scoping activity brings together locally available assets through an organic human chain of contacts, there is still scope for the participants' recruitment to become a more self-defining task. This would mean making participants self-assess against certain given criteria, yet open to interpretation and flexibility, to tailor the scope of the intervention to the local context and gather a group of people who are motivated to collaborate towards addressing their collective needs. After defining the focus of the study, recruiting participants can be challenging because of the artisans' resistance to collaborate and innovate. In order to overcome the difficulty to understand the potential outcomes of the project, it is important that the researcher provides examples of potential outcomes and negotiates with the artisans some

routes beneficial to address real-world challenges. Therefore, this phase aims to raise awareness, and activate potential participants around the identification of the scope for an intervention, framing a vision for sustainable futures, and obtaining consensus from the community.

Interweaving New Narratives

In line with anthropological theory, this study showed the contribution of the ‘designer as storyteller’ (Bertolotti et al., 2016) to using the past in order to understand the present and inform sustainable futures. This can be achieved through a process of loops of past and current understanding, to enable the artisans aspire to somewhere further they could go. Such a process elicits tacit knowledge and gives the artisans new forms of acknowledgement and ‘slow activism’ (Pink, 2015). The emphasis on the ‘tacit knowledge’ (Polanyi, 1997) through which the artisans experience their stories is central to understanding how the artisans make sense of sustainable futures. In fact, storytelling contributes to interweave the threads of the artisans’ work routine, and make the intangible tangible (in this case, through photo-diaries). In this regard, it is important to highlight that documentation needs to be planned beforehand in order to produce visible outcomes, to be shared with a wider network of stakeholders.

Making Sense of Sustainable Futures

Taking a step further from the anthropological discovery of the current state of the art towards a design intervention for the future, means that the designer plays also the role of a sensemaker, encompassing unknowing, sharing, making, moving, and disrupting. This implies embracing uncertainty, not as an uncomfortable state, but as an opportunity to be generative (Pink & Akama, 2015), a unifying force driving collaboration among artisans towards a shared aim. An activist approach can be adopted to enable the artisans to envision alternative futures for themselves. To engage the artisans’ future thinking, it is important to understand how they imagine the future may look like for their business, and how they do not want it to look like. In line with the concept of ‘symbolic interactionism’ (Blumer, 1969), the designer here is summoned to activate interactions with the participants in the co-creation of meanings. In fact, after spending some time engaging with the artisans’ narratives, it is possible to softly introduce future trends, making connections with the needs and aspirations of the artisans. This enables the artisans to generate ideas around the challenges and opportunities for future trends to occur. Although some future trends can be unwanted or feared, this process reminds the artisans that such complex issues are part of our realities and cannot be completely evaded or ignored, yet they could be acknowledged into resilient visions for the future. In particular, adopting the concept of ‘anorthoscopic vision’ (Virilio, 2000) – from Greek *an* without + *orthos* right + *skopeein* to view + *ikos* relating to), meaning steering future thinking through sequential steps – helps progressively shaping a comprehensive vision. Finally, there is the need to use a language accessible and resonant to the artisans, so that they are able to think about sustainable futures on their own.

Co-designing Situated Services

Building on the previous anthropological phases, co-design brings a collaborative practice, as well as a future orientation and intervention (Pink, 2013) to the phenomenological approach of designing with (and not for) artisans. This stage is conducted as a co-creation workshop, bringing people together and enabling them to craft sustainable futures, aiming at place-making (Pink, 2012). Such a co-creation process is conceived as a way of activating a context for sharing experiences and practices (Ehn, 2008) that enables a culture of social innovation to emerge. The co-creation workshop is a context-enacted method, based on a middle-up-down approach (Staszowski, 2010),

where the designer activates the artisans to express their bottom-up ideas and weaves connections with top-down support organisations. The designer contributes to break down barriers to collaboration and to build trust. Using service co-design tools plays a key role in visualising thoughts as a way to create shared ownership of ideas amongst different stakeholders. Discussing the artisans' challenges as a way to envision future opportunities contributes to develop a 'culture of resilience' (Manzini & Till, 2015), as opposite to the resistance (as a form of disengagement and disillusion) that was originally widespread among the participants. The co-creation activities build on insights present in the artisans narratives, and interweave them in new ways that are visible and evident to other stakeholders, reconfigured into a workable design direction. Collectively designing a future strategy and its support network of stakeholders becomes a way to develop situated services and strategies, rooted on the uniqueness of a 'place' (Prendiville, 2015). Therefore, a service proposition may be developed, defining the system (e.g. the hard and soft aspects of it), the value proposition, and reflecting on the overall sustainability of the idea as well as the benefits for various stakeholders. The co-designed manifesto works as a way to knit the collective experiences of various stakeholders into core values that become manifest within the community. The manifesto is an empowerment tool through which the artisans become emotionally heightened. As a consequence, this triggers a also sense of collective gratitude to the researcher, who helps bringing a service idea to life.

Activating a Legacy

After outlining a service proposition, there is the need for the designer to step out and let the artisans carry on their business activities, without overwhelming them with extra commitment. This is a challenging phase in the social innovation journey due to the difficulty to keep the momentum going, while progressively lowering the engagement with the participants, for them to become less reliant on the designer. For this reason, it is key to clearly define at early stages an 'exit' strategy (Meroni et al., 2015), here defined as a responsible practice, based on transparent communication with the participants around the designer's roles and responsibilities. It is recommended that the designer plays the role of a 'reflective practitioner' (Schön, 2009), investigating ways for the artisans to progressively become self-sustainable and activating a legacy with the local community.

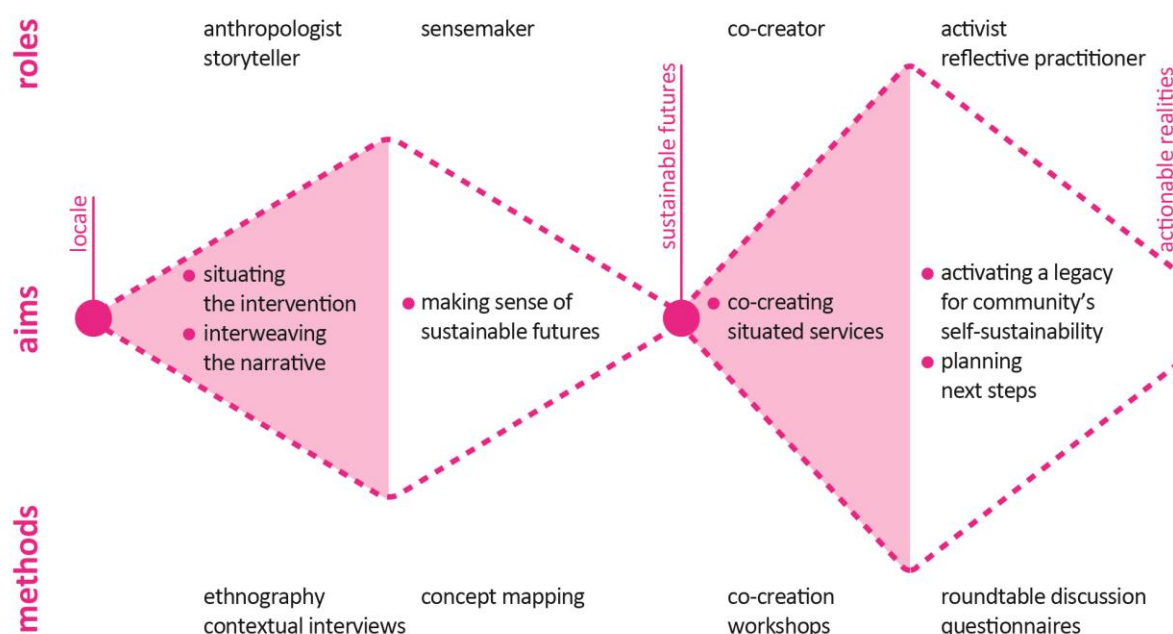


Figure 5. Service design framework.

5. Conclusions

The findings of this study contributed original knowledge through the development of an anthropological approach to service design for social innovation and sustainability. This case study contributed to bridge from theoretical propositions of sustainable futures to the practices of the artisans engaged in co-creation. This study allowed exploring the value the service designer can bring in interweaving threads of the artisans' work routine, and translating them into new and workable stories, made visible and evident to other stakeholders in order to co-design future service propositions. This helped the artisans to ground their visions in the past in order to co-create meaning in the present and move towards the future. Within this context, the designer played a transformative role as an 'agent of alternatives' (Fuad-Luke et al., 2015), acting around the edges of the artisans' reality to imagine what this could have become. To activate a messy and unpredictable process of change, the designer needed to be able to embrace uncertainty, yet had to do this within a sufficiently systemic research process. Moreover, the study showed that loyal dedication and being 'embedded' into the community are conditions of work of the designer activating social innovations. Beyond mastering service design methods, the process here developed was meant to understand the context and tailor the process to the artisans' realities. Although the co-designed service proposition seemed to be quite mundane, it resulted to be likely sustainable as it was co-created by the artisans making sense of the future opportunities presented in response to their current challenges. Through such a sensemaking process, it emerged that in this context some futures (e.g. circular and sharing economy) may remain a form of vision for the local artisans; others (e.g. slow consumption, flexible production) were very present with the artisans. Taking this issue into account may allow envisioning resilient strategies, which enable stakeholders to 'live with', rather than in resistance to, future trends that may or may not fit with the aspirations of the local community. Finally, the framework is not conceived as a prescriptive prototype or a model to design a 'known' future; instead, it activates an open process to inspire and trigger the capacity of local stakeholders to purposefully act in the present, while having a future orientation. Such a journey of discovery and intervention is thought to be aspirational, as it ascribes to a set of values that can be practically applied and experienced in different ways by different communities. Such a framework is flexible and open to interpretation and adaptation by local stakeholders, designing into it, using what is locally available.

5.1 Limitations and Next Steps

Reflecting throughout the research process undertaken, it emerged that the scoping activity needs to be refined, in line with ethnographic practice, that requires immersion, incremental ways of learning and knowing. Taking a step forward into the 'anorthoscopic vision' approach used for the sensemaking session, there is the need to discretely and progressively show the information on the 'ideas generation' template. This would allow the artisans to meaningfully envision sustainable futures, instead of overwhelming them with future issues they are not yet aware of. There is still scope for further improving the timing and terminology used throughout the co-creation process to make it more bottom-up. The co-creation session was highly structured, yet the process may become more open, fluid and participants-led; in fact, tools (such as the manifesto) more closely related to the artisans' aspirations were deemed effective. The participants' feedback evidenced a shortage of lace artisans in the co-creation workshop, therefore it is recommended to conduct the co-creation workshop only with artisans, in order to better allow them to envision grassroots innovations, avoiding the risk of top-down organisations leading the process. A prototyping stage was missing in this study, to assess the practicability of the service and bridge from the bottom-up ideas developed by the artisans to the top-down support that other stakeholders might offer. Furthermore, the

designer's role and exit strategy were not defined at the outset. This led to vulnerable relationships between the researcher and the participants, who were not guided through a process of taking full ownership of the solution. To overcome the limitations of this study, a second case study was conducted, enriching the initial framework and testing its transferability into another context.

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About the Authors:

Francesco Mazzarella is a PhD researcher at Loughborough University, member of the Sustainable Design Research Group and the AHRC Design Star CDT. His research interests include service design, social innovation, holistic sustainability, design futures, design anthropology and textile artisanship.

Val Mitchell is a senior lecturer at Loughborough Design School specialising in the development of methods and tools for User Centred Design (UCD). Her research encompasses service design, co-design and the use of creative methods to study the home.

Carolina Escobar-Tello is a progressive researcher and designer. Currently a lecturer at Loughborough Design School, she has worldwide academic and industrial experience. Her research focuses on design for happiness, sustainability, creativity, systemic thinking, and social innovation.

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