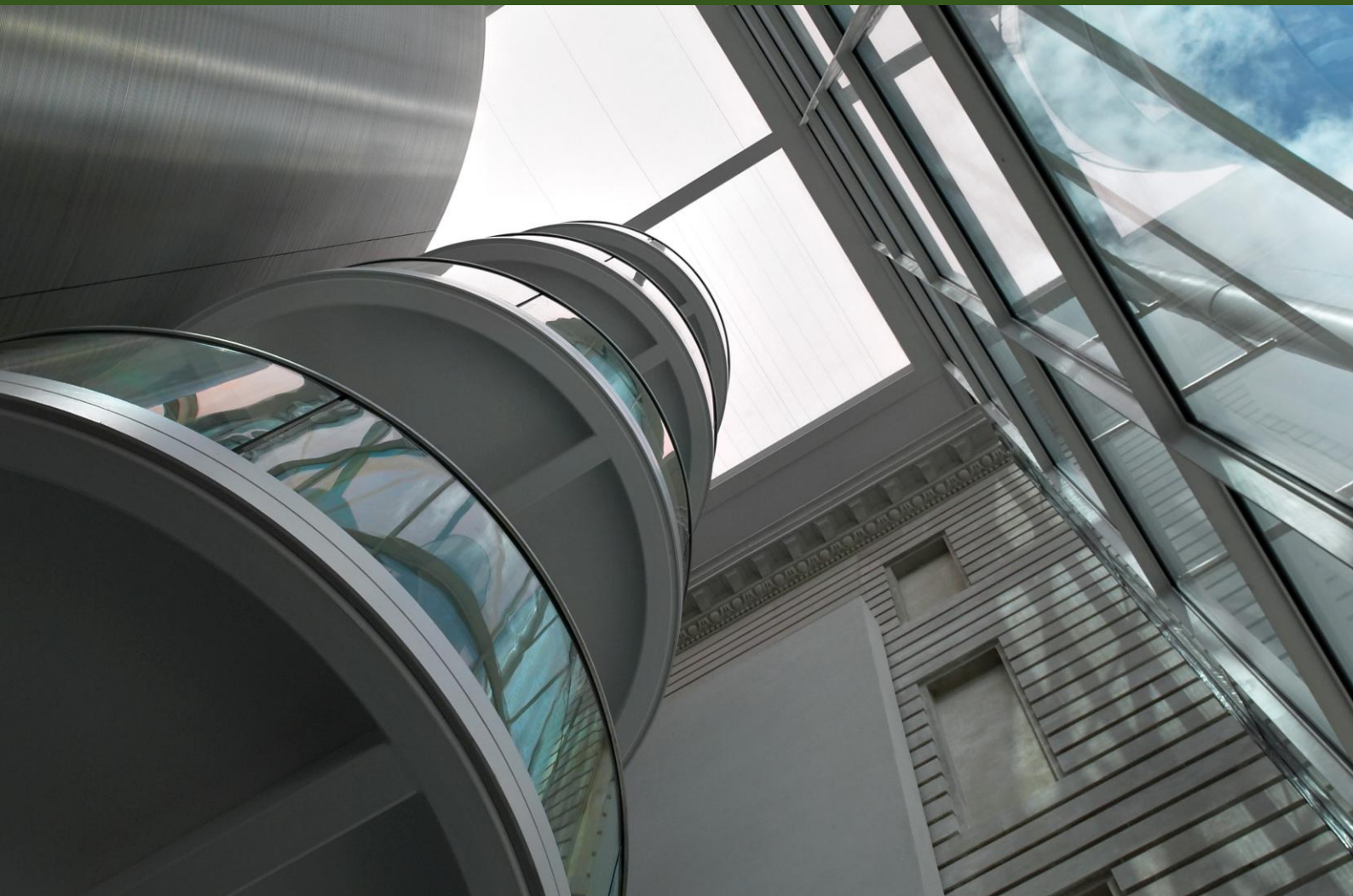


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Designing new customer experiences: a study of socio-material practices in service design

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**DESIGNING NEW CUSTOMER EXPERIENCES:
A STUDY OF SOCIO-MATERIAL PRACTICES IN SERVICE DESIGN**

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ABSTRACT

Past studies on design and designers' work share an understanding of design as concerned with making and interpreting objects, including the finished articles – e.g. consumer products – and 'experimental' design aids – e.g. prototypes. Nevertheless, for over a decade design professionals have been extending their remit from the design of tangible objects to the design of intangibles – e.g. experiences, and services – as the result of the increasing part played by services in the world economy. This tension between tangibility and intangibility in design is particularly relevant in the case of the development of new customer experiences by definition intangible, fluid, and essentially subjective, and thus difficult to define and design. In this paper, building on an inductive study, we investigate how service designers design – with methods and processes originally created to design artefacts – a customer experience. Our findings reveal that the design of customer experiences revolves around three main set of practices, *exploring the experience ecology*, *making experiences tangible*, and *communicating about experiences*, and point out the prominent role of materiality in the design of intangible outcomes.

INTRODUCTION AND THEORETICAL BACKGROUND

In the last two decades, design and designers' work have been the focus of attention in various streams of research, as a result of their increasingly central role in the construction and renewal of competitive advantage (Lorenz, 1986; Thackara, 1997; Walsh et al., 1992; Lojacono & Zaccai, 2004; Ravasi and Lojacono, 2005; Verganti, 2006). In particular, studies focusing on the work of designers and engineers have highlighted the role of visual practices and visual tools in the dynamics of designers' knowledge (e.g. Ewenstein and Whyte 2007, 2009; Stigliani, 2009). Similarly, studies of boundary objects have brought to the fore the roles of objects in the processes of knowledge management in organizations, highlighting how they enable the building of a shared meaning and support communication, coordination and knowledge sharing across boundaries (e.g. Carlyle, 2002; 2004; Bechky 2003a, 2003b).

Other studies sharing a conception of design as a creative process, have used primarily product design firms as research settings in order to investigate creativity (e.g. Sutton and Hargadon 1996; Stigliani and Ravasi, 2010), and innovation (e.g. Hargadon and Sutton 1997). These studies have emphasized the role of artifacts in supporting, shaping and influencing the development of creative solutions along the creative process, as well as in fostering the brokering and transferring of knowledge over time and across projects leading to innovations. The conception of design as a process, and particularly the notions of prototyping (Thomke, 1998; Brown, 2008) and user-centered design (Norman, 1988) characterize also fields such as Human Machine Interaction (Bødker 1996, Mackay and Fayard, 1997) and New Product Development (Kelley, 2001, Veryzer and Borja de Mozota, 2005). In these fields artifacts and prototypes are central to the design process as boundary objects to facilitate the discussion between users and designers (Junginger, 2005; Mackay et al. 1998; Kelley, 2001) and as probes supporting ideas generation (Gaver et al., 1999, Kimbell, 2008, Kelley, 2001).

Most of the studies in these different fields share an emphasis on the tangible aspects of design, and on the role that material artifacts play in designers' work. Even research focusing on the creative process and on design as an approach to problem solving often refers to the work of designers

building “things”- e.g. final products, tools, buildings etc. This is in line with the recent calls by organizational scholars (Leonardi and Barley 2008; Orlikowski 2007; Orlikowsky and Scott, 2008; Fayard and Weeks 2007) for research that takes into account materiality – the physical properties of organizational infrastructure, tools, and technology – and focus on the study of all these “things” –, documents, telephones, computers, software and the building it self- are used to accomplish work and to enable the organizing process. At the same time these scholars emphasize the role of the social, and follow Orlikowski (2007) when she argues that to take the materiality of everyday organizing seriously scholars need to consider the social and the material as constitutively entangled with each other.

Such a tension or entanglement between the material and the social seems to be well illustrated in the design realm with the emergence of the new practice of service design. Indeed, although design is often thought of as concerned with making and interpreting objects, including the finished article (e.g. consumer products) and ‘experimental’ design aids (e.g. prototypes), for over a decade design professionals have been extending their remit from the design of tangible objects to the design of intangibles –e.g. services, systems and environments.

This tendency can be interpreted as the result of the increasing part played by services in the world economy. The services sector now accounts for 70% of many advanced industrial economies (UNCTAD, 2004, World Investment Report: The Shift towards Services). Companies do not only produce manufactured “goods”, but over the past decades, they have started focusing on intangible resources (Vargo and Lusch, 2004a). Technology companies, such as IBM, are increasingly relying on services as a source of revenue. A similar trend is to be observed in the pharmaceutical industry with a transformation of the business model of pharmaceutical companies, such as Pfizer, where a growing proportion of their revenue does not come from products but from services. In other words, many firms are trying to mix products with services developing hybrid solutions — products and services combined into innovative offerings —in order to attract new customers and increase demand by providing superior value (Shankar, Berry and Dotzel, 2009).

The apparent opportunity to design intangibles has aroused growing interest among both practitioners and academics (Moritz, 2005). For instance, initially derived from both product and interaction design, service design has gradually acquired its own identity as a domain of professional practice and academic study (Sangiorgi, 2009). In the early 1990s, some international universities (e.g. Köln International School of Design, Carnegie Mellon University, Polytechnic of Milano) established service design as one of their fields of education and research; around the turn of the Millennium several new service design consultancies were established in various countries (e.g., Live|Work, Engine, Experientia, Frontier, etc.). Meanwhile, several of the larger, existing worldwide design consultancies (e.g. IDEO, Continuum, Frog Design, etc.) introduced Service Design among their consulting offers and practices. Finally, in 2004 the Service Design Network was launched in order to create an international network for service design academics and professionals.

Therefore, there seems to be an emerging tension. On the one hand, there is an increased interest in management and organization studies for design as a set of material practices or as the design of tangible outcomes. On the other hand, there is an increased involvement from designers in the development of intangible outcomes – like services, experiences, and systems. This tension is particularly relevant in the case of the development of new customer experiences. Indeed, developing new customer experiences seems to be a main driver of innovation and success in the service industry as well as the key added value of service design, as suggested by practitioners of the field (Samalionis, 2009). However, defining a customer experience is far from being a straightforward endeavour, as is the case of the work of various philosophers who aimed to define human experience (Merleau-Ponty, 1976, Nagel, 1974) and sensations (Locke, 1689/1975; Dennett, 1991).

In this paper we seek to investigate how service designers design – with methods and processes originally created to design artefacts – a customer experience, which is by definition intangible, fluid, and essentially subjective, and thus difficult to define and design. We present and discuss the early results of an ongoing qualitative study investigating the design process of different service design consultancies. We argue that the emerging practice of service design represents an appropriate context

for this study, as one of its main aims is to develop new and/or improved services by designing better customer experiences (Mager, 2004; Moritz, 2005). Furthermore, service design by definition does not focus only on technological and functional innovations and thus offers an interesting field of investigation to understand linguistic, semantic and symbolic innovation. In other words, a better understanding of the practices enacted by service designers might allow us to unveil new insights on the innovation process.

Our preliminary data analysis suggested that the design of customer experiences revolves around three main set of practices engaged in by service designers, namely: *exploring the experience ecology*, *making experiences tangible*, and *communicating about experiences*.

The reminder of the paper is structured as follows: in the next section, we present and discuss our methodology. In the following sections, we present our observations regarding our informants' interpretations and accounts of the design of new customer experiences. Finally, we outline and discuss the main contributions of this study.

METHODS

In order to investigate how customer experiences are designed and developed we relied upon a qualitative field-based study of service design consultancies. This methodology was selected because of the exploratory nature of the study, and the need to account for individuals' perspective (Lee, 1999).

Research Setting and Sample

Definition of service design. Although to date there is not a clear-cut definition of what service design is, there seems to be converging consensus across practitioners of the field around an idea of service design as "the design of the overall experience of a service as well as the process and strategy to provide that service" (Mager, 2004; Moritz, 2005). In other words, service design can be considered as a set of emerging design practices aimed at understanding clients, organizations and markets, developing ideas, translating them into feasible solutions and helping organizations implement them. It is, therefore, an ongoing process involved in the life-cycle of services, requiring various design tools and techniques to make the service experience consistent, desirable, in line with the brand essence, and commercially

successful. It connects the desires and needs of customers with those of service organizations, acting as mediators between the two counterparts within the overall context. Far from being a new specialist design discipline, service design is a set of multi-disciplinary practices integrating expertise from different fields, like management, marketing, research and design, although maintaining a hard core of design tools and techniques deeply rooted in design thinking.

Historical evolution of service design. The roots of service design can be traced back to 1984, when G. Lynn Shostack published a paper in the Harvard Business Review entitled “Designing services that deliver”, introducing for the first time the concept of the *service blueprint*, a specific tool to design services. In the early ‘90s, Gill and Bill Hollins introduced in their book “*Total Design*” a section named “A Design Management perspective on service design, while some European design schools, such as the Köln International School of Design, the Interaction Design Institute in Italy, and the RCA in London started offering courses on service design or on interaction design³. At the turn of the millennium, the first service design consultancies were launched mainly in the UK. In particular, in 2000 Oliver King and Joe Heapy founded Engine “out of frustration about traditional design”, while in 2001 Chris Downs, Lavrans Løvlie, classmates at the RCA in the Computer-related Design program, and Ben Reason founded Live|Work calling themselves “a service innovation and design consultancy”. Afterwards new service design consultancies were established primarily in the UK, but also in other European countries. Examples are Spirit of Creation⁴, Prospect, Seren Partners, Radarstation, STBY, ThinkPublic, all based in London, Experientia in Italy, 31Volts in the Netherlands, Designit in Denmark, etc. Meanwhile, some of the larger, already existing international design consultancies (such as IDEO, Continuum, Frog Design, etc.) introduced service design among their consulting offers and practices. In 2004 the UK Design Council created a “do tank” named RED aimed at developing new thinking and practice on social and economic problems through design-led innovation. During its 5 years of activity, RED has run many projects focussed on the development and implementation of new

³ The Köln International School of Design was the first university world-wide to offer Service Design education, the Ivrea Interaction Design Institute set up a department dedicated to service interaction, the RCA offered a Master’s degree called Computer-related Design, mainly based on Interaction Design principles.

⁴ Currently out of business.

types of public services, and has trained some of the young service designers of the Greater London area. In the same year, Köln International School of Design, Carnegie Mellon University, Linköping's University, Politecnico di Milano/Domus Academy and the agency Spirit of Creation created the Service Design Network with the objective of becoming an international network of academics, practitioners and businesses promoting the development and spread of knowledge and expertise in the field of Service Design through annual conferences, publications, newsletters. To date, this network has over 100 members including academic institutions, business organizations and consultancies.

Sample. Our research sample is represented primarily by service design consultancies, organizations that are permanently or predominantly engaged in designing new or improved services for client organizations, imbedded and actively involved in the “design community”, and where, therefore, the phenomenon under investigation is more evident. The composition of the sample was informed by the nature of the theoretical sampling procedure (Glaser and Strauss 1967). In a preliminary phase, we privileged geographical proximity as main criterion of selection. Therefore, among the list of members of the Service Design Network, we selected some of the leading service design consultancies located in the London area: Live|Work, Engine, Prospect, Plot and ThinkPublic. Within these constraints we have also tried to maximize sample variation to allow for generalizability by selecting service design consultancies that range in size, year of foundation, etc.

Data Collection

We collected data from both primary and secondary sources. Precisely, data collection combined interviews, observations, informal talks, and archival data. Interviews were used to generate our emerging interpretations, whereas observations, informal talks and archival data served as support to them.

Interviews. We conducted 25 in-depth semi-structured interviews, which represented our main data source. As summarized by Table 1, we conducted interviews with service designers working in different service design consultancies located in the greater London area, with the exception of a few informants who at the time of the study were working as independent service designers. These informants were

selected through theoretical sampling (Locke, 2001: 54-55) starting with the founders of the companies and moving toward employees engaged in the development of new services. On average, the interviews lasted between one and two hours, and were recorded and transcribed. Interviews followed a common protocol, although some parts were adapted to the specific position and background of the interviewees.

Insert Table 1 about here

Observations. When visiting service designers in their companies' premises, we would be often offered a tour of the working space. After each visit, we recorded our observations about the physical setting, the props used etc. in the form of field notes. The first author participated to the annual conference organized by the Service Design Network, where she could attend presentations delivered by practitioners of the field, and engage in informal conversations with them. Moreover, during the conference, she took part in an interactive workshop entitled "Design Thinking: A Service Design Workshop" organized by a US-based design consultancy, in which participants were asked to develop a new customer experience based on some suggestions provided by the facilitators of the workshop. Finally, both authors attended a few meetings – like brainstorming sessions, and internal knowledge sharing meetings (including knowledge sharing activities) – organized by some of the service design consultancies investigated – as well as a social event called "Service Design Drinks" organized by a group of service designers, where they had the chance to have some informal conversations with practitioners of the field.

Archival documents. We conducted extensive searches of the websites of the service design consultancies investigated, of the Service Design Network, and of the UK Design Council. We also read many service designers' blogs and personal websites. In addition, our informants shared with us press articles, corporate brochures, books and pamphlets, and internal and external presentations relating to specific projects. Finally, we also read some issues of "Touchpoint", the international Service

Design Journal published by the Service Design Network. We used these sources to familiarize ourselves with the different corporate settings, and with the service design process. Later on archival data was used to triangulate and integrate the evidence derived from interviews (Glaser & Strauss, 1967:65).

Data Analysis

Data analysis relied on common procedures for grounded theory building (Glaser & Strauss, 1967; Locke, 2001). Since we were both involved in a larger study about the emergence and the development of service design as a set of practices, we engaged independently in a preliminary analysis of a sub-set of the interviews in order to identify emerging themes. While reading the interview transcripts, we noticed that many informants were referring to the design and development of new customer experiences, a topic we became intrigued by. We, then, read all the remaining interviews in search of “text segments” – phrases and passages – explicitly referring to the service design process and to the activities engaged by designers in order to design and develop new customer experiences. Following multiple re-reading of the interviews, we gradually identified three main areas of activities the design and development of new customer experiences revolve around.

FINDINGS

The analysis of how new customer experiences are designed revealed some consistent themes across informants. In this section, we use a selected set of examples to illustrate our observations and the core constructs derived from these observations. In particular, we first provide a brief description of the service design process, and then we outline in more details the activities engaged in and the tools and techniques used by service designers to design and develop new customer experiences.

As customary in qualitative research, our analysis of how new customer experiences are designed and developed produced observations that partly confirm and partly extend previous research. Like other design disciplines – especially product design – service design relies on a process which involves divergent and convergent thinking phases, and is intrinsically iterative in nature (Kelley, 2001; Brown,

2009). Although each of the consultancies we investigated was characterized by a different approach to the design of a new service, our informants converged around a description of the service design process as a sequence of four distinct main phases, usually named “discover”, “define”, “develop” and “deliver” – often referred to by informants as the “double-diamond” model.

Being a user-centered and participative form of design, service design relies on an intensive research phase including ethnographic methods, a definition phase where the insights from the research phase are used to generate ideas, a development phase where designers generate, iterate, test and refine design-led solutions addressing the problems or issues previously identified, and finally a delivery phase where the resulting service is finalized and launched in the relevant market.

If the service design process is at its core a design process using stages (e.g. research, define) and methods (e.g. prototyping, brainstorming) similar to product design, the “output” of the process is very different because of the intangible and subjective nature of services and customer experiences, as summarized very clearly by one of the service designers we interviewed:

If you think about when you're designing a new mobile phone and you're going out to talk to a set of participants to try and understand their needs, you're talking to them about a mobile phone and it's really easy to say to them, so show me your mobile phone, show me who's in your address book; how do you use your mobile? It's really easy to get your head around if you're answering questions about it, you have a thing to point at and everybody has a shared understanding of that thing. As soon as you're going out to talk about a brand or about (...) an experience then you have nothing to share (AT, Engine).

In particular, our preliminary data analysis allowed us to identify a repertoire of practices which service designers engaged in while designing new customer experiences: *exploring the experience ecology*, i.e. investigating the broader system to which the experience belongs; *making experiences tangible*, i.e. transforming experiences into real and material elements and objects, and *communicating experiences*, articulating experiences in order to develop a shared understanding among designers and with clients.

In the remainder of this section, following common prescriptions for qualitative research (Eisenhardt and Graebner, 2007), we intertwine a detailed narrative of our findings with theoretical reflections to articulate and support our observations.

EXPLORING THE EXPERIENCE ECOLOGY

A first set of practices performed by service designers when designing a customer experience is related to the deep investigation of what some informants called the “ecology” of an experience, namely the system in which a particular customer experience is integrated. In other words, experiences, like products, do not exist per se, but are nested in a broad context made up of actors, processes, relationships and interactions. A first major step in the design of a service experience, therefore, is the exploration of this context that designers perform by *understanding customer insights*, by *learning through experiencing*, and by *identifying brand values*.

Understanding customers’ insights. A theme emphasized across informants was the importance of exploring the vivid world of users’ needs, expectations, emotions and experiences- or in simpler terms the users’ perspective – in order to inform the final solutions. In order to do that, service designers would engage in a wide spectrum of research activities, going from ethnographic research – including observations, home visits, video diaries, etc. – to competitive analysis.

Talking with our informants, it seems that the ability to really innovate a certain service experience lies in the breadth of the initial research phase. In other words, the wider the scope of the research, the higher the possibility to come up with new and unexpected solutions to a certain problem, as explained by a service designer:

If you want to come up with something new, it's important for you to understand what's been done before, what other, in this case, what other programs are there that have been deployed around preventative health? Or other potentially analogous programs that could be applied to health. Maybe there are mechanisms that have already been developed that are quite clever for something else, I don't know what; that could then be adapted for use here. So you like to go as wide as possible, and really explore the extremes, because that's where interesting answers lie. The middle bit everybody knows. It's the outlying things that are interesting. (SL, Prospect)

Some informants pointed out the fact that through this exploration they were able to understand the real triggers and reasons behind people’s behaviors, as clarified by a service designer:

Being in their home, you're immersed in their environment, you ask about the full context of their life and then the media context of their life. And, then, maybe specific bits like the website or the radio or the iPod. And every question you use why, what do you mean, you kind of bring it down to principles behind emotions or triggers as to why people might do something. (TS, Engine)

Learning through experiencing. Another theme emerging from our interviews was related to the possibility for designers to learn about a certain service experience by going through it themselves.

Although conducting user-centered research is very important for designing a better experience, it is actually when designers “experience the experience” that they really understand what works or what does not work, as illustrated by an informant while talking about the design of a new hotel experience:

This last week in this project we've done with these hotels, we've been doing a whistle stop tour of going around and having tours of hotels, and just to be in there, it just makes it so much... you could have read a report about what happens, but, actually, it's not until you see it and experience it that you actually begin to own it and understand it. (OK, Engine)

As emphasized by almost all our informants, a big role in this was played by empathy. Put differently, our informants explained that it was their capability to empathise and emotionally engage with users which would lead them to a deep understanding of the experience. This was well illustrated by a service designer while describing the design of a new airport experience:

The technique that we used here as service designers was this kind of two-headed technique so you would go through, you would experience the airport as a professional service designer and you'd be looking for certain things and you'd be observing other passengers, you'd be taking lots of photographs, you'd be making lots of notes but then you'd be able to flip into a different mode, the mode of the passenger. We were passengers of course so we were able to go through these airports first time completely blind. I'm just going to go through as if I'm a regular passenger and I'm going to record what I experience and those two methods that we use are quite useful. And of course they're... it's tied up with this sense of empathy and understanding what other people might be thinking, a way of being able to step into the customers' shoes, all that kind of stuff. (AN, Engine)

Furthermore, informants converged on highlighting how their senses would drive their learning process of a certain experience, as illustrated by a service designer while talking about the design of a live event service:

So, when we did the live event aspect of this project, I went to Hay-on-Wye Festival. And this is actually a designer's immersion of the event, so we were doing it for ourselves to understand the before journey and after. And the unique difference that we felt from going to an event versus listening online is the actual sensorial experience of the event. And the things like the taste of the ice cream, the smell of the cinema, the sound of Desmond Tutu who was talking at the event, the rich books in the tent that they were selling. So in that case it was like sensory experiences were really important to the design of a live event service. (TS, Engine)

The role played by senses did not seem to be limited to the beginning of a project, but it seemed to guide designers throughout the entire process, as suggested by a service designer:

I think we emphasize as much as we can. We really constantly try and visualize with our heads what is it like to walk through the steps and what this desk is going to look like and what you might be feeling as you walk up to it and what you would really love to hear that person say. Would you want to be reassured? The other senses of what you smell and what you see are important, obviously, because it's how you navigate your way through a space when finding it. (SL, Prospect)

Finally, another informant explained how senses were crucial in guiding designers towards unexpected results:

What you want as a designer, or as a design company, is to get unexpected results. Unexpectedly beautiful or unexpectedly different. Otherwise they [the clients] would do it themselves. And so in order to get something that unexpected, you have to mix senses, you have to mix the things that you're inspired by, the things that you're exposed to. (AK, The Innovation Unit and Engine)

Identifying brand values. Another important aspect of the exploration of the service experience ecology was the identification of brand values. Service experiences in order to be engaging and compelling had to be connected to the business strategies and the brand positioning of their providers. Therefore, as informants noticed, it was important to develop a service experience that was coherent with the main values of the brand of the service provider. One interviewee highlighted the deep relationship between service design and brand

Everything we do involves an experience. And so much of the way that brands communicate with people is intangible, so you don't just go in and buy a phone from a shop any more; you buy the phone, but there are hundreds of different ways you interact with that brand - I guess I think about it from a brand perspective. (AT, Engine)

Brand values, usually identified with the help of the client organization, were combined with customer insights in order to generate a service proposition made up of some service principles, as explained by a service designer with respect to the design of a new travel experience:

We then took those insights and mixed them up, collided them with the brand values to come up with a set of service principles. We find it very useful to structure projects around principles that can be used both to guide and to assess ideas that we have along the way. These are the principles. They are usually derived from a combination of customer needs and brand values. The mix depends on the particular project. But in theory, every decision must be faithful to them. (GM, Engine)

For instance when designing a new passenger experience, the combination of brand values like “fun”, “caring” and “exceeding expectations”, combined with customer insights like “a smooth hassle-free experience” and “a little bit extra” led to the generation of service principles such as “make it easy” and “engage me”.

MAKING EXPERIENCES TANGIBLE

Another important practice performed by service designers relates to the ability to transform a set of abstract information and insights into something real and tangible; ability that rested on the use of a varied set of visual tools and techniques, such as customer journeys and experience mapping, touchpoints definition, service blueprinting, prototypes, storyboards, scenario mapping, etc. Differently from what we expected before starting this study, we noticed that the use of visualization techniques

and prototypes by service designers was even more important in service design than in other design disciplines which are supposed to deliver tangible outcomes (e.g. product design). An informant clarified this point during an interview:

As soon as you're going out to talk about a brand or about an experience then you have nothing, you have no shared [understanding]. I might think that checking in at an airport is very different to what your understanding of what checking in at an airport is, so immediately you have to create things. I think that's a big difference between service design and other disciplines, that you constantly have to make yourself put things down on paper and create things, whether it's creating a tool that you can have words on so that you can go, well does your experience feel more like this? What does this word mean to you? Or whether you're at the other end of the, once you've gone through the discussion period and you've synthesised and you're coming out the other side, as I said, you have to prototype things, because otherwise you have nothing, you just have ideas. (AT, Engine)

Service designers generate personas – fictional user profiles based on research data –, build customer journeys and experience maps, set up collaborative workshops where the different stakeholders of a project are involved in the generation of ideas to encourage co-design and start defining the service principles leading to a service proposition. Our discourse analysis suggests that the practice of transforming abstract ideas to tangible experiences revolved around three main activities: *mapping experiences, translating experiences into material cues, testing experiences.*

Mapping experiences. A first step in making an experience tangible was mapping it over time. The usual tools used for this purpose were customer journeys and emotional journeys, through which service designers could map out how customers perceived and experienced a service along the time axis. These journeys, together with personas and touch points, would become an important means to explore, organize and visualize the service experience, as illustrated by a service designer:

You can map an experience and you can say: “well, this is a very simple emotional journey”, and you can do very sophisticated versions of it. You can do different phases of the service and then break that down into smaller interactions. You can show the user's cycle of becoming aware of the service, using it, mastering it and then being retained by the service, because its offer evolves with its customers. And you also have these touchpoints that users or personas are navigating through and encountering at different times and matching them up, delivering them, at the right time, in the right place and in the right way to match the key needs or the key questions or concerns of the user. This journey can have all these different channels, all ways of studying the experience. It can be what you see, what you hear. (SL, Prospect)

As explained by another service designer, these tools helped designers figure out what real customers felt like and thought when they were going through a certain experience, and then how to improve that experience:

Basically, I think the best way to describe an experience is to use time, just map it across time and explain the emotional experience. You can have different users or personas saying, “I’m really happy at this stage,” or “I’m really confused at this

stage,” or “if only I knew about this earlier, that and the other”. I think the most powerful way to describe an experience is to visualise it, through journey diagrams and blueprints, with moments illustrated or in film clips. (RE, Prospect)

Moreover, the use of these maps seemed to be beneficial not only for designers but also for clients. As a matter of fact, looking at visual representations of their customers’ feelings, emotions, and interactions was for them a way to start thinking and looking through the eyes of their customers; an experience described by one informant as “eye opening”:

It can be quite eye opening from that perspective, and especially user journeys, customer journeys. For instance, it's always going to highlight things that an amazing number of our clients otherwise wouldn't realise, or if they did realise it, they wouldn't realise the significance of it, and I think that's always very interesting. Understanding customer journeys isn't that difficult, but again, you have to be able to forget your professionalism or your professional status and to think and look through the eyes and walk in the shoes of customer, consumer, and passenger. Call them what you like. (AN, Engine)

Translating experiences into material elements. While explaining how to make an experience tangible, many informants would talk about their ability to “translate” ideas into something real and concrete, as explained by an informant:

This is our translation space. And we recognize this in organizations. So it's about moving from a big idea through to actually making something happen (...) we have an internal knowledge about how to actually make stuff real and to deliver it. So we are able to bridge this translation space, understanding how to make stuff real. (OK, Engine)

This translation process would go through some steps. As already mentioned in the previous sections, the main themes and insights coming out from the user-centered research phase were combined with brand values into service principles, keywords used to actually design an experience. These principles were, then, filtered into one – or sometimes more – overarching metaphor or service proposition, describing the essence of a certain service experience, as explained by an informant:

The definition here is about taking the different research findings and trying to cluster them in to some kind of generic insights about what people think and so on. And then you bring in some external stuff like brand values, use that to filter things. And then, from that, it's maybe some overall principles that are guiding it, and I would say the proposition comes after that. And then the proposition is basically the promise that you're trying to make about this particular thing. (NM, Independent service designer)

Very often service designers would move to a lower level involving the definition of the “look and feel” of a service experience, or the general “tone” conveyed by a certain service through its different “touch points” – the tangibles making up the total experience of using a service, e.g. spaces, objects, people and interactions, as illustrated by a service designer:

So, this was actually presented as a big, blueprint map with lots of different levels. So we'll talk about the touch points, we'll talk about the features that it should include. We'll talk about the behaviours so the door-to-door salesman, when he interacts with a customer, the types of behaviours he should be demonstrating. We'll talk about the benefits for the

company and the benefits for the customer, and the emotional intent of what this idea should deliver. So for this project that's as far as we go into the look and feel to suggest the intent of the concept. (TS, Engine)

The translation process proved particularly interesting as it illustrated how designers would transform abstract words and concepts into material and concrete elements by using visual imagery and tangible evidence in every other form, as explained by two service designers when talking about a community project:

So, this is our proposition. And, then, within that there are three core design principles and we would visualize those circles, like "friendly", "open". You can use photographs of people that represent the word "friendly" or you could use pictures in lots of different ways. (...) If you have a film where somebody's saying, "I just feel that in my local community I can't say the things I want to say, but I want to make a difference and I want to make things better but I don't seem to have anywhere to say these things" that's really important. That's your user saying things. (SL, Prospect)

So there's a series of 14 or 16 different expressions that are drawn, just a caricature, and you can use those to help express how people are feeling about things. So it goes from joy to utter contempt and a whole range of expressions to help elicit an understanding of what the experience is like. And that plays a role, also, in some of the tools we use to understand how people are feeling about the experience. (RE, Prospect)

Another informant, while talking about a project on immigration services in airports, illustrated how service designers would use material references in order to make the design principles more understandable:

So, for example, working on the Immigration Service, or airports, we'd do research to understand what customers were anxious about, and what they might be excited about. For example, people are very nervous about data protection. So the word would be "reassurance". People are very concerned about personal safety; the word would be "security". People are very excited about new futuristic, and that would be "futuristic". So what you get is when you think about the design principle that has to be reassuring, and secure, futuristic, and you think about materials. You think about glass, you think about all sorts of modern architecture. You can also think about attitude towards websites. What kind of websites make you feel really secure, reassuring, but also look futuristic. If you design uniforms for people, what does that mean in terms of putting on a uniform? (...) so the experience is intangible, but then you have to translate that into the world of real, and as much as possible make it so everybody agrees that those things are related to each other. (AK, The Innovation Unit and Engine)

Testing experiences. As customer experiences are not single occurrences, they need to be reliable and tested over time. At this point of the process designers would rely on a broad set of tools and techniques, such as service blueprints, detailed user scenarios, visual representations of the new customer experience, and prototyping. Prototyping – and more specifically experience prototyping techniques which helped "fake" and "mock up" the experience – played a central role in this stage of the process, as emphasized by one informant:

This is all about prototyping, and it's about testing, iterating, refining, testing, iterating, refining. That's what you're essentially doing here. Ultimately, getting to a single version of the prototype, let's say, so that you can move to the deliver phase. (RE, Prospect)

As for product prototyping, the goal of experience prototyping was to test the feasibility of the service, the logistics, and the financial impact of the service experience in a cheap and quick way, as explained by one informant:

Experience prototyping is about doing things very fast and as cheaply as possible, like using eBay, as well as small-scale things that you can do immediately (BR, Live|Work)

According to informants, experimenting with different prototypes allows them progressively clarify their ideas of how a certain experience should be, so that they could understand how to improve it, as emphasized by a service designer:

So in service design projects you always have to push the boundaries and experiment with how you prototype experiences, whether that's like putting on wigs and playing out an interaction between an air hostess and a customer, or whether that is mocking up a menu for an airplane meal, or whether that's making an example of what a leaflet could look like to guide you through the check in process. So I think service design pushes you to experiment, you have to experiment, and you have to take risks in trying stuff out or you can get very lost in your individual heads and your individual understanding of experiences and what they look and feel like. (AT, Engine)

The same informant also pointed out that the constraints and potential difficulties encountered in service prototyping – scale amongst others – would stimulate service designers to find innovative ways to simulate an experience; a point shared also by other service designers:

I guess that's another challenge of service design, the scale at which it exists. You can't necessarily, sometimes you do, sometimes you would out of a phone call build a check in desk in your project space, but a lot of the times the scale of environments that an experience lives in means that you can't make it, you can't, it's impossible. You can replicate bits of it sometimes in your project space, you can use Lego, but it's the scale both of time and of place constrain you to be really inventive to try and replicate it or simulate it for yourself as a designer to try and make a better experience. And also to help your participants, help your stakeholders understand your final design for a final experience at the end of a project. (AT, Engine)

Depending on the problem that needed to be solved, and the level of fidelity that needed to be reached, they would resort to different types of prototyping, ranging from cardboard prototyping – using props to imagine what a service should feel and look like – to real time prototyping or “bodystorming” – in which the service experience was enacted as if the service would exist in the context where it would be used involving the design team and possibly stakeholders, as illustrated by one informant when talking about a project he had worked on:

Then there was a lot of experience prototyping done. So this is in fact the Dog Mob. These are ladies, and we introduced this figure into their group, which was a professional trainer, somebody there that would help them, and motivate them, as they're out on the field, walking their dogs. The dogs are running around; so it was a real time prototyping. The only way to

test this out was to actually do it, and see if it would work. And it was quite good. It was quite successful, in that sense. (RE, Prospect).

Finally, our informants converged on suggesting that the possibility to enact an experience in real time, with the involvement of the personnel of the service provider and of other key stakeholders, would not only help the experimentation, but also allow the co-creation of that experience. This point was well illustrated by one informant when talking about the very first service design project he worked on:

That was the thing about the Amtrak project. We had to simulate the experience of queuing in the train for service, so we had Amtrak service personnel there, we had, well, the studio was big enough to supply 15 people, 20 people that could queue, so understanding the spaces, the flows. Amtrak service personnel were telling us what they would do in a situation and how they would change the money, how they would deal with cash, credit, all that kind of stuff. And in doing that exercise, you start to make modifications to the design in real time and then try it again, videotaping the whole thing, and really understanding what that space felt like and how the experience felt. And that, for me, was the best example of doing that. But we do it in small ways in many other places as well. (RE, Prospect)

COMMUNICATING ABOUT EXPERIENCES. Informants converged on emphasizing that given the intangible and inevitably subjective nature of experiences, communicating about experiences was central but difficult at the same time, as the different people involved in the process – not only the different service designers working in team, but also the different stakeholders – would perceive it and understand it in a different way. Therefore, being able to communicate about customer experiences was essential, particularly as it helped avoiding irreparable mistakes, as explained by an informant:

It's also that you need so many more different perspectives. You need so many more different perspectives in the conversation early throughout the design and development process because you can literally end up making things that are fundamentally costly and bad, both for the consumer and for the business, if you haven't had those conversations early on. (FS, independent service designer)

The practice of communicating experiences involved two main activities through which service designers were able to communicate about experiences, namely *articulating experiences*, and *re-creating experiences*.

Articulating experiences. Informants often pointed out that, given the high level of abstraction surrounding service design projects, articulating ideas about an experience – i.e. expressing them coherently and fluently – was particularly important. In this respect the process of translation of the experience into service design principles and propositions described in the previous section served not

only to make the experience real, but also to start talking and sharing ideas about it, so to allow the development of a specific language regarding a certain service experience:

Each project has its own lexicon, its own set of words that become owned by that client, they become that service, and they become part of the DNA of a deliverable and of a service when it gets implemented. (AT, Engine)

While articulating ideas usually implies verbal articulations, informants explained that it was particularly difficult to achieve it when articulations related to perceptions, impressions and experiences. Moreover, most service designers we interviewed often described themselves as visual thinkers who tend to “think with their hands”, “draw” to clarify an idea – for themselves and / or others. Hence, service designers often noted how difficult it was to talk about an experience relying upon words only, as illustrated by one informant:

So it is all about trying to figure out how to make that service... how to create the evidence of that service in some way. And because it's so intangible, it's all the more important to bring it to life, otherwise it's just words on a page, and I think clients then find it hard to understand and engage with it. (OK, Engine)

Therefore, service designers would resort once again to customer journeys, prototypes, service blueprints or any other visual tool that could help them describe the experience itself to other people, as explained by a service designer:

So as soon as you have an idea for a service design project like: “I really think we can improve the experience of standing in this queue”, in order to better articulate that idea you have to create props, you have to create stuff. You have to create all the ephemera that live around it so that you can get a sense of the mood and the feel of that experience as a client, as a stakeholder, so that you have things to talk about. (TWM, Engine)

In particular, many informants emphasized the communicative power of service prototypes, besides the generative one. Put it differently, during the process of creating a service prototype service designers had to become more articulate and explicit about what they were creating, thus facilitating the communication to other people, as explained by an informant:

In faking the advert for it I have to get clear and articulate about what the offer is, what the experience is. I have to, if I'm genuinely faking the advert, I have to get clear on what media I'm using. (...) And by prototyping the advert I get clear on what the proposition is because I have to be articulate about it in order to communicate it. (FS, independent service designer)

Yet, the power of the verbal in articulating and sharing ideas is not to be denied, but it is in combination with a visual representation of the experience, or its visual articulation, that would facilitate mutual understanding and better communication, as illustrated by a service designer:

We talk about it [the experience] with language, but we do have to use tangible visualizations of what we mean. And that is in order to make things more engaging for people. If they're not engaged that won't get into it. And also for it to be more precise, better communicating what we mean, what we mean to each other. (AK, The Innovation Unit and Engine)

The acknowledgement of the importance of mastering language, and not only visual techniques, could also be due to the difficulty to visually represent an experience in its totality. Thus, the evocative and symbolic power of language might become a useful complementary approach, as suggested by one informant:

In service design I think you have to be very skilful at how you use language, because language is so important in such an abstract space - choosing a particular word to describe a particular moment in a journey, or a particular interaction between two people is absolutely crucial in service design. That's a real craft I think that service designers need to have. (AT, Engine)

Re-creating experiences. As (verbally) articulating ideas about new customer experiences is difficult, in order to communicate these new experiences service designers also aim to re-create the experiences themselves. Informants pointed out that given the high intangibility of experiences, retrospective verbal and visual representations would sometimes fall short of conveying the intended message. Therefore, managing to physically (and emotionally) re-create what the experience would be and feel like was at the core of a successful service design project, as illustrated by one service designer:

Yes, because really you want, what you're trying to simulate in prototyping and in a deliverable for a client on a service design project isn't just the stages on the journey, it's actually below that, it's the emotional journey that you're going to be feeling. You want them to understand, oh here you get a leaflet, blah, blah, blah, but what you're trying to do as a service designer is evoke a feeling in that experience, evoke emotions. Whether that's, you want them to feel secure, you want people to feel in control, actually it's that that you're trying to simulate when you deliver an experience to a client in a service design project, not just artifacts - they're just a means to get to that emotional experience. (AT, Engine)

Such an ability to recreate the experience proved to be a powerful tool when dealing with clients and other stakeholders, in particular when the implementation of a new experience required a deep organizational and cultural change for them. A service designer explained this point very clearly:

And the thing about engagement is important, because if you're trying to change the culture of the company, you cannot change it from the top; you have to change it with the company. You have to get people in the room, and you have to create an experience for them, which is very enticing, genuine, and real. (AK, The Innovation Unit and Engine)

Informants pointed at different ways to re-create an experience. Showing video clips and films was reported to be a very engaging technique particularly during important meetings, as explained by an informant:

And quite often it's that sharing that happens with the client that's where stuff really works, so video is very popular, especially amongst our clients because they say: "ah. We've got a meeting with the board. Can we show some of that

because it's really going to be very powerful" I said: "yeah. It wasn't a particularly robust piece. We just talked to a couple of people and filmed them". They said: "no, we've never done that before. It's really powerful." (AN, Engine)

Another informant stressed the fact that by showing videos and evidence from the research phase clients were better able not only to figure out what their customers experience was like, but also to come up with insights and suggestions on how to improve it:

We use films and videos. So at this session, which is like a download of all the research, we were playing video clips to the wider clients that weren't there. We were using lots of imagery, lots of post-it notes, and really just getting out of the small thoughts and observations and data that we had from these people. So they could understand them, and believe them. And then create this insight that's actionable in order to then generate, in this case, a bunch of principles and a proposition. (TS, Engine)

Collaborative workshops – also referred to as co-creation workshops by many informants – were another way to re-create an experience to help the different stakeholders understand the current experience, jointly develop changes and start to implement the newly developed experience. During these workshops, stakeholders could be asked to engage in drawing sessions together with designers to bring their ideas to life, to play with Lego or to enact the experience in real time during body storming or role-playing sessions.

While talking about these co-creation workshops or other situations when service designers engaged in the re-creation of experiences, informants would frequently draw a parallel with theatre performance to highlight how all the techniques used would facilitate the "rehearsal" of a certain experience. This point was eloquently illustrated by an informant while talking about the different prototyping techniques used in service design:

Theatre, rehearsal. So, you create a space where you can rehearse the interactions to find out what they are. This brings me back to this thing. We've got actors in a shared space and the art of prototyping in theatre is called rehearsal. So, use some of the techniques from rehearsal, which you can film, or you take scenarios and storyboards, which were taken from the film world in the first place... Build a plank and then back out again into the interaction designer space. You can use a blocking diagram from how you present theatre in order to block out how service sequence happens. You can use narrative tools to understand how to chunk experiences into frames. This happens first, this happens next, then this happens. You can understand where the key frames are in that experience in order to use time in a satisfying way that's in tune with people's emotional flow. So, you use some soft tools and you use some hard tools but they're basically derived from theatre and time-based media and filmmaking and those kinds of things, I think. (ND, Plot)

In other words, these techniques allowed simulating the context of a customer experience so that designers and stakeholders could experience it themselves and "play back" their own assumptions as concrete experiences rather than abstract evaluations. Therefore, stakeholders could more easily emotionally engage in an experience and empathize with real customers.

DISCUSSION AND CONCLUSIONS

By drawing on an inductive study of service design consultancies, in this paper we investigated the service design process, developing a deeper understanding of the dynamics underlying the design and development of new customer experiences. Our purpose was to enrich and extend the thriving streams of research on design and designers' work and on the role of materiality inside organizations.

Our preliminary analysis allowed us to identify three main set of practices service designers engaged in when developing a new service experience, which we named *exploring the experience ecology*, *making experiences tangible*, and *communicating about experiences*. We believe that insights from our study contribute to existing literature in several ways.

They seem to contribute to existing literature that takes into account the role of artifacts in the creative process. As a matter of fact, our findings suggest a very important role played by tangible objects and tools in the development of new customer experiences. Previous research has already emphasized how objects, like toys, sketches, prototypes, and other physical artifacts, can be used for supporting, shaping and influencing the development of creative solutions along the creative process, as well as for fostering the brokering and transferring of knowledge over time and across projects leading to innovations (e.g. Sutton and Hargadon 1996; Hargadon and Sutton 1997; Stigliani and Ravasi, 2010). However, these studies have focused so far on the product design process, namely a process the expected outcomes of which are inevitably tangible. Our study, instead, focused on the service design process, the final results of which are intangible, namely experiences and services. We believe our findings extend existing literature by showing how tangible objects, in the form of intermediate tools and techniques – customer journeys, service blueprinting, experience prototyping, etc. – play an even more crucial part when the final results are inherently intangible and abstract, as in the case of service design. In particular, insights suggest that tangible objects facilitate service designers' work, as they support the objectification of abstract concepts surrounding the definition of customer experiences, and help their translation into material elements, as well as their articulation and sharing among different

people. In other words, although artifacts are not the final outcome of the design process, nevertheless they still represent key tools in the development of the final design of intangibles.

In this respect, they also contribute to studies highlighting how material practices are enacted and shaping organizing (e.g. Fayard and Weeks, 2007; Leonardi and Barley, 2008; Orlikowski and Scott, 2008). Some of these studies (Orlikowski, 2007; Leonardi and Barley, 2008) suggest that as organizations are becoming more distributed and virtual (DeSanctis and Fulk, 1999; Wiesenfeld, Raghuram, and Garud, 1999; Moon and Sproull, 2002; Orlikowski, 2002), they do not become less “tangible”. On the contrary, they rely heavily on communication media, technology, software, to support the interactions and the work. In a similar vein, our study of service designers’ practices suggests that while they design intangible services and experiences, they do not stop using the material practices product designers used, on the opposite, some of them become even more central in the creative process – both when generating ideas and when communicating them. While some have argued that virtual is not synonym of immaterial, we would like to argue that intangible in the context of service design is not synonym of immaterial. Future research would explore more specifically the role of material practices in the design of new customer experiences. Using material practices as a lens to study service design and compare it to the well-studied practice of product design would allow us to define the core of the design practice and thus the key processes of its innovative power. Last, it could also explore how these material practices are entangled with social practices.

Furthermore, our findings seem to contribute to previous work on aesthetics and aesthetic knowledge in organizational settings, defined as a form of pre-linguistic knowledge, sometimes tacit and ineffable, derived from senses and from the perception of particular situations and experiences (e.g. Gagliardi, 1996; Whitfield, 2005). In particular, previous work has recently started investigating the nature and the dynamics of designers’ knowledge in the context of architectural work and new product development, and have pointed out how designers tend to draw on their aesthetic knowledge when designing new buildings or new products (e.g. Ewenstein and Whyte, 2007, 2009; Stigliani, 2009). Insights from this study provide early evidence of the sensory-perceptual nature of aesthetic knowledge

– the *experiential component* in Ewenstein and Whyte’s (2007) formulation –emphasized in previous studies. In particular, our findings suggest that service designers rely upon their senses, perceptions and feelings in order to emotionally engage in customer experiences. In other words, service designers seem to learn through their senses not only in the initial phase of the process – when they “experience the experience” – but also when they have to make the experience real, and especially when they have to translate the experience into material elements. In this particular respect, insights from this study seem to lend support to the two components of aesthetic knowledge – namely *declarative* and *procedural* – developed by Stigliani (2009) in her study of product designers. Although, in this case service designers’ aesthetic knowledge is not centered on the creation of physical objects, but on the creation of experience, they seem to possess both knowledge about what makes an experience feel and look like a certain way – aesthetic know-that or declarative aesthetic knowledge – and knowledge on how to make an experience feel and look like a certain way – aesthetic know-how or procedural aesthetic knowledge. More precisely, service designers seem to have both knowledge about experiences, and their aesthetic attributes and knowledge on how to give objects the required aesthetic attributes and on how to effectively attain the intended aesthetic results.

The existing perspectives on design make a number of important contributions to our understanding of design and the role of material practices in the context of designing products. However, these perspectives also appear to define design mainly as a process producing tangibles. In contrast, we have argued that studying the designing of intangibles such as services and customers experience, a growing trend in the field of design (or among design practitioners), might complement our understanding of the design process and the role of material practices in this process.

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Table 1. Interviews summary table

Informant #	Position	Number of interviews
#1 (CD)	Co-founder of Live Work, and independent service designer	1
#2 (BR)	Co-founder and director of Live Work	1
#3 (LL)	Co-founder and director of Live Work Oslo	1
#4 (JN)	Service Design at Live Work	
#5 (OK)	Co-founder of Engine, and director of Service Design in the Private Sector	1
#6 (JH)	Co-founder of Engine, and director of Service Design in the Public Sector	1
#7 (GM)	Senior Service Design at Engine	1
#8 (AN)	Service Design Principal at Engine	2
#9 (TS)	Service Designer at Engine	1
#10 (JH)	Service Design Principal for Public sector at Engine	1
#11 (TWM)	Service Designer at Engine	1
#12 (AT)	Service Designer at Engine	1
#13 (MC)	Office Manager at Engine	
#14 (AK)	Service Design Associate at Engine and Senior Service Designer at Innovation Unit	1
#15 (RE)	Co-founder and strategic director of Prospect	2
#16 (SL)	Senior Service Designer at Prospect	2
#17 (GW)	Co-founder and director of Plot	1
#18 (ND)	Co-founder and director of Plot	1
#19 (FS)	Independent service designer (Former Head of Service Design at IDEO)	1
#20 (MH)	Chief Design Officer at Design Council	1
#21 (NM)	Independent service designer	1
#22 (DS)	Founder and director of Think Public	1
Total interviews		25 (22 informants)

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