Zhipeng Duan

SOILING SERVICE DESIGN

Situating professional designing among plural practices

Arkitektur- og designhøgskolen i Oslo
The Oslo School of Architecture and Design

PhD thesis

Zhipeng Duan

Soiling Service Design:

Situating professional designing among plural practices

ABSTRACT

Since the 1990s, professional service design knowledge has travelled globally, detached from its larger Western history and contexts. The proliferation of service design knowledge shapes how individual designers enact their craft locally. However, the dissemination of professional knowledge has remained highly abstract, making it challenging for designers to grasp the underlying perspectives and debates associated with it. Against this backdrop, this doctoral study explores the intricate relationships between individual service designers and the contexts they must navigate. Specifically, it aims to illuminate the complications faced by service designers when striving to establish genuine and meaningful connections between their professional practice and the local contexts in which they work. This study articulates and addresses the constraints that professional knowledge places on service designers when they attempt to situate their practice within local contexts.

Drawing on practice theories, particularly material semiotics, this inquiry is conducted under an experimental program called “soiling service design”. This study recognises that the potential values and harms of a service design practice reside in the specificities of the situation. Knowing and doing contextual service design needs to carefully tackle the messy and meaningful lived context – the soil – rather than rashly washing it away. Employing multiple research methods, the program is unfolded through two experimental clusters: 1) Probing the neatness of narrative, and 2) Weaving service design into the lived context.

The contributions of this thesis are twofold. Firstly, the study elaborates on the detached views held by service designers which restrain them from situating their practices. Such views condition how designers perceive their connection to the world and lead to the potential for a sense of meaninglessness. The value of explicating the detached views is not to offer a comprehensive explanation, but to facilitate practitioners to sensitise their unarticulated perceptions and emotions in doing service design. Their perceptions are a crucial grip to understand the social condition of situated

service design practices. Secondly, this study draws out an alternative possibility of relating professional design to local contexts. By proposing various ways of doing and knowing as means to attend to relational practices, the thesis suggests the ability to situate design practice can be cultivated through attentiveness to what others do. Design practice does not necessarily form an inherent-coherent process, but rather entangles with other practices so that the conditions of each other's existence are reciprocally constituted. Messy encounters soil the established understanding of service design. Appreciating the encounters aids individual designers in finding means for determining how they can participate in an ongoing process of world-making.

ACKNOWLEDGMENTS

In September 2019, I arrived at Oslo Central Station with two huge suitcases on a sunny fall day. Emerging from the southern exit, there is a sparkling sea stretched out before me. Back then, I could not anticipate that I would frequent this place enough to witness the sea, time and again, across various seasons. This doctoral thesis was completed mostly in Oslo, through the connections I made with the world.

First and foremost, I extend my gratitude to my supervisors, Josina Vink and Simon Clatworthy. To begin exploring new things, a positive beginning experience is like a crucial anchor point pinned on an uncharted map. After the encounter, the initial experience sensitises one to harm that they could encounter or make and enriches the imagination of what constitutes goodness. I must acknowledge my good fortune and privilege in entering the academic world with adequate support, despite the challenges in the process of pursuing a PhD. Josina, your guidance provided me with an embodied understanding of pedagogy. If knowledge isn't merely transferred from one mind to another, helping others to find their way to know the world is the pedagogical possibility that you have helped me to see. In our four years of constant communication, I am always amazed by your attentive listening and your skill in deciphering my scattered thoughts. Your insightful feedback consistently elevated the quality of my academic work. Simon, I'm so grateful to you for helping me find a rhythm in design research and for helping me sort out my interests in the early days of my PhD exploration. Your pioneering work on service design research has also been a great inspiration to explore this domain. I also want to thank both of you as the authors for the collaboration on the publications included in this thesis.

I am thankful for the supportive environment provided by all my colleagues at the Oslo School of Architecture and Design (AHO). The conversations and encouragement that I have gotten from you have enriched my academic journey. Andrew, your research and practice continue to inspire me, and I appreciate your thoughtful input for my research. Ted, thanks for your efforts

in creating an open environment for the service design group. Marie-Louise, your constant support and encouragement is a source of my strength. You always can bring people at AHO together. Serina, the clay you brought to the office that day became the inspiration for my doctoral research title. Jonathan, you have a gentle way of conveying important messages that keep my thoughts flowing continuously. Jomy, thanks for onboarding me as a new PhD student at AHO. Felicia, thank you for sharing your creative research with me. Further, I also need to thank the research administration at AHO, particularly Tim Ainsworth Anstey, Ingrid Halland, Jan Morten Øien, and Reier Møll Schoder, for your support throughout the whole project.

This PhD project has received generous funding from the Research Council of Norway through the Centre for Connected Care (C3). The support I received from C3 extended far beyond financial assistance. It is a valuable platform for interdisciplinary learning, allowing me to learn from people from various disciplines about healthcare and share my research with them. A warm thanks goes to Per Ingvar Olsen, Kari Kværner, Thomas Hoholm, Josina Vink, Marie Louise Juul Søndergaard, Trust Saidi, and Shivani Prakash for your support and encouragement.

I would also like to thank all the interviewees who are engaged in this project, as well as the contributors to the DigiRemote project. My gratitude goes out to every person I encountered during my field research for insights, trust, and knowledge that have been granted to me.

In addition, this PhD project has benefited from collaborations with other scholars and academic institutions. I would like to thank Biao Xiang; our extensive discussions spanning from 2021 to the present have profoundly shaped my thesis, as well as my scholarly interests and pursuits. You helped to recognise the responsibility of academic work to be responsive to the real world and to the public. I would also like to thank to the scholars I met during my visit to the Department of Anthropology of Economic Experimentation at the Max Planck Institute for Social Anthropology. Thank you – Iain, Christoph, Sam, Pal, Anton, and Joost. Your insightful feedback on my research has been invaluable in shaping its trajectory. Additionally, my appreciation goes to my friends within the 'nearby' group. Our thematic conversations have often provided me with the inspiration needed to move my research forward.

Thanks, Yoko Akama, for your invaluable feedback and constructive criticism I received during the early stages of my doctoral research. Your perspectives and research played a pivotal role in guiding me to contemplate the direction and vision of my PhD project.

I express my gratitude to the editors who reviewed my publications, including Ingo Karpen, Stefan Holmlid, Eun Yu, Satu Miettinen, Enni Mikkonen, Maria Cecilia Loschiavo dos Santos, Melanie Sarantou, Jin Ma, and Alice Comi. I would also like to thank the anonymous peer reviewers involved in this project. Your support not only refined each independent publication but also inspired me to propel the entire project forward. Thank you, Kim, for your generous proofreading assistance. Your meticulous work helped me articulate my thoughts more accurately in a non-native language. My experiences in writing and publishing helped me to sense the good collaboration between editors and scholars.

Special gratitude goes to my family. Thanks to my mom and dad, for your support and persistence during the challenging times of the global pandemic. I appreciate your efforts to understand my research, and for taking the time to watch my presentations online. I would also like to thank my friends who patiently endured my chatter about my PhD research. Thank you, Liying, Runyu, Ying, Xifan, Ruohan, Zhiyuan, Xiaoxue, and Jason. Xie Tao, I can hardly imagine how different my life and research journey would have been without your presence. You were the one to remind me not to let my intellect overly rationalise my research and decisions in my life. And to Kiki, the cat, I am grateful that you always can find a spot where we could be in each other's company without disrupting the flow of our lives.

Qianbao, I cannot express enough gratitude for your unwavering support and care during my four years of PhD studies. You are my most faithful reader, critic, and supporter of my doctoral research. Your insights have sparked countless inspirations, motivating me to explore a new world of knowledge. More importantly, I appreciate your support at every moment when I feel depressed. You are engaged in every step of my PhD, from its inception to completion.

Finally, there are some spaces affording me to write this thesis. These spaces include the PhD office and library at AHO, Deichman Bjørvika, Deichman Lambertseter, Kaffebrenneriet, my temporary accommodations in Halle and Shanghai, and my home in Tøyen and Ljan. I want to express my gratitude to the people who maintain them. The sunlight, moonlight, and lamplight that come into these places, the rain and snow that fall on the windows all came into my eyes when I wrote each chapter of this thesis.

TABLE OF CONTENTS

1. Introduction

Inasmuch as knowledges are world-making practices, they tend to make the worlds they know.
— Mario Blaser and Marisol de la Cadena (2018, p. 6)

1.1 Globally Travelling Service Design Knowledge

When tracing the history of the contemporary service design profession, Lynn Shostack's 1982 article, "How to Design a Service", and her 1984 article, "Designing Services That Deliver", are frequently acknowledged as significant starting points. Since the 1980s, service design has evolved as a burgeoning field of research and practice, offering numerous promising perspectives, value propositions, and approaches. These have enabled the emergence of new services (Yu & Sangiorgi, 2018), enhanced the service experiences of users (Zomerdijk & Voss, 2010), facilitated organizational transformation (Sangiorgi, 2011), addressed structured social issues (Vink & Koskela-Huotari, 2021), and fostered positive societal change (Manzini, 2015; Penin, 2018). Particularly in the last two decades, Service Design has emerged as a distinct profession, initially in Europe and the UK and now worldwide (Fayard et al., 2016). The growth of the profession is evident in consultancies, digital enterprises, university education programs, and various professional communities (Sangiorgi & Prendiville, 2015).

The focus of this doctoral study is the situatedness of professional service design knowledge as shown in its global scale dissemination, proliferation, and evolution. According to feminist scholar Donna Haraway (1998), the situatedness of knowledge indicates both what we know and how we know it to be specific to our location. Service design literature has suggested that service design knowledge and practice is rooted in the history of the global West/North and its debates (Kim, 2018). More specifically, the exploration

of consultancies like IDEO and Live Work from these regions is evidently the main empirical experience for knowledge formation in the service design profession (Fayard, Stigliani & Bechky, 2016; Kimbell, 2011a). Practical experience in consultancies has significantly shaped aspects of mainstream service design knowledge including tools and methods, mindsets, and terminological concepts (Fayard, Stigliani & Bechky, 2016). However, as many design researchers focusing on the colonial agenda have pointed out, Western/Northern-centered knowledge of service design is assumed to be universal, neutral, applicable, and accessible at any location, in terms of both practice and knowledge production (e.g., Fry, 2017; Escobar, 2018). The worldwide proliferation of (service) design follows historically pre-established world hierarchies and the dominance of the global North (Akama et al., 2019).

The title of this first section of my thesis draws inspiration from anthropologist Anna Tsing who proposes the concept of "globally travelling knowledge" (2005, p. 10) to describe a process whereby localised experiences and information gain compatibility and assume the form of universal knowledge across diverse contexts. Tsing (ibid.) reminds us that the universalization of knowledge is an uneven and non-uniform process. Even widely appealing and popular design knowledge cannot be seamlessly translated into a globally understood framework: it always remains partially incomprehensible. When service design knowledge, including toolkits and process models, is translated and exported to different regions, the encounter between this knowledge and complex local contexts confuses and complicates service design practice.

For instance, design scholar Ahmed Ansari (2016) notes the rapid change in the landscape of design practice in Pakistan during the 2010s. Mainstream design thinking in Karachi's public sector, business schools, NGOs, and startups was widely embraced without critical examination. Method toolkits dominated the practice landscape, and were unquestioningly adopted by the social sector due to their perceived promise to deliver positive solutions (ibid.). In Pakistan the introduction and dissemination of design thinking in the social sector has therefore come to be viewed as a tool for the state to maintain the status quo, rather than a means for achieving radical structural reform (ibid.).

To unfold the complications arising from encounters between service design knowledge and local contexts, this study contends that greater attention needs to be given to local service designers who actively engage in professional service design practices in non-Northern regions. The service design literature has addressed this issue, for example, Akama’s (2009) study of the

arrival of early service design knowledge in Australia shows that service design knowledge travels in a highly abstract and decontextualised form. The historical struggles and debates within its production cannot be effectively incorporated into the project of globally traveling knowledge. Service designers are therefore limited to following such abstract introductions when conducting service design.

In China, I observed a distinct pattern of practicing service design in the 2010s. In comparison to local universities and startups, private study-abroad service agencies exhibited greater sensitivity towards emerging service design domains. These agencies played a crucial role in promoting the concept and knowledge of service design among students who sought to build portfolios for application to service design programs in American and European universities. Employing a design project that adhered to mainstream service design processes and tools became a convenient shortcut to creating a competitive portfolio. Over the past decade, guiding students to create these visually appealing portfolios has evolved into a service chain. As of 2021, design students often find themselves paying over 100,000 CNY (€12,800) for guidance services provided by these agencies. This portfolio-building chain serves as the backdrop against which the early stages of service design knowledge unfolded in China.

The global proliferation of service design knowledge significantly influences the way individual designers enact design in various parts of the world. Designers who act in local contexts play a vital role in disseminating design knowledge, and in their situated practices, they may replicate mainstream design knowledge through their work. However, while immersed in local contexts, they must grapple with the complexities and tensions that arise from the clash between universalised knowledge and the specificities of local contexts. Consequently, their practices hold the potential to decolonise service design and facilitate the adoption of more respectful design approaches within local contexts. It is crucial to question what transpires when designers enact service design locally – what they are struggling with, and how service design research can authentically support them in addressing the specific challenges they face.

1.2 Demand for Resituating Service Design Practices

In this thesis, I shed light on a complex issue encountered by local service designers as they strive to establish genuine and meaningful connections between their professional practice and the specific contexts in which they

live and act. The issue is exemplified in the story of Ming, a service designer whose experience emerged during interviews and subsequent talks conducted during my doctoral research:

Ming's concerns

Ming received her master's degree in service design in Europe in 2019. After an initial interview in 2020, we met again in early 2022. This time she told me she had recently been both happy and worried because at last someone was recognizing the value of her master's diploma project. A month earlier she shared details of her China-based service design project with some social workers. The social workers were very surprised by what Ming had done. They saw that she had a strong understanding of Chinese communities and were very complimentary about her actions. However, Ming was concerned that while writing her design report in 2019, she had felt a sense of 'aphasia'. In order make her practice in China look like a valid example of service design, she was unable to acknowledge and express her own experiences and insights within the report.

The purpose of Ming's project was to revitalise unused community resources. During her three months of onsite fieldwork, she observed in detail how community events were initiated and organised by the residents' committees. Following the socialist tradition, the residents' committee in the local community served as an implementation mechanism for government policy, while the people serving on the committee also provided personal care support to residents. Within this complex relationship between intimacy and governance, Ming found that people were uncomfortable about participating with others in her co-design workshops. She was anxious because the local people neither understood or cared about her service design expertise. In this situation, she knew that if she simply delivered a workshop for local participants and then left, this working method would fail to enable her to engage with people's everyday lives and to do anything valuable for them. Instead, it gave her the impression that she was merely using these people's lives to benefit and complete her own service design objectives. She rejected such an approach, and instead, actively participated in daily social work, a context where she was given more space to act, for example, by organizing events with social workers and offering her insights to facilitate local residents' access to community-based resources.

After the project, when Ming returned to the university to write her report, she felt a sense of numbness. She couldn't articulate the

> complexity of her practice in her report because she was required to follow a widely used templated approach for expressing her practice, using concepts such as persona, system map, blueprint. This meant that she began to reduce her complex understanding to a set of technical terms such as ‘user needs’, ‘design vision’ even though no one actually forced her to do so. She told me that to complete this report she needed to numb away her true understanding and reflection, and yet she felt a sense of doubt about doing so. Afterwards, as she repeatedly recalled her final project, she increasingly felt that something was wrong. She often asked herself why she could not say what she had really understood and experienced during the project.

In the current colonial critique of design knowledge, scholars often mention that the dominant design knowledge paradigm, in constructing its own neutrality and universality, often encourages a detached perspective among its recipients and practitioners (e.g., Tlostanova, 2019). Such detachment seemingly frees professional activities from any subject bias and hides their locality, body-racial, and gendered epistemic configuration (Tlostanova, 2017). Likewise, Suchman (2002) notes the phenomenon of designers from ‘nowhere’ who continue to “ignore their positionality within the milieu of social relations” and claim to be able to see the whole social picture and design for it. In attending to a specific designer's personal experience, we are more likely to find that the detached perspective and ‘being nowhere’ in design culture is less an issue of non-embeddedness, meaning that designers naturally neglect the situated nature of their practice, and more an issue of de-embeddedness which suggests that educated designers actively perpetuate detachment either consciously or unconsciously. As such, there is a need to support designers to proactively counteract this de-embedding process – to consciously re-situate their service practices back into the social and cultural context.

1.3 Research Questions

This doctoral research addresses the situated nature of service design practices and explores the tensions existing between service designers, the expertise they can access, and the local context that they act in. Against this backdrop, the overall query pursued in this thesis is as follows:

> What knowledge is needed to aid service designers to situate their practice in the local context?

The realm of service design research and education often champions an enthusiastic outlook claiming that the production of replicable expertise invariably bolsters the design capacities of practitioners. However, as exemplified by Ming's account, an inconsistency exists between the profession's compulsorily optimistic stance and the bodily experiences and feelings that its individual practitioners recognise in their undertakings. This inconsistency resonates with the phenomenon of knowledge becoming a 'refuge', as noted by anthropologist Tim Ingold (2018). This strange phenomenon means that as people gain more knowledge, an increasing number of factors can make them feel deterred, and uncertain about how they can best participate in the lived world as it evolves. In an era of globally travelling service design knowledge, those who wish to learn service design skills are quickly exposed to vast expertise. This situation implies an urgent need to make both the hidden constraints of professional knowledge and the situated nature of design practices more explicit so as to enable cultivation of sensitivity in service design's future production and application. Therefore, the first research question (RQ1) asks:

> Which views held by service designers prevent them from situating their practices?

Building on the exploration of question 1, this study will further investigate the possibility of breaking through the constraints of expertise so as to reimagine the role that service design knowledge can assume in practice. For every person, the context in which they operate is always complex. The responsibility of service design research extends beyond merely generating knowledges, models, and frameworks: it should also assist practitioners in comprehending their working contexts and foreseeing the implications of their professional actions. There is an increasing need to consider the type of knowledge that can empower individuals not only to find their own ways of perceiving their working context, but also to recognise whether they can do something (or actively do nothing) within that context. The Second Research Question (RQ2) asks:

> What ways of knowing and doing can aid designers in situating their practices in the local context?

1.4 Theoretical Lens to Research Situated Practice

This study draws on practice theories located at the intersection between anthropology and Science and Technology Studies (STS) and uses these as a theoretical scaffold for conducting the investigation of specific research questions. Practice theories shift the unit of analysis from the micro level –

the individual, or the opposite macro level, such as the organizations or social norms – to an intermediate level where a nexus of practices consisting of bodies, materials, discourses, routinised activities, and structures come together (Kimbell, 2009). The practice theories stream draws on an anthropological focus on people's embodied and situated interactions with others and with ‘things’ encountered in their everyday activities (ibid.). Practice theories and practice-based design research shared emphasis on the quality of situatedness are useful resources that this study builds upon with the aim of developing a more embedded and embodied understanding of service design. This approach challenges the usual view whereby service design is pre-conceptualised as a process of individual cognition (e.g., design thinking) rather than being an intellectual endeavour (e.g., design as the co-evolution of problem and solution).

Within the stream of practice theories, I have chosen to employ material semiotics (e.g., Mol, 2002; Lien, 2015; Law, 2019) as the principal theoretical lens. Material semiotics consists of a set of tools and sensibilities of social analysis used for exploring “how practices in the social world are woven out of threads to form weaves that are simultaneously semiotic and material” (Law, 2019, p. 1). Existing practice-based design research, which is informed by practice theories, advocates for the designer's ability to effect active intervention in order to stimulate innovation (Hoolohan & Browne, 2020). My study argues that material semiotics takes this research claim further: material semiotics contends that different practices enact different realities (Law, 2015). Incorporating plural practices and enacted realities brings out a new strand of design research that understands the situated nature of design practice by radically acknowledging practicality at large in everyday life (more than the design capacities of trained designers and participants). Practically material semiotics provides rich ethnographic tools to understand and capture the intertwined relationship among multiple practices.

1.5 Research Approach

In applying a programmatic approach (Brandt & Binder, 2007) this study channels the research questions into situated experiments. The term ‘program’ indicates a provisional knowledge regime which functions as a set of hypothetical worldviews that can make different means of inquiry relevant (ibid.). This approach opens up a space for the advancement of new design knowledge while maintaining the possibility of enhancing and challenging the program itself (Redström, 2017; Binder & Brandt, 2017). Informed by

practice theories, I sketch out the program rhetorically as “soiling service design”. Here I appreciate the ambiguity in the dual meanings of ‘soil’ in English. The word ‘soil’ as a verb has negative associations, indicating making something dirty. As a noun, it refers to the earth in which we plant seeds, the nourishing medium in which life develops and grows. By juxtaposing two meanings of the word soil, this study hopes to better understand the situated nature of service design without excessively washing away the meaningful heterogeneity within the local context. The program serves to narrow the scope of this exploration towards two questions that can be best addressed by situated experiments. In this study, mixed methods are chosen to create an experiment cluster for each research question.

Experiment Cluster 1, ***Probing the neatness of narrative***, addresses RQ1 by conducting an inquiry into the recounting of service design practices. The process of what designers do and the contexts in which they work are often ambiguous and uncertain. However, when their working experiences are identified and narrated as part of professional service design practice itself, the story tends to acquire a quality of neatness as different episodes, different decisions made by designers and participants, and different things they make appear to naturally combine as a coherent design process. Cluster 1 interrogates this impression of neatness. After conducting a literature review focused on the relations between service design and cultural contexts, this study moved on to develop an interview guideline. Together with two other researchers I used the guideline to interview 21 designers in order to obtain their narratives about their practice. During analysis of the interview contents, we critically examined the impact of professional knowledge on the narrators’ perception and the possible risks involved in concealing the heterogeneity of the context. Here, we consider the interviewees and ourselves, the researchers, as narrators.

Experiment Cluster 2, ***Weaving service design into the lived context***, addresses RQ2 through an auto-ethnography based on my own participant observation of events that took place in the work context while I was conducting professional service design which contributed to a project developing a remote care service in a public hospital in Shanghai, China. During the eight-month fieldwork, whilst carrying out professional service design practice, I paid attention to the everyday working lives of others including surgeons, medical students, and company staff. Through auto-ethnographic methods, such as participant observation, photography, diaries, drawings, field notes, and archival documents, I attempted to give an account of what I did as a service designer by juxtaposing my own experiences with the concurrent events occurring around me in the hospital context. This experiment adopted a first-person perspective to explore the tactics service

designers can use to re-entangle service design into the lived context in design's practice, narrative, and knowledge production.

1.6 Overview of Appended Publications

This thesis takes the form of a compilation. In summary, the thesis consists of four of my own published peer-reviewed articles and a kappe. Kappe is a Norwegian word meaning cloak, but in academia, the word also indicates coherent texts that form part of an article-based doctoral thesis which summarises and binds the various articles together. The kappe also documents the research carried out and presents overall research findings and contributions. My research and findings are linked to contributions contained in the four appended publications. Table 1.1 provides an overview of each paper, showing its relations with a particular experiment cluster, as well as giving the paper type, the research purpose, authors and the role I played in the development of the publications.

Table 1.1 Overview of appended papers.

Publication	**Experiment cluster**	**Type**	**Research purpose**	**Author(s)**	**My role**
1. Moving towards plurality: Unpacking the role of service design in relation to culture	Probing the neatness of narrative	Conceptual – Conceptual paper based on literature review	To build a more comprehensive understanding of the role of service design in relation to culture	Zhipeng Duan, Josina Vink, Simon Clatworthy	I led the development and writing of this paper with conceptual input and feedback from co-authors.
2. Narrating service design to account for cultural plurality		Abductive – Integrative approach connecting interviews of 21 service designers with literature review	To investigate and reflect on how service design practice is narrated within multiple cultures	Zhipeng Duan, Josina Vink, Simon Clatworthy	I led the development, data and writing of this paper. All authors participated in data collection and analysis.
3. Professionalised designing in between plural makings	Weaving Service Design into the Lived Context	Empirical – Autoethnographic study involving data collected in early phase of DigiRemote project	To evoke more imaginations of how designing relates to other making practices while not fully rendering them as designing	Zhipeng Duan	I worked as a sole author throughout the paper development, under the supervision of Josina Vink.
4. How practices come together: Situating Design by Attending to Relational Practices		Empirical – Autoethnographic study involving data collected the whole 8-month process of DigiRemote project	To explore how to aid designers in building attentiveness to the situated nature of their design practice	Zhipeng Duan	I worked as a sole author throughout the paper development, under the supervision of Josina Vink.

In what follows, I briefly summarise the content of each of the publications. The full version of each paper can be found in the appendix of this thesis.

Publication 1: Duan. Z., Vink. J., and Clatworthy. S. (2021). Moving Towards Plurality: Unpacking the role of service design in relation to culture. In Y. Akama, L. Fennessy, S. Harrington & A. Farago (Eds.) *ServDes 2020 Tensions, Paradoxes and Plurality Conference Proceedings* (pp. 263–276). Linköping: Linköping University Electronic Press.

The purpose of Paper 1 is to build a more comprehensive understanding of the role of service design in relation to culture by drawing together discussions from existing literature. What emerges from our literature analysis is a framework presenting four different patterns concerning the role of service design in relation to culture, each with distinct interpretations of culture and its connection to service design: service design is presented as *describing*, *adapting to*, *shaping*, and *enacting* culture. Different patterns are positioned in the framework concerning different views on culture (*pre-existing* or *becoming*) and how service design is seen in relation to culture (*separate* or *entangled*). Furthermore, we provide a brief explanation of the key emerging issues in relation to each of the four overlapping and interrelated views of the relationship between service design and culture. The paper concludes by proposing that a dynamic movement between these different views can provide service design practitioners and researchers with a decentralised perspective that may help to release them from perpetuating a single, static understanding of culture.

Publication 2: Duan, Z., Vink, J., & Clatworthy, S. D. (2021). Narrating Service Design to Account for Cultural Plurality. *International Journal of Design*, *15*(3), 11–28.

The focus of Paper 2 revolves around narratives, aiming to investigate and reflect on how service design practice is narrated within various cultures. Opening with discussion of a comprehensive literature review, the paper elucidates a dominant service design narrative in which service designers are encouraged to convey their practice by using service design concepts alone, thus creating a somewhat monolithic view of culture. An articulation of this monolithic view is offered in Paper 2. This view "ignores the heterogeneity of people and presents their practices as a relatively even and homogenous collective; it names and objectifies the features of that collective through a common set of service design concepts" (p. 11).

To critically analyse this monolithic view of culture, we draw upon discussions from anthropology (e.g., Blaser & De la Cadena, 2018; Verran, 2018) and STS (e.g., Law, 2015) that emphasise cultural plurality. In this

context, we define cultural plurality as "the ontological condition characterised by the coexistence of divergent cultural practices" (p. 13). This definition underscores the significance of practices in dynamically enacting cultures as lived realities. Along with the framework proposed in Paper 1, we conducted semi-structured interviews with 21 service design practitioners representing diverse global backgrounds. This article presents our reflections on how our own narrating practices contribute to the erasure of cultural plurality, as well as the potential for restoring a more decentralised narrative of service design.

Publication 3: Duan, Z. (2022). Professionalised Designing in between Plural Makings. In S. Miettinen, E. Mikkonen, M. Dos Santos, and M. Sarantou (Eds.) *Artistic Cartography and Design Explorations Towards the Pluriverse* (pp. 156–170). New York: Routledge.

Building upon the findings and reflections from Research Question 1, my doctoral project shifts the focus to explore the relationships between design and multiple practices. The purpose of Paper 3 is to evoke more imaginations of how designing relates to other making practices while not fully rendering them as designing. Here, I employed the general term ‘making’ to refer to “a scope emphasising the richness of the divergent practices of forming, causing, doing or coming into being” (p. 157). Having reviewed the relevant literature, I first examine how the discourses and associated narratives of design professions can over-occupy designers’ work and productions. The paper also presents an initial auto-ethnography related to the DigiRemote project so as to illustrate how service design practices and other practices intersect during the process of developing service. The paper concludes by proposing that the acknowledgement of plurality within design – as well as designers’ bodily and affective experiences – can lead to professionals becoming more thoughtful and sensitive about the effects of design practice outcomes.

Publication 4: Duan, Z. (2023). How Practices Come Together: Situating design by attending to relational practices. *She Ji: The Journal of Design, Economics, and Innovation, 9*(1), 33–57.

The focus of Paper 4 is the relationship between service design and various current design practices. Its purpose is to explore how to aid designers in building attentiveness to the situated nature of their design practice. The paper begins by describing a design culture in which designers are too often encouraged to be uncritically reliant on performing established design activities as the crucial means of demonstrating their professionalism. Designers may encounter difficulties in adequately perceiving and describing how their everyday practices are entangled with people and things. This

detached position can prompt design professionals' self-doubt about whether they contribute positively to others' lives. This article explores the possibility of situating design practices by attending closely to the relational practices of others that occur in the proximity of an acting designer. This paper offers a definition of relational practices as "ongoing arrays of activity occurring in temporal and spatial proximity in which actors mutually constitute each other's conditions of existence, maintenance, and transformation" (p. 34). This paper emphasises that, if the quality of situatedness is properly recognised, practices that work in proximity can form valuable reciprocal relationships.

Then, using autoethnography and analysis of the DigiRemote project, the paper elaborates on the positive potentials of four ways of attending to relational practices: *tracking*, *recounting*, *repositioning*, and *responding.* These four categories can enable designers to develop a more nuanced understanding of their working context as well as developing appropriate localised strategies for design action.

1.7 Summary of Contributions

By integrating insights and reflections from four publications, the thesis yields two key contributions that address each of the research questions.

Firstly, this study contributes to articulating the detached views that service designers hold. Findings resulting from the exploration of RQ1 shed light on the following: the constraints of professional knowledge on the situatedness of service designers, and the inadequacy of professional knowledge for capturing the meaningful differences that service design can benefit from. The critique lays the foundation for further exploration of fostering knowledge sensitivity in service design practice.

Secondly, this study makes a contribution by demonstrating that attending to relational practices can offer a means for assisting service designers in situating their practices. In relation to RQ2, the findings encompass three distinct ways of knowing, each linked with corresponding ways of doing. While non-exhaustive, these ways can enable designers to develop a more nuanced understanding of their working context and formation of appropriate localised strategies for design action. My work underscores the feasibility of incorporating non-design practices into service design research. Such integration can enrich service design knowledge through accommodating the diverse and meaningful heterogeneity present in everyday life, thereby embracing plural ways of performing service design.

1.8 Outline of the Kappe

Following the introductory chapter, this doctoral investigation is structured into five additional chapters and an appendix containing copies of the published papers mentioned above. Below is a brief summary of each chapter:

Chapter 2 provides a theoretical backdrop to position and justify the study and also introduces essential theoretical inputs, namely practice theories and material semiotics. It begins by providing an overview of the specific theoretical domain of this study. Next, the chapter conducts an examination of how service design practice is conceptualised within the realm of service design knowledge. This examination highlights two significant issues within the existing approaches to understanding the situated nature of service design practices. At the end of the chapter, I introduce further theoretical inputs and discussion on how such theory can be appropriately integrated into this study.

Chapter 3 describes the methodological framework and the methods selected for this research. It starts by discussing current research which takes a programme-driven approach. The chapter introduces the research program, namely soiling service design practices, which is set up to explore the overarching query of this thesis, and its two interrelated experiment clusters of "Probing the neatness of narrative" and "Weaving service design into the lived context." Chapter 3 accordingly presents an experiment cluster in detail, laying out the research process and methods. I reflect on my positionality as researcher and service designer. Finally, the chapter discusses the validity of the study in relation to transferability and application of the research findings.

Chapters 4 & 5 respectively outline the findings of RQ1 and RQ2.

Chapter 4 describes the detached views that service designers are encouraged to hold. I show how the detached views are reflected in the ways that service designers view self, contexts, and others. The chapter further elaborates on three interrelated detached views and discusses how the detached views deter designers from situating their practices.

Chapter 5 presents the possibility of situating service design practices by actively attending to the relational practices that occur in the actions of others working adjacently. The chapter summarises three ways of knowing and, associated ways of doing, to help service designers become more sensitive to how different practices come together and to know how to actively respond to the network of plural practices. Each of these three ways of knowing

corresponds to the detached views of service designers concerning the categories of others, self, and context.

Chapter 6 delineates the future implications for service design research and practice and goes on to discuss the possibilities for other researchers to use and benefit from the research findings. The chapter acknowledges and addresses the limitations of this research as well as identifying future opportunities for new and continuing research into the evolving field service design.

2. THEORETICAL DOMAIN AND INPUTS

The upcoming chapter serves as a theoretical backdrop to position and substantiate this study. It also considers potential theoretical inputs that enhance the exploration of the overarching research question. Lukka and Vinnari's (2014) distinction between domain theory and method theory is a useful framework to tease out and explicate the roles of the different theories and concepts involved in this study. Domain theory refers to "a particular set of knowledge on a substantive topic area situated in a field or domain" (Lukka & Vinnari, 2014, p. 1039), while method theory is "a meta-level conceptual system for studying the substantive issues of the domain theory at hand (ibid., p. 1039)".

Figure 2.1 illustrates the conceptual landscape and presents the various research domains within which this study is situated. Here, domain theory concerns service design seen in relation to general design studies, while the method theory involves practice theories, in particular the thread of material semiotics generated at the intersection between anthropology and Science and Technology Studies (STS). The chapter begins by outlining the domain theory. Subsequently, to sketch out the domain theory and to make sense of this study in the domain, I delve into an examination of how service design practice is conceptualised in current service design and general design research in sections 2.3 and 2.4. By doing so, I identify two crucial approaches to understanding service design practice and then discuss the related problematics concerning the situated nature of practice. Next, the chapter describes the method theory that has supported the development of a more situated understanding of service design. The chapter ends with a description of how the theoretical inputs were integrated into this study's particularly empirical methodology.

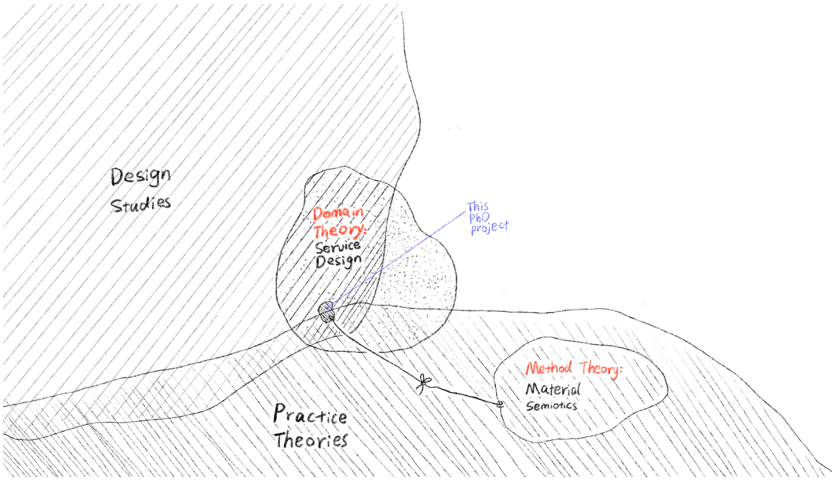

Figure 2.1 Conceptual landscape of various research domains and the position of the current study.

2.1 Identifying the Domain Theory

This section delineates the boundaries of the theoretical domain. Overall, the current study is anchored in the domain of service design and aims to contribute to it. To be more precise, I consider the service design literature which is informed by general design studies as the primary domain in which this study engages, questions, and contributes. As such, this study also engages general studies which elaborate on design practice.

Table 2.1 highlights 15 selected studies to outline the domain of service design. In this table, I have selected articles published in both design-focused journals (such as *Design Issues* and *Design Studies*) and service-specific journals (such as *Journal of Service Research*). These studies reflect major contributions to understanding service design practices during the last decade. On the other hand, Table 2.2 displays 13 selected studies and books from general design studies that are typically employed to comprehend the design practices discussed in this thesis and its associated publications. The table includes recent journal articles that directly aim to elaborate on the design practice (e.g., Schønheyder & Nordby, 2018) and seminal works that have profoundly influenced the theorization of design practices from the 1970s to the 2010s (e.g., Darke, 1979).

While the strategies for selecting articles in both tables differ, they converge in the intention of delineating the theoretical background of this doctoral study. By exemplifying relevant articles, I aim to clarify which intellectual

resources have been pivotal in forming my understanding of service design practice. Doing so also helps the reader recognise the author's limitations and potential biases in understanding service design.

Based on the selected current studies, this section begins with an overview of the evolving understandings of service design, and then shows the multiple paths that provide a review of how service design practices are currently researched in the domain, along with an introduction of interdisciplinary sources involved.

Drawing from the overview, I elucidate the rationale behind my decision to ground service design research in its relation to general design studies, thus establishing it as the core theoretical domain.

Table 2.1 Selected contributions to understanding service design practices in the context of service design research.

Author(s), Date	Contributions to researching service design practices	Type
Zomerdijk & Voss, 2010	Develops propositions for experience-centric service design based on the cases of service design professions.	Empirical
Clatworthy, 2011	Describes how innovation in the new service development be achieved by focusing on the change and formation of touchpoints. Using design tools can better forest the designing of touchpoints.	Empirical
Kimbell, 2011a	Explores what professional designers do in the design consultancy; proposes a frame of designing for service as an exploratory process to create new value relations among actors.	Empirical
Sangiorgi, 2011	Clarifies the concept of transformational change and establishes a link between service design and the principles and methodologies of organizational development and community action research.	Conceptual
Akama & Prendiville, 2013	Challenges the limitations in service design that tend to see its practices as a systemised process of using methods and provides a phenomenological understanding of co-designing as a reflexive and embodied process of discovery and actualization.	Empirical
Junginger, 2015	Explains why and how service designers need to work with design legacies that are embedded in organizations.	Conceptual
Karpen et al., 2017	Propose a service design framework of capability-practice-ability to advance current understanding of organizational conditions that facilitate service design.	Conceptual
Kurtmollaiev et al., 2018	Analyses how service design practices can contribute to the transformation of organizational logics through evolution of materials and symbols.	Empirical

Wetter-Edman et al., 2018	Highlights underappreciated bodily experiences when using design methods for service innovation.	Empirical
Yu & Sangiorgi, 2017	Discusses different relations between service designers and clients as manifested in service design practices. They are delivering, partnering and facilitating.	Empirical
Joly et al., 2019	Identifies various goals, objects, approaches and outcomes that multidisciplinary perspectives bring to service design.	Conceptual
Yu, 2020	Presents a framework of service design integrating a multidisciplinary perspective on service design practices and knowledge, especially connecting marketing/management-centric service design and design.	Conceptual
Vink, Koskela-Huotari et al., 2021	Proposes an emerging multilevel process model of service ecosystem design. The scope of service design is extended to explain how intentional, long-term change emerges beyond projects. This article also retrospectively considers the evolution of conceptualization of purposes materials, process and actors involved in service design in past decades.	Conceptual
van der Bijl-Brouwer, 2022	Explores how service design practices can contribute to the formation and changes of self-organizations to positively enable social changes.	Empirical
Sangiorgi et al., 2022	Identifies four predominant logics that service designers need to navigate and provides a set of tools to support reflexivity for service designers to enhance the awareness of plural logics.	Empirical

Table 2.2 Selected contributions to understanding design practices in general design studies.

Author(s), Date	Contributions to understanding design practices	Type
Darke, 1979	Challenges a rational model of the design process that highlights the loop of analysis and synthesis and proposes a concept of the primary generator to highlight designers, especially architects' intuition, experience and tacit knowledge in the design process.	Empirical
Simon, 1988	Articulates the central logics of design practices that are concerned with how things ought to be; proposes that design is the core of professional training that is distinguished from sciences.	Conceptual
Cross, 1999	Clarifies the relations between design research and the practices of professional designers and presents three main categories. They are the study of designerly ways of knowing, the study of practices and processes of design, and the study of the form and configuration of artifacts.	Conceptual
Dorst & Cross, 2001	Proposes a co-evolution of design practices, based on a set of protocol studies of industrial designers. The development of new design concepts in design practices emerges within iterations of analysis, synthesis and evaluation processes taking place between the spaces of problem and solution.	Empirical
Lawson, 2005	Analyses how designers think and act in their professional practices and introduce various models of the design process to negotiate problems and solutions.	Empirical
Paton & Dorst, 2011	Studies designers' ability to reframe a problematic situation in workable and desirable ways. Fifteen experienced visual communications designers were	Empirical

	interviewed in terms of their briefing activities.	
Steen, 2013	Identifies five key activities in a collaborative design process of joint inquiry and imagination, based on the pragmatism traditions. The five activities can be positioned in an iterative process including 1) exploring and defining the problem, 2) perceiving the problem and conceiving possible solutions, and 3) trying out and evaluating solutions.	Empirical
Green, Southee & Boult, 2014	Reviews multiple frameworks of design process and provides a comprehensive design process ontology that can accommodate the evolving development of design frameworks. Key significant factors that affect design outcomes are identified.	Conceptual
Schønheyder & Nordby, 2018	Focus on the everyday use of design methods. It introduces the pragmatic evaluation framework to understand how design methods can be adapted and evolved to support professional design practice.	Empirical
Atman, 2019	Develops a visual model of the design timeline to describe and analyse what designers actually do in a design process.	Empirical
Gasparin, 2019	With a Simondonian philosophical perspective, this article investigates what constitutes design as final output and process including a set of practices and actions for making the output. This article demonstrates that the materiality of design evolves fluidly and goes beyond the design process.	Conceptual
Valtonen, 2020	Examines recent developments related to how products, people and processes of design are being used to create change.	Empirical

Chen, Chen & Yang, 2022	Based on a protocol method, this study compares the design phase and the activities of design experts and novice designers.	Empirical

As suggested by various retrospective studies on service design (e.g., Sangiorgi & Prendiville, 2015; Yu, 2020; Vink, Koskela-Huotari et al., 2021), service design as a theoretical domain has co-evolved with the changing understanding of service design among researchers and practitioners. To articulate the theoretical domain, it is necessary to describe how service design is understood across time. The meaning of service design has always been vague and dynamic. In general, service design can be described as a human-centered creative approach for service innovation (Meroni & Sangiorgi, 2011). Understandings of the actors, goals, and material of the service design process often vary greatly from one research to another. In the early development of service design (e.g., Shostack, 1982; 1984), service design was often considered as a means of managing the quality of service. From the 1990s to the early 2000s, service design indicated a set of stages and associated actions suitable for advancing the new service development (e.g., Clark et al., 2000). Beginning in 2011, the research started to highlight a movement away from the control of the process of service development and towards co-creating a platform for ongoing actions (e.g., Kimbell, 2011a; Meroni & Sangiorgi, 2011). The purpose of service design should go beyond the making of a product and instead lead to the creation of conditions for value co-creation, where different stakeholders can be engaged to collectively perform their design capabilities (Kimbell, 2011a). More recently, Vink, Koskela-Huotari, and their colleagues (2021) have proposed an extended understanding of service, referred to as “service ecosystem design” that informs diverse actors’ efforts for long-term change in service systems.

The interest in service design research has mainly concentrated on the description and justification of what service design is and how it has worked since its early development (Sangiorgi & Junginger, 2015). Although service design studies do not always contribute to the development of service design methods and toolkits, numerous studies (e.g., Costa et al., 2018; Lee, 2014; Wetter-Edman et al., 2018) have contributed to deep understanding and reflections on how design methods significantly shape the landscape of the theoretical domain. Service design research also encompasses the place and role of professional practice in business and society (e.g., Zomerdijk & Voss, 2010; Yu & Sangiorgi, 2018), and the responsibilities and ethics of service

designers in projects (e.g., Kim, 2021). The theoretical domain in general involves multiple disciplines, including design research, service research, operations management, marketing, management, human-machine interaction, and interaction design (Joly et al., 2019). Within these fields, synthesis studies frequently identify design studies and service studies as the predominant disciplinary clusters that form the cornerstone of professional knowledge in service design (Joly et al., 2019; Vink, Koskela-Huotari et al., 2021).

Before I investigate general design studies' relationship to service design, I will briefly outline the influences that service research has exerted on service design research. Service studies emerged from the boundaries of marketing and management. The service-dominant logic is considered to be a major intellectual resource in developing and enriching the service design studies conducted in recent years. This logic builds on reflections on the rationale of goods-dominated market exchange and was systematically theorised in 2004 (Vargo & Lusch, 2004). The service-dominant logic asserts that service is the basis of market exchange and that value is not incorporated in service but is generated through multi-actor co-creation (Vargo & Lusch, 2017). According to Joly and their colleagues (2019), service research provides definitions of fundamental concepts for service design, such as service (e.g., Vargo & Lusch, 2008); actors (Vargo & Lusch, 2008); touchpoint (e.g., Clatworthy, 2011); servicescape (Bitner, 1992); service encounter (Bitner, 1990); service interface (e.g., Holmlid, 2007); design capacity (e.g., Karpen et al., 2017). The interest in institutionalizing service ecosystems both within and across organizations in service research has also helped service design to structure the focus and interest of its practice.

This study deliberately centers on and contemplates service design within the thread of contemporary western design studies. The rationale for using the thread of general design studies was that it deeply informs how service design practices are viewed by providing rich interpretations of design practices involving such features as models, processes, and methods. For example, the service design research community has been widely influenced by mainstream design research that views design as a cognitive process and intellectual approach. Sangiorgi and Junginger (2015) describe service design as "designerly" ways of changing and innovating. The term "designerly" was coined by Cross (1982) to indicate a distinct way of knowing manifested in the designers' practices. Buchanan (2001) unpacked the nested layers of places, naming them the "Four Orders of Design". These orders could be used to intervene through design as it included the interconnected aspects of visual communication, material objects, service, and system. This work contributed to the popularization of design thinking and to shifting the

conventional interests from making tangible objects to finding solutions to address complex problems (Kimbell, 2011b). Additionally, there are intellectual heritage and disciplinary norms sourced from conventional design professions like industrial design and graphic design which are embedded in service design professions (Stickdorn & Schneider, 2011) and education in design schools (e.g., Lou & Ma, 2014). To better understand service design practice, it is crucial to acknowledge the influence of general design studies. Recognizing the contributions of these foundational disciplines while critically examining the underlying assumptions that are often accepted without question is essential.

2.2 Conceptualising Service Design Practice

This section scrutinises the conceptualization of service design practice within the domain theory. According to MacInnis (2011), conceptualization refers to the process of grasping abstract concepts like service design practice by discerning recurring patterns, connections, and fundamental underlying attributes. The objective of the examination is to understand what discourses and models available for service designers enabling them to identify service design practices in the intricate real world. The analyses and associated problematization presented here collectively provide the backdrop of the theoretical domain in which this thesis resides. In subsections 2.2.1 and 2.2.2, I explore two interconnected approaches to conceptualizing service design practice – firstly using design methods, and secondly, as carrying out collaborative design capacities. In each subsection's final part, I introduce existing critiques, particularly concerning the situated nature of practice. In section 2.2.3, I address a pedagogic concern entailing the complication associated with a decontextualised understanding of service design practices. This complication is about the individual designer being atomised, compelled to continually optimise their design skills based on homogeneous criteria – a position which weakens their ability to envision a broader means of effecting agency and acting in the world.

2.2.1 Service Design Practice as Performing Design Methods

In this section, I focus on the first approach in conceptualizing service design practices and examine the topic through the scope of design methods. Design methods, which include a variety of procedures, techniques, aids, or tools for shifting an unsatisfactory situation towards an ideal one, have been prominent role in the field of design (Bayazit, 2004). Over the last decade, a large number of design tools associated with procedures have been

developed or adapted from other fields. For example, they include interviews, focus groups, cultural probes (e.g., Graver et al., 1999), and persona (e.g., Hosono et al., 2011). In the field of service design, prominent methods are service blueprinting (e.g., Bitner et al., 2008), prototyping (e.g., Blomkvist, 2010) and card-based toolkits (e.g., Clatworthy, 2011). Since the 1950s, these collections of design methods have led to clearly distinguished forms of knowledge outcomes in the general design field (e.g., Gregory, 1966; Jones, 1970; Sanders & Stapper, 2012; Van Boeijen et al., 2014) and in service design (e.g., Stickdorn et al., 2018). There are also numerous critiques of design methods as they have become a significant part of discourse and rhetoric of design.

Why should design methods be featured in a study of situating service design? Design methods have been a powerful, if not dominant, conceptual intermediary that bridge design knowledge and the actual procedures of design practice (Keinonen, 2009, cited from Lee, 2014). The role of the intermediary is, first, that the design methods offer patterns of practice to guide and format the designer's practice. By performing pre-set design phases and using pre-prepared design method materials, the practices of designers are often limited by the repertoire of design methods (Lee, 2014). Besides, the intermediary role of design methods is also manifested in its ability to educate design students and non-designers. Although the inflexibility and detachment of design methods are widely criticised in design studies, the teaching and use of design methods in design schools can, nevertheless, be evidenced globally (e.g., Ansari, 2016). The dominance of design methods in knowledge production of service design is palpable. (Imagine how difficult it would be to tell, educate, and reflect on design practice if we, the designers, forget and lose our attachment to design methods.) In the following subsections, I present three ways of translating practical experiences into service design practices through the scope of design methods.

2.2.1.1 Translating Used Materials and Setting-Up to Design Tools

The current body of literature on design methods emphasises the tangible setups created and utilised in practice. Understanding design methods involves a significant focus on documenting, distilling, and sharing these physical components. Within the realm of design methods, these components are commonly referred to as design tools, serving as instrumental means to achieve specific outcomes (Sanders & Stappers, 2012, p. 65). They include items such as such as, system maps (Morelli, 2006), AT-ONE cards (Clatworthy, 2011), need matrix and resource cards (Pahk et al., 2018). Design studies unfold the values of design tools in practice. For example, from a pragmatic perspective, Dalsgaard (2017) details five values of using

design tools: perception, conception, externalization, knowing-through-action. The emphasis on materiality in design literature also reflects the presence of a material culture within design studies. The prototype is an important pinnacle of this culture. In service design, Blomkvist's (2010) doctoral dissertation systematically theorised how complete service experiences could be represented through practices of prototyping.

Materialised design tools render the activities of using and making such materials remarkably visible. In the publications of service design, typical photos in which designers and participants are using design tools are often selected to represent the practical experiences of doing service design. These photos focus on the moment of interaction between people and materials, while others focus directly on the materials, which may contain traces of the participants (e.g., handwriting, drawings, etc.). In the images' composition, the participants' eyes and movements often revolve around these materials. Of course, it is impossible to have everyone's activities centered on these materials at all times, but these photos are not random snaps. Instead, selecting and posting photos is a process of deliberate decision making. These decisions give important meanings to materials. Making these materials visible in publications helps to transform a small and local practical experience into the more generalised replicability of using materials. While the actual experience of practice cannot be replicated with ease, the materials of design practices can be copied or imitated and so these materials help to spread design practices further afield across different localities. For example, servicedesigntools.org is a service design portal which presents many templates of tools, such as persona and blueprint which can be downloaded and used by service designers around the world.

2.2.1.2 Translating Messy Practical Experience into the Procedure of Using Design Methods

In some empirical service design studies, designers and researchers often try to distil specific steps when they retrospect their processes of design practices. For example, in Sanders and Stapper's (2012) book on design methods, *Convivial Toolbox*, they collect rich design toolkits developed by various designers based their practices. In presenting these tools, designers often tease out their process of using this tool, especially the intentional activities performed by the designers themselves. For instance, in a toolkit called "designing and developing ergonomic interventions for imaging technologists", designers noted "we implemented a four-phase design process with the goal of developing, through a participatory design process, usable and acceptable interventions that reduce the physical challenges associated with provision of imaging service in hospital and out-patient

settings" (ibid., p. 143). Then they introduce their practices by going through four phases including design concepts, intervention development, laboratory testing and field testing. In academic design publications, phasing service design practices is also a prevalent approach used to present design methods. For example, Pahk et al. (2018) introduce a method for co-designing value exchange. Based their experience, they frame their practices through three stages, namely need and resources analysis, need and resources matching and concept development. Within this method, the different phases contain different sub-methods: interview, need matrix, affinity diagram and resources toolkits. Similarly, various methods can be brought together in a widely circulated design process framework, such as the Double-Diamond process (e.g., Stickdorn et al., 2018; Kolko, 2010). For example, Costa and her colleagues (2018) integrate multiple methods of service design and product service system design into a service innovation process leading from exploration to planned implementation.

In the above example, the design methods allow the designer to grasp a sense of controlling the flow of designing., The purpose of distilling a procedure from practices is less concerned with precisely recording the detailed past experience. Many trivial things that happen are not remembered and made sense of – for instance, designers might need to print out design materials. Conveying practice by phased design methods is less concerned with documenting a clear record of one's past experience and more concerned with evoking the next design practice to be carried out by someone else. When other people read the refined design methods, they may be enabled to plan and anticipate the future process of their design practice.

2.2.1.3 Translating the Impacts of Design Practices into The Function of Design Methods

The knowledge production within design methods often entails reinterpreting the impacts of past design practices as the functions of design methods. For instance, Patrício and her colleagues (2011) introduced the service experience blueprint, a method for articulating the value of redesigning an existing service offering to enhance its integration and of introducing a new service interface. Clatworthy (2011) addresses the multiple value of AT-ONE cards to assist the multi-functional team in the first phase of new service development, including mapping an existing situation, identifying pain points, and touch point addition or removal. Functions are important indexes to the book of design method collections. Miettinen (2009) compiled the emerging service design methods that appeared during the 2000s. In the index, she illustrates the values of each method. For example, the bodystorming method tests the proposed service and its interactions and

context mappings and can reveal users' conscious and latent needs, experiences, hopes and expectations (ibid., p. 18).

Wetter-Edman et al. (2018) note that, when seen through the lens of function, design practices are often taken out of context, meaning that the knowledge and skill that originally drove their success remains invisible. Pre-assumed functions of design methods offer very limited information about how design methods are connected with experience. From the impacts of practices through to the function of methods, the knowledge form of design methods implies that different people might achieve similar effects if they were able use design methods properly.

2.2.1.4 Towards Situated Design Methods and Beyond

Criticism of the design method is almost as old as its development. Key figures for instance Christopher Alexander and John Chris Jones early advocated for the externalization and formalization of the design process through methods (Ansari, 2016). However, they later distanced themselves from this approach (ibid.). One of the main reasons is that they are worried about an over-reliance on design methods leading designers to ignore the need for developing sensitivity in their work (Rittel, 1971). While this criticism, along with concerns over lack of flexibility, has been frequently voiced over the past few decades, it seems that design methods are still thriving having entered a heyday around the 2010s. In addition to the usage of methods by designers, the interest in design methods has been expanded beyond the field of design (Kimbell, 2011b). The methods play a role in legitimizing the practices of designers within the purview of the public (Skou & Mikkelsen, 2014) and promoting design practices, especially design thinking, which come to be applied globally.

Design scholars remain circumspect in developing method knowledge. Rather than taking it for granted and using design methods as templates that come replete with pre-determined process, function and material settings, design students have explored the situated values inherent in the use of design methods. For example, Lee (2014) focuses on the values that emerge from the design student's process of making design methods, including helping designers enter the world of the user, noting the designer's own context and assumptions, and building motivational engagement through unofficial interactions. Schønheyder & Nordby (2018) highlight the everyday use of design methods and how methods impact designers in commercial design practices.

The academic community has shifted from a focus on the models, phases, principles, materials and functions of the design method itself to a focus on

the dynamic interactions among designers and participants who are brought into contact by design methods. Wetter-Edman et al. (2018) found that in early design research, design scholars captured the value of embodied participations in using design methods, such as “ah-ha moments” (Bitner et al., 2008). The values of actor participations in the experiential aspects were previously seen as a by-product of design methods, but are now gaining greater prominence in service design research (Wetter-Edman et al., 2018). Design scholars recognise that the value of a design method does not come from the method itself, but from the present moment in which a design method is being used in practice. This reorientation resonates with the paradigm shift of service design from designing service toward designing for service. Design researchers have identified the value of meaningful engagement through design methods as means for long-term transformation (e.g., Ozkaramanli, et al., 2022; Wetter-Edman et al., 2017; Sangiorgi, 2011).

The value of design methods lies in the unpredictable experiences that arise from encounters between different people. Three ways translating design practice into design methods include setting materials as toolkits, clarifying design phases, and identifying the function of methods that cannot be adequately capture the situated value of design practices. In response to this, some researchers have begun to seek alternative notions other than design method; for example, Vink, Wetter-Edman & Huotari (2021) state that their practices engage design approach rather than design methods since they hope to acknowledge that their practice is more fluid and open to adjustment for the given purpose and context. The emphasis on openness, fluidity, and encounter in design practice also questions the static coupling between design methods and popular design process models.

However, the reflections on design methods within the design research community have said less about the rapid expansion and travel of design methods around the globe. In the business environment, consulting firms such as IDEO, Frog, and IBM are key forces in generating and disseminating design methods and design thinking. This dissemination often progresses from East Europe and the USA to classrooms in Pakistan (Ansari, 2016), startups in India (Irani, 2018), and the government sector in Chile (Laboratorio de Gobierno, n.d.). Ansari (2016) notes a Latourian scientistic tendency manifested in the dissemination of design methods – a mindset proposing that design methods have been proven to be innovative time and time again in practice around the world, so design methods will work for you too; if you want design methods to work for you, you have to believe in them. This tendency also conditions the idea that service designers have to be bonded with methods. In China, for example, the China Service Designer claims they are a qualification committee of service designers initiated by

local design consultancies and design foundations. In 2021, this committee collaborated with Service Design Network and launched a charging service called Service Design Talent Qualification. To gain such a certification, one basic criterion is to prove that a designer has proficiency in different service design methods. This dissemination of service design implies a marriage of coloniality and local power. There are two potentials dangers: the qualification could not only prevent local designers from perceiving important factors within their own problematic and dangerous situations, but also contribute to suppressing and marginalizing valuable local ways of knowing.

The value of using design methods concerning openness, fluidity, and encounter noted by the scholars mentioned above (e.g., Vink, Wetter-Edman & Huotari, 2021) provides clues to addressing such problems. If design methods emerge in fluidity, then the boundaries surrounding those using design methods within other practices become blurred. There is often a demarcation to distinguish the practices of using design methods from others in the narrative of the service design process. For example, clarifying the usage of design methods is habitual in stating a design phase. This demarcation is an important means of making design methods visible, or even central, yet it can become very difficult when differences between the fluid and ongoing practices of designers and other actors using methods of their own start to become visible. One insight here is that the benefits and colonialities of the design method cannot be well understood if designers are unaware of different relational practices that go beyond using design methods. In the limited scope of methods, designers cannot know either how the design method is decided upon, or where the world goes after the invention of the design method. As such, in this PhD thesis I acknowledge the dominant role that design methods play in telling, thinking and doing service design, but will argue that this role is not taken-for-granted. There is a need to reject the habit of framing design practices through the lens of design methods alone.

2.2.2 Service Design Practice as (Collective) Designing

The second approach for conceptualizing service design practice is related to evolving an elaboration of the verb form of design, namely designing. In English, design can be used as both a noun and a verb. As a noun, design refers to its final output (e.g., a chair, a table, a lamp, a building or a service); as a verb, it is intended as the set of practices that are necessary to make something (Gasparin, 2019). Similarly, in Lawson's (2005) definition, design is also used to refer to the end product and the process. Based on this dichotomy, it seems that service design practices can be understood simply

as activities necessary to constitute a certain design process oriented toward the formation of an object. This dichotomy becomes very ambiguous when used in the discourse of service design as its purpose has been broadened from developing a new service towards facilitating the emergence of desired forms of value creation (e.g., Kimbell & Blomberg, 2018; Vink, Koskela-Huotari et al., 2021).

In the next subsection, I present two ways of conceptualizing service design practice regarding evolving elaborations of designing. They are, 1) designing as enacting design thinking, and, 2) designing as exerting design capability. At the end of subsection 2.2.2, I address a limitation inherent in both these modes. This limitation revolves around the challenge of accommodating heterogeneity adequately. Left unaddressed, this limitation hinders fulfilment of the promise of value co-creation. In recent decades, a growing number of scholars have advocated for a humbler repositioning of the relationship between service design practice and the service system. This repositioning involves a radical acknowledgment of the diverse actors influencing service transformation. However, the influence of a wide variety of actors is difficult to fit into the single container of design thinking and design capability.

2.2.2.1 Designing as Enacting Design Thinking

Early design thinkers were devoted to opening the black box of the design process in order to externalise and formalise design practices. Another research interest that went hand in hand with the development of design methods revolved around analysing specific aspects of problem-solving and proposing better and more flexible models of design practice (Ansari, 2016). This interest led to the emergence of "design thinking". As the term “thinking” suggests, early researchers tended to engage in a cognitive perspective to capture the salient features of designers’ practice. Scholars propose many profound models of designers’ cognition especially concentrating on how they solve problems, such as by abductive thinking or reflection-in-action (Kimbell, 2011a). For example, Nigel Cross (1999) coined the phrase “designerly way of knowing” to emphasise designers' unique mode of problem solving as they tackle ill-defined problems. Donald Schön's observation of design as reflective practice, constituted it as a dialectic between the designer and his materials (Schön, 1983).

Through a cognitive perspective, designing is conceptualised as the process whereby designers enact design thinking. The designer’s body and their actual courses of action are seen as less important. For example, Simon (1988) suggests that designing is the adaptation of standard logic to the search for alternatives. Darke (1979) challenges the simplified analysis-synthesis model which does not correspond to the design process as it seen in

practices. For Darke, designing is a knowledge of the mental process that design requires. She defines designing as a process of variety reduction, with the very large number of potential solutions reduced by external constraints and by the designer's own cognitive structures. As in Darke's elaboration, over the last decades, the relationship between a problem and its solution is important in building understanding of the design process. Likewise, Lawson (2005) sees design as a negotiation between problem and solution achieved through the three activities of analysis, synthesis and evaluation. Dorst and Cross (2001) suggest that creative design involves a period of exploration in which problem and solution spaces are co-evolving.

Early design thinkers and scholars had less direct discussion of design practice itself and social interaction between designer teams and the work of others was rare. As Kimbell suggests (2011b, p. 289), accounts of design thinking often rest on a dualism between thinking and doing, rather than acknowledging the situated and embodied work of design thinking within practices. Although the literature on design thinking relies on analysis and observation of designers' practice (e.g., Lawson, 2005; Darke, 1979; Dorst & Cross, 2001), the designer's body, locality and practices remain diminished in the relation between design thinking and design process. It is important to note that framing design as a kind of thinking also emphasises the portability of design knowledge, because "thinking" corresponds to an individual's ability while "practice" tends to denote social relations (Karpen et al., 2017). The introduction page on design thinking from literature produced by IDEO, a flagship consulting firm of design thinking, states, "Thinking like a designer can transform the way organizations develop products, services, processes, and strategy". (IDEO Design Thinking, n.d.) The wording "thinking like a designer" draws attention to the idea that the audiences of design thinking are not always designers, but also non-designers who might also have the potential for design thinking.

2.2.2.2 Designing as Exerting Design Capability

In existing literature on service design, design is also understood as capabilities, skills and presuppositions that underpin design activities. Conceptualizing design practices as exerting capabilities often takes a typological approach to identifying key abilities manifested in what designers do. For example, by reviewing a previous design project, Lawson (2005) summarises several identifiable activities of design, such as assimilation, briefing, sketch plan and site operation. Kolko (2010, p. 18) emphasises the designers' ability of sensemaking which is a motivated, continuous effort to understand connections in order to anticipate their trajectories and act effectively. According to Kolko (ibid.), design practice is based on a

sequence of activities that include visualizing the information in broad spaces, prioritizing across large quantities of data, judging data relevance on the basis of the problem framing, and forging connections between existing information and emerging knowledge. Paton & Dorst (2011) suggest that an ability to reframe a problematic situation in new and interesting ways constitutes the situated practices of expert designers.

Design capabilities, although derived from a designer's practice, are frequently employed to involve individuals beyond the realm of designers. Along with the design thinking mentioned above, it is considered as an organizational resource which can be deployed, managed, expanded, and enhanced (e.g., Brown, 2009). For example, Storvang et al. (2014) presents a framework of organizational capacity to take in and use design in its innovation activities. Design capability is one of the dimensions of design capacity which is related to the number of designers hired and procured. The number of designers present indicates the number of design capabilities and skills that are available to the organization. Karpen et al. (2017) advance the understanding of organizational conditions that facilitate service design. They propose a portfolio of capability-practice-ability which consists of six constellations that map multiple relations between organizational capability, service design practice and individual service design ability.

2.2.2.3 Appreciating Collaborative Designing and Beyond

A key challenge to continuing the design tradition of viewing design as individualised thinking and capacity is how to accommodate diverse actors and their ways of doing. Informed by ongoing debates in service research, service design research is more sensitive to collective endeavours than other design disciplines that target the making of objects. Vink, Koskela-Huotari et al. (2021) note a broadening of the goals of service design over the past several decades. This has involved a transition from Design of Services to Designing for Service, and then to Service Ecosystem Design (Figure 2.2). This evolution is not only of theoretical interest but also reflects the real challenges encountered by service designers in their practice. For example, structural change is a complex process, while service design projects are often, indeed, ephemeral. It is hard to understand how service design contributes to service innovation without recognizing the influence of diverse actors. For example, the value of service design practice is more understood as facilitating a long-term transformative change (Sangiorgi, 2011). The service ecosystem design proposed by Vink, Koskela-Huotari et al. (2021) advocate that all actors should influence the institutional arrangements guiding value cocreation. Nevertheless, existing discussions on design thinking and design capacity frequently lack clarity when addressing the

diverse ways of engaging in service transformation. This ambiguity is evident in the following three sets of underlying concepts.

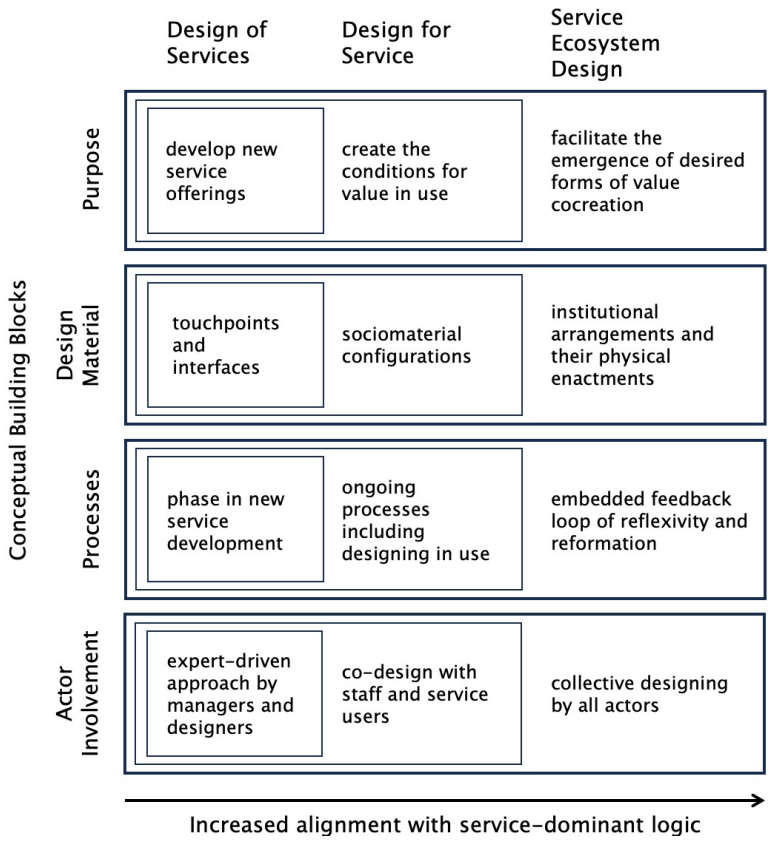

Figure 2.2. The evolving understanding of service design through the perspective of service ecosystem design. (cited from Vink, Koskela-Huotari et al., 2021, p. 173)

Design practice and designer-participated practice

The first pair of concepts is that of design practice itself and designer-participated practice. It is important to acknowledge that to the greatest extent, design practice is conceptualised based on the empirical experience of design professionals who are embedded in Western institutions. Arguably, the knowledge of design practice is about the culture of the contemporary professionalised designer (Manzini, 2015). Design knowledge conveys the specific culture of contemporary designers. For example, in Dorst and Cross's (2001) study of the co-evolving space of problems and solutions, they recruited 9 industrial designers with five years of experience in

consulting firms. Their main experimental procedure involved inviting designers to propose a conceptual solution for a new waste disposal system on Dutch trains – and to do so within limited time. In this study, drawing up a conceptual solution is taken for granted as a part of design process. Generating design knowledge via incorporating designers' experience is an unspoken rule. Demonstrating the designer's uniqueness and competence through design knowledge is one of the explicit claims of design study (e.g., Cross, 1999). However, this claim is almost too obvious to be noticeable. While many researchers remind us of the need for a marriage between design knowledge legacies and capitalism, especially neoliberalism and consulting firm culture (e.g., Kimbell, 2011b; Suchman, 2002), the locality of knowledge production has become very blurred in the global generalization of design knowledge. By conceptualizing design practice as using design methods, enacting design thinking, or exerting design capabilities, design knowledge risks concealing the dominant role of designer-participated practices in design research. The term 'design' practice' says too much about the contemporary design profession, but too little about its promise of viewing design as a general human capability.

Everybody designing and non-designing

Both are popular discourses in service design research and general design studies. These are seemingly contradictory, but actually mutually solid, concepts that arise in the conceptualization of professional design practice. The two concepts run the risk of explaining away the different ways of making, forming and changing that are made available through professional design knowledge. The claim that everyone is capable of designing can be traced back several decades to post-war design research. Simon (1988, p. 67), for example, believed that "everyone designs". He argues that Design is the core of all professional training, including architecture, business, education, law and medicine. Similarly, Cross (1982, p. 5) argues that "Other animals do not do it, and machines (so far) do not do it". More recently, in Manzini's book Design When Everybody Designs, Friedman and Stolerman (2015, p. vii) write in the Series Foreword that "Human beings were designing well before we began to walk upright". In this book, Manzini (2015) makes an analogy with professional athletes and bands, stating that "everybody is endowed with the ability to design, but not everybody is a competent designer and few become professional designers".

When tracing this literature, my concern is that although these claims often appear assertive in tone, they are often lacking in empirical evidence. I admire the affirmation of human agency beyond professional designers which is conveyed by these claims. However, in an environment where the notion of design practice and designer-led practice are confused with each other, framing everyone's ability to interpret their situation as 'design' does not leave enough room to discuss world-makings that may be rooted in other histories, philosophies, and locations. More dangerously, the claim that everyone designs could contribute to the uncritical expansion of design thinking and design methods in the global South and East by suggesting that literally anyone can use design methods, or think like designer.

The notion of non-designing potentially implies the existence of the opposite – that is everyone designing. In Vink and their colleagues' (2021) service ecosystem design framework, non-design is defined as a process that replicates and reinforces existing social structures which can be stimulated and interfered with by the influence of design practices. When design practices become all-encompassing concepts about creativity and change, the opposite space of non-design practices can often be seen as uncreative. This separation could devalue not only changes that might happen in everyday life, but also the importance of those practices that serve to maintain the everyday world.

Transformation process and design process

An important implicit disagreement in the understanding of the design process in existing literature on service design concerns the limited subjectivity of professional designers. On the one hand, the service design process is gradually overlapping with the social transformation process. Rosner (2018) define design process as a way to make a transition into framing a different situation. Gasparin (2019, p. 831) see design as a process that "connects, mediates, creates links between that were not connected before, creating a new social and epistemic reality". Design is becoming a world-making project in which different actors are involved (e.g., Akama & Prendiville, 2013). The world will keep evolving but designers cannot follow its processes all the time. On the other hand, the traditional design process model often focuses on what designers do, what designers think and how they make sense of their practices. The scale of this kind of process is often short term and only

> involves designers and perhaps a limited number of other people. Recent theories such as service ecosystem design have attempted to offer the possibility of bridging these two scales of different "processes". Service ecosystem design emphasises repositioning the short-term design process in the ever-changing ecosystem (Vink, Koskela-Huotari et al., 2021). What makes this nested relation difficult to reconcile is that design practice occurs in a continuous process while other practices are happening intermittently.

Taken together, the three groups of complicated and rather confusing concepts prove that existing knowledge does not leave enough room for close exploration of the relation between design practices and differences. While everyone has the potential to design, non-design practices tend to be represented as repetitive and uncreative reproduction. When the design process and the transformation process coincide, it becomes difficult to follow the trajectory of different ways of doing things that seem to stand outside the remit of design.

Emerging service design research has recognised the nature of ongoing-ness and the intersubjectivity of service design practices. The ongoing-ness of design practice emphasises that design is not an isolated and detached project. Using a phenomenological lens, Akama and Prendiville (2013) also critique the current view that frames design process as a contained series of fixed interactions or systemised process of methods. Instead, they assert that design practice should be ongoing, reflexive and becoming and thus should be brought to life. Transformation is a continuous life process, and design practice is only a part of it. In the service and social context, design practice should also inter-subjective (Edvardsson et al., 2011). The focus on long-term systemic change means that service design practices and processes cannot be confined only to what designers do and think. For example, Vink, Koskela-Huotari et al. (2021). proposed the model of service ecosystem design to advocate appreciating service design practices within a larger fluid service ecosystem. Service design processes and practices should be collective and the agency of all actors should be acknowledged (ibid.). Service design researchers' claims for ongoing and intersubjective design practices also nourish and resonate with other emerging design fields. For example, social innovation as proposed by Manzini (2015) emphasises the value of designers' actions in activating and guiding society towards sustainability. Framing design practice as an ongoing, transformative process infuses many fresh possibilities for better understanding how design practices may be situated within local contexts.

2.2.3 Pedagogical Complications

By questioning the prevalence of generalization in service design knowledge, my intention is not only to highlight a theoretical gap in the accommodation of heterogeneity in service design, but also to draw attention to the pedagogical challenges faced by individuals who need to teach, learn, and practice within an excessively universalised version of service design. Many knowledge production projects expect their output to be universally applicable. Ingold (2011) elaborates on the applicable knowledge, writing:

> [Applicable knowledge] takes the form of a comprehensive configuration of mental representations that has been copied into the mind of the individual, through some mechanism of replication, even before he or she steps forth into the environment. The application of this knowledge in practice is, then, a simple and straightforward process of sorting and matching, so as to establish a homology between structures in the mind and structures in the world (ibid., p. 159).

Framing design as a way of individualised thinking and capability encourages an atomised view of people. Learning service design to professional level requires a person to see themselves as a self-development project in which they can train themselves to think like a designer, to exercise themselves to use design methods, or to strengthen their particular design capability. Why does individualization in service design education risk being problematic? Because it potentially encourages a person to exploit the self by limiting them to sensing the nature of their own finite body and how their locality conditions their existence. If design knowledge replaces its commitment to transformation with each person having the ability to maximise design capability and design thinking, does design practice per se becomes the sole objective?

Freire's critique of the “banking notion of knowledge” is very enlightening here. The bank holds the knowledge and people must come to the bank to access it. The bank of knowledge is a separate from the people. In *Pedagogy of the Oppressed*, Freire wrote:

> “Implicit in the banking concept is the assumption of a dichotomy between human beings and the world: a person is merely in the world, not with the world or with others; the individual is spectator, not re-creator.” (1970/2005, p. 75)

Freire's concern with banking knowledge centers on the refusal to recognise the subjectivity of the student. By presenting a static, unchanging reality, banked knowledge forces people to perpetuate the existing hierarchies of

power and to reaffirm the oppressive dynamics of powerful and powerless. A common theoretical foundation of Western design theory and pedagogy is Dewey's philosophy of pragmatism. Freire's pedagogy emphasises that human existence is established in the unity of word, labour, action, and reflection. In Dewey's (e.g., 1938) pedagogy the idea that human inquiry, learning and active reflection on embodied experience are central deeply resonates with Freire's theories. Informed by pragmatic philosophy, the influential sector of design knowledge often places value on the situated experience of people collectively. For example, Schön (1983) describes design as a way of knowing which is gained through action and reflection on action. Other articulations on design thinking and capability also regard reflection and abductive thinking as core tenets (Dorst, 2011). Buchanan (2015) argues that experience is found in a relationship of interaction with the environment, and not in an internal process. Vink, Koskela-Huotari et al. (2021) think the value of design lies in the action it generates.

Here an open question is, why, in the global travel of design knowledge, are designers encouraged to write out or ignore perceptions of themselves and their localities, while the theoretical foundation of design knowledge is grounded in reflection itself? In neoliberal society, the reflectivity of designers suggests a very convenient means of self-regulating and self-monitoring (Tonkinwise, 2017). If Dewey's or Freire's pedagogy can be instructive for the knowledge production of service design, then one insight from pedagogy is that the mission of knowledge is to contribute to the process of enabling a person to recognise that they exist within different sets of relationships, and this is just as important as enabling a person to become professional designer. Freire's insight into the duality of the pedagogy of oppression is profound: "to be is to be like, and to be like is to be like the oppressor" (2000, p. 48). When being a designer is the purpose of design knowledge, there is a need for vigilance towards what Mignolo (2007) has called, "the coloniality of knowledge" which concerns the power of controlling the creation of subjectivity and epistemology. Decolonised design knowledge also has accountability for undoing this underlying assumption, an act of unravelling and no-longer contributing to configurations that privilege certain bodies while oppressing and dehumanizing others (Schultz et al., 2018). In the collocation of "design practice", existing literature on service design production often prioritises articulating design over practice. Through the examination of how service design practice is conceptualised, this study learns that recognising the uncontrollable complexity encountered in service design practice and restoring the designer's broader agency are two related agendas. There is a need to pay closer attention the notion of practice.

2.3 Theoretical Inputs

The method theory mobilised in this study is material-semiotics, a thread of practice theories generated at the intersection between anthropology and STS. This section presents an overview of practice theories in current social science and practice-based design in design research. The ensuing section presents material-semiotics, discusses its disciplinary and political backgrounds and outlines which of its essential claims will be engaged in this study.

2.3.1 Practice Theories

Practice theories try to account for the ways that human action is constrained by the social. Simultaneously they consider how human agency reproduces and/or transforms the social (McElhinny & Muehlmann, 2006). Practice theories originate from diverse traditions of sociology (e.g., Bourdieu, 1980/1990; Giddens, 1984), anthropology and STS (e.g., Latour, 1987), existentialistic philosophy regarding existentialism (e.g., Heidegger, 1953/1962), and pragmatism (e.g., Dewey, 1938). For example, Heidegger (1953/1962) identifies praxis as activities whose ends are the actions themselves and which provide a source of meaning. Dewey's pragmatism suggests human experience is not the outcome of practice and intended action, but rather a continuous flow, in which habits and routines are continuously challenged and transformed (Shove et al., 2012). Different theories of practice are not coherent with each other (Reckwitz, 2002). Clustering different theories together as theories of practice implies a common turn in social science, begun in the 1980s (Schatzki, 2001a). These theories shift the unit of analysis from the micro level, such as the individual, or the opposed macro level, such as the organizations or social norms, to an indeterminate level inhabited by assemblages of bodies, objects, competencies, and cultural meanings constituting practices (Reckwitz, 2002). The practice theories stream draws on the anthropological and sociological focus on people's embodied and situated interactions with people and with things during their everyday activities (Kimbell, 2009).

One of the purposes of practice theories is to articulate practice, especially its relationship to individual behaviour and the social. Schatzki (2001b) distinguishes two dimensions of practices. The first dimension is 'activity': a practice constitutes a set of activities involving bodily sayings and doings. The second dimension is 'organization': Practices do not just involve doings and sayings, but the understandings of things, rules, and teleological affectivities (such as desires, hopes, and anticipations) organise bodily activities (ibid.). The organization dimension endures over space and time

(Kuijer, 2014). The two dimensions are clarified as “practice-as-entity” and “practice-as-performance” by Shove and her colleagues (2012). The distinction reflects the dual character of practice. On the one hand, practice-as-entity reveals the holistic nature of a practice which contains different elements, including physical activity, mental activity, material, knowledge, skill, and social norms (Shove et al., 2012). These elements cannot be considered separately (ibid.). Their situated nature indicates the practices can only be fully comprehensible within the live contexts where they are produced and performed (Gherardi, 2008). On the other hand, practices are also emergent: “The moment of doing in which the elements are integrated by people in specific situations is slightly different each time” (Kuijer, 2014, p. 28). The elements and their links form a guiding structure, within which, however, there is ample space for variety (Kuijer, 2014).

Based on the generative and holistic nature of practice, practice theories open up more nuanced and refreshed understandings of other common concepts in social science. For example, practice theories describe the social as "a field of embodied, materially interwoven practices centrally organised around a shared practical understanding” (Schatzki 2001a, p. 12.), while other threads of cultural theories prioritise meaning, discourse, and communication in society. Correspondingly, individuals are featured as the carriers. Their meaning-making, goal, and knowledge are understood less as personal attributes and more as elements of practice that individuals participate in constructing (Reckwitz, 2002). Practice perspective also contributes to avoiding an exclusive focus on what goes on in people’s minds, or at the level of social norms, or what goes on in language (Kimbell, 2009). Practice theories also widely distance themselves from the traditional assumption of individuals as rational thinkers and decision makers. Instead, the human body is “the meeting points both of mind and activity and of individual activity and social manifold” (Schatzki, 2001a, p. 17).

2.3.2 A Practice-Based Approach to Situating Design Practices

In current design literature, practice theories are integrated into the development of new design methods and tools. For example, Kuijer et al. (2013) approach practice as a unit of user analysis and design, encompassing bodies, materials, skills, and meanings, to decentralise the siloed focus on human-computer relationships in the domain of Human–Computer Interaction (HCI). Wakkary et al. (2013) similarly employ practice as a means to analyse everyday repair and green do-it-yourself (DIY) practices. More recently, Hoolohan and Browne (2020) have connected practice theories and design thinking. They have developed a toolkit to support

practitioners in operationalizing practice theories based on a fundamental process of co-design which includes phases of exploration, discovery, and prototyping. The toolkit contains various exercises such as recognizing the diversity of everyday activities by reflecting on personal experiences and outlining the links between everyday practices and wider cultural, political, and technological developments (ibid.). As Pierce et al. suggest, practice theories enable designers to "more fully capture the complexity of everyday practices as they are enacted and change over time" (2013, p. 20:3).

Practice theories also influence the path of research into design practice. Early practice-based design research contributed to challenging the individualistic tradition of design research by which design is conceptualised solely as individual cognition (e.g., design thinking) or an intellectual approach (e.g., design as the co-evolution of problem and solution) (Kimbell, 2009). Practice-based design research advocates for the designer's ability to actively intervene to stimulate innovation (Hoolohan & Browne, 2020). Practice-based design researchers' interest in design methods also shifts towards evaluation of how design methods actually work in everyday practice (Schønheyder & Nordby, 2018; Lee, 2014).

Transition Design

Notably, in the last decade, practice theories have contributed to articulating an emerging design discourse, transition design. As an emerging field of design methodology, practice, and research, it refers to a "design-led societal transition toward more sustainable futures and the reconceptions of entire lifestyle" (Irwin, 2015, p. 231). Related explorations acknowledge that the current dominant lifestyle is structurally unsustainable (Tonkinwise, 2015). Meanwhile, scholars (e.g., Manzini, 2015; Escobar, 2018) have noted that local experimentations and social innovations are occurring, albeit weakly. In the context where both change and crisis are ongoing, transition design advocates for serious reflection on the role of design in the transitions (Tonkinwise, 2015).

"Transitions are not designed but emergent; they depend on a mix of interacting dynamic processes, both self-organizing and other-organised (by humans)" (Escobar, 2018, p. 152). The potential of design lies in its ability to focus on the human scale, facilitating the transformation of everyday practices for enabling structural shifts toward more sustainable economies (Tonkinwise, 2015).

The claim of structural change resonates with other emerging approaches, for instance, system design. The distinctive feature of practice-based design lies in the necessity of grounding design practices within the everyday routines of

life (Hoolohan & Browne, 2020). Practice theories offer insights that are useful in re-socializing and re-materializing discussions regarding social change as well as design (Walker, 2013). According to Irwin et al. (2015), everyday life forms the most fundamental context of design. Similarly, Tonkinwise (2015) argues that any innovation must either adapt to existing skills and meanings or facilitate the emergence of new ones in everyday life. Practice theories and practice-based design research, including transition design, provide robust support for this study by highlighting the intersection of design and everyday life as a fundamental condition for design practice to occur.

Researching practices beyond designing

Practice theories have more potential to enable situated design practices. Current practice-based design research continues to prioritise designers as the primary agents in design process. While many design researchers acknowledge the practical capabilities of the designer, the dynamic context of design practice is often treated as pre-existing. For instance, there are prevalent metaphorical dichotomies in design discourses that divide design practices from other happenings (e.g., actor and stage, or focus and context). In such couplings, designers and design participants are accorded an active role concerning who can learn, move, collaborate, and intervene. What surrounds these actors is a passive undergoing of events or objects onto which designing imposes or projects an impact. Although researchers argue for a need to re-embed design practices with the lived context (Akama & Prendiville, 2013), the dynamic nature of this context often remains elusive for designers. Theories of practice helpfully note that design practices form relations within other ongoing practices (Schatzki, 2001a). The combination of diverse practices can constitute new identities that are divergent from any of them (Shove et al., 2012). A further lesson from design researchers' theories of practice is that there is a need to acknowledge the practical abilities of others who are intertwined with design practices.

Acknowledging the capabilities of others entails believing that other practices are endowed with world-making capacities, even if these do not necessarily reference the logic, knowledge, and discourse of design. Professional design practices can refer to one or several action modes, yet these have no special authority to represent other practices (Fry et al., 2015). Designers who can embrace an enlarged understanding of the situated nature of practice will be better equipped to uncover cues for exploring the situated nature of design practice.

2.3.3 Material Semiotics

In different veins of practice theories, material semiotics is particularly useful for researching the situated relations that exist among practices. Material semiotics is a set of tools and sensibilities of social analysis to explore "how practices in the social world are woven out of threads to form weaves that are simultaneously semiotic and material" (Law, 2019, p. 1). For Law (2019), such weaves are performative because different realities are being woven into being in different practices. These weaves are semiotic as they are relational and carry meanings. They are also material because they are about the physical matter that is caught up and shaped in social relations. There is no single social structure or form of patterning because these material and social webs and weaves come in different forms and styles (ibid.). Material semiotics provides rich ethnographic tools for understanding and capturing the intertwined relationship between service design and different processes, while it resists presenting service design as a single fixed perspective from which to understand differences.

Material semiotics is often referred to as a branch of French and British Actor Network Theory. It also has roots in feminist material semiotics, cultural and social anthropology as well as post-colonial theory. Informed by the early STS studies of Bruno Latour, Steve Woolgar's (1979) fieldwork in Roger Guillemin's laboratory at the Salk Institute, scholars of material semiotics advocate using ethnography – especially ethnography based on linguistic and symbolic analysis – to observe how knowledges are generated and constructed as social facts. One of the most important features of this theory is "a relentless, untiring rejection of pieces of 'evidence' that are mobilised to construct or confirm taken-for-granted realities" in everyday experience and in social science analysis (Lien, 2015, p. 22). Classically, ethnographers often researched in distant places that had little relevance to their everyday life, for instance, in Melanesia or Morocco. By contrast, ethnographers of material semiotics prefer to "tread familiar ground", and focus on phenomena in modern societies and institutional contexts (ibid., p. 22). In accordance with other practice theorists' attitudes on knowledge (e.g., Schatzki, 2001a), material semiotics does not assume that concepts such as nature, body, society, gender, and the market exist as given realities. Instead, ethnographers using this theory explore how such concepts are brought into being through dynamic relational practices (ibid.). For example, Mol (2002) suggests that instead of focusing on the question of "what is a woman?" which often leads to an essentialist understanding of femininity or isolated sexuality determinism, there is a need to focus on how to "do" being a woman within different contexts. In other words, women's identity is not given, but practiced. Doing womanhood is not the same in different

environments, such as classrooms, hospitals, and homes, because other things, including men, act differently in different environments.

Material semiotics requires ethnographers to notice how those seemingly-stable notions and phenomena become noncoherent and constitutive by relational practices. In Mol's (2002) ethnographic research, she spent four years looking at practices around lower limb arteriosclerosis in a town in the Netherlands. In her study, Mol didn't assume arteriosclerosis to be a universal object concealed inside every patient's skin. She makes a praxiographic shift to studying the bodies and the disease as the realities that are being enacted daily in hospital practices (ibid., p. 83). Mol's research revealed that the practices of these different actors are not always coherent, nor are they a harmonious collaboration working to establish a singular reality of arteriosclerosis, which is often seen as a "natural" reality, objectified and separated from human society. Sometimes practices concerning arteriosclerosis cannot fit comfortably together. For example, one patient complains to his general practitioner of pain in his leg when walking, but technicians cannot find any unusual sound of turbulence via a stethoscope (ibid., p. 62). The patient is convinced of the reality of his pain, while the technical measurement denies it. In this contradictory situation, the reality of the patient's pain clashes with the reality revealed by the instrument. The pain should be ignored to move the treatment forwards. The arteriosclerosis does not precede the patient's pain and technician's tests, but different practices enact the multiple practices of arteriosclerosis that go by a single name.

Different practices enact different realities alongside one another (Law, 2015, p. 130). Instead of asking "what is arteriosclerosis?", the question of how arteriosclerosis is done can open up further explorations that investigate ways to support arteriosclerosis patients. This change is manifested as a turn from representationalism to performativity (Barad, 2003). In this turn, the role of practice is seen as constantly re-creating distinction which forms the basis of what we know and do, rather than demonstrating some pre-existing essence or property (Abram & Lien, 2011).

2.3.4 Practical Ontology

With the claim of "different practices enacting different realities", material semiotics offers more actionable and situated ways to discern difference. This approach offers the possibility to trace difference, but not frame it as static entity. Material semiotics' understanding of difference emerges from dialogue and debate with anthropological academia on an important paradigm shift – namely the ontological turn which Henare et al. (2007, p. 7)

call “a quiet revolution in anthropology”. The ontological turn has been much enriched and deepened by anthropologists who conduct fieldwork in Latin America, for example, Viveiros de Castro, Mario Blaser, Marisol de la Cadena, and Arturo Escobar. Cultural and social anthropologists such as Marilyn Strathern, Anna Tsing, and Tim Ingold, as well as STS scholars including Bruno Latour, John Law, and Annemarie Mol are also important participants in this debate.

The ontological turn within the discipline of anthropology is first and foremost methodological. It focuses on the question that plagued anthropologists for years: how do I deal with the difference that I encounter during participant observation? In their fieldwork, anthropologists need to constantly talk and live with people or so-called “informants” in “fields”. It is as if the anthropologist and the informants are on an equal footing. However, after leaving the field, the anthropologist seems to gain supremacy over any informants, as they are “accredited” to make an interpretation of the lives of others (Strathern, 2004). For example, Mauss (1950/1990) noticed the common process of exchanging large amounts of money and property as gifts within Maori society. The Maori believed that there is a hau, “a spirit of the giver in the gift”. This hau always wants to return to the giver, thus forcing the recipient to reciprocate. Failing to do so would put the recipient in grave danger. Is hau a belief or a reality? The ontological turn involves a rather simple premise that offers a completely new way to do anthropology and treat ethnographic data (Ansari, 2020). One core argument of the ontological turn is that foregrounding and taking notice of differences of culture, worldviews and beliefs reopens the way for new imaginations of coexistence. For ethnographers, the question is:

> How do I enable my ethnographic material to reveal itself to me by allowing it to dictate its own terms of engagement, so to speak, guiding or compelling me to see things that I had not expected, or imagined, to be there? Through what analytical techniques might such an ethnographic sensibility be cultivated? (Holbraad & Pedersen, 2017, p. 5)

On the decolonizing of knowledge production, how is it possible to take others’ words seriously and to acknowledge that they mean what they say (Ansari, 2020, p. 7)? In Mauss’s example, the question is to find possible ways for anthropology to acknowledge hau as a reality coming from a distinct and complete system of knowing and being, one that makes complete sense to the Maori and completely structures their existence. Marilyn Strathern (1990), for example, consciously treats Western anthropological

knowledge and Melanesian knowledge as comparable and parallel analytical forms.

The questions raised by the ontological turn originated from disciplinary anxiety, but they are indeed fundamental to all disciplines that confront the universality and global proliferation of knowledge. However, Haraway (2016) critiques perspectivism and multinaturalism while still intending to use abstract grand concepts (e.g., metaphysics) to explain everything and plan everything. Ontology itself is strongly coloured by gender authority. The ontological turn risks entailing an intensified relativism as well as a form of neo-essentialism (Gad et al., 2015), and there are dangers in using ontology simply as a synonym of culture (Carrithers et al., 2010).

There is an overlap between material semiotics and the ontological turn, but only partially (Lien, 2015). Gad et al. (2015) use the concept "practical ontology" to suggest a way to approach ontology by studying the everyday practices of materialities including humans, natural objects and technologies. Practical ontology does not make such pre-emptive assumptions that emphasise ontological difference, nor does it assume an ultimate ontological category or another metaphysical principle that can encompass differences (ibid.). Rather, it emphasises that practice is primary and has the ability to render ontology dynamic and variable (ibid.). By focusing on practice, the task of ethnography is to notice the potential of both human and non-human actors (Lien, 2015). Because these actors are engaged in constituting worlds, therefore world-constituting, ontological, processes can therefore be studied ethnographically (Gad et al., 2015 p. 75). Rather than saying ethnography gives access to two or more ontologies that are often incommensurable, this approach says that ethnography has the capacity to access different ontologies which are both interrelated and locally co-existent.

2.3.5 Partial Connections

In this study, the third theoretical input relevant to material semiotics is anthropological reflection on the relations between the whole and the local. The theory of partial connections is proposed and enriched by the feminist anthropologist Marylin Strathern. Although this theory does not arise directly from material semiotics, it has had an extremely important influence on the claim of "non-coherence" in material semiotics (e.g., Mol, 2002). The notion of partial connections was initially developed in Strathern's early cross-cultural comparative study, *The Gender of the Gift* in 1990, and subsequently enriched in her later book, *Partial Connections* (2004). The idea of partial connections attempts to problematise the epistemological presuppositions of the holism implicit in the traditional comparative method in Western

anthropology. Traditionally, the local is always a part of something larger. Together with other parts, it constitutes a whole, like many small pieces of cloth forming a big cloth (Mol, 2002). In Strathern's fieldwork, she finds that Melanesian personhood, objects, and bodies do not constitute such nested relations between the whole and the part. Rather, a person may be constituted by several identities. Different identities do not necessarily cancel another out.

Strathern advocates the use of "partial connections" as an alternative to previous entity concepts, such as individuals (e.g., Strathern, 2018). One person's multiple identities do not mean there are several persons, or that the person is divided into several pieces (Mol, 2002). Instead, these identities are partially connected. That is, they exist as "more than one, less than many" (Strathern, 1991, cited from Mol, 2002, p. 82). In this sense, the relation is not external inter-connections but what Barad (2003) calls "intra-connections". Strathern (2004, p. xx) borrows from contemporary fractal graphics to visually describe the partial connection. In fractal images, the boundary of one figure allows other figures to enter. To enter is not to encroach the whole figure, but to create an implicit distinction by which each figure can be identified. There are repetitions but not quite replication. Studying one figure will lead into a state of chaos, as fractals open the possibility for a map without centers, a genealogy without generations, and a kaleidoscope with changing connections. Within partial connections, it is possible to find different narratives to illustrate how different things can seem to contain each other yet still maintain different and multiple identities.

Partial connection does not imply the abandonment of holism. As Bubandt and Otto (2010) mentioned, holism is a postulate but not a search for wholes. Ethnography is not about describing and analysing large or universal relations, but seeks to explore local and situated relations with a holistic view. For example, Anna Tsing's poetic ethnography, *Mushroom at the End of the World,* confronts the big problem whereby capitalist global expansion depends on the exploitation of noncapitalist areas and life forms whose ecosystems have long been scarred. Tsing articulates this big problem by taking notice of small matsutake fungi. She locates her ethnography in the ruins where the matsutake grow, such as the abandoned forests of Oregon. The stories of Laotian and Cambodian refugee matsutake-pickers living in the Oregon forest, their tough past and their relations with the forest are used to illustrate how matsutake are entwined with the human process of world-making. Matsutakes are ultimately transformed into commodities, gifts and foods for the dinner table in Japan. By using partial connections, Tsing shows how things with different paths, rhythms and directions come together to form a mode of unintentional coordination. Reflecting on issues of

coloniality and oppression, Haraway claims that there is a need to "relearn how to conjugate worlds with partial connections and not universal and particular [ones]" (Haraway, 2016, p. 13).

2.3.5 Theory Integration

At the end of the method theory section, I discuss how material semiotics inform the selection and utilization of empirical methods which will be articulated later in Chapter 3, Methodology. Table 2.3 provides an overview of how three interrelated theoretical perspectives inform the research design of this study.

Material semiotics contributes to formulating the scope of data collection and analysis in empirical methodology. It helps me enter the site of doing service design so as to notice issues and problems that emerge in everyday practices – and to find ways out of these. The analytical scope of practices involves narratives as such discourses and materiality are engaged within the field of situated practice (Law, 2019). Informed by material semiotics, this study's empirical methodology focuses on both following and reflecting upon the situated happening, identified as service design, rather than relying on theoretical analysis of existing literature devoted to service design. In particular, doing interviews to reflect on the narrative of service designers about their practices is the approach I take to address RQ1 (Which views held by service designers prevent them from situating their practices?). Doing ethnography along with doing service design is the approach used to address RQ2 (What ways of knowing and doing can aid designers in situating their practices in the local context?).

Practical ontology provides insights on incorporating non-design practices in the research design of this study. In the ethnography used to explore RQ2, it is also important to engage the practices of other actors and to acknowledge that service design practices exist between other practices. This study is committed to breaking away from a service design theory that emphasises service design practices alone; instead it considers how to make sense of different practices. The encounters taking place among various practices will underpin my main interest in the ethnography. I will keep an open mind in observing the assemblage of various practices and entities, both human and non-human.

Partial connections were initially used to respond to issues of cross-cultural comparisons within the discipline of anthropology. The valuable inspiration from the partial connection is an alternative imagination regarding the whole and the local. When the whole and the local cease to be a scalable relation, there is a need to revalue the active role of partial but limited connections in

the configuration of complex systems. The interests of multiple partial connections have an inherent tension with service design which aims for holistic and systemic transformation, and thus may stimulate me to appreciate the tension in a meaningful way.

Table 2.3 Emphasises and roles of theoretical perspectives.

Theoretical perspective	Emphasises	Key references	The role of method theory	How does the theory inform this study?
Material semiotics	- Ethnography of the familiar and mundane practicalities of the everyday; - Problematizing taken-for-granted notions in modern society or institutional settings; - Ethnography as an approach to notice the constitution of world.	Mol, 2002; Law, 2011 & 2019;	Material semiotics offers empirical methods and analytical tools to enter into situated contexts of service design practices.	Informed by the material semiotics, this study: - Prioritises situated happenings over knowledge in the literature; - Analyses the narrative acquired in the interviews; - Accounts for material-mediated practices through ethnography.
Practical ontology	- Different practices enact different realities; - Practice is in an ongoing process of transforming itself; - Materials can acquire agency to participate in world-making.	Gad et al., 2015; Lien, 2015	Practical ontology helps to set plural practices as the scope of data collection in the exploration of RQ2.	Informed by practical ontology, this study: - Incorporates non-service design practices in the research design; - Keeps an open mind to observe how different practices and service design practices hang together.
Partial connection	- No pre-assuming an isolated nested relation of local and whole; - Situated practices in the partial can enact multiple identities at the same time and configure complex systems.	Strathern, 2004;	Partial connection offers an alternative imagination of the relation between the whole and the local.	Informed by partial connection, this study: - Explores possible ways of doing service design which appreciate partial connections.

3. METHODOLOGY

With the purpose of exploring the situated nature of service design practices, the methodology employed in this study is rooted in the notion of practice research. According to Candy, Edmonds, and Vear (2022), "practice research is a principled approach that involves the reciprocal relationship between research and practice, resulting in innovative forms of knowledge" (p. 27). In particular, the thesis takes a programmatic approach (Brandt & Binder, 2007; Redström, 2017), linking research questions and situated experiments through an evolving research program. Chapter 3 begins by discussing the implication of a focus on the situated nature of service design practices for the consideration of methodology. Subsequently, I outline the structure of the program of this study and illustrate how it situates two research questions into specific experiment clusters. These clusters comprise a blend of research methods that build upon each other. Then, the research flow within each experiment cluster is expounded upon. Toward the end of the chapter, I contemplate my positionality and explain how it conditions the study. Lastly, the chapter evaluates the study in terms of validity and transferability.

3.1 Methodological Considerations: Program-Driven Research

According to Brandt and Binder (2007), a methodological grounding of a practice research project can be understood in terms of research questions, experiments, and program. As many doctoral dissertations have shown, research questions are considered the fundamental element of a research project. Experiments in particular refer to inquiries developed through the creative and reflective process (Schön, 1983). Research questions and experiments appear quite straightforward in a practice-based research framework. Brandt and Binder propose the program as an important intermediary between research questions and empirical experiments (Brandt & Binder, 2007, p. 3). The program offers a way to open up space for design

researchers to be attentive to the evolving relations between research questions and various empirical explorations (ibid.).

Binder and Redström (2006, p4) define a program as a provisional knowledge regime in the sense "that it is not unquestionable but functioning a sort of hypothetical worldviews that make the particular inquiry relevant … as the design work unfolds". The term program is used to frame what are considered to be the most central topics, worldview, and knowledge interests in my doctoral project (Brandt & Binder, 2007). A program fashions a space for design research in which possibilities can be explored through different experiments, while also allowing these to manifest, enhance, expand, challenge or reshape the program itself (Redström, 2017; Binder & Brandt, 2017). Cited in different articles (e.g., Bang & Eriksen, 2019; Binder & Brandt, 2017), Figure 3.1 illustrates the dynamic relations that exist between research questions, program and experiments (Brandt et al., 2011). The arrows emphasise that a research project might be initiated from the outside, or a provisional experiment can lead to the emergence and change of the research question. The programmatic approach opens up possibilities for making sense of evolving and generative design researches while bringing structural transparency (Søndergaard, 2018). Evolving research questions, and the program, along with different design experiments, can help researchers to notice the transformation of their own positionalities, worldviews, and value propositions during the research process (Redström, 2017).

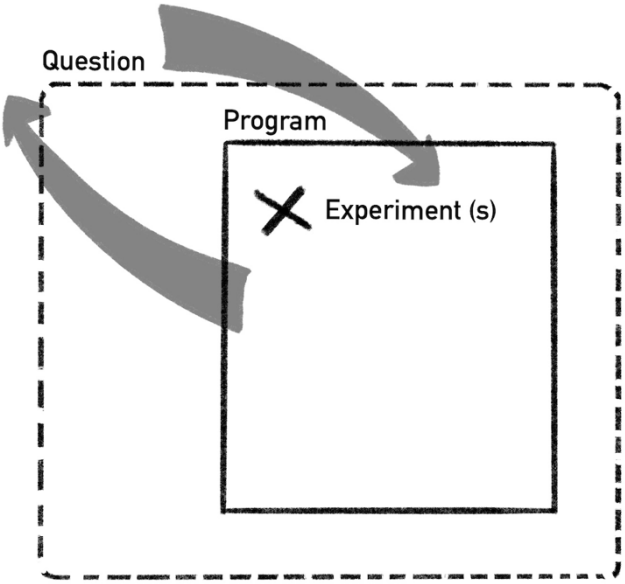

Figure 3.1 Illustrations of dynamic relations between research question, program and experiments. (Adapted from Brandt et al., 2011, p. 26)

3.1.1 Program Statement: Soiling Service Design Practices

In this study, exploring the overarching query on what knowledge is needed to aid service designers to situate their practices in the local context entails a program as stated below:

> Soiling service design: The study explores the possibilities for acknowledging and appreciating meaningful heterogeneity of the context to cultivate localised service design practices.

To 'soil' service design practice literally means to make service design practices dirty within their context. I use 'soiling' in a rhetorical sense of irony. In English, juxtaposing the noun, *soil* and the verb, *to soil* is instructive in problematizing how a service design practice relates to its context in professional knowledge. As a noun, soil can be used as a metaphor for the local context of service design practices. According to the Cambridge Dictionary (n.d.a), soil is closely related to earth, referring to the upper layer of earth that may be dug or ploughed and in which plants grow. The concept of soil embodies a complex assemblage of living organisms and inanimate matter, blurring the distinctions between the two realms. However, when used as a verb, 'to soil' signifies the act of making something dirty. Remarkably, the same soil that serves as a medium for transforming

organisms and nurturing life takes on a connotation of impurity within the nuances of the English language. By employing the concept of soiling service design, this study hopes to open up ways that incorporate soil and soilage into the scrutiny of the meanings, values and harms generated by professional service design. These approaches are anticipated to empower designers and researchers to share and reflect on their experiences of doing service design without erasing the meaningful heterogeneity that is present within the local context.

3.1.2 Communicating Research Aims and Experiments by Using the Program

Two broad research questions are tackled in this study. However, the study cannot and does not intend to find ultimate answers to these questions. Sketching out the program enables me to narrow the inquiry of the research questions into situated experiments (Brandt & Binder, 2007). Figure 3.2 illustrates how the program communicates the overall query and the situated experiment clusters by condensing the research questions into situated questions. Mixed methods are chosen to create an experiment cluster for each research question. Combining different methods mutually complements and triangulates each method, and offers a comprehensive understanding of the situated nature of service design. Table 3.1 provides an overview of two experiment clusters, empirical approaches, research methods, my positionality whilst studying others' practices, other key actors involved, and the context in which experiment clusters are situated.

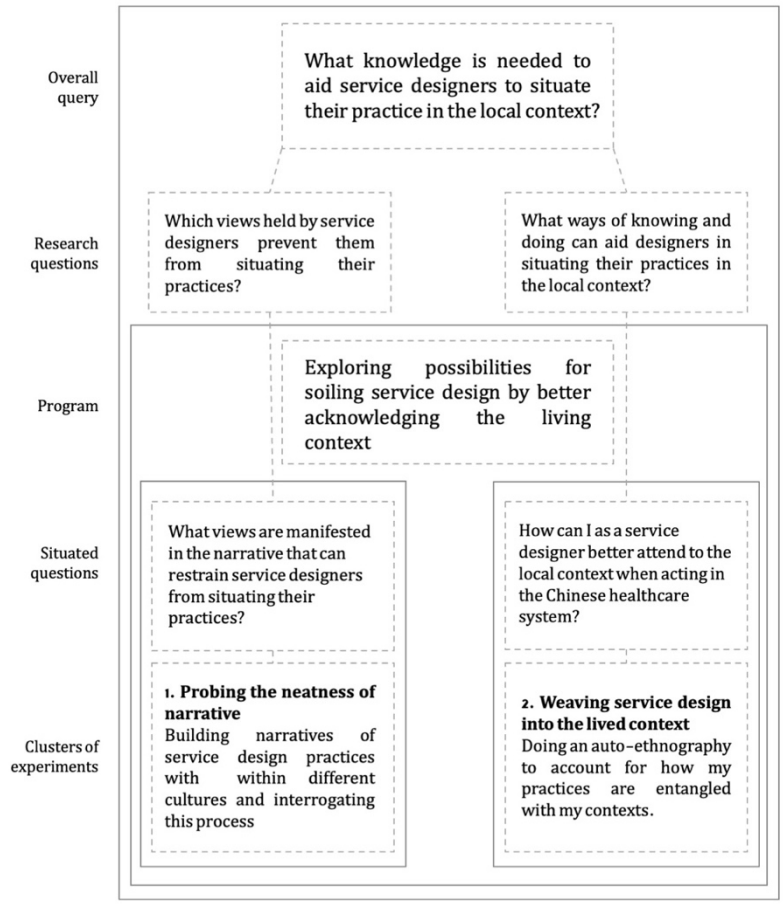

Figure 3.2 Communicating research questions and experiment clusters by using the program.

RQ1 narrows the focus onto the views are manifested in the narrative that can restrain service designers from situating their practices. This study adopts narratives of practice as a focal point for delving into the aids, and constraints of mainstream service design knowledge on the situated nature of service design practices. The term 'narrative' refers to a knowledge-making practice through which the knower, here the service designer, accounts for practices that represent a connected succession of occurrences. The narratives of service design practice constitute a world-making project based on service design knowledge. Through the setting of Experiment Cluster 1, this exploration of RQ1 interrogates the tendency towards neatness in professional service design narratives. The neatness of narratives does not imply simplicity of design practice per se. For service designers, the specific

experience of doing service design is often complex, ambiguous, and entangled with other happenings in the world. Yet as Chapter 2 shows, the story of these experiences in the reporting and presentation stages of service design suddenly becomes neat and tidy as designers engage with the process of sharing their experiences. Exploring the process of narrating the stories of professional practices helps to produce better understanding of the role of knowledge in configuring the attention of its knowers within complex contexts.

RQ 2 is narrowed with regard to how I, as a service designer, can better attend to the local context when acting in the Chinese healthcare system. Guided by the insights gained from Experiment Cluster 1, my focus on RQ 2 was oriented toward acknowledging the subjectivity of encountered others to revitalise the fluid and dynamic nature of context in action. Experiment Cluster 2 detail the ways in which I carried out service design practices in a project aimed at forming a remote care service. While involved in this project I also conducted an autoethnography to explore how my practice related to the context in a real-life and experiential way.

Figure 3.3 outlines the research flow within two clusters throughout this doctoral study. The process of the experimental cluster will be elaborated upon in the following sections.

Table. 3.1 Overview of two experiment clusters.

	Experiment cluster 1: Probing the neatness of narrative	**Experiment cluster 2: Weaving service design into the lived context**
Empirical approach	Experimental narrative inquiry	Auto-ethnography
Methods	Literature review; Semi-structure interview; Abductive coding; Narrative analysis	Design workshops; artifact creations; field experiments; Participant observation; interviews; Review of ethnographic data; Writing-up ethnography
My positionality of research	3rd person perspective	1st person perspective
Other actors involved	Two service design researchers; 21 service design practitioners	Doctors, medical graduates, and employees in a company providing remote care
Key context of research	Community of service designers trained by mainstream service design education	Department of thoracic surgery in a Chinese public hospital

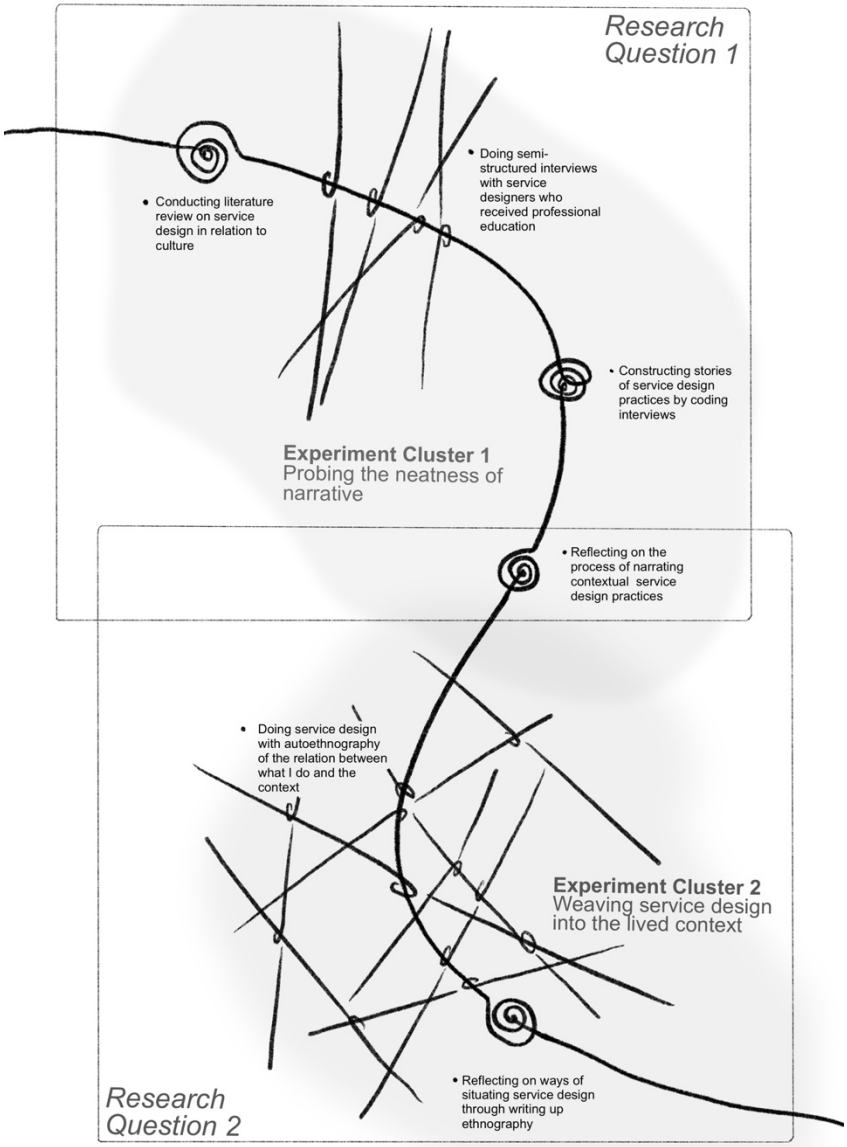

Figure 3.3 Research Flow of Experiment Clusters.

3.2 Experiment Cluster 1: Probing the Neatness of Narrative

As illustrated in Figure 3.3, diverse research methods were interwoven forming a pathway for addressing RQ 1. Within this cluster, I collaborated with fellow design researchers, namely Professor Josina Vink and Professor Simon Clatworthy. Our approach centered on employing culture as a primary dimension to access the literature pertinent to the context of service design practice. At the outset of Cluster 1, the study embarked on a literature review to construct a conceptual framework elucidating the relations between service design and cultural context. The outcome of this review was various patterns that divide the various roles of service design practice in relation to culture. Subsequently, these patterns served as a structural framework for conducting interviews with service designers who possessed professional education in the field. The interview analysis centered on the construction of narratives surrounding professional practice. We critically examined the impact of professional knowledge on narrators' attention and the possible risks of concealing the heterogeneity of the context. Here, we consider both ourselves – in the role of researchers – and the interviewed practitioners to be narrators.

It is important to note that the initial intention of doing interviews was to further deepen the conceptual patterns presented in the literature review. Nevertheless, as we progressed through the interview phase, our own discomfort and the thought-provoking critiques provided by fellow scholars compelled us to reassess the interviews' direction. We began to question whether the conceptual model was inadvertently being overly generalised, potentially explaining away the vivid experiences that occur in situated service design practices. Such generalization could mean that meaningful heterogeneity might fail to emerge from specific contexts. We recognised that the model should not serve as a depiction of an objective relationship between service design and culture. Instead, we started viewing the conceptual model as a dynamic knowledge map, a tool for us to examine how mainstream professional knowledge conditions service designers to know the relation between themselves and the context. Questioning the model and the assumptions that underpin its construction gained greater significance when we worked on our analysis of the interviews.

3.2.1 Conducting the Literature Review

Experiment Cluster 1 begins with a literature review in service design that synthesises how service design relates to the notion of culture (Torraco, 2005). Our review included 41 articles collected from design journals

(e.g., *Design Issues*, *Design and Culture*, *CoDesign*, and *International* Journal *of Design*), a prominent academic service design conference (*ServDes*), and additional articles published in related fields (such as codesign and social innovation). In our sample, we selected not only texts that explicitly discuss culture, but also articles in which cultural factors are taken into account indirectly. For articles with an explicit cultural interest, we analysed not only the narrative (concept, logic, and grammar) of how service design relates to cultures, but also the arguments for service design's ability to cope with different cultures and practices. For articles that mentioned cultural factors, we mainly focused on the narrative. While being careful to avoid oversimplifying the richness of these articles, we condensed each of them into several sentences that described the relationship between service design and culture. The list of articles selected for review can be found in the appendix of Publication 2, pp. 23–26. The sentences were aggregated to yield key phrases to illustrate the relationship between service design and culture. By seeking similarities and differences, we synthesised the dominant service design narrative in relation to culture into the four previously mentioned patterns of *describing*, *adapting*, *shaping*, and *enacting* which are initially presented in Publication 1.

3.2.2 Doing Semi-Structured Interviews

Between March and July 2020, I conducted one-on-one interviews with 21 service design practitioners. The interview is a popular way for researchers to build the narrative of other people's practices (Kvale, 2007). The method often is considered to be rooted in the Western assumption that objective understanding can be acquired through multiple communications of rational individuals (Gobo, 2011). We recruited 21 practitioners from 12 different countries who practice service design in different locations around the globe. Table 3.2 presents their backgrounds in detail. Their common mode of education also reflects the shared interest in mainstream knowledge and concepts in service design (Ferruzca et al., 2016). Some of these interviewees were found through our personal relationships, and the rest from LinkedIn, one of the main social media used by service designers. Designers' language and their locations of work and study were important clues for finding service designers who had multiple cultural experiences. All interviewees were non-native English speakers, but most had received service design education in English in the United Kingdom, United States, Italy, Sweden, China, and Norway.

Each session was approximately one hour in length. Due to the Covid-19 pandemic, I used online video conference platforms such as Zoom and WeChat. On my screen I could usually only see interviewees' faces frontally

and set against the static background of their rooms or work spaces. All interviews were recorded with consent. In each interview, the four patterns that emerged from our literature review conditioned the outline of our questions (see Table 3.3). Using these questions, I guided each interviewee to share, explain, question or defend their own experiences with service design practices. Meanwhile, I also invited them to discuss and interpret the actions of other people involved in their practices. Their narratives and knowledge of service design practice in different contexts did not arise from their practices alone, but also from the conversations we had with the interviewees. The semi-structured format meant that I needed to keep the interviews' terminologies and parameters loose. For example, I did not predefine what service design or culture might be. This looseness allowed me to encounter new knowledge or to gain new understandings of existing concepts (Blaser & De la Cadena, 2018). Often, brief unrecorded discussions took place before and after the formal part of the interviews. For example, I often began with some small talk about the translation of design in our mother languages. Afterwards, I often allowed 5 to 10 minutes to answer questions about my research. This was beneficial for both sides as it helped to balance the interview relationship (Ribbens, 1989).

Table 3.2 Background of interviewees and their practices. (Cited from Publication 1, p. 28)

Nation of birth	**Nation where they received service design education/training (language)**	**Regions of practice [a]**	**Project types [b]**	**Sectors of projects**
China	China (in Chinese and English); Italy (in English)	Italy	University	Female sexuality
China	Italy (in English)	China	University	Urban community
China	U.K. (in English)	South Asia	Consulting company	Manufacturing industry; Consulting
China	Italy (in English)	Italy	University	Female sexuality
China	China (in Chinese and English); Italy (in English)	China	Consulting company	Digital commerce; Consulting
China	China (in Chinese); U.K. (in English)	China, U.K.	Consulting company;	Healthcare; Public sector; Digital

			University	commerce; Consulting
China	Italy (in English)	Italy, China	Consulting company	Public sector
France	Italy (NG[c])	Italy, Australia	Cooperation	Telcom; Enterprise Organization
Germany	Germany (NG)	Japan	Consulting company; Freelance	Sustainability; Consulting
South Korea	U.K. (in English)	South Korea, U.K.	Freelance; University	Enterprise Organization; Consulting
Sweden	Sweden (in Swedish and English)	Sweden	University	Healthcare
Mexico	Norway (in English)	Norway	Consulting company	Enterprise Organization; Consulting
Brazil	Norway (in English)	Norway	Consulting company	Product development; Consulting
Sweden	Sweden (NG)	Sweden	Government, International organization	Governmental policy; Immigrant
Chile	Norway (in English)	Chile, Norway	Government, University	Government organization; Healthcare
Germany	NG (NG)	U.S., German	Consulting company	Enterprise organization; Consulting
Italy	Italy (in English); China (in English)	China	University	Eco-tourism

India	Italy (in English)	U.S.	Cooperation	Healthcare; Product development
The Netherlands	NG (NG)	The Netherlands	Consulting company	Consulting
Japan	U.S. (in English)	Japan, India	Consulting company	Enterprise organization; Consulting
Chile	U.K. (in English)	Uganda, Nepal	NGO; Consulting company	Healthcare; Education

[a] Defined by the practices that the service design practitioners recounted to the interviewer.
[b] Defined by the organization that is responsible for the service design project.
[c] NG stands for Not Given which means the data is not shared explicitly by the interviewees.

Table 3.3 Interview guide. (Cited from Publication 2)

Theme	***Questions***
Background	Can you tell me about yourself? What is your educational background? How many years have you been a professional service designer?
Cultural perceptions	What does culture mean to you in the context of service design? Can you tell me about one of your design projects that you think is most culturally relevant?
Describing	What cultures do you think you encountered in your project? What did you do to understand these cultures? Which service design methods did you find useful in building this understanding? If interviewer shares any service design activity: Could you help me go through this experience?

Adapting	In what ways did you try to adapt to these cultures, if at all? Which service design tools were most helpful in adapting to these cultures, if any were? If interviewer shares any service design activity: Could you help me go through this experience?
Shaping	How did the goals of the service design project relate to the cultures you mentioned? How did service design methods help you to influence culture, if at all? If interviewer shares any service design activity: Could you help me go through this experience?
Enacting	How do you feel your own cultural background influenced the way you conducted this service design project? How might your design knowledge have influenced users or other stakeholders in this project? How do you think the experience of this project could change the way you do design? If interviewer shares any service design activity: Could you help me go through this experience?

3.2.3 Coding Interviews

Soon after most of the interviews were completed, my colleagues and I began transcribing and analysing the material. We worked remotely due to quarantine restrictions. In a Zoom meeting, we decided to do two rounds of interview coding and to target some of the concepts that are used to narrate service design in different cultural contexts (Gioia et al., 2013). Through this process, we identified 55 codes, applied 1,543 times to 1,012 excerpts. We divided these codes into five conceptual groups that consist of the elements of narrative and plots connected with *perceptions of culture*, *perceptions of service design*, *motivations*, *practices*, and *response*. For example, the *practices* code group consists of concepts that describe what service design practitioners do, such as setting visions, building models, and visualizing and facilitating communication. In the second phase, we condensed the meanings of the excerpts in the *practices* code group to synthesise practices for the four patterns (Kvale, 2007). To narrate these practices, we first reconnected them to other coding groups to enrich the contexts. Then, we referred to these connections with the sentences and phrases we built based on the articles in the literature review. We thus made

stories for each pattern drawn from the literature, then chose a representative story that reflected the common pattern and related concepts for each pattern.

3.2.4 Revisiting Interviews

The key to framing the narrative-based interviews into an experiment was that we revisited the interviews and critically examined the data by searching for coding and stories. In this last phase, we cross referenced the stories with the interview transcriptions and audio recordings. We explicitly identified ourselves as the narrators of the stories to demonstrate these four patterns, such that we composed the stories with the facts and orientations we wanted to share (Daiute, 2015). In building these stories, we employed our knowledge to relate people, activities, and things we heard in the interviews to the succession of plots. We paid particular attention to the concepts we used to signify people and their activities. These concepts have the ability to produce recursive knowledge by constantly explaining and assimilating various practices and becoming a repertoire shared by knowers (Blaser & De la Cadena, 2018). During the process of revisiting, we tried to be more vigilant about the service design concepts we take for granted and to refuse to fully attach our logics of service design to the narratives we constructed. We marked out key concepts, and then I returned to the literature of service design to understand how the concepts are widely used in terms of their relations to differences. We also considered criticisms of these concepts which were discovered in the existing service design literature.

3.3 Experiment Cluster 2: Weaving Service Design into the Lived Context

Experiment Cluster 2 involves an auto-ethnography based on participant observation conducted simultaneously with my own service design practice. By definition, Autoethnography is an approach to research and writing that aims to describe and systematically analyse personal experiences in order to understand, cultural experiences and life as lived and experienced by people (Ellis, Adams & Bochner, 2011). The primary objective of doing autoethnography was to examine the context of my practices and specifically how I engage with and attend to them.

The two main reasons for employing an autoethnographic approach are, firstly, that this study appreciates the value of detailed ‘thick descriptions’ of cultural occurrences which are captured through personal experience in autoethnographic research (Jones, Adams & Ellis, 2016, p. 33). According to anthropologist Geertz, ‘thick description’ refers to the interpretation of

cultural meanings through intensive, small-scale, and dense accounts of social life (Geertz, 1973). Thick description provides potential means for providing an account of service design through foregrounding the social and cultural context in which the practice takes place. Traditionally, within the paradigm of practice research in design, experiments often involve the execution of routine professional activities such as workshops or established design methodologies. Autoethnography allowed me to break away from such inertia and to make other practices more visible and meaningful. Secondly, my ethnographic approach was intentionally 'auto,' as my aim was to account for relations between self and others (Winkler, 2018). Equal importance was given to understanding both how I do service design with others, and how others relate to my practices. The reciprocal perspective of others is considered crucial in the data collection and analysis process. As such, autoethnography stands at the core of practice research.

In what follows, I will discuss the background to Experiment Cluster 2 and then present my research methods in chronological order.

3.3.1 Project Background of Experiment Cluster 2

Experiment 2 took up most of the time of my PhD project. It was carried out as a part of DigiRemote, a collaborative project that involves different research institutes, companies, and hospitals from China and Norway. The project was originally planned to start in 2020 and end in 2023. Due to the global pandemic of Covid-19 in early 2020, the project had been delayed until November 2020. The purpose of the project is twofold: 1) applying a digital healthcare platform that is developed in Norway in the thoracic or cardiac surgery of two public hospitals in Shanghai to form the remote care service of rehabilitation and 2) scaling up the application of the platform to more Chinese hospitals.

The organizations involved in DigiRemote consist of four components. First, the Norwegian company, ReCare, provides the technology to support a digital platform for the project. Founded in 2012, ReCare has extensive experience in the application of remote care technology in Norway. Second, the thoracic surgery at Dongshan Hospital and the cardiac surgery at Shanqiao Hospital are Chinese public hospital partners in DigiRemote. Both hospitals serve the needs of patients not just in Shanghai, but more widely across Eastern China. For example, the thoracic department of Dongshan reportedly treats 2,500 patients and performs approximately 1,500 surgeries annually. Third, the project also involves three medical device suppliers in China which provide the platform with medical devices in China. Fourth, the Center for Connected Care (C3) was mainly engaged as a Norwegian

research partner. It is a center of research-based healthcare innovation that is funded by the Research Council of Norway. Establish in 2015, C3 aims to support municipalities, hospitals, and companies to integrate digital patient-centric solutions to create health value (Centre for Connected Care, n.d.). This center is hosted by Oslo University Hospital and engages research partners such as the Department of Informatics of the University of Oslo, BI Norwegian Business School, and the School of Architecture and Design. Together with my supervisor, Professor Josina Vink, I participated in DigiRemote as a service design researcher on behalf of C3. In particular, between February and September 2021, I travelled to China to facilitate Dongshan Hospital in forming the remote care service of rehabilitation by conducting service design practices. It should be mentioned that employees and other researchers with Norwegian citizenship could not travel to China due to the global pandemic and the strict visa policy of the Chinese government. They could only participate in the project remotely. Since I hold Chinese citizenship, I was the sole researcher from Norway with the ability to travel to China in 2021. In the DigiRemote project, my service design practice was closely aligned with a scaling-up project involving ReCare and the clinical research of Dongshan Hospital. ReCare and Dongshan Hospital are pseudonyms applied to de-identify the organizations I describe.

On the scaled-up project from ReCare

By report, the company's sales amounted to 24 million Norwegian kroner and it received a Series A round of investment in the same year in 2020. For a startup company, a Series A round is often considered a very important milestone after the seed funding. According to news reports, investors were interested in ReCare's potential for further expansion outside the Norwegian market.

In China the DigiRemote project forms part of the ReCare company's scaling-up project. In the scale-up process, ReCare intends to apply its existing platform – which was developed based on their experiences in Norwegian hospitals and nursing homes – to Chinese healthcare organizations. Previous application meant that most of the functions of their platform were already determined before the relationship with DigiRemote was set up. The company's pre-existing platform clearly conditioned the shape that the service would take in both hospitals. The application of a mature platform is an important context for my ethnographic research and service design practice.

The platform mainly consists of a web-based management platform for healthcare professionals and an APP for patients based on smartphones and iPads (see Figure 3.5). This APP can gather patients' data that is collected by

blood glucose meter and blood pressure through Bluetooth and share the data with healthcare professionals. The platform also offers functions like remote video chats, questionnaires, and health data alerts. When entering the Chinese market, the company first translated the platform's texts into Chinese and partially developed some new features based on the specific needs of Chinese hospitals. For example, ReCare enabled Bluetooth connectivity between the APP and the Chinese provider's devices at the beginning of the project. In the DigiRemote project, the two hospitals expected patients to be able to connect the APP with five different medical devices – blood pressure meter, oximeter, spirometer, thermometer, and ECG.

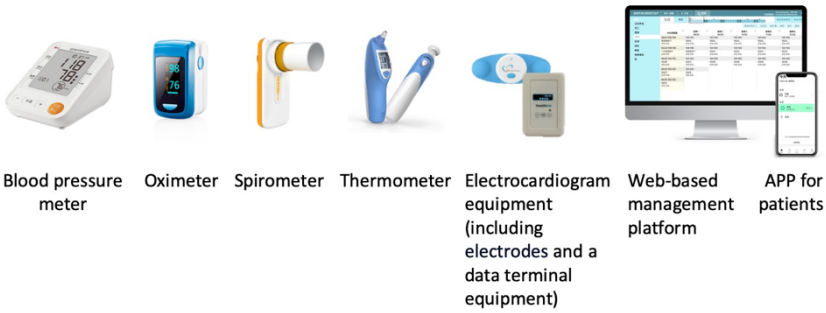

Figure 3.5 Medical devices and platforms involved in DigiRemote.

On the clinical research

Dongshan and Shanqiao Hospitals are expected to complete planned clinical researches funded by the Ministry of Science and Technology of the People's Republic of China. According to the hospitals' research proposal, they promised to explore how to form, evaluate, and implement a remote system for rehabilitation of Chinese patients suffering chronic cardiothoracic diseases. In the clinical study, their plans are quite concrete and quantifiable. For example, in the research proposal, each hospital commits to completing more than 500 cases of rehabilitation of cardiothoracic patients by using the platform. At the end of the project, they also expect to publish more than six articles and expand the platform to 10 other hospitals. At Dongshan Hospital, there are three surgeons and six Master's degree students in medicine involved in the project. At Shanqiao Hospital, two surgeons and five nurses are involved. As the project progresses, other employees from these hospitals will be drawn in.

3.3.2 Doing Service Design Practices

In March 2021 the first patient in Dongshan Hospital began to use the ReCare platform. I flew from Oslo to Shanghai on January 27, 2021. After 14 days of mandatory quarantine, I began my fieldwork in Shanghai, continuing until I returned to Oslo on September 17, 2021. In addition to my fieldwork in Shanghai, I worked remotely with actors in the Dongshan Hospital and ReCare. Table 3.4 summarises my experience of service design events from June 2020 to September 2021, including dates, locations, purposes, and participants who took part. On the one hand, I conducted some typical service design events. For example, I organised three workshops with project participants. I also prototyped with doctors and patients to formalise key service touchpoints of the remote care service. Figure 3.6 show an example of a workshop where surgeons, Master's students in medicine, Chinese employees, and I talked together facilitated by workshop materials. On the other hand, in a broader sense, I contributed to the formation of the remote care service through other more informal practices. For example, during my eight-month fieldwork, I communicated weekly with the doctors and the Chinese and Norwegian employees of ReCare about the project's progress at the Dongshan Hospital and provided them with advice based on my experiences.

Table 3.4 Typical and informal practices of service design.

	Service design practices	***Purpose***	***Location***	***Date***	***Participants***
Typical service design practices	Co-design workshop	To help Norwegian partners in perceiving the cultural differences of remote care service	Online, Norway	June, 2020	Employees from ReCare based on Norway (hereinafter referred to as Norwegian employees); Researchers from C3
	Co-design workshop	To facilitate DigiRemote partners to anticipate remote care service	Online, Norway	January, 2021	Surgeons; Master's students in medicine from Dongshan; Norwegian employees
	Artifact creations	To make a set of booklets and posters for remote care service	Shanghai, China	March to April, 2021	Surgeons; Master's students; Patients from Dongshan Hospital
	Co-design workshop	To facilitate DigiRemote partners reflecting on the formed service of remote care and making decisions of future plans.	Shanghai, China	April, 2021	Surgeons; Master's students; Norwegian employees; Employees from the China branch of ReCare (hereinafter referred as Chinese employees);
	Artifact creations	To create videos of the introduction of the platform	Shanghai, China	May to June 2021	Surgeons; Master's students; Norwegian employees; Chinese employees

	Artifact creations	To make packages for medical devices of the platform	Shanghai, China	May to June, 2021	Master students; Norwegian employees; Chinese employees
	Artifact creations	To build plan of habilitations with/for patients and doctors	Shanghai, China	July to September 2021	Surgeons; Master's students; Patients;
Informal practices of service design	Weekly discussions	To reflect on the process of formed remote care service	Shanghai, China	March to September, 2021	Surgeons; Master's students; Chinese employees; Norwegian employees
	Rehabilitation lectures	To form a series of lectures on rehabilitation	Shanghai, China	May, 2021	Master's students; Patients

Figure 3.6 An example of a co-designing workshop. (Photo by an anonymous workshop participant)

3.3.3 Doing Autoethnography

My service design practices mentioned in the last subsection are not isolated from each other, but neither can they form a story on their own. Table 3.5 summarises the key events that I engaged in and observed during my fieldwork. Before formally beginning my fieldwork, I began by tracing past experiences in relation to this project and the platform. In early February 2021, I conducted semi-structured interviews with management team members such as a CEO as well as an in-house designer of ReCare to learn about the company's past and its platform development work. I also interviewed two doctors from Dongshan Hospital to learn about their daily work and how they understood the platform before using it. During the interview, I inquired about their background and their daily work routine. Throughout the conversation, I gained insights into their interpersonal dynamics and how they cultivated a sense of meaning in their everyday work. At the end of the interview, I also learned about their views on service design and their expectations regarding service design in the DigiRemote project.

From the end of February 2021, I visited the hospital about twice weekly to observe the everyday life of doctors and shadowed them for about 3 to 8 hours per time. I also attended about 50 meetings to observe communication and coordination between doctors and the platform company. These meetings were organised by different actors in the DigiRemore project. For example, doctors organised biweekly internal meetings for their clinical research. Employees from ReCare organised the weekly meeting for the platform

development or the company's scale-up around the Chinese market. I was not just an observer at these events. Instead, I actively organised cross-organizational meetings among different actors. I also helped doctors enrol patients during my work-shadowing. Figure 3.7 shows a photograph of doctors enrolling a patient which was taken with my phone camera. In addition to the events in Table 3.5, shadowing allowed me to more extensively observe the everyday practices of different actors. I listened to the outpatient surgeons, followed the ward rounds, observed nurses changing medications, ate with family members of the patients in the restaurant near Dongshan Hospital, or went traveling with employees from ReCare. By immersing myself in the everyday life of actors, I gained a nuanced understanding of the different actors and shifted my perceptions of them – and of myself. These understandings are not detached from the service design practices, but instead have helped me respond to them through my situated practice.

Table 3.5 Keys events that I participated in and observed.

Key events (online, offline, or hybrid)	***Times***	***Dates***	***Participants***	***My role***
Meetings between Dongshan Hospital and ReCare (hybrid)	9	From February to July, 2021	Surgeons, Master's students, employees.	Facilitator, organiser, speaker, observer.
Seasonal cross-organizational meetings (hybrid)	2	April, July, 2021	Surgeons, nurses, Master's students, employees.	Facilitator, organiser, speaker, observer.
Enrolling patients from Dongshan Hospital (offline)	24	From March to September, 2021	Patients, family members, surgeons, Master's students, employees.	Facilitator, observer.
Biweekly internal meetings of Dongshan Hospital (online and offline)	15	From March to September，2021	Surgeons, Master's students.	Facilitator, organiser, speaker, observer.
Weekly internal meetings of ReCare (online)	27	From February to September, 2021	Employees.	Speaker, observer.
Events for ReCare's other projects in Shanghai (hybrid)	7	From March to June, 2021	Employees, doctors, nurses, civil servants of Chinese government.	Observer, speaker.
Roadshows or exhibitions of ReCare in	1	June, 2021	Employees, investors, civil servants	Observer.

Nanjing (offline)			of Chinese government.	

Figure 3.7 An example of doctors enrolling a patient. Image courtesy of Zhipeng Duan.

My attentiveness during participant observation

The scope of my observation was limited to what I was able to see during my participation in the DigiRemote project. Initially I self-observed and reflected

on what I did, made, and said and how I spent my time on the project. It was easier for me to interact with people who were directly involved in the same project as me. As such, these persons were key informants that I relied on. With people outside the project, such as doctors, nurses, hospital patients, and the employees of ReCare who were not directly engaged in the project, I took much more time and energy in trying to engage them. I realised that my own position as a project member often meant that I was alienated, by default, from non-project actors. The project created a temporary boundary that distinguished "insiders" from "outsiders". Chatting with people outside the project made them cautious because they did know why I needed to talk with them about their work and life, as these things were not relevant to the DigiRemote project. For this reason, I admit that the practices I chose to observe, listen to and record were informed by personal predilection, and conditioned by my positionality as a member of the DigiRmote project. The project's members and their practices provided an important anchor point for my observations as they enabled me to capture a wide variety of knowledges and life experiences.

My theoretical predilection for material semiotic theory also influenced the ways in which I paid attention in my participatory observation. In traditional social science research, ethnography often involves investigating actors' knowledge and principles whilst bearing in mind that such attributes precede and inform their actions (Mol, 2002). Influenced by ethnographers such as Mol (2002) and Lien (2015), my participant observation focused on practices and incorporated knowledge rather than on principles and abstract knowledge. I, and others, such as doctors, nurses, and employees should not be presupposed as an entity waiting to be investigated, nor as people possessing some objective knowledge. I kept an open mind in order to notice situated practices and to become aware of the subtle language, emotions, decisions, and actions of informants. The informants here include not only the other people I observed, but also my own body. The body is the primary informant of autoethnography. I also tried to relax to participate in different events. During the fieldwork, I prioritised doing things together with others rather than making quick interpretations. Non-purposeful encounters and the complex landscapes formed by multiple practices were often the most fruitful sites that I wanted to explore more deeply.

Considering the active involvement of materials is another important precept of participatory observation offered by material semiotics. In this project, although I did not view nonhuman material as a radical actor working in symmetrical relations with humans as in some STS studies (e.g., Callon, 1986), I explicitly acknowledged the influence of materials' presence, movement and usage, for example, the platform used for many years in

Norway, the medical devices produced in China, the printer in the doctor's office, and the glassy nodules in the patient's lungs. Each of these elements came replete with world-making abilities and the capacity to shape the remote care service.

3.3.4 Data Collection

During my fieldwork in China, I produced various kinds of autoethnographic data forms such as memories, diaries, field notes, photos, drawings, archival documents, and interviews with other actors and attempted to make these complement and triangulate with each other. In autoethnography, personal experiences are often employed as primary data for social investigation (Chang, 2008). In particular, memory can provide the most notable autoethnographic data. By definition, memory is "the act or instance of remembering or recalling, the mental faculty for retaining and recalling a past event and something remembered" (Giorgio, 2013, p. 406). As Coffey (1999, p. 127) suggests, "the ethnography is the act of memory". Further, "As autoethnography, we use memory for much of data; Through memory, we ground our analysis" (Giorgio, 2013, p. 406). To use memory is to recall, which is to mine personal experience in the light of ongoing fieldwork experiences and theoretical issues (Anderson & Glass-Coffin, 2013).

The process of using memory as data requires tangible materials to assist, triangulate and avoid potential problems concerning reliability (Chang, 2008). Figure 3.8 provides an example of tangible materials for data collection. Tangible data include field notes to quickly record the practices, events, and other features during an observation (Schwandt, 2015). In an autoethnographic study, field notes often involve not only the practices and experiences of others, but also those of the autoethnographer too (Anderson & Glass-Coffin, 2013). However, I realised that often I could not accurately record my immediate personal experience and reactions when I encountered something as I first needed to respond to it as a project member. Therefore I kept a diary to chronicle the DigiRemote project and to capture some initial narrative and ethnographic accounts during the participant observation. The diary is not only useful for keeping a record of one's experiences, but is also an important way to develop the reflective nature of autoethnography (Engin, 2011). Field notes were written in Chinese and English. I collected archival data in physical or digital versions such as photos, Case Report Forms which were printed by Master's students and signed by a surgeon, and presentation slides that doctors made to introduce the platform to patients. Email exchanges, WeChat messages, and workshop materials were also collected.

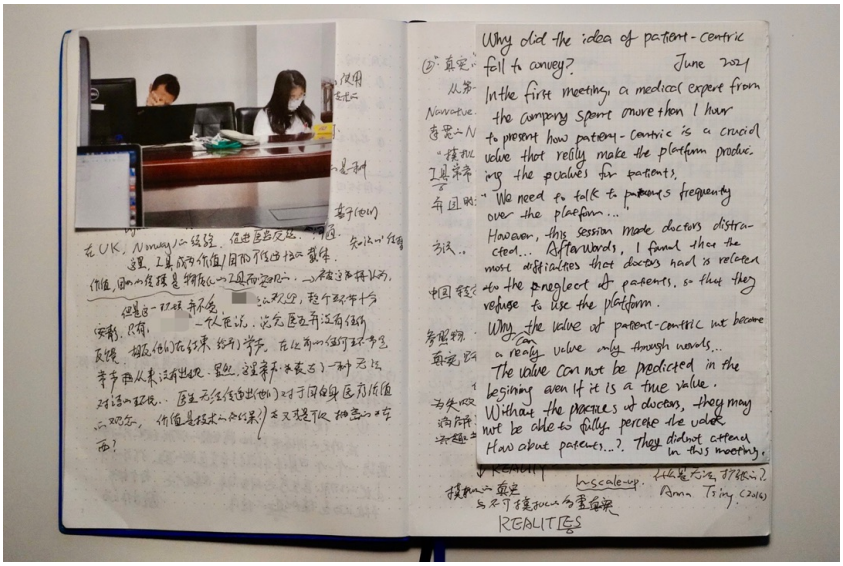

Figure 3.8 Sample pages from a field diary. Image courtesy of Zhipeng Duan.

In the process of collecting data, I quickly realised that photographs alone are often inadequate. For example, in the various photos that I took of a single event, the characteristics of the moment were undifferentiated. All elements from field photos visually and semiotically often weigh the same (Causey, 2016). Meanwhile, out of a few photos of me taken by other people, my practices as a participant are not visible in my photos. I used photos to make a quick record of the environment and people engaging in different practices. I also used drawing as a way to record my own experience. Causey (2016) suggests that in ethnography, drawing is a kind of scrutiny through which ethnographers actively engage both body and mind, deploying cerebral and muscular capacities. Spending time with our thoughts, memories or experiences is necessary when we begin, develop and complete a drawing (Reason, 2018). I brought my technique of drawing comics into ethnography. Based on my memories, photos, and archival material, I drew out some of the key scenes I had witnessed. Using Procreate, a digital painting app based on iPad (see Figure 3.9), I drew each scene slowly and carefully and took an average of over five days for composition and painting. The process of drawing gave me the ability to switch perspectives to make myself more visible either as a researcher or as a designer. Drawing also helped me to appreciate those people and materials that had escaped attention during my initial observation.

Figure 3.9 An example of drawing produced during fieldwork. Image courtesy of Zhipeng Duan.

3.3.5 Accounting for the Lived Context Through the Lens of Events

I began reviewing my experience in June 2021, while embarking on analysis of the collected ethnographic data. At the beginning of the analysis, the first question that I needed to answer was: how can static and framed data better study ongoing practices? Overall, this study adopted the method of studying practices by analysing data through a lens of events. Events are known to be those episodes that act as influential turning points or milestones in the investigation process (Happ et al., 2004). Event analysis is an important approach to narrate, describe and explain the entanglements of practices associated with complicated situations (ibid.). Events are limited and microscopic sites where different practices encounter and interact with each other and inspire change.

In the process of reviewing past experiences in particular, I tried to map out events that I documented during field research. I focused on instances in which I was stimulated by other peoples' work and where I perceived that their practices had an impact on the service's formation. In reviewing my

collected materials, I sorted through different events chronologically. I documented participants, practices, decisions, or changes related to each event, across different phases. Subsequently, I created seven journey maps showing how doctors and patients interact for the remote care service. Each map represents different "time slices" of the evolving service and does not depict a repeatable service concept, but the temporary shape of the service as I observed it on specific dates. As Figure 3.10 shows, I printed the seven journey maps and events in chronological order and posted them on the wall. Then I posted the relevant photos around events, so as to add a strong sense of material lived reality (Collier & Collier, 1986). I also highlighted new materials that I and other actors made to support the service's formation.

Figure 3.10 Mapping events of service design and the happening in the context (Cited from Publication 4). Image courtesy of Zhipeng Duan.

3.3.6 Writing up Autoethnography

The mapping exercise is helpful to retrospectively contemplate the events where my and adjacent practices coexist on a longer time scale, but it is not sufficient to refine the meanings of temporary and fragile interactions among practices. An ethnography is relevant for articulating fieldwork experiences and building a written account of practices based on those experiences (Humphreys & Watson, 2009). Ethnographies are created representations like fiction though not fictional (Narayan, 2012). By writing, ethnography offers the chance to cultivate an attentiveness to life itself, to enhance

perceptions with the precision of words, thus a familiar world is made to appear unfamiliar.

After the mapping exercise, I began writing over 40 event stories for different events and also stuck these on the wall. Next, the analysis involved a round of meaning condensation (Kvale, 2007). This entailed my distillation of each story into a simple description of how I interacted with people to better bring others and their practices into the service design project. Then, these descriptions of my actions were further condensed into several ways of knowing and doing that could help me to situate my practices. The ways are not meant to be exhaustive, but rather a summary of my attempts to attend to the lived context based on my experience. I deepened my understanding of these ways by thickening one representative story for each, and adding more details that corresponded with the chosen way. Physical data (e.g., photos, and notes) helped me to recall particular events.

My enhanced account of a single event relies on novelistic presentation techniques (Humphreys & Watson, 2009). Informed by my findings for RQ1, I tried not to rely too much on the conceptual repertoire of design expertise and instead adopted the language used by other actors. Importantly, these stories are not just my stories: I acknowledge that crafting stories inevitably brings in the experiences of others, whom my writing cannot adequately represent (Wall, 2008). To ensure the reliability and validity of each story, I showed them to seven participants who were mentioned in the stories, including surgeons, Master's students, and employees. Having gained consent, I invited these people to reflect on what had happened (Winkler, 2018).

3.4. Explicating My Positionality

This study concerns the situated nature of service design and involves explicitly exploring various facets of my positionality. Acknowledging one's positionality recognises that researchers carry their gendered, class-based, age-related, and racially/ethnically informed perspectives into all aspects of their study (Bourke, 2014). Positionality, as Merriam et al. (2001, p. 411) assert, is determined by where one stands in relation to "the other". In conventional social science research, researchers often assess their roles as either insiders or outsiders within the context of their study (Baser & Toivanen, 2018). However, these assessments often reflect an essentialist inclination, where researchers categorise themselves as insiders or outsiders primarily based on factors like nationality, ethnic affiliations, and other static identity markers (ibid.). In alignment with Baser and Toivanen's (ibid.)

perspective, I consider moments when I moved between positions of "insider-ness" or "outsider-ness" rather than taking rigid insider and outsider positions to understand my dynamic positionality. The research process and the findings need to be situated in relation to my multiple identities: for example, I am a 27-year-old Chinese male with an East-Asian appearance, a service designer, and a design researcher. These identities have been manifested dynamically through my interactions with others during my research.

I acknowledge that my interest in the situated nature of service design is rooted in my personal experiences of studying and working in the field of service design across China and Europe. My journey began in 2016 when I initially took an interest in service design in China. Subsequently, I expanded my horizons by pursuing further studies in Italy. My path then led me to Norway, where I transitioned into the role of service design researcher and embarked on my fieldwork in China. This journey has meant that I started on the periphery of the landscape of service design knowledge production and gradually moved toward the center. Through my PhD project, I have returned to exploring the periphery once again. Early on in China, I felt uncomfortable with the idea of being forced to use service design methods that did not take the complexities of local society and history into account, whereas when I came to Europe to practice service design, I observed more vividly where and how these methods were being used. These contrasting experiences provided an important starting point for determining the direction of this PhD study.

In Experiment Cluster 1, the expressions of self-doubt and concern conveyed by the interviewees during the interviews and subsequent conversations resonated with me, a young service design researcher. These encounters motivated me to explore potential analytical avenues to comprehend the phenomenon of self-doubt and find possible ways of avoiding it. Furthermore, my two co-researchers had more extensive experience in service design in Western contexts. Throughout our research journey, we collaborated to discern the distinctiveness of our individual positional perspectives and encouraged one another to articulate and negotiate the specificities of each others' perspectives.

In Experiment Cluster 2, compared with other researchers of C3 in Norway, I had the advantage of language proficiency and cultural familiarity, enabling my active participation in the DigiRemote project. I shared a common language with the doctors and patients in Shanghai and had shared life experiences rooted in Chinese everyday life, socialist institutions and legacies. This Chinese ethnic background facilitated my role as an insider,

granting me easier access to the hospital for research and design purposes, as well as providing potential insights and insider information not readily available to others. However, my role as an insider was not absolute. Many instances occurred where I lacked sufficient medical expertise and experience within the hospital to immediately comprehend the nuances of the DigiRemote project. In response, I chose to employ thick descriptions to interpret the phenomena I encountered. These descriptions drew upon both my knowledge of service design and my cultural background. As such, the findings presented in this study are not a neutral description of service design and hospital life in China, but instead reflect a situated and partial perspective.

Furthermore, the findings and discussions contained within this kappe also reflect the times, places, and relationships I have inhabited during my research. I am a researcher situated in a design school; therefore the possibilities and limitations of this position are reflected in this kappe and related publications. Besides, much of my analysis and reflection on Experiment Cluster 2 was accomplished during my visit to the Max Planck Institute of Social Anthropology in Germany where I benefited greatly from ongoing discussions with social anthropologists from diverse global backgrounds. Together with the theoretical input of material semiotics, these discussions with social anthropologists significantly shaped my interest in critically analysing the contextual phenomena I encountered in my fieldwork.

3.5 Evaluation of this Doctoral Study

In the following section, I review this study and assess its validity and potential for transferability.

3.5.1 Validity

Qualitative research inherently bears the imprint of the researcher's viewpoints which are conditioned by their cultural background, social positioning, and theoretical inclinations. This study took deliberate measures to ensure a heightened level of validity of the findings presented. Validity pertains to the precision and reliability of both measurement tools and observations (Schensul et al., 1999). A constructivist approach to triangulation was employed to bolster the quality of the qualitative research. Triangulation, as per its definition, involves the researcher adopting multiple vantage points so as to gain broader, deeper, more comprehensive understandings of what is studied (Flick, 2018). This approach is enacted by three specific strategies: [1] methodological triangulation, achieved through

the use and combination of mixed research methods; [2] data triangulation, which entails the integration of an array of data sources; [3] investigator triangulation, involving the incorporation of participants with different perspectives into the knowledge development(ibid.). In this study, a synthesis of these three strategies of triangulation was executed, with each layer reinforcing the others throughout the distinct stages of the two experimental clusters.

The methodological triangulation is employed under the framework of a programmatic research design. The experiment clusters take the form of a collage that interlinks diverse research methodologies to address the situated nature of service design practice from different perspectives. Within Experiment Cluster 1, doing a literature review enables a conceptual grasp of the relations between service design and cultural context. Following this, the utilization of semi-structured interviews facilitates an immersion into designers' subjective experiences of doing service design from a third-person perspective. Transitioning to Experiment Cluster 2, the application of auto-ethnography, encompassing observations, diaries, archival data, and visual representations, allows for the adoption of a first-person perspective in comprehending and dissecting the process of embedding service design practice within a distinct context. Concurrently, informal discussions and interviews within Cluster 2 create a cross-reference between my encounters and those of fellow participants, enabling both elucidation and consideration of the dynamics of service design.

Furthermore, methodological triangulation is enacted among methods across experimental clusters. The patterns developed from the literature review, for instance, serve as a foundational structure for guiding the subsequent interviews. Moreover, the analysis of these interviews encompasses a critical reflection on the patterns. The fusion of narrative inquiry, merging the insights from the literature review and interviews within Experiment Cluster 1, not only offers a holistic portrayal of how the situated nature manifests in practice, but also aids in making sense of the single case exploration of DigiRemote within the service design community.

Regarding data triangulation, the integration of mixed research methods serves to interlink data originating from diverse sources across the various dimensions of time, places, and actors. By leveraging varied data resources, a symbiotic relationship is established wherein the strengths of one approach compensate for the limitations of another. The initial literature review, for instance, offers a panoramic overview of global-scale service design practices. Nevertheless, much of the academic discourse surrounding service design practices undergoes substantial processing, often impeding direct

understanding of the nuances within situated practices. The semi-structured interviews I conducted involved 21 service designers from several countries. A wealth of retrospective narrative data was collected through audio recordings and transcribed texts. Yet, these narratives are intrinsically linked to the designers' memories and viewpoints and consequently afford a narrowed perspective of situated practices. Doing autoethnography enabled the purposeful and conscious assembly of multifaceted data types, encompassing audio recordings, diaries, field notes, drawings, and photographs. This diverse corpus of data was then harnessed for the documentation and deep analysis of a situated service design case. Notably, the temporal dimension introduced through the eight months of ethnographic research yielded data distinct from that acquired through interviews, enriching the overall dataset. Nonetheless, auto-ethnography frequently confines itself to using a solitary case as an empirical foundation, rather than delving into the intricate interplay between individual experiences and the broader cultural group (Winkle, 2018). Data resources from the literature review and interviews mitigated the potential limitations of relying solely on a singular case, which could have resulted in a limited perspective.

Investigator triangulation was thoughtfully incorporated in various ways throughout the research process. Within Experiment Cluster 1, two of my supervisors, Professor Josina Vink and Professor Simon Clatworthy, played pivotal roles spanning the literature review, interviews, and analysis. Josina, with their extensive experience in practicing and researching service design across Canada, the United States, Sweden, and Norway, and Simon, immersed in the realms of interaction design and service design in Scandinavia, offered diverse perspectives. Originating from distinct cultural and social backgrounds, our collective diversity fostered heightened awareness of potential biases and brought multifaceted viewpoints to this study. In Experiment Cluster 2, I maintained a continuous dialogue with fellow participants through regular research presentations, receiving invaluable feedback. Furthermore, during the ethnographic data analysis and writing process, I invited relevant informants to evaluate my narratives and drawings. Josina, in particular, took on the significant role of a supervisor, providing critical and constructive feedback throughout the investigation. Additionally, the robustness of this research was bolstered by rigorous peer review of all the appended publications. By presenting these publications to various conferences and seminars, I received critical feedback from scholars and practitioners.

3.5.2 Transferability

This study places transferability as a primary criterion for assessing the resonance between the presented findings and potential readers. Transferability encompasses the degree to which qualitative research findings can be extended to other contexts and interpreted by diverse audiences (Bitsch, 2005). The value of knowledge production doesn't solely hinge on its adaptability across various contexts and regions; rather, it lies in the capacity to confidently juxtapose research processes and outcomes with knowledge and experiences drawn from others and thus facilitates meaningful usage by diverse groups in their own ways (Maxwell, 2022).

In writing this dissertation, I have supposed service design researchers as the most immediate readers. I hope this work will reach professional and student service designers and inspire them to find ways to situate their design practice. Throughout this research, I have conscientiously aimed to furnish a comprehensive portrayal of the context within which the experiment clusters happened, how the processes were executed and how participants engaged during various sessions. In Chapter 2, I explained my local positioning and preexisting knowledge and showed how these contribute to the ways in which I form meaning from the field and interpret existing theory. The main objective of this endeavour is to provide readers with ample information whilst underscoring the notion that the knowledge engendered by this study is not universally absolute. This, in turn, might encourage readers to assess the likelihood that the findings could be appropriately applied in their situation.

Specifically, I argue that the findings emanating from Experimental Cluster 1 possess conditional transferability. The fundamental objective behind Cluster 1, which stemmed from a literature review and interviews, was to establish a nuanced critique of prevailing service design knowledge. More specifically, this critique aimed to shed light on the potential constraints that impede service designers from situating their practice. Through the synthesis of an array of empirical data, I propose that the findings' transferability resides in the provision of an analytical orientation that aids readers in comprehending their situations when they are confused and doubtful regarding their professional practice and its inherent value.

Secondly, I argue that insights from Experimental Cluster 2 are less generalizable but more context-specific. Autoethnographic study which offered a thick description of DigiRemote provided a rich example of the situated subtleties of service design practice within a particular context. The context consists of an interweaving of numerous elements – the Chinese healthcare system, the organizational structure of public hospitals,

professional medical knowledge, and the translation of product development and marketing of technology companies' work into everyday life. The autoethnography itself is not generalizable, but this example can reveal previously overlooked nuances about how professional practice is embedded in everyday life and can contribute to the reader reframing their view of the importance of contexts. In Chapter 6, I will expound upon the potential implications of the study's findings for both researchers and practitioners.

4. Problematising Detached Views

Human subject is "not defined by its references to a whole, by its place within system, but by starting from itself."
— Emmanuel Levinas (1979, pp. 299–300)

This section highlights my findings in relation to Research Question 1: Which views held by service designers prevent them from situating their practices? Experiment Cluster 1 (regarding probing the neatness of narrative) suggests a tendency for service designers to adopt detached views of service design practice. The detached views encourage service designers to unconsciously objectify the specific contexts of their practices, leading them to excessively imagine the professional service design they enact as a means of directly acting on the whole image of context. As illustrated in Figure 4.1, by maintaining the detached views, designers free themselves from the context, and consequently view themselves and the context of their practices as two discrete elements which can be clearly distinguished from each other. By contrast, they might – ideally – derive the meaning of their practices from immediate connections existing between the two elements.

Figure 4.1 Detached views in service design practice.

At one extreme of this connection is the "self" of a service designer. Conditioned by the culture of seeing service design as an individualised profession, designers value the performance of established service design activities as means for demonstrating their individual design capacity. At the other extreme is the context, seen by designers as an imagined whole. Many professional designers are dedicated to dealing with social issues, but this aim may result in over-emphasising the importance of achieving totalised change within context of the project being undertaken. For example, service designers may state the goals of their projects; such goals could include revitalizing local communities, fostering a sustainable food culture, promoting structural transformation within hospitals, or reshaping the logic of forming communities. These aspirations should be valued as they show designers' dedication to addressing social issues. However, when they make a direct connection between individual or group efforts and the context as a whole, designers may have difficulty perceiving various aspects, for example, where they are in the context, how their own practices are truly related to the world, and how they contribute positively to others' lives.

The detached views are reflected in the way that designers view various entities such as self, contexts, and others. In this case, the term "others" refers to those people encountered by service designers in their practices. In what follows, I describe the findings of RQ1 according to the three interrelated aspects of the detached views and discuss how the views restrain designers from situating their practices. Table 4.1 summarises the three interrelated detached views and their constraints. The table also highlights which of my publications contributes to the articulation of each detached view.

Table 4.1 Summary of findings regarding RQ1 and contributions of my publications.

Detached views	Description of the view	Restraints on situating service design practices	Description of contribution of each publication
Viewing self: Narrow focus on established service design activities	Service designers are encouraged to prioritise established design activities as the crucial means to demonstrate their performance.	Regarding situated efforts as means for adapting the professional activities to the context.	Publication 1: presents service design adapting to culture as a pattern of relating service design to culture in service design literature.
			Publication 2: reflects on how the situated efforts of designers are reduced to adapting existing forms of professional activities to local culture.
		Narrating complex practice experience in line with mainstream service design logic and process.	Publication 2: summarises the dominance of mainstream design knowledge in narrating service design practices.
			Publication 4: details the complications that the narrow focus of service designer effects on established professional practices.
Viewing the context: Over-dependence on totalised approach	Designers are encouraged to make their professional practices in direct response to the	Regarding the description of people as collective features evenly shared among social group.	Publication 1: presents service design describing culture as a pattern of relating service design to culture in service design literature.
			Publication 2: reflects on the tendency to describe the collective characteristics of others as a given reality.

	context as a whole.	Neutralizing design culture enacted by professional practices.	Publication 1: presents service design enacting design culture as a pattern of relating service design to culture in service design literature.
			Publication 2: reflects on a tendency to neutralise professional value propositions in the process of enacting design culture.
		Setting a big goal for transient service design practices.	Publication 1: presents service design shaping culture as a pattern of relating service design to culture in service design literature.
			Publication 2: Reflected on providing solutions as the prevailing way to shape culture.
Viewing others: Limited knowledge in perceiving complexity of other practices.	Designers are encouraged to simplify other practices by enrolling these practices as functional segments in the design project.	Difficult to perceive how service design practices relate to others' lives.	Publication 3: examines how discourse of design professions over-occupy other practices of making.
			Publication 4: discusses the difficulty of perceiving the impact of service designers on others' lives.

4.1 Viewing Self: Narrow Focus on Established Service Design Practices

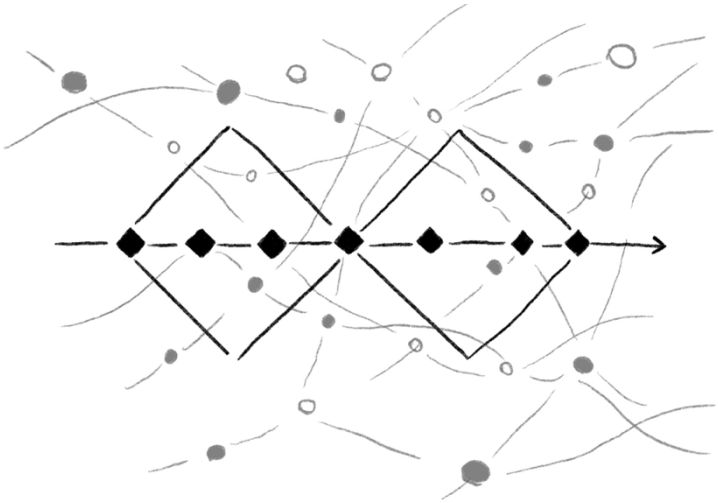

Figure. 4.2 Narrow focus on established service design practices.

The detached view is firstly evident in how service designers perceive what they do within a specific context. In Chapter 2, this study suggests that service design practices, at a micro level, are often conceptualised as the individual's exertion of design capacity or the enactment of design thinking supported by design methods. When the existing body of knowledge production affords designers various kinds of applicable knowledge, service designers are overly encouraged to focus on what they should do and what design methods they should use to make themselves, and their work, appear valid and credible in the eyes of the service design community. However, paying attention to this issue obscures their perception and reflections on what kind of situation they live in and what they can actually achieve in the specific situation. As depicted in Figure 4.2, service designers' attention risks being over-programmed to perform established service design activities in an effort to conform to specific process patterns. Other practices that they might usefully do and participate in fade into insignificance in the prevalent story of service design. Here, the professional activities of a designer designate a cluster of well-defined, short-term, invitational formulas of action. For example, Fayard and her colleagues (2017, p. 272) identify typical action forms used by service design professionals including design research

(evidence collection via diaries, pictures, sketches, personas), visualization (using sketches, journeys, maps, blueprints, Legos), and prototyping (using paper, cardboard, bodystorming, role playing). Below, I briefly describe the main findings about how the narrow focus restrains the relevant situating of service design:

4.1.1 Regarding Situated Efforts as Ways of Adapting Professional Activities to the Context

Scholars have emphasised the need for service design approaches to adapt dynamically to changing circumstances (Lee, 2014; Taoka et al., 2018). However, when service designers focus excessively on established design activities, the completion of a predefined professional practice becomes their primary goal. In Publication 1 and 2, my co-authors and I discovered that current service design literature often portrays the integration of service design practices into local contexts as an adaptation of service design's approach and associated methods to fit local cultures. The term "adapting" suggests that "Western service design approaches can be modified to suit various cultural contexts, particularly non-Western cultures" (Publication 2, p. 16). However, this study argues that the concept of adaptation fails to adequately encapsulate the contextualizing efforts made by some professional designers.

For instance, Publication 2 presents a story based on an interview where a cross-disciplinary team from the UK struggled to conduct co-design workshops in Uganda. Instead, the team's service designer invited doctors and nurses to have informal conversations over coffee or lunch to gain insights into their work at the hospital (pp. 16–17). While constructing this story, we tended to attribute the participants' reluctance to the local culture, rather than questioning whether mainstream service design knowledge was appropriate in that specific context. Solely focusing on the concept of adaptation may further detach service designers from the context, as it implies "a parallel purpose of maintaining the epistemological stability of a service design approach" (Publication 2, p. 17).

4.1.2 Narrating Complex Practice Experience in Line with Mainstream Service Design Process

The narrow focus restricts the way that designers articulate their design practices within a local context. "Designers often tend to narrate their design practices across different contexts by highlighting emblematic episodes that represent typical design activities" (Publication 4, p. 36). This tendency aligns with widely circulated models of the design process, such as the

Double Diamond, which asserts that various practices which are led or participated in by designers can form a coherent and uninterrupted process. This coherent narrative reflects a recursive characteristic within service design knowledge. That is, building such a narrative allows complex, multi-directional world-making processes to be translated into a clean, logical story that can be identified as a service design project.

When designers can only articulate their work by referencing service design models and concepts, they risk alienating themselves from their contextualised efforts and consequently perceiving their actions as simply applying existing design knowledge. As one service designer expressed in an interview, "When I was learning service design, I questioned my core competencies and uniqueness. I didn't know if the value of what I did came from me or the method I was using. If it came from the method, then couldn't anyone replace me?"

4.2 Viewing the Whole: Over-Dependence on a Totalised Approach

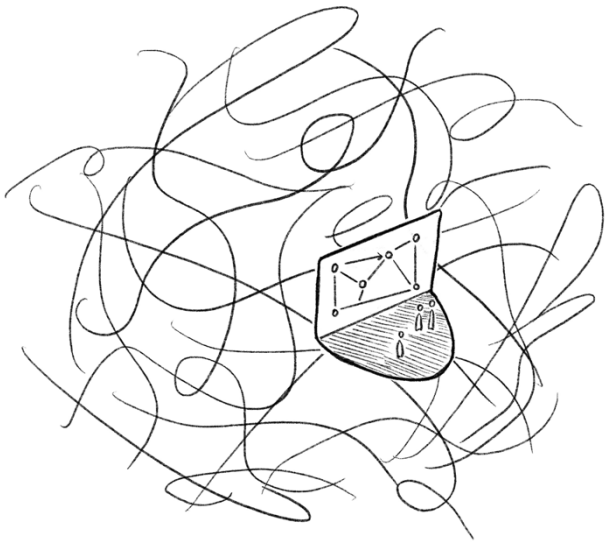

Figure 4.3 Over-dependence on a totalised approach.

Service design research and education promote systemic ways of thinking to address complex social/service issues (Norman & Stappers, 2015). However, when attending to large, complex issues, there should be more careful to deal with a tendency that structured issues need to be addressed through a

totalised and unitary solution. When designers rely too heavily on a totalised approach to guide their practice, they risk over-abstracting a holistic but simplified understanding of the context from the complex evolving lifeworld. This understanding of context is treated as a reality to which their design action needs to respond. This stance of drawing a direct connection between one's practice and an imagined whole may restrain situating service design through three following ways.

4.2.1 Regarding the Description of People as Collective Features Evenly Shared among a Social Group

Service designers often employ various tools and concepts, such as users and stakeholders, to delineate groups of people based on their behaviour patterns, beliefs, and social norms. Personas serve as hypothetical archetypes representing the interests, behaviours, and goals of "real" users or stakeholders (Nielsen, 2004). Additionally, storyboards are commonly used to depict narratives, often in the form of comic strips, envisioning both present reality and future scenarios (Holmlid & Evenson, 2008). Encouraging a simplified functionalist perspective of society, where it is viewed as a unified system wherein every part serves specific societal needs, has become common in various design tools such as stakeholder maps.

However, in Publication 2, my colleagues and I find that this totalised approach to a social group can lead service designers to abstract and generalise the traits of people by seeking similarities. This process of abstraction is irreversible. To produce unitary traits, internal differentiation needs to be eliminated (Strathern, 1990, p. 14). A plurality of users and an individual user are treated in such descriptions as equal. However, without careful scrutiny, designers might inadvertently assume that the characteristics they observe are uniformly distributed across the entire user group. While defining user groups can help designers comprehend users' features and needs, relying solely on the quest for similarities among people can hinder designers from truly understanding the intricate and ambiguous nature of individuals' everyday life. It falls short in aiding designers to unpack the genuine relationships between themselves and the user groups they define. Furthermore, it does not assist in comprehending how the complex individuals within defined social groups can alter society.

Notably, when introducing service design knowledge into non-Western regions, the concepts and methods are often connected to broader cultural concepts, such as "Asian" or "African users". These cultural concepts can be misunderstood and misapplied, as differences encountered can be labelled as cultural traits representing uniformity (Brumann, 1999). This approach

"shadows the value of culture that refers to materials, collective emotions, and practices that arise inherently in people's daily interactions and are inherently connected to the knowledge, wisdom, histories, and philosophies of localities" (Publication 2, p. 12).

4.2.2 Neutralizing the Design Culture Enacted by Professional Practices.

The performance and narration of established service design activities embody the enactment of design culture and its associated meanings and value propositions. The concept of design culture refers to the distinct contemporary manifestations of design practice by designers and other actors (Julier & Munch, 2019). Design culture often encompasses radical participatory democracy, encouraging diverse actors to engage in designing and providing solutions for specific problems (Manzini, 2016).

While service designers are practiced at characterizing the cultures and the people within them, they have a tendency to naturalise the design culture they are enacting. This tendency is exemplified in our narrative about a designer named Songhwa who conducted a co-design workshop with employees of a South Korean company (Publication 2, p. 18). In this story, we frequently employed terms like "conservative and hierarchical culture," "behaviors and perceptions of employees," and "status quo of the company" to describe the company and its employees. In contrast, the concepts associated with service design tended to be instrumental and functional, focusing on the purpose and means of running a workshop (p. 18). These two tendencies are interconnected. By primarily emphasizing the functionality of service design, there is a need to neutralise its value proposition and objectify the context in which service designers operate (Akama et al., 2019; Janser & Weinstein, 2014).

4.2.3 Setting a Big Goal for Transient Service Design Practices

"Actions are known by their effects and outcomes" (Strathern, 1990, p. 16). As the literature review provided by Joly and her colleagues (2019) suggests, service design is widely defined by emphasizing its teleology, highlighting the expected effects it can have on improving user experiences, creating sustainable solutions, proposing new value propositions, and improving societal well-being. A similar tendency may also be evident in books written for practitioners (e.g., Stickdorn et al., 2018; IBM, 2018). These statements concerning design's effects shape the goals set by new practitioners for their projects. However, for individual service designers, setting such goals

involves projecting their individual practices directly onto the overall context and relying on evidence of totalised change in that context to demonstrate the meaningfulness of their work.

In service design, building and implementing a solution is a crucial agency of its teleology. In Publication 2, we found that service designers often judge the success of their practice based on how well their conceptual solutions "come to real life". On pages 17 - 18 of Publication 2, we present the "failure" story of Yiyun, who developed a card-based toolkit for community workers to revitalise local community resources. However, she found that local community members did not use it, a result that led her to assume that her work had failed. In our reflections on interviews with Yiyun, we realised that her experience was not a failure. The community workers were still interested in presenting Yiyun's solution to others even after she had left, but Yiyun's own sense of failure in her practices was very real to her. There is a disproportionate gap between limiting designers' perspectives to transient activities and the aspiration that their design practices will contribute to positive change in the world. When designers consider the entire context as the medium through which they seek the meaning of their practices, they hope their words and efforts will permeate the whole context, but if the whole context fails to respond a great sense of futility and panic ensues instead.

4.3 Viewing Others: Limited Knowledge in Perceiving the Complexity of Other Practices

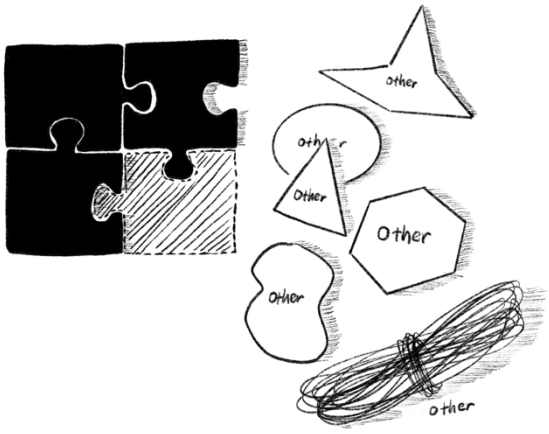

Figure 4.4 Design-ised imagination on other practices of making.

When acting in complex sociocultural contexts, designers often encounter other people engaged in differing practices. Ideally, non-design practices and design practices can co-evolve in reciprocity. However, the production of design knowledge often gives much epistemological weight to designers' self-understanding of what they do (Willis, 2019). There is limited discussion about the intertwined relationship between design practice and other practices. The creativity inherent in these other practices may be undervalued. As Suchman suggests, other practices of making are often articulated as design. In Publication 3, I use the term "making" to refer to "a scope emphasising the richness of divergent active practices of forming, causing, doing or coming into being" (p. 157). This study coins the term "design-ise" to problematise the notion that professional designing occupies a privileged position in the discourse and material of change, while other forms of making need to be expressed by the knowledge of designing (Figure 4.4). The article examines how the discourses of implement, use, and participate, come to predominate over other making practices in the narrative and knowledge production of design.

> **1. Implementing**: The term "implement" means the process of realizing an application, or execution of a design idea. There is a long tradition in design professions that designers should be devoted to portraying imaginary ideas of the future. Popular design process frameworks like Double Diamond (British Design Council, 2015) and the "fuzzy front end" (Sander & Stapper, 2008) often end designing by proposing a conceptual idea that waits to be implemented in the real world. However, existing design knowledge often offers too little support to designers in acknowledging and capturing the changes that occur during the implementation of a conceptual idea. Instead, the making practices that involve the formation of a design idea are often simplified as the uninventive execution of a design concept.
>
> **2. Using:** Broadly speaking, the term "use" refers to how people interact with an object (Kohtala et al., 2019). Within the design idea, the journey of users using something consists of a set of replicable and timeless events with fixed interactions with other people and things, regardless of the time these events take place. The purpose and approach of use are pre-narrated before the real use, hence determining how we use an object (Bjögvinsson et al., 2012). Design professions value the needs and interests of users, including convenience, joviality, and efficiency, but tend to encourage users to be habitual and mindless (Appadurai & Alexander, 2020, p. 90). The

changes possibly made through the practice of use are hard to appreciate in the current working procedure of designers.

3. Participating: In design literature, “participation” often specifically refers to the ways non-designers engage in professional design activities. Design is positively committed to possessing the capacity to incorporate diverse knowledge and experiences into the design process to foster more collaborative exploration, envisioning, and development of solutions (e.g., Mattelmäki & Visser, 2011). However, there should be more careful to considerations if the design expertise overly formats forms of collaboration. The participatory approach may risk encouraging individuals with different types of knowledge to detach themselves from their situated practices (Mosse, 2019).

4.3.1 Difficulties in Perceiving How Service Design Practices Relate to Others’ Lives

In Publication 3, this study reveals that other practices are often incorporated into service design projects as functional components. Yet relying on a formulaic relational framework, such as design-participation-implementation-use, does not enable designers to grasp the intricacies of the encountered practices and the influences these exert on design practices. Particularly when designers' focus is narrowly directed towards executing given service design activities, they are less likely to perceive the presence of other ongoing practices in real time. The wisdom and knowledge embedded within these heterogeneous practices, which cannot be easily translated into design, can be difficult to incorporate into design practices. The emphasis on design methods tends to overshadow considerations of what constitutes transformative change and how it happens (Suchman, 2011).

In Publication 4, the implications for service designers when other practices remain invisible are discussed: "As they invest most of their energies and time in professional activities, designers realise the likelihood of losing their connections with other participants as soon as the design activity ends. Additionally, they often know that the impact of design practices on others often becomes untraceable as they are required to rush into other projects” (p. 36). The ongoing practices of others contribute to the dynamic nature of the context of service design practices. When designers fail to perceive and appreciate the relationships they establish with other people, the detachment of service design from its context may be further exacerbated.

5. Attending to Relational Practices

Everything is connected to something, which is connected to something else. While we may all ultimately be connected to one another, the specificity and proximity of connections matters— *who we are bound up with and in what ways*.
— Donna J. Haraway (2016, p. 173, emphasis in original)

This chapter explores Research Question 2: What ways of knowing and doing can aid designers in situating their practices in the local context? Experiment Cluster 2, regarding weaving service design into the lived context, shows the possibility of situating design practice by attending to relational practices in the nearby of service designers. The possibility of situating service design revolves around three concepts: relational practices, nearby, and attending.

Relational practices: This study employs relational practices to describe "ongoing arrays of activity occurring in temporal and spatial proximity in which actors mutually constitute each other's conditions of existence, maintenance, and transformation" (Publication 4, p. 34). In design literature, design is considered a relational practice that allows for the reproduction and reorganization of local relationships (Montuori et al., 2019). It also exists in-between other practices which also contribute to forming relations. For example, a funder might shut down a designer's working plan on user research and then adopt more agile development of a digital platform (Younis, 2022), or a local resident might use the designer's material prototypes for purposes beyond those originally envisioned by the designer (Publication 2, p. 17).

The nearby: This study asserts that relationships between practices are formed in proximity to each other. As designers observe, move, speak, and

act, people with diverse backgrounds enter into their embodied proximity (which can be termed as their nearby) and act together in encounters. Sometimes, different practices form reciprocal collaborations. Sometimes they rub against each other, or they unfold quietly side by side. Informed by emerging discussions in anthropology and STS regarding practices and proximity (e.g., Mol, 2021) as well as the concept of nearby (Xiang, 2021), this study argues that the nearby of service designers is an important facet of the context of design practice. Relational practices constitute a dynamic context for an acting service designer. As illustrated in Figure 5.1, their nearby entails an essential intermediate space that enables a concrete understanding of how their practices and the context are interconnected in the simultaneous processes of value creation and potential harm.

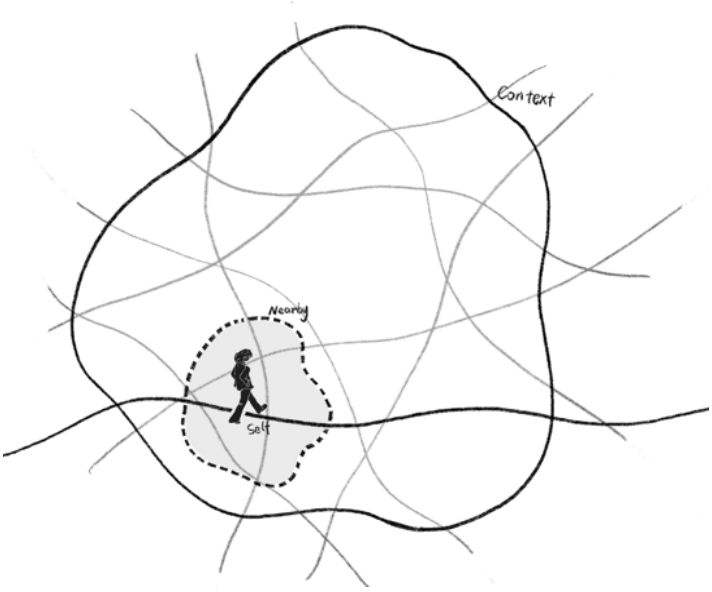

Figure 5.1 Relating self and the context through the nearby.

Attending: This study deliberately employs "attending" as a broad verb to encapsulate how service designers can situate their practices within their nearby. Building on the exploration of RQ1, this study argues that situating service design practices involves redirecting the attention of service designers from a narrow focus on established professional knowledge and practical forms toward what is unfolding in the local context. The study recognises the rich meaning encompassed in "attending" as a verb form of attention, which well summarises the ways of knowing and doing required to better situate service design, as proposed in this study. For instance, according to the Cambridge English Dictionary (n.d.b), "to attend" means to

go to an event or place, to go officially or regularly to a place, to give attention to what someone is saying, to manage and to take care of someone, and to deal with a task or a problem. This verb implies an acknowledgment of agency on the part of the object. Through this verb, the relationship between the subject and the object is formed based on the subject's sustained attention, going beyond mere intention or will of the subject.

This study proposes two interconnected ways of knowing related to attending to practices in the nearby context:

- Noticing how service design and other practices come together
- Viewing the nearby as the context

Knowing and doing are one. People “know by way of their practice … through an ongoing engagement, in perception and action, with the constituents of their environment” (Ingold, 2011, p. 159). These two ways of knowing are brought to the forefront and can be enacted through the following four ways of doing:

- Tracking relational practices to notice how service is made across differences
- Recounting relational practices in the story of making service
- Appreciating the bodies in the nearby
- Responding to relational practices that make service

Figure 5.2 presents a comprehensive summary of the proposed ways of knowing and the associated ways of doing. These two ways of knowing respectively draw a connection from others to the self and the context. Taken together, they suggest relational practices in the nearby can form an intermediary space between the practices of service designers and the context.

Brief descriptions of each way of knowing and doing are provided. This chapter builds substantially upon the research presented in Publication 4, titled "How practices come together," and incorporates additional insights from Publication 3, titled "Professionalised designing in between plural makings”. It should be noted that the content of Section 5.3, specifically "Appreciating the bodies of designers," is derived from an ongoing project called “Movements Towards Re-embodiment in Healthcare Design” in collaboration with Josina Vink, Marie Louise Juul Søndergaard, and Serina Tarkhanian. The purpose of this project is to better incorporate corporeality into design practices to respond to the current tendency of rendering bodies associated with pain, mess, and dirt invisible in healthcare design processes.

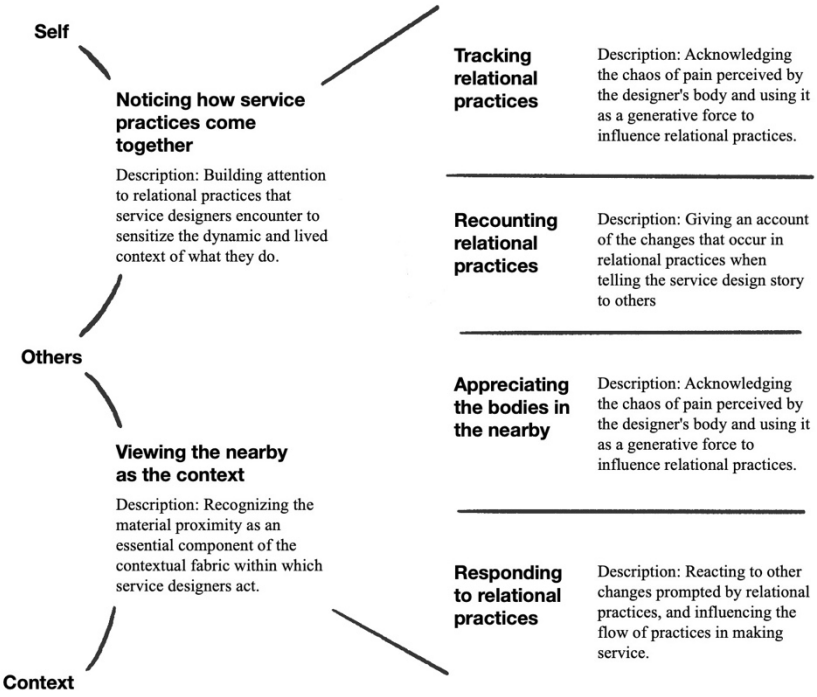

Figure 5.2 Ways of attending to relational practices in the nearby of service designers.

5.1 Noticing How Service Design and Other Practices Come Together

Designers encounter others and form relations with them to allow for the emergence of service design. Building attention to how service designers encounter others is the starting point for revitalizing the sensitivity of service designers to dynamic and lived contexts. In Publication 3, this study presents an autoethnographic account of my experience of co-making a remote care service with plural practices (pp. 162–167). The narrative unfolds in March 2021 when I attended my initial meeting with doctors at their office. I anticipated observing their planning process for implementing a remote care

platform in the rehabilitation of patients with pulmonary nodules. As a service designer, I expected to gather insights into their design capabilities, which would inform my future collaboration with them. However, this assumption quickly became uncertain as the doctors' focus shifted. Instead of solely planning, they immediately sought to find a patient willing to use the platform. Together with a patient and her family, they tangibly created a service. Figure 5.3, sourced from Publication 3 (p. 165), depicts the moment when the doctors worked on developing the service within their office. The illustration portrays an office space with eight tables and scattered chairs, filled with medical books, paper documents, lung models, and remnants of tea gifts indicating the recent presence of other doctors. The doctors engaged in discussions on how to support the first patient using the remote care platform. Their bodies formed a circle during the conversation, while other doctors and nurses moved through the circle doing other things.

Through the autoethnographic accounts presented in Publication 3, it becomes evident that many other things are being made, enhanced, or damaged, including the rehabilitation of the patient, her family ties, the doctors’ medical study, the doctors’ promotion system, the scaling up of remote care platform, the digitalisation of healthcare and the hierarchy at the hospital. When service designers take into account these relational practices, the objective of creating a remote care service is no longer seen as an isolated goal. Attending to relational practices unveils an ontological condition in which people participate in diverse world-making projects, but stay together and influence each other.

Figure 5.3 The project meeting in the doctor's office. (Source: Publication 3, p. 165)

The boundaries of service design practices are porous, allowing others to enter, but not to occupy and vice versa. The coexistence of diverse practices within service design serves as an ontological condition that sparks imagination of how to fashion a collaboration. In Publication 4, this study reveals the non-coherence in the collaboration. Since the industrial era, collaboration has often been understood as a goal-aligned, logic-coherent whole that connects different practices as functionalised elements. Likewise, the service design community often promotes project-based collaborations, where teams have clear goals and assigned roles for each member. However, by delving into the experience of making service in everyday life, this study suggests that service designers are thrown into specific contexts where their relationships with other practices are often juxtaposed and contingent, rather than prefabricated. Not all collaborations are desirable or sustainable, and not everyone benefits from them (Shove et al., 2012). Temporary defection, quitting, contamination, and betrayal are just as likely to occur as coherent collaboration (Tsing, 2005). Designers could join in other practices but are unable to fully structure them as part of a service design project. "In uncomfortable or incongruous collaborations, the violence generated by participants' professional practice, as well as positive changes such as improvement, care, and restoration, can coexist and persist beyond the realm of design practice itself" (Publication 4, p. 40). The value of service design lies in the specificities of each situation and needs to be continuously examined.

5.2 Viewing the Nearby as the Context

Not all practices are directly connected to what service designers do. Instead, some are more closely situated to designers than others. Situated service design is inherently partial in nature. The others encountered in the design process are a key component of the nearby of service designers. Recognizing and understanding the nearby of service designers provides an opportunity to comprehend the relational practices that are in close proximity. It necessitates allowing one's perception of the immediate environment to inform and shape their strategies and actions accordingly.

In this study, the concept of the nearby means the surroundings of an individual, and individuals perceiving and interacting with their environment based on their action capabilities. As anthropologist Biao Xiang (2021) suggests, the nearby is the lived space where encounters with people from diverse backgrounds come into the view of others. Seeing this space, one can cultivate an ability to understand how the world is constituted across

differences. The notion “nearby” is not equal to “community” or “organization” in which the actor is embedded based on given functional and systemic understandings of actors ' roles (Xiang, 2021).

In service design research, some studies see the community or organization as a contextual framework for service design practices, often modelling designers’ abilities based on their position in relation to the community or organization (e.g., in-house designers versus consulting designers). While this modelling can help designers anticipate the skills they may require, it may not fully capture the complexity of their actual situations. People's perception of their nearby is not solely constrained by predefined frameworks of wholeness. Instead, they can form their understanding of the nearby based on their emotions, backgrounds, life experiences, and their relationships with other beings.

The nearby is not only a scope through which to see relationships between practices, but making one another's nearby is also an important way of forming relationships (Xiang, 2021). In the Western philosophical tradition, relationships are often understood based on similarities, such as shared social status or biological features. However, the formation and differentiation of social relations do not solely rely on shared traits. Human kinship, for example, goes beyond genetic similarity and involves shared experiences such as growing up together, sharing meals, and borrowing money from each other (Mol, 2021). Relationships between people are forged through proximity and their engagement in shared activities (ibid.). Therefore, the nearby of designers is the space where design practices intertwine with other practices, shaping designers' distinct and context-dependent identities.

5.3 Ways of Doing That Attend to Relational Practices

In this section, I describe four possible ways of doing to attend to relational practices with brief introductions and illustrations derived from associated articles.

5.3.1 Tracking Relational Practices to Notice How Service is Made Across Differences

Figure 5.4 Tracking relational practices.

Service designers observe and follow the movements of other people over time and across various locations to comprehend how the world is constituted amidst differences. In Publication 4, an autoethnographic account is presented, illustrating how I tracked the purchase, distribution, and utilization of A4 paper within a doctor's office (Publication 4, p. 45). By tracking the flow of A4 paper, a significant discontinuity between the documentation platform and the inpatient platform in a hospital was revealed. It was discovered that doctors had to print out all inpatient files and place them in a plastic basket (see Figure 5.5). Subsequently, these papers were sent to the archives department for scanning and digital filing. Recognizing this discontinuity provided a concrete understanding of the relationships and tensions that existed among surgeons, Master's students, and nurses within the hospital. Moreover, it shed light on how a remote care platform could have far-reaching implications beyond the realm of rehabilitation care.

Traditionally, designers often adopt a narrow view, isolating themselves and intentionally disregarding things that may appear logic-irrelevant to their project. However, tracking relational practices disrupts this self-isolation and encourages service designers to engage with the broader aspects of everyday life that may not have an immediate logical connection to their professional practice. At first sight, tracking may seem to provide limited insights for designers, as no one can observe everything simultaneously due to finite vision and other senses (Publication 4, p. 46). However, this limitation can also be advantageous. Relational practices evolve with the fluidity of positions and perspectives. By observing the flow of what others do,

designers can challenge their preconceived notions and established understandings. Approaching the world with a sense of inquiry and curiosity allows the richness inherent in everyday life to stimulate the imagination and reveal new contextual insights.

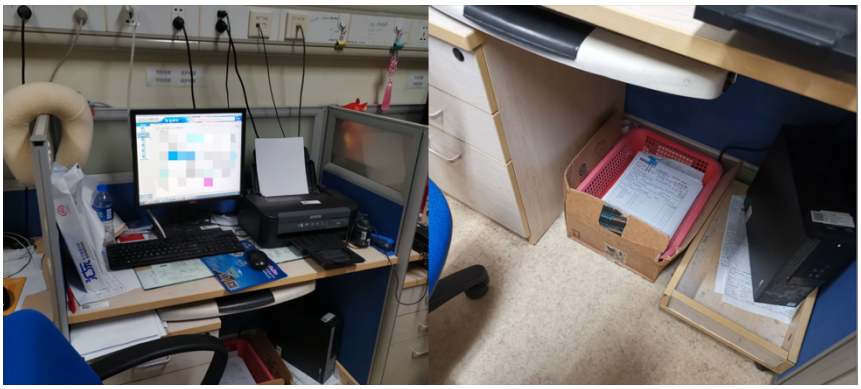

Figure 5.5 Inpatient digital platform, printer, package of A4-sized paper (left) and red plastic basket to hold forms in the doctor's office (right). (Cited from Publication 4, p. 45)

5.3.2 Recounting Relational Practices in the Story of Making Service

Figure 5.6 Recounting relational practices.

Recounting involves narrating the changes that take place within relational practices when sharing a service design story with others. In Publication 4,

an account is shared regarding my presentation given to Norwegian partners. This particular story revolves around a DigiRemote project meeting where Chinese Master's students confronted the doctors about their excessive workload and lack of initiative in the project. This confrontation directly resulted in the emergence of a new service model that incorporated the involvement of undergraduate students as interns in patient education. Figure 5.7 depicts a job posting created by the Master's students after the project meeting.

Recounting the experiences of others is a deliberate exercise that enables the narrator to gain insight into the perspectives and circumstances of others, as well as recognise the potential for agency within their actions. Moreover, sharing stories about others is a means of fostering connection and empathy among individuals. In the aforementioned experience, I initially perceived recounting relational practices as a risky endeavour, fearing that I might not accurately capture the emotions and sentiments of the individuals involved in the story. I was concerned that they might feel upset or embarrassed by the exposure of their challenging situation. Yet recounting has the potential to show goodwill. Doing so allowed people to perceive that I invested effort into understanding their difficult situation, and thus to correct misunderstandings. The trust they showed gave me more freedom to observe and act outside the typical remit of a professional designer.

Figure 5.7 Job posting. The original image did not include an English translation. The author added it using Miro. (Cited from Publication 4, p. 47)

5.3.3 Appreciating the Bodies of Others in the Nearby

Figure 5.8 Appreciating the bodies in relational practices.

Design scholar Ahmed Ansari has theorised how "the body" in design must go beyond the Anglo-Eurocentric conception of a singular body, and instead account for the many ways of being and relating to bodies, for example, understanding the body as situated, multistable and plural (Ansari, 2020). This study further suggests that the nearby is a crucial site to allow designers to perceive the plurality of the body and, by extension, to appreciate the multiple forms that bodies may adopt and exhibit during world-making projects. Here, the first body encountered by service designers is their own (Ueno & Suzuki, 2021/2022). When the nearby becomes the context of service design practices, bodies encountered in that context are no longer merely containers for knowledge and ideas, nor are they vehicles allowing the performer to reproduce abstract social and cultural norms. The world through which people move and act is not extrinsic to their mindful body, but helps to form the body (Ingold, 2010). An individual's being involves a physical negotiation with their surrounding (Mol, 2021). Situating service design practices in the nearby entails appreciating encountered bodies by taking account of intrinsic senses including pain, as well as the dirt, and messiness present in the context. Regarding these mixed aspects with deep seriousness opens up opportunities to recognise and value the generative forms of world-making that they may offer. The following story involves an experience of removing ECG from a clinical research protocol.

> Team members found that patients who had undergone lung surgery could not always collect their body data through use of an electrocardiogram monitor (ECG). To better understand this device, I wore an ECG for a week (see Figure 5.9). During this week, two

electrode pads on the device needed to be changed every 12 hours. Having sweaty skin, I found that I needed to change pads more frequently – every 6 hours. Repeatedly tearing off many old pads from the same place on my chest left two russety red square scars which lasted for a month. After this experience, I wanted to challenge whether it was necessary to have discharged patients wearing an ECG for a week. The ECG data enriched the clinical study data, but doctors also knew that minimal invasive lung surgery rarely influences a patient's heart rate. One day, I lifted my shirt to reveal my scars to two doctors and told them my experience. The sight of the scars made the doctors rather uncomfortable, but they took this issue seriously. Their concern seemed to become more obvious when I told them the patients found wearing the ECG very inconvenient. Working with these doctors in a subsequent workshop, we brought this issue to the table and, as a result, cancelled the requirement for patients to wear an ECG.

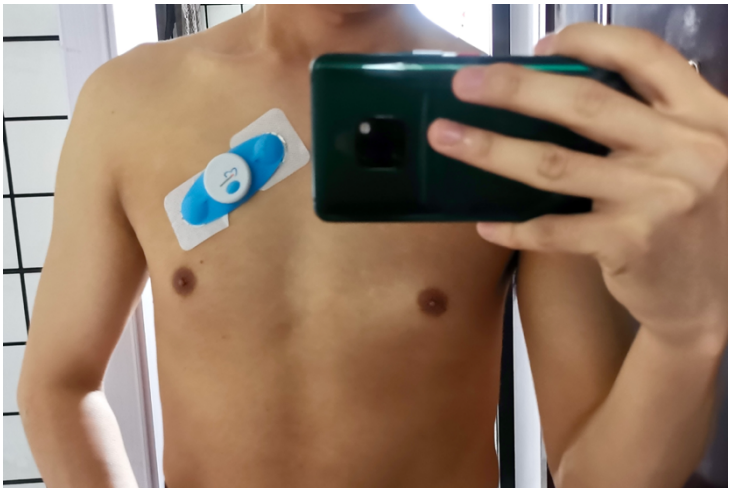

Figure 5.9 ECG electrodes on my skin. Image courtesy of Zhipeng Duan.

This example offered a glimpse into how negative effects on my own body were negotiated and integrated into the process of making service. The sensations and discomfort experienced on my skin serve as manifestations of other people's narratives. The body in pain, literally where people's pain is contextualised, cannot always be fully communicated to, or understood, by others. Pain cannot be literally visualised or transformed into knowledge, although it can be shared and empathetically felt by others through the shared experience of epidemics. The body is a conduit for expressing pain – the kind

of pain that defies transmission through conventional understanding involving language. My personal experience of engaging with the body was not an isolated occurrence. Bodies are inherently implicated in numerous instances of service design, as well as in the quotidian moments of maintaining service. Valuing corporeal encounters of the kind described above involves more than just introducing more service design techniques to engage bodies; it necessitates fostering a heightened awareness of the body and acting in accordance with its experiences and transformations.

5.3.4 Responding to Relational Practices that Make Service

Figure 5.10 Responding to relational practices.

When we are immersed in the site of making service and we see what others are doing there, we actually open up new possibilities for design actions by responding to what they do. To respond means to "react to changes during the occurrence of relational practices to influence the dynamic process subtly and intentionally" (Publication 4, p. 44). Responding to relational practices allows service designers to join their own forces to the flow of other practices, temporally and in a way that allows other people to feel safe.

Publication 4 recounts an autoethnographic event that took place during a private dinner where I collaborated with a project doctor to initiate making a rehabilitation plan (p. 50). After an in-depth discussion with him [her] concerning the challenges of DigiRemote, we sketched out ideas for a rehabilitation plan aimed at supporting patients in starting post-surgery exercise. As part of the doctors' clinical study, the rehabilitation plan had been scheduled for completion a month before this discussion. However, the deadline was not met by doctors. They had expressed concerns about the extent to which the rehabilitation plan needed to be made clear to patients.

The impromptu sketch became a catalyst for shaping a more concrete plan. Before the dinner, I had apprehensions about the potential of the rehabilitation plan becoming a means for exerting control over patients – and I had voiced my concerns during project meetings. As a result the plan was reconfigured so that it provided incentive for patients to start beneficial exercise, rather than being a plan solely intended for management or data collection.

Responding to relational practices often involves a casual and tentative approach to collaboration, enabling designers to participate in other projects. Reflecting on my experience with DigiRemote, I have identified two crucial factors that facilitate responses. Firstly, building firm and positive relationships with certain individuals allowed me to enter into their practice. Such closeness matters. Secondly, through immersive observation, I gained valuable insights into people's everyday practices and came to better understand their activities and concerns. This understanding provided me with a sense of how I could contribute by leveraging my service design expertise in ways that might enhance their practices.

6. DISCUSSION

The overall query of this thesis is to explore what knowledge is needed to aid service designers to situate their practices in the local context. Table 6.1 provides an overview of the findings and contributions in relation to two research questions asked in the process of building understanding of situatedness in service design practice. In exploring the first research question, this study contributes to articulating the detached views that are produced and held by professional designers in their working practices. Although previous design literature has undertaken theoretically based discussion of the concept of detachment in design knowledge production (e.g., Tlostanova, 2017, 2019; Suchman, 2002), it does not fully address how detachment shapes individual designers and their local practices. This study reflects on the implications of these detached views for designers' practices, particularly in terms of how they perceive their connection to the world and the potential for a sense of meaninglessness to arise. In exploring RQ2 this study contributes to demonstrating the possibility of attending to relational practices in the nearby of service designers, based on discussions from anthropology and STS regarding the formation of relations through practices (e.g., Mol, 2002, 2021) and the concept of proximity/nearby (e.g., Xiang, 2021). This study revisits the detached views of self, others, and context, and pertinently presents two interrelated directions to aid service design practitioners in coming to know the relations between self, others, and context. It also proposes four associated ways of acting which designers can use to form local relations.

The findings of this thesis do not mean that the study provides a definitive answer to the overarching research query. Instead, the problematization of detached views and the reasons for attending to relational practices open up space for more inquiries, and by extension, the chance to further cultivate a profound comprehension of the situated nature of service design. To offer preliminary closure to this ongoing research, this chapter delineates the

implications for service design research and practice and discusses the potential meanings and opportunities that others may take from my findings. I conclude by further discussing the limitations of this research and then I outline prospective future research directions that may arise from this work.

6.1 Implications

The two main contributions offered by my findings produce implications for the future practice of service design, and for knowledge production concerning this professional practice.

Firstly, by articulating the detached views that service designers hold in practice, the findings of RQ1 have led to two theoretical implications, outlined below.

> 1) This study sheds light on the constraints of professional knowledge on the situatedness of service designers. The critique lays the foundation for further exploration of how to foster knowledge sensitivity in practice (See 6.1.1.1).
>
> 2) This study demonstrates that the mainstream professional knowledge of service design is insufficient for designers to accommodate the encountered differences in various contexts (See 6.1.1.2).

Secondly, by demonstrating the possibility of attending to relational practices, this study produced two significant implications for service design research.

> 1) By intentionally incorporating other practices into service design research, this study enhances the capacity of service design knowledge to accommodate diverse forms of making service (See 6.1.2.1).
>
> 2) This study shifts from an over-reliance on the theoretical understanding of plurality to an integration of this quality into practices (See 6.1.2.2).

Additionally, the exploration of RQ2 yielded practical implications for service design practitioners.

> 3) By identifying the nearby as the context, the study offers epistemological strategies bridging service design practice and everyday life (see 6.1.2.3).

Table 6.1 Summary of findings and contributions in relation to the overall query and research questions.

<table>
<tr><td>Overall query</td><td colspan="3">What knowledge is needed to aid service designers to situate their practice in the local context?</td></tr>
<tr><td>Research questions</td><td>RQ1 – Which views held by service designers prevent them from situating their practices?</td><td colspan="2">RQ2 – What ways of knowing and doing can aid designers in situating their practices in the local context?</td></tr>
<tr><td>Summary of Findings</td><td>Detached view of self: Narrow focus on established service design activities
Constraints:
- Regarding the situated efforts as adapting the professional activities to the context
- Narrating complex practice experience in line with mainstream service design logic and process

Contributing publications: 1, 2 & 4</td><td>Way of knowing: Noticing how service design and relational practices come together

Contributing publication: 3& 4</td><td rowspan="3">Ways of doing:
- Tracking relational practices to notice how service is made across differences
- Recounting relational practices in the story of making service
- Responding to relational practices that make service
- Appreciating the bodies in the nearby

Contributing publication: 4</td></tr>
<tr><td>Detached view of others: Limited knowledge in perceiving complexity of other practices
Constraints:
- Difficult to perceive how service design practices relate to others’ lives
Contributing publications: 3 & 4</td><td>Way of knowing: Viewing the nearby as the context

Contributing publication: 4</td></tr>
<tr><td>Detached view of self: Over-dependence on totalised approach
Restraints:
- Regarding the description of people as collective features evenly shared among a social group
- Neutralizing design culture enacted by professional practices
Setting a big goal for transient service design practices
Contributing publications: 1 & 2</td><td></td></tr>
<tr><td>Contributions</td><td>Articulating the detached views that service designers are encouraged to hold in practice</td><td colspan="2">Demonstrating a possibility of attending to relational practices in the nearby of service designers</td></tr>
</table>

4) This study further supports service design practices in carrying out micro-actions to find out how to join in the ongoing process that forms service (see 6.1.2.4).

In the following sections, I will outline the implications of this research. Specifically, in sections 6.1.2.3 and 6.1.2.4, I will elaborate on how the findings can potentially enhance their professional practices.

6.1.1 Articulating the Detached Views that Service Designers Might Hold in Practice

6.1.1.1 Explicating the Constraints of Professional Knowledge on the Situatedness of the Service Designer

By elucidating the detached views of service design, the study provides an initial demonstration aimed at aiding service design researchers to comprehend how the limitations imposed by established knowledge on service designers' work may limit their capacity to situate their practice. The study presents an alternative approach to investigating the relationship between service designers and professional knowledge, moving beyond the reciprocal assumption prevalent in traditional knowledge production. In traditional literature on service design and design in general, the primary objective of knowledge production is to create practical tools and models for designers (e.g., Cross, 1999). It is assumed that designers can unquestionably benefit from the production and dissemination of knowledge. However, this study has shed light on how the knowledge developed in design, which eventually becomes a legacy, can cause them to view their work as mere utilization of tools and so hinder their ability to appreciate their own subjectivity. By unpacking the detached views of service design, it becomes apparent that the knowledge about "what service design can achieve" may be perceived by those who possess it as a guide for "what I must do to become a service designer". The study emphasises that knowledge has a significant impact, shaping the actions of its holders. Future research should undertake deeper examination into the power and influence of knowledge in shaping and dominating designers' practices.

The interpretation of detached views further enriches and challenges existing criticisms regarding design research's disproportionate emphasis on the designer's self-understanding (e.g., Willis, 2019). Indeed, empirical material for design researchers has predominantly been derived from the actions of service designers (e.g., Kimbell, 2011a; Yu & Sangiorgi, 2018). At first glance, Willis' critique appears to advocate for a shift away from an exclusive focus on designers' experiences in design research. However, this study

contends that current service design research on the social, political, and cultural condition of the designers, is inadequate and may even be problematic. It is peculiar that while service designers have become the central focus of knowledge production, this study on the detached perspective of designers reveals that the repercussions of implementing service design knowledge on designers often go unnoticed. For instance, what do they feel when their work becomes immersed in the ideas of large systems, strategic goals, abstract business values, and the needs of users who they rarely encounter?

When designers neglect deep reflection on their own circumstances, their sensitivity towards the conditions of others and the world also diminishes. The findings regarding the detached views emphasise the importance of future studies considering the impact of service design knowledge on its knowers. Furthermore, there is a need to explore how to cultivate knowledge sensitivity among designers, enabling them to recognise their demands on professional knowledge and empowering them to refuse its implementation when necessary. Developing such knowledge sensitivity holds particular significance for service design education. Presently, design education largely revolves around service design tools and thinking. However, when new service designers fail to perceive alternative courses of action during their learning process, they become overly dependent on performing expertise, thereby influencing their self-construction and the value they attribute to themselves. Future research could explore the broader social and cultural situations of service designers as human beings. This research direction would allow for a more comprehensive examination, so as to reveal the presence of heterogeneity among service designers, as, importantly, not all service designers' self-understandings can be equally or evenly included in the production of mainstream service design knowledge.

6.1.1.2 Demonstrating the Insufficiencies of Professional Knowledge in Accommodating Differences

Starting from explicating the constraint of professional knowledge on service designers, this study demonstrates the inadequacy of mainstream service design knowledge in capturing the differences of service design in various contexts, and in recognizing the risks of oversimplifying narratives that knowledge creates. In Chapter 4, the study penetrates the issue of service designers being excessively encouraged to prioritise established professional activities. As a result, the meaningful and contingent encounters within their practices are diminished within service design narratives. Simultaneously, the obscuring of other practices and the pursuit of highly standardised approaches together hinder the potential of service design to accommodate

the heterogeneous practices of other actors and their capacities for world-making.

Service design often is devoted to integrating the needs, perspectives, concepts, and methods of different actors, then collaboratively prompting transformative innovation (Yu, 2020). This study suggests the value of co-creation in service design implies an ethical commitment to the idea that different practices can and must coexist. Service design involves not only the manipulation of the different characteristics of people to achieve one purpose, but also the accommodation of multiple forms of making futures. This study argues that such a commitment has not been fulfilled. My concern about coexistence resonates with Fry et al.'s (2015) ideas about the defuturing effects of design; they suggest that possible futures are systemically eliminated by existing professional design practices. The crisis of current service design knowledge is its incapacity to aid its knowers to interpret other practices of making futures, other than by translating them into the knowledge of service design. The presentation of these insufficiencies could be an impetus for service design researchers, particularly those who feel marginalised or constrained by mainstream knowledge, to take further action. They could embark on more comprehensive investigations into the mechanisms and manifestations by which dominant knowledge undermines the multiplicity of world-making approaches in different contexts.

The exploration of RQ1 also reveals the hope that accommodating heterogeneity within service design is possible. While mainstream service design knowledge may display the power of assimilation and marginalization of other practices, its narrative cannot completely eradicate all interconnected practices. Everyday practices quietly intertwine with the dominant narrative through subtle deviations (De Certeau, 1974/1997). My interviews with designers further revealed the existence of heterogeneous practices in everyday life, where diverse backgrounds, reflexivity, and courage can unveil greater imaginative possibilities for the future. This study advances Akama and Yee's (2016) argument that design unfolds under different names, influenced by conditions in various settings. The practices that shape the future do not necessarily have to be labelled as "design". Consequently, the logic and coherence of service design can be disrupted through contamination and coordination with other practices (Light, 2019). Emphasizing other practices underscores the intersubjective nature of service design practices. Furthermore, incorporating other practices into service design can open up dialogue on the conditions of service designers, while avoiding the trap of treating designers' worries as isolated mental or cognitive issues.

6.1.2 Demonstrating a Possibility of Attending to Relational Practices in the Nearby of Service Designers

6.1.2.1 Enhancing the Capacity of Service Design Knowledge to Accommodate Heterogeneity

Through the intentional incorporation of other practices into service design research, this study contributes to enhancing the capacity of service design knowledge to accommodate diverse forms of making service. Currently, service design knowledge is primarily tailored to business needs and the capitalist division of labour (Kim, 2018). However, if revisiting the literal meaning of service as "an act of helpful activity," the ways in which service is formed can be variable and open-ended, mirroring the complexity of human life itself. Even within Western discourse, Kim (2018) argues that service design struggles to capture the intricate dimensions of mutual aid and communal sharing that Western history has revealed to us. There is a need to acknowledge the vast diversity of meanings and practices in making service globally. This study introduces relational practices into the empirical scope of service design research while avoiding the reduction of other practices to quasi-design, informal design, or non-design categories. My study, in particular the autoethnography, can demonstrate that through the lens of relational practices, it is possible to gain a comprehensive understanding of service that embraces the vitality and richness inherent in its formation. Future research in service design can further extend my findings and explore how practitioners can adequately prepare for encountering and engaging with heterogeneous forms of making service.

In specific contexts, heterogeneous forms of making service do not immediately reveal themselves to practitioners and researchers. The available cues are often unstable, providing limited guidance for preemptive strategies to intervene. However, attending to relational practices offers an approach for researchers and practitioners to first see what people do in their quotidian lives to foster supportive relationships, and how people negotiate different actions, needs, and desires. Seeing is an ability of perception, that uncovers clues suggesting how our forces can contribute. By suspending preconceived notions of what constitutes service and service design, researchers and practitioners are better able to notice the emergence of alternative forms of making service, and more fully equipped to challenge monolithic or oversimplified understandings of service.

There is potential to integrate relational practices into current research on service ecosystem design from a theoretical standpoint. The recent theory of service ecosystem design suggests that service embedded in a social ecosystem are continuously evolving, with all actors involved in an ongoing

process of designing in their everyday lives and contributing to the emergence of contextual values (Vink, Koskela-Huotari et al., 2021). Value is enacted through the situated efforts of specific actors (Pohlman & Kaartemo, 2017). However, while current service design research builds on the idea of generalizing professional design capability so as to include everyone, it often employs a design-non-design process and creates dichotomies to differentiate between actors' capacity for reflection and change versus reinforcement of pre-existing modes of action (e.g., Vink, Koskela-Huotari et al., 2021). By incorporating a broader range of practices, this study can support future research in recognizing the transformation of networks of diverse practices – the key agenda to which service ecosystem design can contribute. The tradition of theorizing service design primarily through short-term invitational design activities can be decentralised as the entanglement of different practices become visible. Specifically, this study advocates for future design research to identify and explore local processes of making service. Western knowledge of service design can be provincialised by enhancing the local accountability of service design.

6.1.2.2 Shifting from an Over-reliance on Theoretical Understanding of Plurality to an Integration into Practices.

The approach of attending to relational practices can strengthen the link between theoretical discussions concerning both the plurality and the situated nature of designers' practices. This study presents practices as a dimension of plurality in design and enriches the understanding of how practitioners can access such plurality via consideration of their own actions. Previous literature in service design and general design has emphasised the advantages of contextualizing design practice by recognizing and navigating the plurality that prevails within a specific context. For instance, Junginger (2015) suggests that designers can pay attention to organizational design legacies including design principles, methods, and practices. Sangiorgi and colleagues (2022) identify four logics that service designers may encounter when engaging in service design within a service system. Howell and colleagues (2021) propose a plurality of perspectives in speculating about futures. Moreover, cultural plurality challenges the dominance of Western knowledge in design and advocates for embracing differences and accommodating heterogeneity as essential aspects of design practice (Akama & Yee, 2016). The concept of the pluriverse takes a more radical stance by asserting that design must be reshaped as a political tool to allow for the coexistence of different worlds, ontologies, and realities (e.g., Escobar, 2018).

The dimension of practical plurality is significantly influenced by the aforementioned studies. Junginger (2015, p. 213) describes design legacies as "practices inherited from previous generations". The theory of material semiotics and its argument on practice ontology, employed in this study, engages in debates with research on the ontological turn and the pluriverse (Lien, 2015; Gad et al., 2015; Law, 2015). However, this study highlights that these dimensions of plurality often remain too abstract to inform the day-to-day practices of service designers. Instead, they are frequently re-incorporated into designers' tools that encourage the analysis, mapping, and visualization of the context as a whole.

Merely employing plurality as an analytical lens is at odds with the aforementioned studies, which advocate for ontological coexistence. Approaching plurality in a totalised manner risks losing the dynamic and vibrant process of becoming plural. By disregarding the process of becoming, plurality is reduced to static characters. The politics involved in engaging with this static plurality are then limited to three models, namely assimilation, preservation, and cultural pluralism (Strathern, 2004). As a result, the symbiotic reality of the self and the other becomes challenging to perceive, and the three aforementioned models fail to achieve a genuine symbiosis. Instead, they may inadvertently reinforce an alternative world that exists as a container for differences.

By drawing a connection between plurality and practices, attending to relational practices can offer an approach to engage with the notion of plurality without presupposing that researchers and designers need access to incommensurable ontological differences. Instead, the core agenda is how to open, share, configure, and reconfigure power dynamics within assemblages of heterogeneity in a generative process of becoming plural. For instance, this study recognises the potential for future research to revise the notion of "participation", a key concept in co-design. When plurality is enacted through different practices, simply inviting others to participate in professional design activities is insufficient for cultivating this quality. Future research needs to develop an in-depth understanding of multidirectional participation, where not only do non-designers participate in service design, but practitioners and researchers also engage in other practices.

6.1.2.3 Offering Epistemological Strategies for Bridging Service Design Practice and Mundane Life

In Chapter 5, this study presents two ways of knowing to attend to relational practices. These ways empower designers to observe and grasp the intricacies of the everyday context, facilitating a profound comprehension of their

specific relations within that context. These ways of knowing depart from traditional epistemological strategies that emphasise totalised analysis and the creation of logically coherent action plans, which aim to provide a sense of control over one's body and actions in the face of everyday life's complexities (please note that the sense of control does not imply actual control over the complexities). It is important to acknowledge the ephemerality of everyday life, as there are many aspects that cannot be fully understood and managed through individual will. When one immerses oneself in the world, the cues for action that the world presents are often raw, scarce, and uneven (Tsing, 2015). Therefore, rather than striving for logical coherence in our practical experiences, these ways of knowing not only support practitioners in taking action to find potential but concrete associates, but also in identification of suitable starting points for more positive actions.

This study identifies the "nearby" of designers as the pivotal context in which service design practices encounter everyday life. Making the nearby an explicit knowledge in service design provides practitioners with the legitimacy to incorporate everyday life experiences into their own reflections and sense-making processes concerning their professional practices. The nearby of a designer constitutes the world itself where heterogeneity naturally self-generates. I suggest that future research has the potential to uncover more strategies for supporting practitioners in taking action within their nearby. My anticipation derives from a review of the extant design literature which suggests that the notion of the nearby can provide a conceptual grip to better understand other empirical studies that have explored the situated nature of design practices. Light and Akama (2012) argue that designers' practice evolves in close connection with the context in which they are embedded. Through active engagement and careful observation of their surroundings, designers refine their knowledge and adapt their actions accordingly. Similarly, Clarke et al. (2016), in their exploration of design practice within a local community, provide rich details about their engagement and perceptions within specific situations. Their reflections contextualise their practice and shed light on the significance of the nearby environment.

Situating service design practices within everyday life settings calls for practised care and attentiveness in an ongoing relation between conscious awareness and lively beings. We, designers and researchers, can start from situating our eyes and other senses. For example, we can closely look at everyone who enters our surroundings, whether they are community residents, doctors, investors, or design leads. Instead of seeing them immediately as elements in a service or design project, we can first seek to understand their concerns, situations, and how their bodies carry out their

practices. By forging genuine connections with actual individuals, we can effectively counteract the gradual erosion of our capacity to accommodate the inherent ephemeralities, complexities, and uncertainties entwined in our role as participants in the act of world-making.

It is important to note that this study does not extensively theorise the concept of the nearby for designers. Nor does it explicitly illustrate the relationship between designers' perceptions of the nearby and their ability to situate their practice. Furthermore, it does not deeply explore the variations in designers' nearby contexts. More researches are needed to explore how the idea of nearby can better cultivate situated and reflexive actions. For example, for many designers engaged in project-oriented work, their nearby environment is highly fluid, and they may not have sufficient time to observe the people in their surroundings. Such situations raise further questions about what kind of support can aid service designers in actively cultivating and foregrounding their capacity for knowing the nearby when their work has become highly professionalised and standardised.

6.1.2.4 Identifying Micro Actions for Situating Service Design Practice

This study further suggests four specific ways of doing in order to attend to relational practices. These ways empower practitioners to strengthen their ability to join in the everyday context by proactively doing micro actions within it. First, tracking relational practices suggests a way to make these more observable through designer's involvement in the activities surrounding them. Doing this requires designers to be present when other practices are taking place. Through tracking, designers may form a more complex picture of the landscape of relations of everyday working life. By carefully situating themselves in between relational practices, designers can become more accountable to their context. This helps to prevent them from inadvertently presupposing or reproducing a worldview that is vastly different from that held by the people living in that context. Second, recounting relational practices can support service designers to build a narrative sensitivity. It suggests that narrating the relational practices helps designers become actively aware of how their practices should be directly connected to the context, and it can further deepen their connections to the context. Third, responding to relational practices demonstrates how proactive participation in other ongoing practices can serve as a crucial starting point for careful and appropriate embedding of professional practice approaches into local contexts. Fourth, appreciating the body empowers designers to resist the tendency to detach their physical sensations and emotions from their practices. By actively engaging with their bodily experiences, designers can undo and redo their imagination and perception of being a designer within a

specific context. Appreciating the body enables them to attune themselves to other practices that may be encountered. Fifth, linking the partiality of personal experience back to the context supports designers and actors in repositioning their individual situations and reactions (e.g., self-blame and powerlessness) into the context so as to foster reflexivity and seek possible solutions.

The four ways of doing offer service designers an alternative value structure that integrates the emergence of new relationships as well as the occurrence of subtle but concrete changes into their process of meaning-making. Recent studies suggest that the practical experience of individuals working in proximity to designers, especially participants in design activities, can serve as a catalyst for social change (Wetter-Edman et al., 2018). The study further suggests that relational practices occurring in proximity to service design activities offer an important means for designers to coordinate their various capabilities so as to catalyse change within partial relations.

Given the limitations of the empirical data, it is important to acknowledge that the ways proposed in this study are neither exhaustive nor universally applicable. For example, in a highly institutionalised organization, the act of responding to others' work practices that are irrelevant to the design profession may be considered transgressive. For many service designers, the institutionalised paradigm and elitist disposition of the design profession do not permit them to narrate and undertake unfamiliar practices with ease. As such, these four ways are not presented as prescriptive design tools, but rather as postulations to explore diverse forms of designing that extend beyond traditional professional design activities. Rather than explicitly stating how to use these ways, I have instead presented various implications and reflections concerning what I did. The proposed ways – tracking, narrating, and appreciating the body – all suggest micro-daily actions and resistances that practitioners can easily effect in their daily lives in passing, for example, by consciously making the languages and actions of others visible in the reports written about service design projects. The practical value of these ways does not lie in expecting other designers to replicate exactly what I have done. Instead, as readers encounter my experiences, they may gain the confidence to engage in different practices.

6.2 Limitations

To fully situate my findings and their implications, it is crucial to acknowledge the limitations of this study. In the following section, I will briefly outline significant factors that influence the interpretation of my

findings. These factors include the performativity of empirical methods, my personal and cultural bias, and my theoretical predilections. Addressing the tension between the particular and the general is a fundamental challenge that design scholars must confront in their studies (Redström, 2017). Redström (2017, p.24) suggests the need to create a space that bridges the gap between the particular and the general in order to clarify the type of design knowledge and level of abstraction that are necessary to address the framed research question. Here, when interpreting the findings of this study, it is important to recognise that the framework and proposed approaches are not universally applicable across all contexts. The value of the findings is located precisely in the potential to provoke readers to reflect on their own conditions and to generate new actions in response to an awareness of who and what occupies their nearby. Therefore, while considering the limitations of this study, I have not prioritised generalization as the most crucial aspect. Instead, I have focused on identifying the factors that may hinder problematizing and articulating the subject matter clearly and accurately. Furthermore, I have considered how readers can be made aware that the knowledge generated through this study is partial in its dissemination to them.

6.2.1 Performativity of Empirical Methods

Firstly, this study acknowledges the limitations that arise from the choice and performance of empirical research methods, specifically semi-structured interviews, autoethnography and participant observation. Semi-structured interviews were deemed appropriate for engaging with strangers, here service designers, to gain insights into their personal histories and experiences, thereby facilitating an understanding of their endeavours and challenges in diverse cultural contexts. However, the process of conducting interviews can inadvertently reveal the interviewer's taken-for-granted assumptions that warrant critical examination. For instance, researchers often assume the interviewee is an independent individual capable of self-awareness and self-expression (Flick, 2014). With this assumption, I may have relied on the designers' narratives as the sole empirical material for analysis, overlooking the nuances that can arise from face-to-face interactions and rapport-building (Irvine et al., 2013). Additionally, the inability to physically visit the designers' work sites limited the opportunity for on-the-ground observations, potentially obscuring elements that are uniquely discernible within the context of service design practice. To address these concerns, in the process of analysis and writing, co-researchers and I reflexively positioned ourselves as narrators who actively contributed to the storytelling alongside the interviewees (see Chapter 3). This study proposes that future research should employ a combination of narrative-oriented interviews and participant

observation to gain a more comprehensive understanding of the situated nature of service design.

Autoethnography serves as a valuable approach for breaking away from the tradition of design research that treats ephemeral design activities as empirical data. This method allows for the incorporation of those marginal happenings that occur alongside professional work into knowledge production. However, in doing autoethnography, the distinction between ethnographer and informant can become blurred, seemingly granting the ethnographer (in this case, myself) the authority to produce knowledge about and on behalf of others (Islam, 2015). Autoethnography has been criticised by ethnographic researchers for its potential self-indulgence due to the complete loss of the researcher's positionality as a neutral, rational, and invisible outsider (Buzard, 2003). This study aligns with Winkler's (2018) viewpoint that autoethnography can be directed towards cultivating self-respectful self-knowing. To mitigate the risk of self-indulgence, this study has intentionally increased the visibility of others in the ethnographic writing process. Key participants have been invited to contribute to the writing, allowing for a more collaborative and inclusive approach.

Furthermore, autoethnography may inadvertently lead to a selective focus and insufficient reflection on power structures. In this study, not all individuals and aspects within my immediate surroundings were equally visible. My own actions may have pulled certain practices (such as those of surgeons or Master's students) closer to me, potentially diverting attention from others (such as nurses and patients). While this unevenness of engagement reflects the partial and fluid nature of attending to relational practices, it is important to acknowledge that simply being aware of uneven degrees of attention is not enough. The closeness I experienced with the doctors may reflect my subconscious inclination to privilege the group representing the dominant position within the research context of the hospital. In the following section, 6.4 Future Research, I confront the issue of uneven engagement. Addressing this issue necessitates a crucial research agenda that attends directly to relational practices.

It should also highlight the limitation of time constraints on autoethnographic research. The continuous participant observation spanning eight months provided ample time to establish trust with informants, gain a deep understanding of the local context, and track the consequences of people's actions. However, this duration was insufficient for observing the formation of daily rhythms in people's practices. Additionally, the limited timeframe made it challenging to evaluate my design practice in the field over the long term. Furthermore, the conclusion of the observation period marked the end

of my participation. Although I had developed a trusting collaboration with other project members throughout the eight months, my sudden withdrawal meant that I was unable to witness the subsequent developments and impacts of the project. This study does not encompass the events that unfolded after my departure from the fieldwork site.

6.2.2 Personal Bias

During this study, I have increasingly recognised that I exist within a "border space." This concept, as explored by Mignolo and Tlostanova (2006), refers to a subject whose practice and thinking are influenced by both Western epistemology and alternative ones. With an educational and professional background in service design and consultancy spanning China, Italy, and now Norway, the jargon, tools, and logic of service design have shaped the lens through which I have constructed my research project and articulated my experiences. This PhD journey is a part of my broader project of decolonizing my knowledge. While my professional bias has naturally led me to reflect on professional practice, it is important to recognise that the responsibility of service design knowledge extends beyond informing a specific profession. It also entails exploring how people can actively contribute to the emergence of service or social solidarity that mutually benefit one another. Therefore, when critiquing professional knowledge, I run the risk of unintentionally narrowing the scope of service design knowledge and inadvertently privileging professional perspectives.

Furthermore, the fieldwork for this study was carried out in China, my country of origin. As detailed in Section 3.4 regarding my positionality, my informants and I share a degree of cultural and social experiences. Language, in particular, plays a pivotal role in shaping epistemological differences (Mignolo & Tlostanova, 2006). In my fieldwork, I relied on Chinese as the primary means of communication, while my doctoral dissertation is written in English. This linguistic transition inevitably leads to some meaningful nuances being lost in translation. Additionally, the shared cultural experiences between myself and the informants may have unconsciously influenced my interpretations of the findings, revealing my default assumptions grounded in our common background. Besides, knowledge based on my experience may overlook the multilingual context and the tensions and dynamics related to immigrant and Aboriginal coexistence which other service designers and researchers encounter. Therefore, it is crucial that other researchers and practitioners who engage with my findings should critically question and challenge them in the light of their own social and cultural experiences.

6.2.3 Theoretical Predilections

My theoretical predilection for material semiotics influenced my interpretations of the findings. Material semiotics provided a valuable theoretical lens to analyse how practices intertwine with meanings in the material world. This theory guided my focus on observing and analysing the connections between service design and other practices in everyday life. However, this emphasis on material-based practices conceals the fact that people often perceive the context through a holistic lens. Practices cannot be comprehended in isolation, without acknowledging other facets of individuals, such as their mental conditions and social circumstances. These dimensions transcend mere observation of practices. For instance, in the DigiRemote project, I observed a prevalent sentiment of powerlessness among the professional informants who were based in the hospital. This reaction stemmed from their feeling of inability to influence the realities of both the hospital and society. Focusing solely on their practices proves insufficient for cultivating a profound comprehension of the historical and institutional underpinnings that contribute to this sense of powerlessness. It is also difficult to further explore how service design can be more robustly responsive to the powerlessness of actors in the service system. Attending to relational practices should be integrated with other approaches to situate service design practices within a broader framework.

It is also important to acknowledge that ethnographers in material semiotics articulate these connections for analytical purposes. Their studies contribute to stimulating the imagination of alternatives concerning the relations among things, but they are not sufficiently informative about how an active human, such as a designer, can act across incongruous relational practices to achieve positive change in the world. Besides, while piecing together the complex phenomena, I may have inadvertently overlooked the visions embedded within the knowledge (Xiang, 2016). Specifically, there is a limited ethical discussion on notions of good and justice (e.g., what constitutes good attentiveness to relational practices?).

6.4 Future Research Agendas

Questions can lead to more intriguing questions. Findings often uncover further and more valuable findings. I anticipate that there are rich possibilities for the continuation and critique of this study. Weaving service design into an evolving network of relational practices has the potential to evolve into a research program that fosters context-sensitive design practices. Future research endeavours could include developing a deep understanding

of ethics concerning the coexistence of plural practices and unfolding more facets of relational practices from the various positionalities of both researchers and practitioners. In the following sections, I will elaborate on these future research directions and outline related potential research questions.

Future research attending to relational practices should work towards a better understanding of the ethical considerations involved in engaging with the nearby. Based on my empirical experience, my inclination to work primarily with dominant groups (e.g., surgeons) highlights a lack of reflection on ethical issues in relating my practices with others. The coming together of various practices forms a complex assemblage, making it challenging to predict its outcomes. What is being done along with service design is bound to initiate care for some and harm for others. Recognizing this inevitability does not serve as a cynical excuse, but, rather, urges us to investigate more deeply into situated ethics. An ethics that embraces ambiguity, ambivalence, multiple values, and non-coherence is much needed, as it would enable a move away from reliance on assumed principles or attempts at establishing a single standard for evaluating what is good or bad: instead such ethics would recognise that an action inevitably has multiple outcomes (Mol, 2021). Applying insights from anthropological and STS studies, particularly those concerning care (e.g., Mol, 2021; 2008; Mol et al., 2010), can provide valuable perspectives on comprehending the spectrum of pain, harm, violence, love, and respect that service design practices can generate when forming relations with other practices. Crucially, this study does not sufficiently elucidate how designers can build reflexivity to address power issues when they attend to relational practices. A deeper understanding of power dynamics, in the context of the nearby demands thorough exploration in future research.

I invite more service design researchers and designers to observe, narrate and account for their nearby from their positions to unpack what practices you encounter, what relationships you form with others, how these relationships are formed, and what kind of world-making projects are emerging around you. Making the nearby of different designers explicit is likely to reveal facets of relational practices that my research has not addressed, and this eventuality allows for others to challenge and question the findings of this study. Although there are many relational practices that I do not know that I do not know, there are unknown relational practices that I could identify. For example, future research needs to further consider how to attend in greater depth to Aboriginal world-making practices. Furthermore, more research is needed to help designers explore how to respectfully join – or choose not to join – into their world-making processes: importantly, such decisions should

transcend considering Aboriginal ways of being as a special and isolated worldview.

Further investigation is also needed to address the existing involvement of more-than-human agents in the network of plural practices, and to devise positive ways of engaging with them. Currently, the human attention directed toward artifacts is predominantly self-centred and narcissistic. Design professions contribute to this exclusivity by enhancing the human perception of artifacts based on their functionality for humans. Seen in these terms, artifacts become passive appendages used to extend human capabilities. This perspective means that the potential contributions of other living beings remain unseen amidst the overwhelming presence of functional artifacts within our surroundings. Engaging with more-than-human agents can reshape our understanding of service. Valuable insights can be gleaned from studies that focus on more-than-human ethnographic research. For instance, Tsing's (2015) study, "Mushroom at the End of the World", explores how the cultivation of matsutake mushrooms profoundly influences global supply chains and human gift culture worldwide. Relevant future research questions in service design would be: How can service design attend to the practices of other-than-human agents? How could their role in making service be acknowledged and enhanced? Additionally, there is a pressing need to explore how service design can facilitate the coexistence of humans and other beings while allowing for transformative changes to occur with, and between, them.

Outside the scope of service design, future research also holds the potential to enrich transition design by integrating the findings from this study. The current doctoral study does not fully incorporate the existing literature on transition design. I anticipate that such integration would be beneficial, given the shared emphasis on seeing everyday life as the fundamental context of designing for social change. Transition design advocates for linking existing solutions to serve a larger vision of transition (Irwin et al., 2015). Informed by traditions of professional design, envisioning larger yet distant futures or alternative worlds is a vital strategy to inspire collective actions. However, the future scenarios often feel remote, making them unrelated and indifferent to people's immediate anxieties and challenges in the present. Attending to relational practices needs to acknowledge and tackle the specific concerns of individuals in concrete contexts. Design skills can be used to articulate and visualise these concerns and there is potential to assist people in recognizing the underlying structural crises behind their own dilemmas and guide them toward repairing their immediate situations. In future research, attending to relational practices could become enriched as a means to designing for transition which is complementary to the radical imagination of the distant

future. By deepening understanding of relational practices, the personal transition, a concept mentioned by Tonkinwise (2015), could serve as a robust entry point for social transition.

The current theory of transition design emphasises the need to better amplify emerging grassroots solutions (Irwin et al., 2015). Based on my observations in China, generative grassroots solutions for social innovation often emerge in the daily lives of local citizens. These solutions may not exactly have a clear goal or be organised as a project with plans and clear agendas. However, the generative solutions often have a vision for the future, albeit sometimes unclear. These ongoing transitions, entangled with mundane life, are difficult to amplify through a single interventional project by designers. Attending to relational practices could become a means to further explore how trained designers with their skills and creative thinking can participate in these ongoing solutions. In addition, transition design incorporates varied disciplines to gain a deep understanding of the dynamic of change within the natural and social worlds (Escobar, 2018). The theories of social change are very important intellectual resources to understand the role of the nearby in terms of large social change.

6.5 Conclusion

This doctoral study probes the intricate relations between individual professional service designers and the context they navigate. By unravelling the detached views inherent in service design practice, this study raises concerns regarding service design knowers' capacity to join their forces into other ongoing world-making projects. By articulating how service designers are encouraged to detach themselves from happenings, the central contention of my study is the exigency of integrating situatedness into the bedrock of knowledge cultivation and educational paradigms. The mainstream knowledge of service design is making its professional practice increasingly tedious, and yet the gamut of symbiotic exchanges among individuals, coupled with the resultant nexus of mutual aid, manifests in myriad forms. The richness of service is enacted by contextual practices in everyday life. However, professional knowledge and training risk shoring up the wall between professional practices and everyday life and thereby draining away the sensitivities that designers try to cultivate. Together, streamlined modernistic workspaces, simplified diagrams, formulaic process models, and glossily vacuous terminologies can unwittingly jeopardise the imaginative and creative contemplation required for navigating the intricate realities which are so important for service transformation. The tediousness of

professional practices comes with the violence of allowing service designers to unconsciously contribute to the reproduction and scaling of service models which are dominated by patriarchy and bureaucracy: and worse, such tediousness instigates the destruction of possibilities for divergent futures.

“We must make our freedom by cutting holes in the fabric of this reality, by forging new realities which will, in turn, fashion us” (Graeber, 2015, p.96). This study destabilises the presumption of service design practices that designers’ professional work can form a self-coherent process. It asserts, instead, that the plurality of practices is an inherent priori condition, thus acknowledging that although people are participating in different world-making projects, they can nevertheless stay together. As the plurality of practices becomes more visible, the relations between the limited individual action of designers and holistic and long-term change in society can be more concretised. Based on my exploration of the DigiRemote project, this study suggests a possible way out of the detachment that pervades modern/western professional design: the opportunity for exit lies in the designer's ability to actively perceive, explicate and establish relationships with the people and things that exist and function in proximity. These relationships are marked by ambiguity, multiple values, and dissonance. Through adopting an autoethnographic approach, this study proposes four ways of attending to relational practices. While non-exhaustive, these four categories take the initiative in stimulating new possibilities for action within situated and interconnected contexts where designers can potentially contribute to partial transformation of the world.

I hope to conclude this thesis by revisiting the thesis title, “Soiling Service Design”. Based on this study, the verb “soiling” can be nuanced as “sticking” - indicating things being attracted and attaching themselves to others in proximity. People who are doing service design stick to other beings in action or vice versa. Incorporating plural practices into service design research and practice can transform what service design is so that it changes from being an intentional operation with the object of making big changes in the service system and instead takes the form of attentive actions directed towards facilitating the emergence of good relations among humans (and more-than-human) beings. The domain of service design practice can be revitalised by appreciating the encounters.

REFERENCES

Abram, S., & Lien, M. E. (2011). Performing Nature at World's Ends. *Ethnos*, *76*(1), 3–18.

Akama, Y. (2009). Warts-and-all: the real practice of service design. In *Proceedings of 1st Service Design and Service Innovation conference, ServDes.2009* (pp. 1–11). Linköping, Sweden: Linköping University Electronic Press.

Akama, Y., & Prendiville, A. (2013). Embodying, Enacting and Entangling Design: A phenomenological view to co-designing services. *Swedish Design Research Journal*, *1*(1), 29–41.

Akama, Y., & Yee, J. (2016). Seeking Stronger Plurality: Intimacy and integrity in designing for social innovation. In *Proceedings of the Cumulus Conference on Open Design for E-very-thing* (pp. 173–180). Hong Kong: Hong Kong Design Institute.

Akama, Y., Hagen, P., & Whaanga-Schollum, D. (2019). Problematizing Replicable Design to Practice Respectful, Reciprocal, and Relational Co-designing with Indigenous People. *Design and Culture, 11*(1), 59–84.

Anderson, L., & Glass-Coffin, B. (2013). I learn by going: Autoethnographic modes of inquiry. In S. Holman Jones, T. Adams, & C. Ellis (Eds.), *Handbook of autoethnography* (pp. 57–83). Walnut Creek, CA: Left Coast Press.

Ansari, A. (2016, January 16). Politics & Method Design Thinking Arrives in Pakistan. Retrieved September 4, 2023, from https://aansari86.medium.com/politics-method-cd4cc2c8f5e6

Ansari, A. (2020). Plural Bodies, Pluriversal Humans: Questioning the ontology of 'body'in design. *Somatechnics*, *10*(3), 286–305.

Appadurai, A., & Alexander, N. (2020). *Failure*. Cambridge: Polity Press.

Atman, C. J. (2019). Design Timelines: Concrete and sticky representations of design process expertise. *Design Studies*, *65*, 125–151.

Bang, A. L., & Eriksen, M. A. (2019). Experiments All the Way in Programmatic Design Research. *Artifact: Journal of Design Practice*, *6*(1), 8.1–8.20.

Barad, K. (2003). Posthumanist Performativity: Toward an understanding of how matter comes to matter. *Signs: Journal of Women in Culture and Society*, *28*(3), 801–831.

Baser, B., & Toivanen, M. (2018). Politicized and depoliticized ethnicities, power relations and temporality: Insights to outsider research from comparative and transnational fieldwork. *Ethnic and Racial Studies, 41*(11), 2067–2084.

Bayazit, N. (2004). Investigating Design: A review of forty years of design research. *Design Issues*, *20*(1), 16–29.

Binder, T., & Brandt, E. (2017). Design (Research) Practice. In L. Vaughan (Eds.), *Practice-based Design Research* (pp. 101–110). London: Bloomsbury.

Binder, T., & Redström, J. (2006) Exemplary Design Research, In K. Friedman, T. Love, E. Côrte-Real & C. Rust (Eds.), *Wonderground - DRS International Conference 2006*. Retrieved October 4, 2023, from https://dl.designresearchsociety.org/drs-conference-papers/drs2006/researchpapers/51

Bitner, M. J. (1990). Evaluating Service Encounters: the effects of physical surroundings and employee responses. *Journal of Marketing*, *54*(2), 69–82.

Bitner, M. J. (1992). Servicescapes: The impact of physical surroundings on customers and employees. *Journal of Marketing, 56*, 57–71.

Bitner, M. J., Ostrom, A. L., & Morgan, F. N. (2008). Service Blueprinting: A practical technique for service innovation. *California Management Review*, *50*(3), 66–94.

Bitsch, V. (2005). Qualitative Research: A grounded theory example and evaluation criteria. *Journal of Agribusiness*, *23*(1), 75–91.

Bjögvinsson, E., Ehn, P., & Hillgren, P. A. (2012). Design things and design thinking: Contemporary participatory design challenges. *Design issues*, *28*(3), 101–116.

Blaser, M., & De la Cadena, M. (2018). Pluriverse: Proposals for a world of many worlds. In M. de la Cadena & M. Blaser (Eds.), *A World of Many Worlds* (pp. 1–22). Durham, NC: Duke University Press.

Blomkvist, J. (2010). *Conceptualising Prototypes in Service Design*. Linköping: Linköping University.

Bourdieu, P. (1990). *The Logic of Practice* (R. Nice, Trans.). Stanford: Stanford University Press. (Original work published 1980)

Bourke, B. (2014). Positionality: Reflecting on the research process. *The qualitative report, 19*(33), 1–9.

Brandt, E., & Binder, T. (2007). Experimental Design Research: Genealogy, intervention, argument. In *Proceedings of the 2nd Conference of International Association of Design Research*. Hong Kong, China: International Association of Design Research.

Brandt, E., Redström, J., Eriksen, M. & Binder, T. (2011). *XLAB*. Copenhagen: The Danish Design School Press.

British Design Council. (2015, March 17). *What is the framework for innovation? Design Council's evolved Double Diamond.* Retrieved October 4, 2023, from https://www.designcouncil.org.uk/news-opinion/what-framework-innovation-design-councils-evolved-double-diamond

Brown, T. (2008). Design Thinking. *Harvard Business Review*, *86*(6), 84.

Brumann, C. (1999). Writing for Culture: Why a successful concept should not be discarded. *Current Anthropology, 40*(S1), S1–S27.

Bubandt, N., & Otto, T. (2010). Anthropology and the Predicaments of Holism. In T. Otto & N. Bubandt (Eds.), *Experiments in Holism: theory and practice in contemporary anthropology* (pp. 1–15). Chichester: Wiley-Blackwell.

Buchanan, R. (2001). Design Research and the New Learning. *Design Issues*, *17*(4), 3–23.

Buchanan, R. (2015). Worlds in the Making: Design, management, and the reform of organizational culture. *She Ji: The Journal of Design, Economics, and Innovation*, *1*(1), 5–21.

Buzard, J. (2003). On Auto-ethnographic Authority. *The Yale journal of criticism*, *16*(1), 61–91.

Callon, M. (1986). The Sociology of an Actor-network: The case of the electric vehicle. In *Mapping the dynamics of science and technology:*

Sociology of science in the real world (pp. 19–34). London: Palgrave Macmillan UK.

Cambridge Dictionary. (n.d.a). soil. Retrieved October 4, 2023, from https://dictionary.cambridge.org/dictionary/english/soil

Cambridge Dictionary. (n.d.b). attend. Retrieved October 10, 2023, from https://dictionary.cambridge.org/dictionary/english/attend

Candy, L., Edmonds, E., & Vear, C. (2022). Practice-Based Research. In C. Vear (Eds.) *The Routledge International Handbook of Practice-Based Research*, 27–41. London: Routledge.

Carrithers, M., Candea, M., Sykes, K., Holbraad, M., & Venkatesan, S. (2010). Ontology is just another word for culture: Motion tabled at the 2008 meeting of the group for debates in anthropological theory, University of Manchester. *Critique of anthropology*, *30*(2), 152–200.

Causey, A. (2016). *Drawn to See: Drawing as an ethnographic method*. Toronto: University of Toronto Press.

Centre for Connceted Care (n.d.). Retrieved October 4, 2023, from https://c3connectedcare.org/en/?c=fanqYoLi4

Chang, H. (2008). *Autoethnography as method*. Walnut Creek, CA: Left Coast Press.

Chen, H. J., Chen, Y. T., & Yang, C. H. (2022). Behaviors of Novice and Expert Designers in the Design Process: From discovery to design. *International Journal of Design*, *16*(3), 59–76.

China Service Designer (2021) Service Design Dural Accreditation Program. Retrieved September 4, 2023, http://www.chinaservicedesigner.com/acceess

Clark, G., Johnston, R., & Shulver, M. (2000). Exploiting the Service Concept for service Design and Development. In J. A. Fitzsimmons & M. J. Fitzsimmons (Eds.), *New Service Design* (pp. 71–91). Thousand Oaks: SAGE Publications, Inc.

Clarke, R., Briggs, J., Light, A., & Wright, P. (2016). Situated Encounters with Socially Engaged Art in Community-based Design. In *Proceedings of the 2016 ACM Conference on Designing Interactive Systems* (pp. 521–532). New York: Association for Computing Machinery.

Clatworthy, S. (2011), Service Innovation through Touch-points: Development of an Innovation Toolkit for the First Stages of New Service Development, *International Journal of Design*, 5 (2), 15–28.

Coffey, A. (1999). *The Ethnographic Self*. London: SAGE.

Collier, J., & Collier, M. (1986). *Visual Anthropology: Photography as a research method*. Albuquerque: University of New Mexico Press.

Costa, N., Patrício, L., Morelli, N., & Magee, C. L. (2018). Bringing Service Design to Manufacturing Companies: Integrating PSS and service design approaches. *Design Studies*, *55*, 112–145.

Cross, N. (1982). Designerly Ways of Knowing. *Design studies*, *3*(4), 221–227.

Cross, N. (1999). Design Research: A disciplined conversation. *Design Issues*, *15*(2), 5–10.

Daiute, C. (2015). Narrating possibility. In G. Marsico (Eds.), *Jerome S. Bruner beyond 100* (pp. 157–172). Cham, Switzerland: Springer.

Dalsgaard, P. (2017). Instruments of Inquiry: understanding the nature and role of tools in design. *International Journal of Design, 11*(1), 21–33.

Darke, J. (1979). The Primary Generator and the Design Process. *Design Studies*, *1*(1), 36–44.

De Certeau, M. (1997). Culture in the Plural (T. Conley, Trans.). Minneapolis, MN: University of Minnesota Press. (Original work published 1974)

Dewey, J. (1938). *Experience and Education*. New York: Kappa Delta Pi.

Dorst, K. (2011). The Core of 'Design Thinking' and its Application. *Design Studies, 32*(6), 521–532.

Dorst, K., & Cross, N. (2001). Creativity in the Design Process: Co-evolution of problem–solution. *Design Studies*, *22*(5), 425–437.

Edvardsson, B., Tronvoll, B., & Gruber, T. (2011). Expanding Understanding of Service Exchange and Value Co-creation: A social construction approach. *Journal of the Academy of Marketing Science*, *39*, 327–339.

Ellis, C., Adams, T. E., & Bochner, A. P. (2011). Autoethnography: an overview. *Historical social research/Historische sozialforschung*, *36*(4), 273–290.

Engin, M. (2011). Research Diary: A tool for scaffolding. *International Journal of Qualitative Methods*, *10*(3), 296–306.

Escobar, A. (2018). *Designs for the Pluriverse: Radical interdependence, autonomy, and the making of worlds*. Durham: Duke University Press.

Fayard, A. L., Stigliani, I., & Bechky, B. A. (2017). How Nascent Occupations Construct a Mandate: The case of service designers' ethos. *Administrative Science Quarterly*, *62*(2), 270–303.

Ferruzca, M., Tossavainen, P., Kaartti, V., & Santonen, T. (2016). A Comparative Study of Service Design Programs in Higher Education. In *Proceedings of the 10th Annual International Technology, Education and Development Conference*. Valencia, Spain: IATED.

Flick, U. (2014). Challenges for Qualitative Inquiry as a Global Endeavor: Introduction to the special issue. *Qualitative Inquiry*, *20*(9), 1059–1063.

Flick, U. (2018). Triangulation. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE Handbook of Qualitative Research*, (pp. 777–804). London: SAGE.

Freire, P. (2005). *Pedagogy of the Oppressed* (M. B. Ramos Trans.). London: Continuum International Publishing Group Ltd. (Original work published 1970)

Friedman, K., & Stolerman, E. (2015). Series Foreword. In Ezio Manzini, *Design, when everybody designs: An introduction to design for social innovation* (pp. vii–xi). Cambridge: MIT press.

Fry, T. (2017). Design for/by "the Global South". *Design Philosophy Papers*, *15*(1), 3–37.

Fry, T., Dilnot, C., & Stewart, S. (2015). *Design and the Question of History*. London: Bloomsbury Publishing.

Gad, C., Jensen, C. B., & Winthereik, B. R. (2015). Practical Ontology: Worlds in STS and anthropology. *NatureCulture*, *3*, 67–86.

Gasparin, M. (2019). Reflections on the Epistemology of Design: a Simondonian analysis. *Reflective Practice*, *20*(6), 822–833.

Gaver, B., Dunne, T., & Pacenti, E. (1999). Design: Cultural probes. *Interactions*, *6*(1), 21–29.

Geertz, C. (1973). *The Interpretation of Cultures*. New York: Basic books.

Gherardi, S. (2008). Situated knowledge and Situated Action: What do practice-based studies promise?. In B. Daved & H. Hans (Eds.), *The SAGE Handbook of New Approaches in Management and Organization* (pp. 516–527). London: SAGE Publications Ltd.

Giddens, A. (1984). *The Constitution of Society*. Berkeley: University of California Press.

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia methodology. *Organizational Research Methods, 16*(1), 15–31.

Giorgio, G. (2013). Reflections on Writing Through Memory in Autoethnography. In S. Holman Jones, T. E. Adams, & C. Ellis (Eds.), *Handbook of Autoethnography* (pp. 406–424). Walnut Creek, CA: Left Coast Press.

Gobo, G. (2011). Glocalizing Methodology? The encounter between local methodologies. *International Journal of Social Research Methodology, 14*(6), 417–437.

Graeber, D. (2015). *The Utopia of Rules: On technology, stupidity, and the secret joys of bureaucracy*. New York: Melville House.

Green, S., Southee, D., & Boult, J. (2014). Towards a Design Process Ontology. *The Design Journal*, *17*(4), 515–537.

Gregory, S. A. (1966). *The Design Method*. New York: Springer.

Happ, M. B., Swigart, V., Tate, J., & Crighton, M. H. (2004). Event analysis techniques. *Advances in Nursing Science*, *27*(3), 239–248.

Haraway, D. (1988). Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist Studies*, *14*(3), 575–599.

Haraway, D. J. (2016). *Staying with the Trouble: Making kin in the Chthulucene*. Durham: Duke University Press.

Heidegger, M. (1962) *Being and Time* (J. Stambaugh, Trans.). New York: State University of New York. (Original work published 1953)

Henare, A., Holbraad, M., & Wastell, S. (2007). Introduction: Thinking through things. In A. Henare, M. Holbraad and S. Wastell (Eds.) *Thinking Through Things: Theorising artefacts ethnographically* (pp.1–31). Routledge.

Holbraad, M., & Pedersen, M. A. (2017). *The Ontological Turn: an anthropological exposition*. Cambridge University Press.

Holmlid, S. (2007) *Interaction Design and Service Design: Expanding a comparison of design disciplines*. Nordes 2007: Design Inquiries, 27-30 May, University of Arts, Craft, and Design, Stockholm, Sweden. https://doi.org/10.21606/nordes.2007.031

Holmlid, S., & Evenson, S. (2008). Bringing Service Design to Service Sciences, Management and Engineering. In B. Hefley & W. Murphy (Eds.),

Service science, management and engineering education for the 21st century (pp. 341–345). Boston, MA: Springer.

Hoolohan, C., & Browne, A. L. (2020). Design Thinking for Practice-based Intervention: Co-producing the change points toolkit to unlock (un) sustainable practices. *Design Studies*, *67*, 102–132.

Hosono, S., Hasegawa, M., Hara, T., Shimomura, Y., & Arai, T. (2009). A Methodology of Persona-centric Service Design. In R. Roy & E. Shehab (Eds.), *Proceedings of the 19th CIRP Design Conference–Competitive Design*. Cranfield University Press.

Howell, N., F. Schulte, B., Twigger Holroyd, A., Fatás Arana, R., Sharma, S., & Eden, G. (2021). Calling for a Plurality of Perspectives on Design Futuring: An un-manifesto. In *Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing Systems* (pp.1–10). Retrieved October 12, 2023, from https://dl.acm.org/doi/10.1145/3411763.3450364

Humphreys, M., & Watson, T. J. (2009). Ethnographic Practices: from 'writing-up ethnographic research'to 'writing ethnography'. *Organizational Ethnography: studying the complexities of everyday life*, 40–55.

IBM. (2018). *Enterprise Design Thinking Field Guide*. Retrieved October 4, 2023, from https://www.ibm.com/cloud/architecture/content/field-guide/design-thinking-field-guide/

IDEO design thinking. (n.d.). Design Thinking Defined. Retrieved September 4, 2023, from https://designthinking.ideo.com/

Ingold, T. (2010). Footprints Through the Weather‐world: walking, breathing, knowing. *Journal of the Royal Anthropological Institute*, *16*(1), S121–S139.

Ingold, T. (2011). *Being Alive–Essays on Movement, Knowledge and Description*. New York: Routledge.

Ingold, T. (2018). *Anthropology: Why it matters*. Hoboken, NY: John Wiley & Sons.

Irani, L. (2018). "Design Thinking": Defending Silicon Valley at the apex of global labor hierarchies. *Catalyst: Feminism, Theory, Technoscience*, *4*(1), 1–19.

Irvine, A., Drew, P., & Sainsbury, R. (2013). 'Am I not answering your questions properly?'Clarification, adequacy and responsiveness in semi-structured telephone and face-to-face interviews. *Qualitative Research*, *13*(1), 87–106.

Irwin, T. (2015). Transition Design: A proposal for a new area of design practice, study, and research. *Design and Culture*, *7*(2), 229–246.

Irwin, T., Kossoff, G., & Tonkinwise, C. (2015). Transition Design Provocation. *Design Philosophy Papers*, *13*(1), 3–11.

Islam, G. (2015). Practitioners as Theorists: Para-ethnography and the collaborative study of contemporary organizations. *Organizational Research Methods*, *18*(2), 231–251.

Janzer, C. L., & Weinstein, L. S. (2014). Social Design and Neocolonialism. *Design and Culture, 6*(3), 327–343.

Joly, M., Teixeira, J. G., Patrício, L., & Sangiorgi, D. (2019). Leveraging Service Design as a Multidisciplinary Approach to Service Innovation. *Journal of service Management*, *30*(6), 681–715.

Jones, J. C. (1970). *Design Methods: Seeds of Human Futures*. New York: John Wiley & Sons, Inc.

Jones, S. H., Adams, T., & Ellis, C. (2016). Introduction: Coming to know autoethnography as more than a method. In *Handbook of autoethnography* (pp. 17–48). Routledge.

Julier, G., & Munch, A. (2019). Introducing Design Culture. In G. Julier, M. N. Folkmann, N. P. Skou, H. C. Jensen, & A. V. Munch (Eds.), *Design Culture: Objects and approaches* (pp. 1–11). London, UK: Bloomsbury Publishing.

Junginger, S. (2015). Organizational Design Legacies and Service Design. *The Design Journal, 18*(2), 209–226.

Karpen, I. O., Gemser, G., & Calabretta, G. (2017). A Multilevel Consideration of Service Design Conditions: Towards a portfolio of organisational capabilities, interactive practices and individual abilities. *Journal of Service Theory and Practice, 27*(2), 384–407.

Keinonen, T. (2009). Design Method: Instrument, competence or agenda. Paper presented at the *Swiss Design Research Network Symposium*, Lugano, Switzerland.

Kim, M. (2018). An Inquiry into the Nature of Service: A historical overview (part 1). *Design Issues*, *34*(2), 31–47.

Kim, M. (2021). A Study of Dignity as a Principle of Service Design. *International Journal of Design, 15*(3), 87–100.

Kimbell, L. (2009). Beyond Design Thinking: Design-as-practice and designs-in-practice. In *CRESC Conference, Manchester* (pp. 1–15).

Kimbell, L. (2011a). Designing for Service as One Way of Designing Services. *International Journal of Design, 5*(2), 41–52.

Kimbell, L. (2011b). Rethinking Design Thinking: Part I. *Design and Culture*, *3*(3), 285-306.

Kimbell, L., & Blomberg, J. (2017). The Object of Service Design. *Designing for service: Key issues and new directions*, *27*, 20–34.

Kohtala, C., Hyysalo, S., & Whalen, J. (2020). A taxonomy of users' active design engagement in the 21st century. *Design Studies*, *67*, 27–54.

Kolko, J. (2010). Abductive Thinking and Sensemaking: The drivers of design synthesis. *Design Issues*, *26*(1), 15–28.

Kuijer, L. (2014). *Implications of Social Practice Theory for Sustainable Design*. Delft: Delft University of Technology.

Kuijer, L., Jong, A. D., & Eijk, D. V. (2013). Practices as a Unit of Design: An exploration of theoretical guidelines in a study on bathing. *ACM Transactions on Computer-Human Interaction (TOCHI)*, *20*(4), 1–22.

Kurtmollaiev, S., Fjuk, A., Pedersen, P. E., Clatworthy, S., & Kvale, K. (2018). Organizational Transformation through Service Design: The institutional logics perspective. *Journal of Service Research, 21*(1), 59–74.

Kvale, S. (2007). Analyzing Interviews. In S. Brinkmann & S. Kvale (Eds.), *Doing Interviews* (pp. 102-120). London, UK: Sage.

Laboratorio de Gobierno (n.d.), Innovación pública al servicio de las personas. Retrieved October 4, 2023, from https://www.lab.gob.cl/

Latour, B. (1987). *Science in Action: How to follow scientists and engineers through society*. Cambridge: Harvard University Press.

Latour, B., & Woolgar, S. (1979). *Laboratory Life: The construction of scientific facts*. Princeton: Princeton University press.

Law, J. (2015). What's Wrong with a One-world World?. *Distinktion: Scandinavian Journal of Social Theory*, *16*(1), 126–139.

Law, J. (2019). Material Semiotics. Retrieved June 12, 2023 from http://www.heterogeneities.net/publications/Law2019MaterialSemiotics.pdf

Lawson, B. (2005). *How Designers Think: The design process demystified*. Oxford: Architectural Press.

Lee, J. J. (2014). The True Benefits of Designing Design Methods. *Artifact: Journal of Design Practice*, *3*(2), 5.1–5.12.

Levinas, E. (1979). *Totality and Infinity: An essay on exteriority* (Vol. 1). Springer Science & Business Media.

Lien, M. E. (2015). *Becoming salmon: aquaculture and the domestication of a fish* (Vol. 55). Oakland: University of California Press.

Light, A. (2019). Design and Social Innovation at the Margins: Finding and making cultures of plurality. *Design and Culture*, *11*(1), 13–35.

Light, A., & Akama, Y. (2012, August). The Human Touch: participatory practice and the role of facilitation in designing with communities. In *Proceedings of the 12th Participatory Design Conference: Research Papers-Volume 1* (pp. 61–70). Retrieved October 12, 2023, from https://dl.acm.org/doi/10.1145/2347635.2347645

Lou, Y., & Ma, J. (2014). A 3D T-Shaped Design Education Framework. In J. Ma & Y. Lou (Eds.), *Emerging Practices in Design. Professions, Values and Approaches* (pp. 228–251). Shanghai: China Architecture & Building Press.

Lukka, K., & Vinnari, E. (2014). Domain Theory and Method Theory in Management Accounting Research. *Accounting, Auditing & Accountability Journal*, *27*(8), 1308–1338.

MacInnis, D. J. (2011). A Framework for Conceptual Contributions in Marketing. *Journal of Marketing*, *75*(4), 136–154.

Manzini, E. (2015). *Design, when everybody designs: An introduction to design for social innovation*. Cambridge: MIT Press.

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

Mattelmäki, T., & Sleeswijk Visser, F. (2011). Lost in co-X: Interpretations of co-design and co-creation. In L. L. Chen & N. Roozenburg (Eds.), *Proceeding of the 4th World Conference on Design Research.* Delft: TU Delft.

Mauss, M. (1990). *The Gift: The form and reason for exchange* (W. D. Halls Trans.). London: Routledge. (Original work published 1950)

Maxwell, J. A. (2022). Generalization as an Issue for Qualitative Research Design. In U. Flick (Eds.), *The SAGE Handbook of Qualitative Research Design* (pp.327–338). London: SAGE Publications Ltd.

McElhinny, B., & Muehlmann, S. (2006). Discursive Practice Theory. In K. Brown, A. H. Anderson, L. Bauer, M. Berns G. Hirst & J. Miller (Eds.)

Encyclopedia of Language & Linguistics (Second Edition) (pp. 696–699). Elsevier Science.

Meroni, A., & Sangiorgi, D. (2011). *Design for Services*, Grower, Farnham.

Merriam, S. B., Johnson-Bailey, J., Lee, M. Y., Kee, Y., Ntseane, G., & Muhamad, M. (2001). Power and Positionality: Negotiating insider/outsider status within and across cultures. *International Journal of Lifelong Education*, 20(5), 405–416.

Miettinen, S. (2009). Designing Services with Innovative Methods. In S. Miettinen & M. Koivisto (Eds.), *Designing Services with Innovative Methods* (pp. 10–25). Helsinki: University of Art and Design Helsinki.

Mignolo, W. D. (2007). Delinking: The rhetoric of modernity, the logic of coloniality and the grammar of de-coloniality. *Cultural studies*, *21*(2–3), 449–514.

Mignolo, W. D., & Tlostanova, M. V. (2006). Theorizing from the Borders: Shifting to geo-and body-politics of knowledge. *European journal of social theory*, *9*(2), 205–221.

Mol, A. (2002). *The Body Multiple: Ontology in medical practice*. Durham: Duke University Press.

Mol, A. (2008). *The Logic of Care: Health and the problem of patient choice*. Abingdon: Routledge.

Mol, A. (2021). *Eating in Theory*. Durham: Duke University Press.

Mol, A., Moser, I., & Pols, J. (Eds.). (2010). *Care in Practice: On tinkering in clinics, homes and farms*. transcript Verlag. Bielefeld: Transcript Verlag. Retrieved October 12, 2023, from https://uwethicsofcare.gws.wisc.edu/wp-content/uploads/2020/03/MolMoserPolsCareinPracticeintro-2010.pdf

Montuori, B.F., Almeida, A. J. M., Nicoletti, V. M., de Lima, V. F. T., & dos Santos, M. C. L. (2019). Towards Relational Practices in Design. In M. Evans, A. Shaw & J. Na (Eds.), *Change, Voices, Open*, vol. 1 of *Design Revolutions: IASDR 2019 Conference Proceedings*. Manchester: Manchester Metropolitan University. Retrieved October 10, 2023, from https://e-space.mmu.ac.uk/id/eprint/626767

Morelli, N. (2006). Developing New Product Service Systems (PSS): methodologies and operational tools. *Journal of Cleaner Production*, *14*(17), 1495–1501.

Mosse, D. (2019). Can the experience of participatory development help think critically about 'Patient and Public Involvement' in UK Healthcare?. *Sociological Research Online*, 24(3), 444–461.

Narayan, K. (2012). *Alive in the Writing: Crafting ethnography in the company of Chekhov*. Chicago: University of Chicago Press.

Nielsen, L. (2004). *Engaging Personas and Narrative Scenarios* (Doctoral dissertation). Copenhagen, Denmark: Copenhagen Business School.

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

Ozkaramanli, D., Karahanoğlu, A., & Verbeek, P. P. (2022). Reflecting on Design Methods and Democratic Technology Development: The Case of Dutch Covid-19 Digital Contact-Tracing Application. *She Ji: The Journal of Design, Economics, and Innovation*, *8*(2), 244–269.

Pahk, Y., Self, J., & Baek, J. S. (2018). COVALENT, a method for co-designing value exchange in community-centred design. *CoDesign*, *14*(4), 275–292.

Paton, B., & Dorst, K. (2011). Briefing and Reframing: A situated practice. *Design studies*, *32*(6), 573–587.

Patrício, L., Fisk, R. P., Falcão e Cunha, J., & Constantine, L. (2011). Multilevel Service Design: From customer value constellation to service experience blueprinting. *Journal of service Research*, *14*(2), 180–200.

Penin, L. (2018). *An Introduction to Service Design: designing the invisible*. Bloomsbury Publishing.

Pierce, J., Strengers, Y., Sengers, P., & Bødker, S. (2013). Introduction to the special issue on practice-oriented approaches to sustainable HCI. *ACM Transactions on Computer-Human Interaction (TOCHI)*, *20*(4), 1–8.

Pohlmann, A., & Kaartemo, V. (2017). Research Trajectories of Service-Dominant Logic: Emergent themes of a unifying paradigm in business and management. *Industrial Marketing Management*, *63*, 53–68.

Reason, M. (2018). Drawing. In C. Lury, R. Fensham, A. Heller-Nicholas, S. Lammes, A. Last, M. Michael & E. Uprichard (Eds.) *Routledge handbook of interdisciplinary research methods* (pp. 47–52). Routledge.

Reckwitz, A. (2002). Toward a Theory of Social Practices: A development in culturalist theorizing. *European Journal of Social Theory*, *5*(2), 243–263.

Redström, J. (2017). *Making Design Theory*. Cambridge: MIT Press.

Ribbens, J. (1989). Interviewing—An “unnatural situation”?. *Women's Studies International Forum*, *12*(6), 579–592.

Rittel, H. (1971) Some Principles for the Design of an Educational System for Design. *Journal of Architectural Education, 26*(1–2), 16–27.

Rosner, D. K. (2018). *Critical Fabulations: Reworking the Methods and Margins of Design*. MIT Press

Sanders, E. B. N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *Co-design*, *4*(1), 5–18.

Sanders, E. B. N., & Stappers, P. J. (2012). *Convivial Toolbox: Generative research for the front end of design*. Amsterdam: BIS Publisher.

Sangiorgi, D. (2011). Transformative Services and Transformation Design. *International Journal of Design*, *5*(2), 29–40.

Sangiorgi, D., & Junginger, S. (2015). Emerging Issues in Service Design. *The Design Journal*, *18*(2), 165–170.

Sangiorgi, D., & Prendiville, A. (2015). A Theoretical Framework for Studying Service Design Practices: First steps to a mature field. *Design Management Journal*, *9*(1), 61–73.

Sangiorgi, D., Vink, J., Farr, M., Mulvale, G., & Warwick, L. (2022). Designing as Negotiating Across Logic Multiplicity: The case of mental healthcare transformation toward co-design and co-Production. *International Journal of Design*, *16*(1), 35–54.

Schatzki, T. R. (2001a). Introduction: Practice theory. In T. R. Schatzki, K. K. Cetina & E. von Savigny (Eds.), *The Practice Turn in Contemporary Theory* (pp. 10–23). London: Routledge.

Schatzki, T. R. (2001b). Practice Mind-ed Orders. In T. R. Schatzki, K. K. Cetina & E. von Savigny (Eds.), *The Practice Turn in Contemporary Theory* (pp. 50–63). London: Routledge.

Schensul, S. L., Schensul, J. J., & LeCompte, M. D. (1999). *Essential Ethnographic Methods: Observations, interviews, and questionnaires* (Vol. 2). Rowman Altamira.

Schön, D. (1983). *The Reflective Practitioner: How Professionals Think in Action*. London: Basic Books Inc.

Schønheyder, J. F., & Nordby, K. (2018). The Use and Evolution of Design Methods in Professional Design Practice. *Design Studies*, *58*, 36–62.

Schultz, T., Abdulla, D., Ansari, A., Canlı, E., Keshavarz, M., Kiem, M., ... J.S. Vieira de Oliveira, P. (2018). What is at Stake with Decolonizing Design? A Roundtable. *Design and Culture*, *10*(1), 81–101.

Schwandt, T. (2015). *Evaluation Foundations Revisited: Cultivating a life of the mind for practice*. Los Angeles: SAGE Publishing.

Shostack, G. L. (1982). How to Design a Service. *European Journal of Marketing*, *16*(1), 49–63.

Shostack, G. L. (1984). Designing Services that Deliver. *Harvard Business Review*, *62*(1), 133–139.

Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and how it Changes.* London: SAGE Publications Ltd.

Simon, H. A. (1988). The Science of Design: Creating the artificial. *Design Issues*, 67–82.

Skou, N. P., & Mikkelsen, M. (2014). Can Relations Be Designed? The Role of Design Methods in Social Innovation. In J. Ma & Y. Lou (Eds.), *Emerging Practices in Design. Professions, Values and Approaches* (pp. 94–111). Shanghai: China Architecture & Building Press.

Søndergaard, M. L. J. (2018). *Staying with the Trouble through Design: Critical-feminist Design of Intimate Technology*. Aarhus Denmark: Aarhus University.

Steen, M. (2013). Co-design as a Process of Joint Inquiry and Imagination. *Design Issues*, *29*(2), 16–28.

Stickdorn, M., & Schneider, J., eds. (2011). *This Is Service Design Thinking.* Amsterdam: BIS Publishers.

Stickdorn, M., Hormess, M. E., Lawrence, A., & Schneider, J. (2018). *This Is Service Design Doing: Applying service design thinking in the real world*. Sebastopol: O'Reilly Media, Inc.

Storvang, P., Jensen, S., & Christensen, P. R. (2014). Innovation through Design: A framework for design capacity in a Danish context. *Design Management Journal*, *9*(1), 9–22.

Strathern, M. (1990). *The Gender of the Gift: Problems with women and problems with society in Melanesia* (No. 6). Berkeley: Univ of California Press.

Strathern, M. (2004). *Partial Connections*: *updated edition*. Lanham: Rowman & Littlefield.

Strathern, M. (2018). Persons and Partible Persons. In M. Candea (Ed.) *Schools and Styles of Anthropological Theory* (pp. 236–246). London: Routledge.

Suchman, L. (2002). Located Accountabilities in Technology Production. *Scandinavian Journal of Information Systems, 14*(2), 91–105.

Suchman, L. (2011). Anthropological Relocations and the Limits of Design. *Annual Review of Anthropology*, *40*, 1–18.

Taoka, Y., Kagohashi, K., & Mougenot, C. (2018). A Cross-cultural Study of Co-design: The impact of power distance on group dynamics in Japan. *CoDesign, 17*(1), 22–49.

Tlostanova, M. (2017). On Decolonizing Design. *Design Philosophy Papers*, *15*(1), 51–61.

Tlostanova, M. (2019). What is Colonality of Knowledge?. In A. Willis (Eds.), *The Design Philosophy Reader* (pp. 110–115). London: Bloomsbury.

Tonkinwise, C. (2015). Design for Transitions–from and to what?. *Design Philosophy Papers*, *13*(1), 85–92.

Tonkinwise, C. (2017). Post-normal Design Research: The role of practice-based research in the era of neoliberal risk. In L. Vaughan (Ed.), *Practice-based design research* (pp. *29*–39). London: Bloomsbury.

Torraco, R. J. (2005). Writing Integrative Literature Reviews: Guidelines and examples. *Human resource development review*, *4*(3), 356–367.

Tsing, A. L. (2005). *Friction: An ethnography of global connection*. Princeton University Press.

Tsing, A. L. (2015). *The Mushroom at the End of the World: On the possibility of life in capitalist ruins*. Princeton: Princeton University Press.

Ueno, C., & Suzuki, S. (2022). *Oufuku syokan: Genka kara hajimaru* (B. Cao, Trans.). Beijing: *New Star Press. (*Original work published 2021*)*

Valtonen, A. (2020). Approaching Change with and in Design. *She Ji: The Journal of Design, Economics, and Innovation*, *6*(4), 505–529.

Van Boeijen, A., Daalhuizen, J., van der Schoor, R., & Zijlstra, J. (2014). *Delft Design Guide: Design strategies and methods*. Amsterdam: BIS Publishers.

van der Bijl-Brouwer, M. (2022). Service Designing for Human Relationships to Positively Enable Social Systemic Change. *International Journal of Design, 16*(1), 23–34.

Vargo, S. L. & Lusch, R. (2008). Service-dominant Logic: Continuing the evolution. *Journal of the Academy of Marketing Science*, *36*(1), 1–10.

Vargo, S. L., & Lusch, R. F. (2004). Evolving to a New Dominant Logic for Marketing. *Journal of Marketing*, *68*(1), 1–17.

Vargo, S. L., & Lusch, R. F. (2017). Service-Dominant logic 2025. *International Journal of Research in Marketing*, *34*(1), 46–67.

Vink, J., & Koskela-Huotari, K. (2021). Social Structures as Service Design Materials. *International Journal of Design, 15*(3), 29–43.

Vink, J., Koskela-Huotari, K., Tronvoll, B., Edvardsson, B., & Wetter-Edman, K. (2021). Service Ecosystem Design: Propositions, process model, and future research agenda. *Journal of Service Research*, *24*(2), 168–186.

Vink, J., Wetter-Edman, K., & Koskela-Huotari, K. (2021). Designerly Approaches for Catalyzing Change in Social Systems: A Social Structures Approach. *She Ji: The Journal of Design, Economics, and Innovation*, *7*(2), 242–261.

Wakkary, R., Desjardins, A., Hauser, S., & Maestri, L. (2013). A Sustainable Design Fiction: Green practices. *ACM Transactions on Computer-Human Interaction (TOCHI)*, *20*(4), 1–34.

Walker, G. (2014). Beyond Individual Responsibility: Social practice, capabilities and the right to environmentally sustainable ways of living. In Y. Strengers & C. Maller (Eds.) *Social practices, intervention and sustainability* (pp. 45–59). New York: Routledge.

Wall, S. (2008). Easier said than Done: Writing an autoethnography. *International Journal of Qualitative Methods*, *7*(1), 38–53.

Wetter-Edman, K., Vink, J., & Blomkvist, J. (2018). Staging Aesthetic Disruption through Design Methods for Service Innovation. *Design Studies*, *55*, 5–26.

Willis, A. (2019). Introduction. In A. Willis (Eds), The Design Philosophy Reader (pp.1–8). London: Bloomsbury.

Winkler, I. (2018). Doing Autoethnography: Facing challenges, taking choices, accepting responsibilities. *Qualitative Inquiry*, *24*(4), 236–247.

Xiang, B. (2021). The Nearby: A scope of seeing. *Journal of Contemporary Chinese Art*, *8*(2–3), 147–165.

Younis, A. (2022). Trajectories of International Development. In M. Amatullo (Eds.), *Design for Social Innovation: Case studies from around the world* (pp. 46–99). New York: Routledge.

Yu, E. (2020). Toward an Integrative Service Design Framework and Future Agendas. *Design Issues*, *36*(2), 41–57.

Yu, E., & Sangiorgi, D. (2018). Exploring the Transformative Impacts of Service Design: The role of designer–client relationships in the service development process. *Design Studies*, *55*, 79–111.

Zomerdijk, L. G., & Voss, C. A. (2010). Service Design for Experience–centric Services. *Journal of Service Research*, *13*(1), 67–82.

PUBLICATION 1

Moving Towards Plurality: Unpacking the role of service design in relation to culture

Duan. Z., Vink. J., and Clatworthy. S. (2021). Moving towards plurality: Unpacking the role of service design in relation to culture. In Y. Akama, L. Fennessy, S. Harrington & A. Farago (Eds.) *ServDes 2020 Tensions, Paradoxes and Plurality Conference Proceedings* (pp. 263–276). Linköping: Linköping University Electronic Press.

ServDes.2020 – Tensions, Paradoxes, Plurality
RMIT University, Melbourne Australia

Moving towards plurality: Unpacking the role of service design in relation to culture

Zhipeng Duan, Josina Vink, Simon Clatworthy
Duan.Zhipeng@aho.no
Oslo School of Architecture and Design, Maridalsveien 29 0175 Oslo

Abstract

Over the past two decades, there has been growing discussion about the relationship between service design and culture. However, these discussions are often fragmented and ambiguous, limiting the nuance in how culture is understood in service design. As such, the purpose of this paper is to build a more comprehensive understanding of the role of service design in relation to culture by drawing together discussions from existing literature. What emerges from our literature analysis is a framework presenting four different views on the role of service design in relation to culture, each with distinct interpretations of culture and its connection to service design. Furthermore, we present the emerging issues related to each of these four views, highlighting the overall necessity of attending to cultural pluralities in service design. We propose that a dynamic movement between these different views can provide service design practitioners and researchers with a decentralized perspective that can help them get unstuck from perpetuating a single, static understanding of culture.

Keywords: culture, plurality, service design, design

Introduction

"*Culture is one of the two or three most complicated words in English language*" (Williams, 1983, p.87). Williams (1983), a seminal theorist of culture studies, proposes three general definitions of culture: 1) a common process of intellectual, spiritual and aesthetic development; 2) a particular way of life of people or a group; 3) texts and practices whose function is to signify or produce meaning. Despite decades of related research, culture remains a wide and ambiguous concept that is difficult to define (Milner & Browitt, 2013).

This difficulty in interpreting culture also manifests itself in service design. Over the past two decades, there have been growing discussions about culture and how service design relates to it. For example, Cipolla and Reynoso (2017) suggested that analysing cultural aspects within existing indigenous services can provide valuable insights for developing new service concepts for low-income regions. With regards to organisational change, Yu and Sangiorgi (2018) considered the transformation of organizational culture as an effective way to promote participatory service innovation. In connection with service businesses, Dennington (2018) highlights the value of service designers' abilities in the conveyance of popular cultural meaning through service offerings. Many cultural concepts have been coined, used or adapted to explore the relationship between service design and culture. However, these discussions about culture are fragmented, which inadvertently may limit the ability of designers and researchers to explore the richness and diversity of culture in service design. Consequently, there is a need for a more holistic understanding of the role of service design in respect to culture as well as a need to build an understanding of culture that appropriately reflects service design's values, ideals and professional practice. Furthermore, without an understanding of the different perspectives on what service design is doing in relation to culture and some of the related issues, practitioners and researchers may unknowingly contribute to the erosion of cultures or the imposition of one culture over another (Tlostanova, 2017).

In response to this challenge, the purpose of this paper is to build a more comprehensive understanding of the role of service design in its relationship to culture by drawing together discussions from existing literature. To achieve this aim, this paper develops a two-by-two framework in which existing literature is positioned in relation to its view on culture (*pre-existing* or *becoming*) and how service design is seen in relation to culture (*separate* or *entangled*). This framework reveals four

distinct views on the role of service design in culture. Furthermore, we provide a brief explanation of the key emerging issues in relation to each of the four overlapping and interrelated views on the relationship between service design and culture. We propose that a dynamic movement between these views is one promising approach to address many of the emerging issues because it can provide service design practitioners and researchers with a decentralized perspective to better understand and work with a plurality of cultures.

Approach

We employ articles related to culture in service design as the data source for this analysis of the role of service design in relation to culture. These articles are collected from academic journals and conferences in service design (e.g., Design and Culture, Design Issues and ServDes) and other related fields (such as Co-design and Social Innovation). In our sample, we selected not only texts that explicitly discuss culture, but also articles from which cultural factors are taken into account indirectly. To understand how service design researchers view culture and how they position the relationship between service design and culture, we did meaning condensation of excerpts that were drawn from the literature (Kvale, 2007). The fragments of segmented text were clustered into four views (Describing, Shaping, Adapting and Enacting) by seeking similarities and differences, which is referred as the initial code (Charmaz, 2014). These were then finally condensed and synthesized within a matrix that differentiates their perspective of culture in relation to time and the relative connection between service design and culture (focused code) (ibid). Based on this analysis, we built a framework that brings together these four perspectives to show their differences and similarities. Based on the framework, further analysis of articles was conducted to synthesize emerging issues related to each of the different views on service design in relation to culture.

The framework for understanding culture in service design

In its basic form, the framework is a two-by-two matrix (see Figure 1), which presents four different quadrants for plotting the position of different views on service design in relation to culture. These different

interpretations of the role of service design in relation to culture can be distinguished across two dimensions.

The first dimension reflects how culture is viewed in relation to time in service design. In some service design literature, culture is viewed as *pre-existing*, which is often conceptualized to depict and to understand the current situation based on the evidence of the past and the present (Spencer-Oatey, 2008; van Boeijen, 2015). Such a view is often reflected by researchers who stress that culture sets the context before service design activities and that this pre-existing context exerts a deep influence on the service design process (Dalsgaard, 2017). On the other hand, some scholars emphasize that service design is concerned with culture in the future, what might become (Bremner & Roxburgh, 2014), and the ethical practice of world-making (Escobar, 2018). In this view, culture is recognized to be always in the process of *becoming*, in which the shared values and processes of groups are constantly evolving.

The second dimension relates to how researchers position service design in relation to culture. On the one hand, culture and service design are separate. In some research, there is a tendency to otherize culture from service design, seeing culture as a separate entity from service design (e.g., Lee & Lee, 2007). In a methodological perspective, design pragmatically focuses on how to transform the situation (Dalsgaard, 2017), which is sometimes referred to as solution-ism (Manzini, 2016). On the other hand, service design and culture are *entangled*. In this research, service design and culture are seen as intimately intertwined (e.g., Manzini, 2016; Akama et al., 2019). A phenomenological perspective holds that service design, as an ontological instrument, is process of organic and continuous transformation, which is entangled with the real world (Akama & Prendiville, 2013). This, makes it difficult, if not impossible, to separate service design from culture.

Framed by these two pairs of alternatives, *pre-existing* and *becoming,* and *entangled* (phenomenologically) and *separate* (pragmatically), the different perspectives on the relationships between design and culture gradually become clear. We name these views “describing”, “shaping”, “adapting” and “enacting”. As shown in Figure 1, these four views are interrelated and overlapping, as service design may play more than one role when interacting with culture. Together, these four views help to unpack the role of service design in relationship to culture within service design literatures (see Table 1).

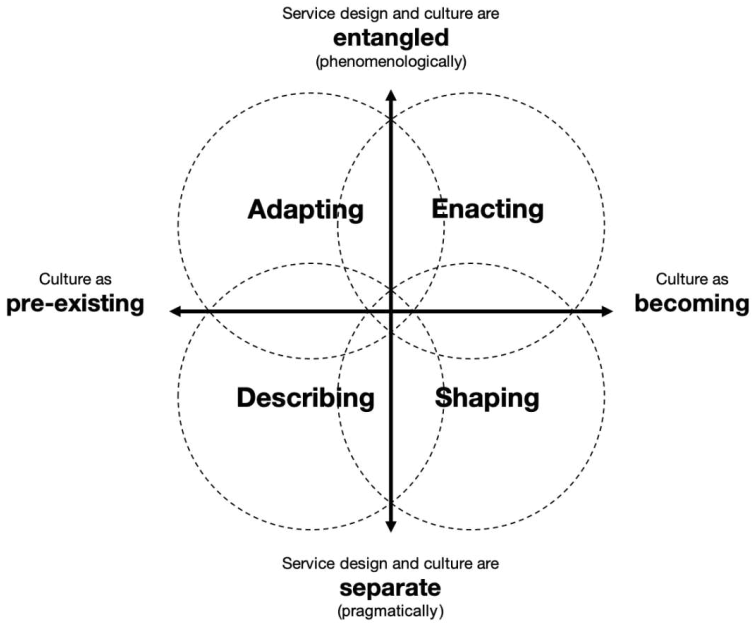

Figure 1. A framework of the views on the role of service design in relation to culture

	Describing	Shaping	Adapting	Enacting
Relationship between service design and culture	Separate	Separate	Entangled	Entangled
View of culture	Pre-existing	Becoming	Pre-existing	Becoming
Common service design activities	Depicting; Communicating; Illustrating	Handling; Moving; Manipulating; Impacting	Reflecting; Enhancing; Challenging	Performing; Embedding; Facilitating; Spreading
How service design interacts with culture	Service design depicts the characteristics and status of a culture.	Service design handles and moves culture carefully.	Service design must respond to changing cultural circumstances.	Service design is a process of performing and transforming culture.
Examples of the interactions between service design and culture	Service design uses different language systems and tools to describe a culture and its characteristics, providing background to service design activities (e.g., Taoka et al., 2018);	Culture can be used as an input to contribute to craft service innovation (e.g., Cipolla & Reynoso, 2017); The objective of service design can be to change culture (e.g., Dennington, 2018).	Service design approaches need to be dynamic and reflective to respond to changing cultural circumstances (Lee, 2014); Service design practitioners build/rebuild methods to adapt to complicated cultural contexts (e.g., Moalosi et al., 2010).	Every design act endorses the dominant paradigm, or proposes alternatives (e.g., Fuad-Luke, 2014). Design culture is generated from the interaction between design actions and other cultural worlds (e.g., Manzini, 2016）
Key emerging issues	Static and universal categorizations of culture denote subtle but important differences in service design (Bardzell, 2010).	Service design tends to detach methods from reality and designers in the service design process (Akama & Prendiville, 2013).	Western-centric service design approaches are mismatched with other cultural contexts (Taoka et al., 2018; Lee & Lee, 2007; Baek et al., 2019).	Service design tends to be insensitive to a multi-layered relationality of culture (Fuad-Luke, 2014; Akama et al., 2019).

Table 1. Features and issues of different views on the role of service design in relation to culture

Describing

Service design uses different language systems and tools to depict and communicate a specific culture with its own characteristics and status. This understanding provides a background to service design activities. It forms the first relationship between service design and culture. Based on the literature review, we find service design researchers regularly describe culture through geographical categorization (e.g., Baek et al., 2019; Lee & Lee, 2007). Building on cultural geography, this view sees culture as a capable entity of hierarchical transformation (Sauer, 1952). In this way, hemispheres, countries, cities, and communities can all become geographic units of culture used for the description of service design. Especially, the distinction of national boundaries is a customary way of outlining a culture in service design. For instance, Taoka and his colleagues (2018) compare the role of non-designers in co-design between Japanese and European cultural context. Cultural geography studies can present an evident correlation between place and culture (Zhao et al., 2006). Additionally, the nationality of a person can easily be established, making it an accessible mode of categorization (Dahl, 2004). People from the same country indeed often share some values and standards (Hofstede et al., 2005). Therefore, geographically defined cultures can help service design practitioners and researchers quickly understand and adapt to various cultural contexts and identify potential contextual challenges for service design activities.

However, it is necessary to recognize that the way of describing culture using geography as the only reference point can hide a more nuanced understanding of culture. Description itself is a subjective intervention through which designers and researchers participate in constructing reality, rather than being neutral (Bremner & Roxburgh, 2015). For designers and researchers, seeing and describing people of a taxonomized cultural background with geographical or nationalized categories can be speculative and risky (Akama et al., 2019). On the one hand, when it comes to culture, the place and country are imaginary and bear the subjectivity of describers (Tuan, 1977). When service design designers and researchers use pre-existing geographic divisions to describe culture, given perceptions will inevitably be brought into design activities (Dalsgaard, 2017). On the other hand, a growing number of scholars argue that it is problematic to employ national and geographical boundaries as the exclusive criteria for conceptualising culture in service design. It implies there is a unique and mechanical interrelation between geographic material and culture, which support a geographical

determinism in service design. Here, culture could be simplified as a feature that represents the fixed geographic materials (Ingold, 2018).

Shaping

As a discipline that attaches great importance to change, some research depicts service design as carefully handling and moving culture to develop new services and further promoting cultural transformation. In these articles, service design and culture are often assumed to be two separate entities at the methodological level. Dennington (2018) suggests that the two are interactive: Culture is considered as the materials or resources for the development of a new service concept (also see Pahk et al., 2018; Cipolla & Reynoso, 2017). Service design then offers various tools and methods to offload the idea and abstract solutions that transform or shape culture by manipulating, building and evaluating the external representation of culture. Service design pays significant attention to shaping and modifying culture within organizations. Organizational culture in service design often focuses on culture at the individual level (e.g. actors' mindsets) and institutional level (e.g. structures) (Kurtmollaiev et al., 2018).

In these descriptions, service design tends to provide solutions to address specific cultural problems. It often considers the practical and economic impact of the solution while ignoring meaningful discussion of culture (Manzini, 2016). The reason for this limitation is perhaps that service design tends to detach methods from reality in the service design process (Akama & Prendiville, 2013). Designers typically employ an "outside perspective" in the service design process, which means that problems and solutions are defined and created in isolation from the particular, dynamic cultural context (Janzer & Weinstein, 2014). On the one hand, the tendency of externalization gives design practitioners plenty of space to imagine the design solutions and manipulate them (Dalsgaard, 2017). While, on the other hand, the outside perspective threatens the effect of using culture as a raw material for service design and suggests potential risks in doing so. This detachment can cause service design practitioners to intentionally or unintentionally produce outcomes that contribute to controlling the culture of others diffusely (Janzer & Weinstein, 2014).

Adapting

To confront some of the above-mentioned risks in describing and shaping culture, some literature focuses on building and challenging the cultural consciousness in service design. Scholars suggest that service design approaches need to dynamically respond to changing cultural circumstances (Lee, 2014). These activities constitute the third view of how service design interacts with culture – here it means adapting to culture. Theories supporting the geographical taxonomies, which have been extensively explored in earlier studies, have greatly influenced designers perspective of cultural observation in service design. One of the most cited and famous works on cultural dimensions is the value patterns created by Hofstede and his colleagues (2005). These cultural dimensions have been integrated into service design activities because of their concise, clear and powerful differing approaches. This approach has helped service design practitioners build methods for adapting to complicated cultural contexts (e.g., Moalosi et al., 2010).

The application of Hofstede's theory has been extended to a lot of cross-cultural and intercultural researches which are based on the classifications of nationalities in service design and design more broadly. Researcheres have shared several critical reflections regarding the issue that Western-centric service design approaches are significantly mismatched with other cultural regions. For instance, Taoka, Kagohashi, and Mougenot (2018) suggest that, in Japan, the presence of designers in the co-design process, hinders the empowerment and participation of non-designers, due to Japan's high-power distance. Similarly, Lee and Lee (2007) mention that in South Korea, which is more collectivist, user-participatory design research methods had poorer productivity and effectiveness than within the more individualistic German culture. Baek, Kim and Harimoto (2019) claim that current user-centred design framing overemphasizes the visible cultural levels (such as behaviour and structure) and risks neglecting the intangible value of culture. The above scholars all call for the enhancement of cultural awareness in the design process, specially the need for adapting design methods to different complex cultural circumstances.

Enacting

Fuad-Luke (2014) suggests that design culture is *"a continuous micro-political act of everyday"* and every design act endorses the dominant

paradigm or a specific hegemonic view of the world or proposes alternatives. Manzini (2016) states that design culture is generated from the stimulation of interaction between design actions and other cultural worlds. These views are representative of the fourth view of the relationship between service design and culture, enacting, where service design is a means of cultural performance. In this discussion, culture is an entity in which service design is intertwined and embedded (Manzini, 2016).

Service design, as a series of continuous micro-political acts, requires a more comprehensive, dynamic approach to be sensitive to multi-layered relationality (Fuad-Luke, 2014; Akama et al., 2019). Service design methods based on conventional "scientism" are often viewed as a systemized process of using the methods (Akama & Prendiville, 2013). The process simplifies a design expert as a "process-facilitator" (Manzini, 2016) and, as such, service design is more likely to replicate the world as it is (Bremner & Roxburgh, 2014). This issue undermines the ability of service design in acting with, on, and through cultures and contributes to service design ignoring the hidden body of culture (Baek et al., 2019).

Moving towards plurality

This paper provides a preliminary framework that unpacks four views on the role of service in relation to culture. These four views often co-occur and are interrelated to each other. By reflecting comprehensively on these four views, we find that there is an overarching issue that applies to all four views; service design risks imposing an exclusive value and criterion of culture on others, as one sense of "modernity" is often over-emphasised in design (Tlostanova, 2017). The emphasis on modernity can contribute to building a new world in a messianic way by eliminating other possible ways of cultural transformation (ibid). Therefore, service design can contribute to reproducing colonial design practices, that control and discipline people's perceptions and interpretation of the world (ibid). The spread of one way of doing design contributes to the perpetuation of service design, as a global, homogenous activity, dominated by a single set of cultural interests and seeking a "Western" answer (Akama & Yee, 2016).

This exclusive, limiting perspective is dangerous to service design due to the possibilities of diluting the pluralistic richness of service (Kim, 2018). Janzer (2014) argued that designers should be sensitive to this cultural

reality. Otherwise, they may contribute to or practice neo-colonial/colonial design. To resist the emphasis on modernity and reproduction of coloniality, service design researchers increasingly call for the need to embrace heterogeneity and a plurality of cultures. In response, one aim is to enhance the cultural awareness of service design practitioners so that they can be cautious of employing instrumental rationality and move towards a recognition of difference and plurality as the central conditions of service design (Akama & Yee, 2016).

One important concern lies in the culture of the plurality reflexive, where plurality can be self-generating for cultivating different potentials (Light, 2019). Moving towards plurality means that service design needs to be released from any single and static understanding of culture. Instead, plurality involves considering service design and culture as a unified living entity with mutual and respectful relationality. Perhaps the framework on the views of service design in relation to culture that is presented in this paper can offer a more holistic frame to think about the plurality of cultures in service design, while curbing the tendencies to see culture based on a given taxonomy.

The four views on the role of service design in relation to culture provide different contributions to the service design discipline. Service design's tendency towards the externalisation of culture can help the designer to "manipulate" design solutions pragmatically in order to pursue usability and effectiveness (Dalsgaard, 2017). However, service design has reason to question this tendency of detachment, as it may ignore the subjectivity of designer in the service design action (Akama & Prendiville, 2013). By re-focusing on the micro design actions of the every day, designers can take a more phenomenological perspective to understand the interwoven and interactive relationship between design and culture (ibid; Fuad-Luke, 2014). As such, by moving between these different views and building consciousness of the related cultural issues, this framework offers a decentralized way to work across the different views of service design in relation to culture, while recognizing one's positioning and its limitations. Our hope is that this framework opens up continued and more nuanced discussion on how service design can better recognize and work with cultural pluralities in all its views.

References

Akama, Y., Hagen, P., & Whaanga-Schollum, D. (2019). Problematizing Replicable Design to Practice Respectful, Reciprocal, and Relational Co-designing with Indigenous People. *Design and Culture*, 11(1), 59-84.

Akama, Y., & Yee, J. (2016). Seeking stronger plurality: Intimacy and integrity in designing for social innovation. *Design and Culture*, 11(1), 1-11.

Akama, Y., & Prendiville, A. (2013). A phenomenology of co-designing services: the craft of embodying, enacting and entangling design. In *Crafting the Future: 10th* European *Academy of Design Conference* (pp. 1-16). University of Gothenburg.

Baek, J. S., Kim, S., & Harimoto, T. (2019). The Effect of Cultural Differences on a Distant Collaboration for Social Innovation: A Case Study of Designing for Precision Farming in Myanmar and South Korea. *Design and Culture*, 11(1), 37-58.

Bardzell, S. (2010). Feminist HCI: taking stock and outlining an agenda for design. In Proceedings of *the SIGCHI conference on human factors in computing systems* (pp. 1301-1310). ACM.

Bremner, C., & Roxburgh, M. (2014). A photograph is evidence of nothing but itself. In *The Routledge Companion to Design Research* (pp. 219-230). Routledge.

Charmaz, K. (2014), *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*, 2nd ed., Sage Publications, London.

Cipolla, C., & Reynoso, J. (2017). Service design as a sensemaking activity: Insights from low-income communities in Latin America. In *Designing for Service: Key Issues and New Directions* (pp. 147-162). Bloomsbury Academic.

Dahl, S. (2004). *An overview of intercultural research: The current state of knowledge.* Middlesex University Business School London: Society for Intercultural Training and Research UK 1/10 (2/ 2003), London.

Dalsgaard, P. (2017). Instruments of inquiry: Understanding the nature and role of tools in design. *International Journal of Design*, 11(1), 21-33.

Dennington, C. (2018). *Trendslation–an experiential method for semantic translation in service design.* In Service Design Proof of Concept, Proceedings of the ServDes.2018 Conference, 18-20 June, Milano, Italy. Linköping University Electronic Press. pp. 1049-1063.

Escobar, A. (2018). Designs for the pluriverse: Radical interdependence, autonomy, and the making of worlds. Duke University Press.

Fuad-Luke, A. (2014). Design(-ing) for Radical Relationality: 'Relational design' for confronting dangerous, concurrent, contingent realities. In MA. Jin, & LOU. Yongqi, (Eds.), *Emerging Practices in Design. Professions, Values and Approaches* (pp. 42-73). Shanghai: China Architecture & Building Press.

Hofstede, G., Hofstede, G. J., & Minkov, M. (2005). *Cultures and organizations: Software of the mind* (Vol. 2). New York: Mcgraw-Hill.

Ingold, T. (2018). *Anthropology: why it matters.* John Wiley & Sons.

Janzer, C. L., & Weinstein, L. S. (2014). Social design and neocolonialism. *Design and Culture*, 6(3), 327-343.

Kim, M. (2018). An Inquiry into the Nature of Service: A Historical Overview (Part 1). *Design Issues*, 34(2), 31-47.

Kurtmollaiev, S., Fjuk, A., Pedersen, P. E., Clatworthy, S., & Kvale, K. (2018). Organizational transformation through service design: The institutional logics perspective. *Journal of Service Research*, 21(1), 59-74.

Kvale, S. (2007). Analyzing interviews. *Doing interviews*, 102-120. London: SAGE Publications.

Lee, J. J. (2014). The true benefits of designing design methods. *Artifact: Journal of Design Practice*, 3(2), 5-1.

Lee, J. J., & Lee, K. P. (2007, August). Cultural differences and design methods for user experience research: Dutch and Korean participants compared. In *Proceedings of the 2007 conference on Designing pleasurable products and interfaces* (pp. 21-34). ACM.

Light, A. (2019). Design and social innovation at the margins: finding and making cultures of plurality. *Design and Culture*, 11(1), 13-35.

Manzini, E. (2016). Design culture and dialogic design. *Design Issues*, 32(1), 52–59.

Milner, A., & Browitt, J. (2013). *Contemporary cultural theory: An introduction*. Routledge.

Moalosi, R., Popovic, V., & Hickling-Hudson, A. (2010). Culture-orientated product design. *International Journal of Technology and Design Education*, 20(2), 175-190.

Pahk, Y., Self, J., & Baek, J. S. (2018). COVALENT, a method for co-designing value exchange in community-centred design. *CoDesign*, 14(4), 275-292.

Sauer, C. O. (1952). *Agricultural origins and dispersals*. The American Geographical Society.

Spencer-Oatey, H. (Ed.). (2008). *Culturally Speaking Second Edition: Culture, Communication and Politeness Theory*. Bloomsbury Publishing.

Taoka, Y., Kagohashi, K., & Mougenot, C. (2018). A cross-cultural study of co-design: the impact of power distance on group dynamics in Japan. *CoDesign*. DOI: https://doi.org/10.1080/15710882.2018.1546321

Tlostanova, M. (2017). On decolonizing design. *Design Philosophy Papers*, 15(1), 51-61.

Tuan, Y. F. (1977). Space and place: *The perspective of experience*. U of Minnesota Press.

Van Boeijen, A. G. C. (2015). *Crossing cultural chasms: Towards a culture*-conscious *approach to design* (Doctoral thesis, Delft University of Technology, Delft, the Netherlands). Retrieved from https://repository.tudelft.nl/islandora/object/uuid%3Afc87dfd1-b7eb-4c84-b6c7-6835c5e837f8

Williams, Raymond (1983), *Keywords.* London: Fontana.

Yu, E., & Sangiorgi, D. (2018). Exploring the transformative impacts of service design: The role of designer–client relationships in the service development process. *Design Studies*, 55, 79-111.

Zhao, R., et al. (2006). *Human geography*. Beijing: Higher Education Press.

PUBLICATION 2

Narrating Service Design to Account for Cultural Plurality

Duan, Z., Vink, J., & Clatworthy, S. D. (2021). Narrating Service Design to Account for Cultural Plurality. *International Journal of Design*, *15*(3), 11–28.

Narrating Service Design to Account for Cultural Plurality

Zhipeng Duan *, Josina Vink, and Simon Clatworthy

The Oslo School of Architecture and Design, Oslo, Norway

Stories create pathways from the past to the future. How are the stories of service design practice being told? What futures are they creating? Many service design narratives in public and academic discourse are dominated by concepts that refer to "mainstream" service design knowledge. Those who diverge from this mainstream—including service design practitioners and participants involved in culturally situated practices—risk being assimilated by service design concepts that take a monolithic view of culture. Moreover, this dominant service design narrative threatens to extend coloniality. In response, we introduce cultural plurality as a way to highlight the ontological conditions in which different practices enact different realities and futures beyond the scope of service design. To investigate and reflect on how service design practice is narrated within multiple cultures, we present four representative stories of service design practice, derived from a literature review and interviews with 21 service design practitioners with diverse, global backgrounds. The main contribution of the study is its demonstration that the dominant narrative is insufficient to tell the story of service design across multiple cultures. On the basis of this reflexive study, we encourage service design knowers to practice narrative sensitivity, in order to allow room for entangled, multidirectional practices. We further stress the importance of cultivating vigilance regarding the presence of mainstream service design knowledge and concepts, amid a meshwork of differing knowledges and practices.

Keywords **–** Narrative, Culture, Plurality, Service Design Knowledge.

Relevance to Design Practice **–** This article helps service design practitioners to critically reflect on the knowledge and concepts they use when telling the stories of their practices and those of their participants in the service design process. It encourages practitioners to bravely and carefully tell stories that reconnect designing with other world-making practices that decentralize and disrupt the dominant service design narrative.

Citation: Duan, Z., Vink, J., & Clatworthy, S. (2021). Narrating service design to account for cultural plurality. *International Journal of Design, 15*(3), 11-28.

Introduction

In the research phase of her project, Anna, an Italian service designer, conducted observations, questionnaires, and interviews with different stakeholders to understand the status quo of ecotourism in China. She joined a guide and tourists to take a tour to Yunnan. She shadowed them throughout the trip to observe how they communicated and learn about their behaviors and needs. Through these different approaches, she gleaned a wealth of findings on ecotourism. She condensed these findings into five key insights about specific needs and problems, which she used to produce a solution for ecotourism in China that consists of a physical toolkit of cards, maps, and booklets for tourists. With this toolkit, she hoped to facilitate tourists' decisions about sustainable tourism when planning their Chinese itineraries.

We recount this story that comes from an interview with a service design practitioner. We narrate Anna's practice by employing a variety of service design concepts, including observations, questionnaires, interviews, findings, needs, problems, and solutions. According to these concepts, Anna's story seems logical and in line with "mainstream" service design knowledge. In this article, we aim to problematize the coherence of this story. We emphasize the need for reflexivity among service design knowers, including researchers and practitioners, when constructing narratives about service design within and across multiple cultures. For this study, the term narrative refers to a knowledge-making practice through which the knower accounts for practices that represent a connected succession of occurrences. Differing narratives open up different worlds (Goodman, 1978); as Ingold (2007, p. 93) suggests, "to tell a story is to relate, in narrative, the occurrences of the past retracing a path through the world that others, recursively picking up the threads of past lives, can follow in the process of spinning out their own." Along the paths of stories, those who are reading or listening envision future scenarios and weave those scenarios into their lives (Ingold, 2007). Thus, the narratives of service design practice constitute a world-making project based on service design knowledge.

In the past two decades, increasing discussion centers on the relationship between service design and culture, including the performance of service design in different cultural contexts (e.g., Taoka et al., 2018) and the influence of service design on cultures (e.g., Sangiorgi, 2011). Within this discourse, a dominant narrative tells the story of practice through concepts related to service design knowledge. This dominant narrative produces a rather monolithic view of culture that ignores the heterogeneity of people and presents their practices as a relatively even and

Received Oct. 26, 2020; **Accepted** Oct. 30, 2021; **Published** Dec. 31, 2021.

****Corresponding Author:*** duan.zhipeng@aho.no

homogenous collective; it names and objectifies the features of that collective through a common set of service design concepts. As a result, differing stories about making the future get told in only one language, which threatens to extend coloniality.

To reflect on the dominant narrative, we deliberately integrate service design with discussions from anthropology and from science, technology, and society (STS), two disciplines that have committed to wrestling with the situated complexity and relationality of diverse practices and sites (Otto & Bubandt, 2010). Within these entangled disciplines, scholars propose the *pluriverse* as a central concept for helping ethnographers recognize the radical coexistence of multiple forms of practice, life, and future—rather than assimilating them through one set of knowledge (Stengers, 2018). A key claim is that different practices enact different realities and futures amid collectives (Law, 2015). These discussions are illuminating, because they disrupt the dominant narrative by acknowledging that various practices in various cultures are capable of world-making beyond the scope of service design. By drawing from these discussions of the pluriverse, we use cultural plurality to highlight the ontological condition of the coexistence of divergent cultural practices, as well as explore how service design knowers can narrate service design practices in ways that better account for cultural plurality.

Based on a literature review and interviews with 21 service design practitioners, we investigated and reflected on how we as service design knowers narrate practices. Informed by literature on service design in relation to culture, we articulated the dominant narrative through four patterns: service design *describing*, *adapting to*, *shaping*, and *enacting* cultures. To investigate these patterns, we conducted semi-structured interviews with 21 service design practitioners and then coded the interviews to perform narrative analysis. Many stories mirror the patterns of the dominant service design narrative; we selected one story that best represents each pattern to further analyze. By revisiting the interviews to bring more contextual information into their scope, we then examined the stories to interrogate how cultural plurality is being erased and how a more decentralized narrative of service design can be restored.

Zhipeng Duan is a PhD candidate in Service Design at The Oslo School of Architecture and Design. His research explores the praxis of design, especially service design, in an evolving cultural context. His work aims to build a better understanding of service design, to support design practitioners cultivating cultural sensitivity, and to further the imaginations of the boundaries of design in the plurality. As part of the Centre for Connected Care (C3), his PhD is particularly entangled with the transformation of healthcare services in both Norway and China.

Josina Vink is Associate Professor of Service Design at The Oslo School of Architecture and Design and Design Lead within the Centre for Connected Care (C3). Josina's research focuses on building a systemic understanding of service design and developing approaches for shaping social structures through design. They have published in journals such as *Design Studies*, *the Design Journal*, *Journal of Service Management*, and *Journal of Service Research*. Josina has over a decade of experience working as a service designer in health and care in North America and Scandinavia. They have extensive experience leading and facilitating participatory system and service design processes in health care, government, non-profit, and community settings. In their practice, Josina has developed new services, supported policy change, facilitated shifts in practices across sectors, and led social lab processes.

Simon Clatworthy is professor at The Oslo School of Architecture and Design. He has grappled with important questions in Service Design since 2003, and has published several books and articles within the Service Design field.

The main contribution of our study is its demonstration that the monolithic cultural view of the dominant narrative is insufficient for telling the stories of service design that arise from the landscapes of multiple cultures. We reveal a crisis in the service design narrative, caused by its inability to interpret practices of making futures other than by translating them into the knowledge of service design. As an emergent discipline, service design has potentials and flexibility to confront this crisis in order to relate to other world-making projects in a more respectful way. Our secondary contribution is that we invite service design knowers to decentralize service design narratives, by allowing room for heterogeneity and acknowledging the diversity and entanglement of practices. To promote such decentralization, we propose a narrative sensitivity that alerts practitioners to the presence of service design concepts and the encroachment of mainstream knowledge in the telling of future-making stories.

Dominant Narrative of Service Design

Service design literature features a dominant service design narrative that supports the proliferation of mainstream service design knowledge. Within this narrative, knowers rely almost exclusively on communicating through common concepts that are elaborated by mainstream service design and other modern knowledge. These concepts can portray people (e.g., designers, users, customers, stakeholders) and design activities (e.g., workshops, prototypes, methods, tools). They produce recursive knowledge by constantly explaining and assimilating various practices and becoming a repertoire shared by knowers (Blaser & De la Cadena, 2018). For example, claiming the use of similar service design tools is a mark of service designers (Fayard et al., 2017). When a practice is narrated, knowledge can be recognized by its work of displacement, in that it claims what the practice is, rather than its concepts (Verran, 2018). For service design knowers, the dominant narrative, brought forward through existing concepts, makes the practice of service design recognizable by the service design community [see anthropologist Strathern's (2018) reflective work on the divergence of knowledge practices].

When we apply these concepts, we tend to assume the collective features are perfectly and homogeneously shared among people and their practices. As such, the features can be named, compared, and functionalized by the usage of a set of concepts. In doing so, we assert that dominant service design concepts reproduce a monolithic view of culture. We anchor our understanding of culture on the condensed definition from Eriksen (2001, p. 3) that culture is "abilities, notions and forms of behavior people have acquired as members of society." According to this understanding, the identification of a group of people is a typical cultural practice that exploits difference to form different social groups (Appadurai, 1996). Delineation of a user group often implies that the service design knower believes users have similar behavioral patterns or needs (Matthews et al., 2012). Service design concepts are linked to broader existing cultural concepts, such as Asian or African service design methods. Within this monolithic view of culture, the cultural concepts tend to be misunderstood and misapplied, as differences encountered in practices are labeled as reflecting

a culture to designate a feature that is evenly-shared among the social group, without careful examination (Brumann, 1999). This view shadows the value of culture that refers to materials, collective emotions, and practices that arise inherently in people's daily interactions and are inherently connected to the knowledge, wisdom, histories, and philosophies of localities. Anthropologists Breidenbach and Nyíri (2011) argue that design's practices of ethnography present a *container view of culture* through which cultural concepts are being instrumentalized by applying them to whatever values and needs design wishes to meet. Furthermore, the concept of culture itself often becomes the direct object of service design in the narrative.

This dominant service design narrative reinforces a monolithic view of culture that is exemplified by prominent narratives of service design in relation to organizational cultures. In service design literature, definitions of organizational cultures often are informed by organizational studies in social science. For example, Aguirre (2020) uses Ruigrok and Achtenhagen's (1999) definition of organizational culture as the norms, beliefs, meanings, and behaviors shared by all organizational members or specific sub-groups (e.g., employees) that can be conveyed to new members. Service design discourse tends to *build an overall* understanding of actions and features of an organization through service design tools (e.g., Holmlid & Evenson, 2008; Kurtmollaiev et al., 2018; Stuart, 1998). The behavioral patterns, values, and meanings of organizational members, implied by the concept of organizational culture, are changeable objects in narrating the purpose of service design practice (e.g., Sangiorgi, 2011). Furthermore, scholars suggest that service design needs to adapt to different organizational cultures (Junginger, 2015); Rauth et al. (2014) stress the importance of adjusting service design approaches to ensure their fit and acceptance by various organizational cultures. Practicing service design within organizations also entails self-proliferation, in that a key goal of service design is to spread a service design culture (e.g., human-centered design culture, participatory culture), such as by building an organization's design capabilities (e.g., Mahamuni et al, 2020; Malmberg, 2017; Seidelin et al., 2020).

Our concern about this dominant narrative in service design is not its effectiveness in relation to the practice but its coloniality. The narrative potentially delocalizes and disembodies service design knowledge by oversimplifying heterogeneous practices of service design (Tlostanova, 2017). Narration of practice extensively through these shared concepts relates closely to the tradition of abstraction in Western rationalism (Escobar, 2018). Coloniality requires a translation that assimilates different practices into one set of abstract narratives. This translation happens when similarities and differences between people and their practices are sought through the lens of knowledge (Blaser & De la Cadena, 2018; Ingold, 2018). Defining such similarities and differences is not a neutral act though; it is based on a particular worldview. Tsing (2015) suggests that such translation requires banishing incommensurable differences encountered in practices, to smoothly organize and narrate practices such as service design (e.g., the global popularity of the Double Diamond; Akama et al., 2019), along with its existing logics. Through translation, this abstract narrative occupies a universal and neutral vantage point to tell a future-making story while eliminating other ways to narrate the transformation rooted in other worldviews (Tlostanova, 2017). The design practices of different people are framed as a global, homogenous service design question that seeks a "Western" answer (Akama & Yee, 2016).

Narrating Service Design for Cultural Plurality

Because of these considerations, there is an urgent need to deviate from the dominant service design narrative to appreciate concealed heterogeneities of practices that are often lost in translation. Informed by studies of the pluriverse in anthropology (e.g., Blaser & De la Cadena, 2018; Verran, 2018), STS studies (e.g., Law, 2015), and design (e.g., Escobar, 2018), we propose the concept of cultural plurality to highlight the ontological condition that multiple human beings, their practices, and enacted realities coexist within collectives. According to this convergence of studies on the pluriverse and service design, we deliberately elaborate on how cultural plurality can encourage deviation from the dominant service design narrative.

There is a widespread belief in a universal world in design disciplines (Escobar, 2018), whereby all human beings live in a single world, made up of one nature, with many cultures generated from the nature (Ingold, 2018; Law & Lien, 2018). In this way, different cultures refer to multiple perspectives on one reality. This wide belief forms the basis of neoliberal globalization (Escobar, 2018). Because the dominant knowledge of service and design aligns firmly with the tradition of rationalism and neoliberalism (e.g., Escobar, 2018; Kim, 2018), this belief in a universal world also is rooted in service design narratives. This worldview tends to encourage service design practitioners to employ replicable methods, scalable solutions, and shared service concepts to address a "common" problem for a group of people, because they are in one reality (Akama et al., 2019). Cultural plurality challenges this idea of a common reality; it calls for attention to the ontological condition that different practices enact different realities and therefore make different worlds (Law, 2015). To acknowledge multiple realities is to perceive that the making of worlds is not the exclusive provenance of professional design, but is a meshwork of practices in which service design is one or several threads of world-making that are knotted together with other different world-making paths (Ingold, 2007; Suchman, 2011).

Acknowledgment of cultural plurality demands that knowers cultivate self-vigilance regarding the presence of their service design knowledge, especially the knowledge they take for granted (Tlostanova, 2017). In this way, designing within cultural plurality requires a humbleness that one's knowledge is always insufficient to interpret different people's practices, including those of divergent designers, in making futures (Ansari, 2020). Such an approach involves deep reflection in service design communities and questioning regarding "what is known, how is it known, why this known is valued" (Verran, 2018, p. 127). Akama et al. (2019) challenge the notion of a universal model of replicable design processes and the neutral positionality of

designers in practice; they suggest accounting for the presence of designers to help reveal the condition that different knowers of service design displace heterogeneity beyond the dominant narrative. Light (2019) explores a "marginal" design narrative to challenge totalizing Western narratives, according to her design experience in northern Finland, geographically on the "margin" of the west. These accounts emphasize the need for greater plurality within the narratives in service design discourse and also point to a way forward.

Methodology

To build an understanding of how the knowers of service design can narrate service design practices in ways that better account for cultural plurality, we investigated and reflected on our practices of telling stories of service design in relation to cultures, by conducting, analyzing, and revisiting interviews. Throughout the process, we paid attention to the concepts employed to tell these stories.

Figure 1 illustrates our study path. We started with a literature review of academic service design discourse to unpack the dominant narrative and view on cultures. Through this process, we synthesized four narrative patterns of service design in relation to cultures, according to the service design themes of *describing*, *shaping*, *adapting to*, and *enacting* cultures. Along with these patterns, we conducted semi-structured interviews with 21 service design practitioners. We then built stories for each pattern by analyzing and coding the narratives of the interviews. We selected one representative story for each pattern of the dominant narratives and revisited the interviews that contained it. By introducing more of the contexts of practices discussed in the interviews into the scope of our analysis, we examined how cultural plurality is being erased and how it can be restored to include a more decentralized narrative of service design. Noting many criticisms of these four patterns identified by our literature review, we also reflected on the stories through a critical lens.

Unpacking the Dominant Narrative through Interviews

Because different practices enact different realities, the ontology and epistemology of practitioners' practices are inseparable (Barad, 2007); "it matters what ideas one uses to think other ideas (with)" (Strathern, 1992, p. 10). The interview is a popular way for researchers to build the narrative of other people's practices (Kvale, 2007). The method often is considered to be rooted in the Western assumption that objective understanding can be acquired through multiple communications of rational individuals (Gobo, 2011). Narrative analysis of interviews often leads to the reconstruction of stories told by different interviewees into a "typical" narrative aligned with one's knowledge frameworks (Kvale, 2007). Although interviews can be performative because of interviewees' awareness of the interviewer, such a process can aid in revealing the dominant narrative among practitioners (Alvesson, 2003).

As authors, we also acknowledge that our educational and practical experiences informed the positions from which we chose the interviews and co-constructed the stories. All three authors currently practice and research service design in Europe, with Zhipeng (who conducted the interviews) growing up in China and being educated in service design in English in China, Italy, and Norway; Josina (who reviewed the narratives) growing up in Canada and having over a decade of experience in practicing and researching service design in Canada, the United States, Sweden, and Norway; and Simon (who also reviewed the narratives) being involved in the practice of interaction design and later in service design in Scandinavia since the 1980s. Our experience, the systems we have been socialized into, and our positions have contributed to our reproduction of the dominant service design narrative, as well as to blind spots in our analysis. However, our divergent backgrounds also help us notice some of the taken-for-granted aspects of the dominant service design narrative.

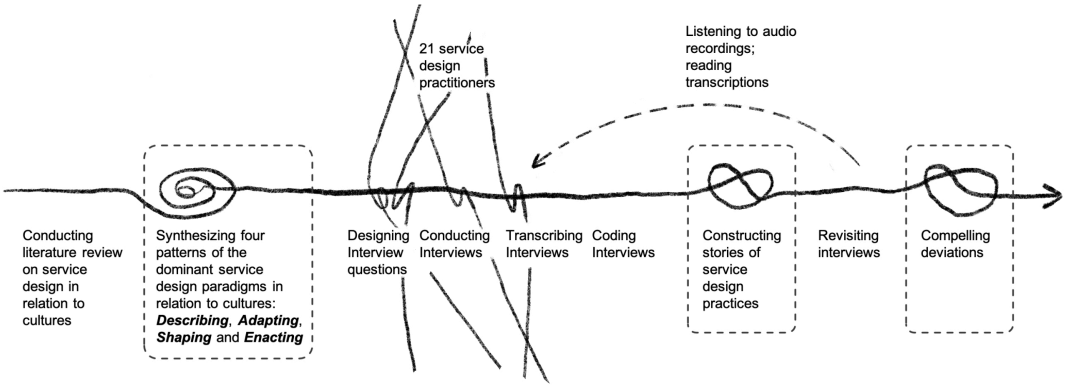

Figure 1. Overview of our research approach (illustration by the first author)**.**

Conducting Interviews According to Literature Review

Before commencing our interviews, we conducted a literature review to examine the manifestation of the dominant service design narrative and determine how it relates to service design and cultures. Our review included 41 articles collected from design journals (e.g., *Design Issues*, *Design and Culture*, *CoDesign*, and *International Journal of Design*), a prominent academic service design conference (*ServDes*), and additional articles published in related fields (such as codesign and social innovation). In our sample, we selected not only texts that explicitly discuss culture, but also articles from which cultural factors are taken into account indirectly. For articles with an explicit cultural interest, we analyzed both the narrative (concept, logic, and grammar) of how service design relates to cultures and arguments for service design's ability to cope with different cultures and practices. For articles that mentioned cultural factors, we mainly focused on the narrative. To avoid oversimplifying the richness of these articles, we condensed each of them into several sentences that described the relationship between service design and culture (see Appendix A). These sentences were aggregated to yield key phrases to illustrate the relationship between service design and culture. By seeking similarities and differences, we synthesized the dominant service design narrative in relation to culture into the four previously mentioned patterns of *describing*, *adapting*, *shaping*, and *enacting*.

Then, between March and July 2020, Zhipeng conducted one-on-one interviews with 21 service design practitioners, using online video conference platforms such as Zoom and WeChat. Each session was approximately one hour in length. Interactive movement between the analysis of these interviews and the literature review constituted an abductive approach (Dubois & Gadde, 2002). The four patterns that emerged from our literature review conditioned the outline of our interview questions (see Appendix B); we then used the patterns intentionally in subsequent analysis. Thus, we guided interviewees to narrate their design experience from a lens of culture. Their narratives and knowledges of service design practice in multiple cultures did not only arise from their practices but also from our conversation with them. However, we kept the structure of our interviews and analysis loose. For example, we did not define service design and culture in our interviews, and, thus, we encountered many different interpretations of these concepts. These encounters allowed cultural plurality to emerge, in that new knowledge from each participant according to their different experiences was generated (Blaser & De la Cadena, 2018). Common ground dissolved when interviewees reported experiences that did not refer fully to shared service design knowledge and concepts. These experiences or deviations were "burdensome," in that they needed to be removed when we first coded the interviews to form a unified understanding across different interviews. However, it also were these aspects of the interviews that allowed us to reveal the heterogeneity of practices when we revisited the interviews.

The repertoire of English-language concepts shared by service designers made the interviews with globally divergent practitioners possible. The 21 practitioners in our study come from 12 different countries and practice service design in different locations around the globe. All interviewees were non-native English speakers, but most have received service design education in English in the United Kingdom, United States, Italy, Sweden, China, and Norway. Appendix C presents their detailed backgrounds. Their common mode of education also reflects the shared interest of mainstream knowledge and concepts in service design (Ferruzca et al., 2016). As interviewers and interviewees, we constantly drew on shared service design terms (e.g., workshops, design methods, service journey) as references to build an understanding of service design practices.

Coding Interviews

The analysis of the interviews involved two phases of coding data to capture the concepts to narrate practices (Gioia et al., 2013). Through this process, we identified 55 codes, applied 1,543 times to 1,012 excerpts. We divided these codes into five conceptual groups that consist of the elements of narrative and plots connected with *cultural perceptions*, *perceptions of service design*, *motivations*, *practices*, and *response*. For example, the *practices* code group consists of concepts that describe what service design practitioners do, such as setting visions, building models, and visualizing and facilitating communication. In the second phase, we condensed the meanings of the excerpts in the *practices* code group to synthesize practices for the four patterns (Kvale, 2007). To narrate these practices, we first reconnected them to other coding groups to enrich the contexts. Then, we referred to these connections with the sentences and phrases we built based on the articles in the literature review. We thus made stories for each pattern drawn from the literature, then chose a representative story that reflected the common pattern and related concepts for each pattern.

Revisiting Interviews

Next, we brought the stories back to the interview transcriptions and audio recordings. We explicitly identified ourselves as the narrators of the stories to demonstrate these four patterns, such that we composed the stories with the facts and orientations we wanted to share (Daitue, 2015). In building these stories, we employed our knowledge to relate people, activities, and things we heard in the interviews to the succession of plots. That is, our focus in revisiting the interviews was reflexive interrogation into how the stories we co-constructed eliminate cultural plurality. We paid particular attention to the concepts we used to signify people and their activities. We also drew criticism of these narratives from literature. This process required us to be vigilant about the service design concepts we take for granted and to refuse to fully attach our logics of service design to the narratives we constructed. Thus, we identified particular contextual deviations from the dominant service design narrative that help accommodate the cultural plurality and heterogeneity of practices already in play in service design practice.

Findings

In this section, we present four patterns of the dominant service design narrative in relation to cultures, according to our literature review. First, *describing cultures* refers to plots that designers

give an account of actors and their cultures through design tools, concepts, and designed ideas of services or products (e.g., Hussain et al., 2012). Second, *adapting to cultures* refers to designers adjusting their approaches to accommodate cultures less compatible with service design (e.g., Taoka et al., 2018). Third, *shaping cultures* refers to designers envisaging what cultures could be and embodying the scenario of culture into the solutions they expect to implement (e.g., Dennington, 2018). Fourth, *enacting cultures* refers to practices that focus on how to proliferate the values and notions of service design (e.g., value cocreation and participatory design) in different contexts (e.g., Bailey, 2012).

In the following subsections, we unpack and examine each pattern. We begin by summarizing related literature and follow with representative stories, with pseudonyms applied to protect the anonymity of interviewees. We italicize some compelling concepts related to different patterns, because these concepts can make our use of mainstream service design knowledge more explicit. Then, we examine how these concepts erase the heterogeneity of practices in our narrative.

Service Design Describing Cultures and Beyond

Service designers often work to delineate people, as a group, according to behavior patterns, notions, beliefs, and social norms of those for whom they are designing. Scholars reinforce the belief that designed service ideas or products should reflect cultural features (e.g., Dennington, 2018; Huang & Deng, 2008; Moalosi et al., 2010). The description of cultures typically appears in the research phase, when service designers seek to build a holistic understanding of people through professional tools, concepts, and logic (e.g., Hussain et al., 2012; Joly et al., 2014). The persona is a typical means of naming a group of people (Holmlid & Evenson, 2008); it is a hypothetical archetype of "real" users or stakeholders that describes their interests, aptitudes, behavior models, and goals (Nielsen, 2004). A persona can represent a protagonist on a storyboard, which is a popular tool for telling a story, often in the form of comic strips that envision reality and the future (Holmlid & Evenson, 2008). The product of description often serves as the representation of reality that service design needs to confront in the design phase that follows. The pattern of describing cultures is manifested in the following story:

Amy's story: Amy works with nurses, a laboratory technician, and a leader from the medical department in a service design project connected with in vitro fertilization (IVF). The purpose of the project is to improve *the user experience* of patients by promoting a *cultural change* inside the department. Following the research phase, she made a *presentation of her findings* to the whole department. In this presentation, she drew a *storyboard* to describe the behavior patterns of different roles in the department, including how nurses treat patients, how nurses register the information of patients, and the timing of the entire treatment journey. These activities make up the *status quo* of *the culture of IVF in Norwegian society,* which service designers need to address in the design phase that follows.

In Amy's story, we drew a connection between service design practices, including user interviews and participatory approaches and the presentation of findings. We then inferred that this presentation, based on the research, showed the objective reality of IVF in Norwegian society. The coherence of the plot related to our reference to service design concepts. However, when we revisited our interview with Amy, we realized our story disregarded cultural plurality in two ways. First, it failed to recognize that this description was created according to Amy's encounters with other participants in the specific context. She had worked constantly to build an understanding of the status quo together with other participants from the department. Although her description reflected preexisting reality, it was a creation of a new reality among participants. For example, in the presentation, Amy printed her sketches and sent them to attendees. She found her storyboard provoked doctors to think about themselves from the patient's perspective, which sparked reflection. In this case, the design materials helped immerse doctors in the patient experience and context (Yu & Sangiorgi, 2018). According to Amy, the storyboard also had a perspective from the patients, so it was kind of from the patients' eyes. "It was more seeing [doctors] themselves as the patients see them. I thought that was really interesting, that they started seeing themselves." That is, shifting perspectives and alien languages enacted a new reality that disrupted doctors' assumptions of their work (Wetter-Edman et al., 2018).

Second, our interviews failed to capture the changes triggered by the newly enacted reality. In the way we originally narrated the story, people were dehumanized, because it was very difficult to perceive the presence of Amy and other participants involved in service design. It centered the use of service design tools to do research and described others monolithically. To accommodate the change though, the new reality needs to be placed within a meshwork of multiple realities.

Service Design Adapting to Cultures and Beyond

In the dominant narrative, the monolithic view of culture implies that service design fits some cultures better than others. Adapting to culture implies that Western service design approaches can be adjusted to fix multiple cultural contexts, especially non-Western cultures (e.g., Lee & Lee, 2007; Pirinen, 2016). These studies of cultural difference imply that the design approaches in the following story of Claudia involve shifting her approach from a workshop to "informal" interviews to adapt to the culture in Uganda hospitals. By presenting this story, we show how we appropriate design practitioners' practices into service design terminologies:

Claudia's Story: Claudia and her cross-disciplinary team work on a healthcare project that aims to deploy remote telemedicine to make healthcare more accessible to patients in Uganda. The design team is based in London. In the research phase, they flew to Uganda to understand both acceptance of the technology and Ugandan doctors' work routines. Before leaving London, they prepared some materials and planned to run several workshops in Ugandan

hospitals, in the same way they had in healthcare organizations in the United Kingdom. However, no doctors or nurses in Ugandan hospitals wanted to attend. People refused to express any opinions about their workspaces and expressed fear about saying the wrong things; the team tried to adapt by conducting one-on-one interviews and observations. However, the behavior of the doctors they were shadowing were noticeably altered by their presence as foreign designers. *As a result, Claudia conducted interviews in an informal way.* For instance, she invited doctors or nurses to have coffee or lunch with her to collect *information* about how they work in the hospital. Because this is a typical way that Ugandan doctors make friends at work, she changed the setting and tone of the interviews to make them more informal.

The story of adapting to cultures can contribute to the centrality of service design knowledge and praxis, whereas other practices in cultural plurality tend to be marginalized in narrative. The term *adapting* to cultures indicates a parallel purpose of maintaining the epistemological stability of a service design approach. In Claudia's story, we tended to attribute the peculiarities of participants' reluctance as local culture, rather than questioning whether mainstream service design knowledge was suitable in this context. In fact, without the careful exploration directly with the people participating, we do not know how the reaction to a strange design approach is related to their cultures. The tendentious attribution is manifested in other studies that focus on non-Western practices (e.g., Hussain et al., 2012; Taoka et al., 2018). The narrative of adaptation potentially encourages localizing designs to adopt Western service design as a criterion (Akama, 2009; Akama & Yee, 2016; Kang, 2016).

Moreover, the centralization of service design knowledge is reflected in the neglect of non-service design practices of service designers (also see Akama et al., 2019). We framed Claudia's practices of developing friendships with doctors as *informal* interviews, with an assumption that everything Claudia did was service design. By doing so, lunch, coffee, and personal conversations become a technique of doing interviews with the goal of collecting data. However, what service design practitioners do with their on-site experience and reflexivity goes beyond the scope of service design. For example, in Claudia's practice she gradually recognized that the divergence between the project team and local people was too big to explain:

> "They [the nurses] really believed that this [telemedicine] wasn't going to work because they have seen in many of the patients from rural areas the way they react to very simple technology. They really don't want to be near a machine because there's the perception that if I actually get to the point that I need to go to a hospital and I actually need to use a machine, I'm going to die. If you bring a machine to their community, it's actually almost like bringing death."

By acknowledging this divergence, their focus shifted from improving the accessibility of telemedicine to understanding why technology scares them. Claudia felt it was necessary to understand participants' deeper life experiences beyond what they interpreted as confrontational interrogation. To do so, she chose to take a more passive and respectful approach, by listening and talking, rather than overtly inquiring about something in particular. She even had an argument with other team members when they asked her to be more proactive and inquisitive.

Service Design Shaping Cultures and Beyond

As a discipline that attaches great importance to transformation, service design often regards a lasting change in culture, including the behaviors and value propositions of groups of people, as a key purpose (e.g., Jensen et al., 2017; Sangiorgi, 2011). Service designers tend to envisage what culture could be according to their understanding of existing cultures and to create scenarios of ideal cultures as the purpose of the practice. Shaping cultures reflects teleology in design, such that its practices are intentional operations for a specific purpose (Buchanan, 1992). In service design, building and implementing a solution is a crucial agency of the teleology. For example, Dennington (2018) suggests service design is capable of changing and making cultures, and also proposes an approach to capture cultural trends from cultural phenomena and translate them into service solutions that promote cultural change. In many service design frameworks (e.g., Double Diamond), the success and failure of implementing solutions represents the sole outcome of service design stories. Yiyun's story shows how a solution that addresses problems and needs defined in previous design practices failed to be implemented:

Yiyun's story: After months of research at a community in Huangshan, China, Yiyun found there were a lot of resources in the community, such as a reading room and activity room, that community workers were not utilizing fully. She hoped to find a way to integrate design thinking to the work of the social workers. Her *solution* was a set of desktop card-based tools. Yiyun used cards to present various resources owned by the community as well as various residences in community. There was a paper map showing an empty journey map; the map was similar to the user journey map but was changed according to the context of community. This map and cards were intended to help social workers engage local residents to cocreate community activities. Much to Yiyun's regret, after she delivered the tool to community members, they did not *use* it. Yiyun assumed her process *failed*. When she reflected, she thought she should have done more research about how to sustain the use of this tool in the community.

For Yiyun, the implementation of the solution was always a distant goal. Yiyun's sense of failure grew from the tool she delivered not being used by social workers. During our interview, Yiyun raised doubts about the ability of service design to shape cultures. When she reflected on her project, she mentioned, "the change of culture is a long-term process, rather than a temporary process or a project." She shared that she thought the intervention of designers is relatively very short: "When a service designer leaves the community and the project is completed for a month or a year, maybe the project will be completely forgotten by the culture."

Her thoughts led us to question whether the achievement of a specific purpose, especially the implementation of a solution, fully explains how service design influences cultures. Does this

narrative explain those micro influences away, leaving only a rough conclusion of success or failure in shaping cultures? When revisiting the interview, we tried to focus on the changes that Yiyun perceived in this project. We found the community workers still have Yiyun's tool; they are proud of it and happily present it to others. We failed to pursue the reason for their pride. If we can accommodate these phenomena in the narratives of service design, we might make stories more open-ended and lead to different futures, rather than ending them with failure of implementation.

Service Design Enacting Cultures and Beyond

The monolithic view of culture also is manifested in the self-reproduction of common characteristics of service design practice, which is a process of enacting culture, especially design culture. The concept of design culture in the narrative designates distinct contemporary manifestations of the design practice of designers and other actors (Julier & Munch, 2019). Enacting design culture indicates that service design can display and spread particular values and meanings of culture held by service designers. Service designers are expected to perform their profession and gain legitimacy by employing specific behavior patterns, a particular language, and similar value propositions (Fayard et al., 2017). For example, design culture often is thought to involve a radical participatory democracy that encourages diverse actors to design and provide solutions to address specific problems (Manzini, 2016). The following story of Songhwa illustrates that service design practitioners are enacting a design culture. When coding our interviews, we regarded this story as evidence of service design displaying a particular value of participation by setting the rules and rituals of participants' behaviors in the workshop. However, we realized that in the narrative of service design practice, the culture and politics of service design is difficult to perceive:

Songhwa's story: In a project of *organizational transformation*, Songhwa and her *service design team* invited *employees* from a large *South Korean company* to attend a *codesign workshop*. Because this *workshop* was in the early *research phase*, the *purpose was to* investigate *the status quo* of the company. *The design team* thought the company had a *"conservative and hierarchical" culture*, and *employees* might not adapt well to the *codesign workshop*. To counterbalance *this culture*, the design team built *rituals* to ask participants to act differently. For instance, they asked participants to call each other by their first names, rather than surnames with job title, in their everyday work. By doing so, they helped participants offset their *behaviors and perceptions* by exposing them to new possible meanings. This shift of form of address is very helpful in making different people from different *hierarchical positions* communicate directly in the *workshop*.

In this story, we did not use a term such as *design culture* to summarize design practice, as what we do to others' collective features in the above stories. The concepts relating to the South Korean company and employees tend to be monolithic (conservative and hierarchical culture, behaviors and perceptions of employees, status quo of the company), whereas the concepts of service design tend to be instrumental and functional (e.g., purpose of the workshop, building rituals) to condition the activities of service design practitioners. These two tendencies are interrelated. To give exclusive attention to the functionality of service design, it is necessary to neutralize its value proposition and objectify other practices (Akama et al., 2019; Janzer & Weinstein, 2014).

However, when revisiting the interview with Songhwa, we found she was aware of the power dynamic in the global social construction of service design knowledge. In the construction of the story, we ignored her positionality in this practice. She told us she temporarily works for a European service design consultancy, and the South Korean company is its client. Because of the global COVID-19 pandemic, the two companies work remotely. She shared that she is the person who runs the workshop directly with the client in South Korea, with the designer in Europe taking responsibility for organizing the workshop remotely. She is confused about this situation, because in past few years, she found that many local service design consultancies in South Korea had gone bankrupt, because the clients do not accept their practices of service design: "I would say 'hiring the UK company' is stupid is because I'm South Korean and I can do this kind of project in South Korea for your company but why are you asking a company in London?"

Departing from the Dominant Narrative

Narratives of service design that account for cultural plurality matter, because they are attempts to grasp the relationality of service design to different practices encountered in making futures. According to our examination of the four patterns of service design, we find the dominant service design narrative fails to integrate its practice with other practices but instead pours different practices into one container. First, in the story of service design, describing cultures can enact a new reality. However, it often is overlooked that this reality is enacted in the context of the encounter between designers and other participants. Moreover, the reality fails to be combined with other realities; it risks becoming universal and concealing other realities. Second, the plot of adapting to cultures tends to designate the peculiarities of people's poor fitness to participate in the service design as their culture. Adapting to cultures encourages service designers to over-establish themselves as experts while ignoring their own non-service design practices. Third, shaping of cultures implies a detached, exclusive position of building solutions in narrating the influence of service design, failing to notice other influences of service design. Fourth, the story often regards service design as an instrument for other cultures but is insensitive and oblivious to the power dynamics and cultural values it enacts.

Discussion

Through careful analysis of the dominant service design narrative in relation to culture and the deviations from the common patterns of this narrative, our study makes two key contributions. First, it demonstrates the insufficiency of the dominant narrative to capture the differences of service design in multiple cultures and to recognize the risks associated with this oversimplified story. Second, it encourages service design knowers to decentralize service design within the narrative, by acknowledging more fully the diverse practices of world-making with which it is entangled.

Insufficiencies of the Dominant Narrative

Service design often is devoted to integrating the needs, perspectives, concepts, and methods of different actors, then collaboratively prompting transformative innovation (Yu, 2020). The concept of cultural plurality reminds us that the value of co-creation in service design implies an ethical commitment that different practices can and must coexist. Service design involves not only the manipulation of the different characteristics of people to achieve one purpose but also the accommodation of multiple forms of making futures. We argue that this commitment has not been fulfilled. Our concern about the dominant narrative resonates with Fry et al.'s (2015) ideas about the defuturing effects of design; they suggest that possible futures are systemically eliminated by existing design practices. Existing knowledge becomes a "refuge" from what is actually happening (Ingold, 2018, p. 9). The crisis of the service design narrative is its incapacity to interpret other practices of making futures, other than translating them into the knowledge of service design. This tendency restricts the fluidity of service design and, when other practices are assimilated into service design, it restricts service design from benefiting from other knowledge and wisdom.

To account for cultural plurality and restore the imagination of service design praxis and knowledge, we argue that decentralizing the dominant narrative can act as a starting point. Although the dominant narrative demonstrates the power of mainstream service design knowledge through its central positioning, assimilation, and marginalization of heterogeneous practices, this narrative cannot fully cancel out all the entangled heterogeneous practices; everyday practices are quietly woven around the dominant narrative through subtle slippages (De Certeau, 1997). This study presents a glimpse into some of the heterogeneous practices in daily life in which service design practitioners' backgrounds, reflexivity, and bravery disclose more imagination of the future. We advance Akama and Yee's (2016) argument that designing happens in other names, conditioned by various localities; the practice of making futures does not always need to be fully named as designing. That is, the logic and coherence of service design can be disturbed, due to the contamination and attunement with other cultures (Light, 2019; Tsing, 2015).

Enabling Narrative Sensitivity

Our paper clearly emphasizes the significance of narrative in decolonizing the knowledge and praxis of service design. According to this proposition, our main contribution is to propose four patterns that unpack the dominant service design narrative in relation to culture. By examining and reflecting on these patterns, we elaborate how the dominant narrative conceals and marginalizes cultural plurality. We hope these findings encourage knowers to explore how to entangle the story of service design with other practices. We believe it is necessary to cultivate a narrative sensitivity and vigilance regarding the presence of mainstream service design knowledge.

As we argued from the beginning, service design concepts are the world-making tools for knowledge. We, knowers of service design, must sensitize ourselves to the concepts of service design, especially those essential but sometimes unexamined concepts that underlie our narratives. In the stories we co-constructed, we found ourselves citing our concepts too broadly when referring to other practices. On the one hand, there is an urgent need to be more cautious around the use of concepts labeling culture. Labeling the difference encountered in design practices as a culture without careful examination may conceal the power dynamics and tensions in the practices (Breidenbach & Nyíri, 2011), and undermine complex and relational values and meanings which contain transformative messages connecting to histories and philosophies of the localities (Akama et al., 2019). The methods for conducting interviews with design practitioners in this paper are demonstrated to be insufficient and even problematic to achieve grappling with this complexity, since focusing the interviews on cultures may encourage interviewees to label cultural concepts to the peculiar phenomena they encounter. On the other hand, considering the wide range of concepts in service design that have not been carefully examined, such as user, service delivery process, and stakeholder, we need to form our narratives more carefully. For instance, Kim (2018) focuses on the Western history of the fundamental concept of *service*, suggesting that the contemporary service concept is often determined by the principles of business. Suchman (2021) questions whether the concept of *design* over-occupies the discourse of general practices of making. This question resonates with the ontological turn in design (e.g., Escobar, 2018; Willis, 2006). We thus call for study and practice to examine and challenge the widely used concepts of mainstream service design in narrating the relationality among design, history, and the future of people.

For service design, this narrative sensitivity also touches on how we think of relationality. There is a preference for holistic thinking in service design, through which designers can build a unified understanding that connects the practices of different stakeholders. Anthropologist Tsing (2015) suggests that framing different practices by *prefabrication*—that is, the logic that various practices happen to achieve a common purpose—is not enough. The knowers of service design also must see a juxtaposition, a coming together of an assembly of unintentional coordination through which multidirectional change happens. Therefore, the narrative of service design practices should strive to remain open-ended, because these practices exist in evolving contexts in which design and other practices are ongoing (Vink et al., 2021). Accordingly, the scope of the design narrative can be expanded to "what constitutes transformative change and how it happens" (Suchman, 2011, p. 3), rather than how design methods are used. According to our interviews, which focus only on the narratives of service design practitioners, the stories in this study fail to capture the presence of other people. Too often the narrators of service design are considered the only knowers, even though other people are involved in diverse ways. Therefore, we also call for further ethnographic studies of how participants narrate service design according to the threads of their lives.

Conclusion

We raise a concern regarding service design knowers' capacity to build narratives in a process of world-making. With this study, we propose that acknowledging cultural plurality as an a priori

condition represents care for people and cultures at the "margin" and their ability to make futures that are divergent and not fully comparable. The ways in which paths toward futures are narrated is becoming even more crucial. Service design knowledge constructs the dominant narrative to describe knowers' and others' practices of creating the future. By reflecting on our own experiences of narrative practice, we realize that our knowledge is capable of constantly reinstating itself by translating the practice of different people into a cohesive, recognizable service design practice. For knowers of service design, this translation encourages positioning themselves as service design experts, and as experts, all one's practices are service design practices that restrain the perception of heterogeneities beyond the scope of mainstream service design knowledge. For participants in service design, the dominant narrative risks translating practices into only one part of service design, by grouping them according to a monolithic cultural view. By revisiting our interviews, we shed light on neglected practices that question the sufficiency of the dominant narrative and begin to focus our attention on how we can better narrate cultural plurality and depart from the dominant narrative. We suggest a commitment to narrative sensitivity that attends to the translation of service design knowledge and concepts. Moreover, we encourage service designers to refuse sole reference to mainstream service design knowledge and welcome entanglements with heterogeneous practices that might foreshadow more divergent futures.

Acknowledgments

We would like to thank all of the designers interviewed as part of this project who generously shared their experiences with us. We also express our deep gratitude to Yoko Akama, all of the guest editors, and the two anonymous reviewers for their valuable and thorough feedback on this manuscript; and to Christoph Brumann and Joost Beuving for their input that helped to clarify our argument. This project has received funding from the Research Council of Norway through the Centre for Connected Care (C3).

References

1. Aguirre, M. (2020). *Transforming public organizations into co-designing cultures: A study of capacity-building programs as learning ecosystems* (Doctoral dissertation). Oslo School of Architecture and Design, Oslo, Norway.
2. Akama, Y. (2009). Warts-and-all: The real practice of service design. In *Proceedings of the 1st Nordic Conference on Service Design and Service Innovation* (pp. 1-11). Linköping, Sweden: Linköping University Electronic Press.
3. Akama, Y., Hagen, P., & Whaanga-Schollum, D. (2019). Problematizing replicable design to practice respectful, reciprocal, and relational co-designing with indigenous people. *Design and Culture, 11*(1), 59-84. https://doi.org/10.1080/17547075.2019.1571306
4. Akama, Y., & Yee, J. (2016). Seeking stronger plurality: Intimacy and integrity in designing for social innovation. In Proceedings of the Cumulus Conference on Open Design for E-very-thing (pp. 173-180). Hong Kong, China: Hong Kong Design Institute.
5. Alvesson, M. (2003). Beyond neopositivists, romantics, and localists: A reflexive approach to interviews in organizational research. *Academy of Management Review, 28*(1), 13-33. https://doi.org/10.2307/30040687
6. Ansari, A. (2020). Plural bodies, pluriversal humans: Questioning the ontology of 'body' in design. *Somatechnics, 10*(3), 286-305. https://doi.org/10.3366/soma.2020.0324
7. Appadurai, A. (1996). *Modernity at large: Cultural dimensions of globalization.* Minneapolis, MN: University of Minnesota Press.
8. Bailey, S. G. (2012). Embedding service design: The long and the short of it. In *Proceedings of the 3rd Conference on Service Design and Service Innovation* (pp. 31-41). Linköping, Sweden: Linköping University Electronic Press.
9. Barad, K. (2007). *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning.* Durham, NC: Duke University Press.
10. Blaser, M., & De la Cadena, M. (2018). Pluriverse: Proposals for a world of many worlds. In M. de la Caden & M. Blaser (Eds.), *A world of many worlds* (pp. 1-22). Durham, NC: Duke University Press.
11. Breidenbach, J., & Nyíri, P. (2011). *Seeing culture everywhere: From genocide to consumer habits.* Seattle, WA: University of Washington Press.
12. Brumann, C. (1999). Writing for culture: Why a successful concept should not be discarded. *Current Anthropology, 40*(S1), S1-S27. https://doi.org/10.1086/200058
13. Buchanan, R. (1992). Wicked problems in design thinking. *Design Issues, 8*(2), 5-21. http://doi.org/10.2307/1511637
14. Daiute, C. (2015). Narrating possibility. In G. Marsico (Eds.), *Jerome S. Bruner beyond 100* (pp. 157-172). Cham, Switzerland: Springer.
15. De Certeau, M. (1997). *Culture in the plural* (T. Conley, Trans.). Minneapolis, MN: University of Minnesota Press. (Original work published 1974)
16. Dennington, C. (2018). Trendslation—An experiential method for semantic translation in service design. In *Proceedings of the Conference on Service Design Proof of Concept* (pp. 1049-1063). Linköping, Sweden: Linköping University Electronic Press.
17. Dubois, A., & Gadde, L. E. (2002). Systematic combining: An abductive approach to case research. *Journal of Business Research, 55*(7), 553-560. https://doi.org/10.1016/S0148-2963(00)00195-8
18. Eriksen, T. H. (2001). *Small places, large issues: An introduction to social and cultural anthropology.* London, UK: Pluto Press.
19. Escobar, A. (2018). *Designs for the pluriverse: Radical interdependence, autonomy, and the making of worlds.* Durham, NC: Duke University Press.
20. Fayard, A. L., Stigliani, I., & Bechky, B. A. (2017). How nascent occupations construct a mandate: The case of service designers' ethos. *Administrative Science Quarterly, 62*(2), 270-303. https://doi.org/10.1177/0001839216665805

21. Ferruzca, M., Tossavainen, P., Kaartti, V., & Santonen, T. (2016). A comparative study of service design programs in higher education. In *Proceedings of the 10th Annual International Technology, Education and Development Conference* (9 pages). Valencia, Spain: IATED. https://doi.org/10.21125/inted.2016.0531
22. Fry, T., Dilnot, C., & Stewart, S. (2015). *Design and the question of history*. London, UK: Bloomsbury Publishing.
23. Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational Research Methods, 16*(1), 15-31. https://doi.org/10.1177/1094428112452151
24. Gobo, G. (2011). Glocalizing methodology? The encounter between local methodologies. *International Journal of Social Research Methodology, 14*(6), 417-437. https://doi.org/10.1080/13645579.2011.611379
25. Goodman, N. (1978). *Ways of worldmaking* (Vol. 51). Cambridge, MA: Hackett Publishing.
26. Holmlid, S., & Evenson, S. (2008). Bringing service design to service sciences, management and engineering. In B. Hefley & W. Murphy (Eds.), *Service science, management and engineering education for the 21st century* (pp. 341-345). Boston, MA: Springer. https://doi.org/10.1007/978-0-387-76578-5_50
27. Huang, K. H., & Deng, Y. S. (2008). Social interaction design in cultural context: A case study of a traditional social activity. *International Journal of Design, 2*(2), 81-96.
28. Hussain, S., Sanders, E. B. N., & Steinert, M. (2012). Participatory design with marginalized people in developing countries: Challenges and opportunities experienced in a field study in Cambodia. *International Journal of Design, 6*(2), 91-109.
29. Ingold, T. (2007). *Lines: A brief history.* London, UK: Routledge.
30. Ingold, T. (2018). *Anthropology: Why it matters*. Hoboken, NY: John Wiley & Sons.
31. Janzer, C. L., & Weinstein, L. S. (2014). Social design and neocolonialism. *Design and Culture, 6*(3), 327-343. https://doi.org/10.2752/175613114X14105155617429
32. Jensen, M. B., Elverum, C. W., & Steinert, M. (2017). Eliciting unknown unknowns with prototypes: Introducing prototrials and prototrial-driven cultures. *Design Studies, 49*, 1-31. https://doi.org/10.1016/j.destud.2016.12.002
33. Joly, M., Cipolla, C., & Manzini, E. (2014). Informal; formal; collaborative: Identifying new models of services within favelas of Rio de Janeiro. In *Proceedings of the 4th Conference on Service Design and Service Innovation* (pp. 57-66). Linköping, Sweden: Linköping University Electronic Press.
34. Julier, G., & Munch, A. (2019). Introducing design culture. In G. Julier, M. N. Folkmann, N. P. Skou, H. C. Jensen, & A. V. Munch (Eds.), *Design culture: Objects and approaches* (pp. 1-11). London, UK: Bloomsbury Publishing.
35. Junginger, S. (2015). Organizational design legacies and service design. *The Design Journal, 18*(2), 209-226. https://doi.org/10.2752/175630615X14212498964277
36. Kang, L. (2016). Social design as a creative device in developing Countries: The case of a handcraft pottery community in Cambodia. *International Journal of Design, 10*(3), 65-74.
37. Kim, M. (2018). An inquiry into the nature of service: A historical overview (part 1). *Design Issues, 34*(2), 31-47. https://doi.org/10.1162/DESI_a_00484
38. Kurtmollaiev, S., Fjuk, A., Pedersen, P. E., Clatworthy, S., & Kvale, K. (2018). Organizational transformation through service design: The institutional logics perspective. *Journal of Service Research, 21*(1), 59-74. https://doi.org/10.1177/1094670517738371
39. Kvale, S. (2007). Analyzing interviews. In S. Brinkmann & S. Kvale (Eds.), *Doing interviews* (pp. 102-120). London, UK: Sage. https://dx.doi.org/10.4135/9781529716665.n9
40. Law, J. (2015). What's wrong with a one-world world? *Distinktion: Scandinavian Journal of Social Theory, 16*(1), 126-139. https://doi.org/10.1080/1600910X.2015.1020066
41. Law, J., & Lien, M. (2018). Denaturalizing nature. In M. de la Caden & M. Blaser (Eds.), *A world of many worlds* (pp. 131-171). Durham, NC: Duke University Press.
42. Lee, J. J., & Lee, K. P. (2007). Cultural differences and design methods for user experience research: Dutch and Korean participants compared. In *Proceedings of the Conference on Designing Pleasurable Products and Interfaces* (pp. 21-34). New York, NY: ACM. https://doi.org/10.1145/1314161.1314164
43. Light, A. (2019). Design and social innovation at the margins: Finding and making cultures of plurality. *Design and Culture, 11*(1), 13-35. https://doi.org/10.1080/17547075.2019.1567985
44. Mahamuni, R., Lobo, S., & Das, B. (2020). Proliferating service design in a large multi-cultural IT organization–An inside-out approach. In *Proceedings of the Conference on Tensions, Paradoxes and Plurality* (pp. 34-35). Linköping, Sweden: Linköping University Electronic Press.
45. Malmberg, L. (2017). *Building design capability in the public sector: Expanding the horizons of development* (Doctoral dissertation). Linköping University, Linköping, Sweden.
46. Manzini, E. (2016). Design culture and dialogic design. *Design Issues, 32*(1), 52-59. https://doi.org/10.1162/DESI_a_00364
47. Matthews, T., Judge, T., & Whittaker, S. (2012). How do designers and user experience professionals actually perceive and use personas? In *Proceedings of the Conference on Human Factors in Computing Systems* (pp. 1219-1228). New York, NY: ACM. https://doi.org/10.1145/2207676.2208573
48. Moalosi, R., Popovic, V., & Hickling-Hudson, A. (2010). Culture-orientated product design. *International Journal of Technology and Design Education, 20*(2), 175-190. https://doi.org/10.1007/s10798-008-9069-1
49. Nielsen, L. (2004). *Engaging personas and narrative scenarios* (Doctoral dissertation). Copenhagen Business School, Copenhagen, Denmark.

50. Otto, T., & Bubandt, N. (2010). Beyond the whole in ethnographic practice? Introduction to part 1. In T. Otto & N. Bubandt (Eds.), *Experiments in holism: Theory and practice in contemporary anthropology* (pp. 19-27). Hoboken, NJ: Wiley-Blackwell. https://doi.org/10.1002/9781444324426.ch2
51. Pirinen, A. (2016). The barriers and enablers of co-design for services. *International Journal of Design, 10*(3), 27-42.
52. Rauth, I., Carlgren, L., & Elmquist, M. (2014). Making it happen: Legitimizing design thinking in large organizations. *Design Management Journal, 9*(1), 47-60. https://doi.org/10.1111/dmj.12015
53. Ruigrok, W., & Achtenhagen, L. (1999). Organizational culture and the transformation towards new forms of organizing. *European Journal of Work and Organizational Psychology, 8*(4), 521-536. https://doi.org/10.1080/135943299398140
54. Sangiorgi, D. (2011), Transformative services and transformation design. *International Journal of Design, 5*(2), 29-40.
55. Seidelin, C., Sivertsen, S. M., & Dittrich, Y. (2020). Designing an organisation's design culture: How appropriation of service design tools and methods cultivates sustainable design capabilities in SMEs. In *Proceedings of the Conference on Tensions, Paradoxes and Plurality* (pp. 11-31). Linköping, Sweden: Linköping University Electronic Press.
56. Stengers, I. (2018). The challenge of ontological politics. In M. de la Caden & M. Blaser (Eds.), *A world of many worlds* (pp. 83-111). Durham, NC: Duke University Press.
57. Strathern, M. (1992). *Reproducing the future: Essays on anthropology, kinship and the new reproductive technologies*. Manchester, UK: Manchester University Press.
58. Strathern, M. (2018). Opening up relations. In M. de la Caden & M. Blaser (Eds.), *A world of many worlds* (pp. 23-52). Durham, NC: Duke University Press.
59. Stuart, F. I. (1998). The influence of organizational culture and internal politics on new service design and introduction. *International Journal of Service Industry Management, 9*(5), 469-485. https://doi.org/10.1108/09564239810238866
60. Suchman, L. (2011). Anthropological relocations and the limits of design. *Annual Review of Anthropology, 40*, 1-18. https://doi.org/10.1146/annurev.anthro.041608.105640
61. Suchman, L. (2021). Border thinking about anthropologies/designs. In K. Murphy & E. Wilf (Eds.), *Designs and anthropologies: Frictions and affinities* (pp. 17-34). Albuquerque, NM: University of New Mexico Press.
62. Taoka, Y., Kagohashi, K., & Mougenot, C. (2018). A cross-cultural study of co-design: The impact of power distance on group dynamics in Japan. *CoDesign, 17*(1), 22-49. https://doi.org/10.1080/15710882.2018.1546321
63. Tlostanova, M. (2017). On decolonizing design. *Design Philosophy Papers, 15*(1), 51-61. https://doi.org/10.1080/14487136.2017.1301017
64. Tsing, A. L. (2015). *The mushroom at the end of the world: On the possibility of life in capitalist ruins*. Princeton, NJ: Princeton University Press.
65. Verran, H. (2018). The politics of working cosmologies together while keeping them separate. In M. de la Caden & M. Blaser (Eds.), *A world of many worlds* (pp. 112-130). Durham, NC: Duke University Press.
66. Vink, J., Koskela-Huotari, K., Tronvoll, B., Edvardsson, B., & Wetter-Edman, K. (2021). Service ecosystem design: Propositions, process model, and future research agenda. *Journal of Service Research, 24*(2), 168-186. https://doi.org/10.1177/1094670520952537
67. Wetter-Edman, K., Vink, J., & Blomkvist, J. (2018). Staging aesthetic disruption through design methods for service innovation. *Design Studies, 55*, 5-26. https://doi.org/10.1016/j.destud.2017.11.007
68. Willis, A. M. (2006). Ontological designing. *Design Philosophy Papers, 4*(2), 69-92. https://doi.org/10.2752/144871306X13966268131514
69. Yu, E. (2020). Toward an integrative service design framework and future agendas. *Design Issues, 36*(2), 41-57. https://doi.org/10.1162/desi_a_00589
70. Yu, E., & Sangiorgi, D. (2018). Exploring the transformative impacts of service design: The role of designer–client relationships in the service development process. *Design Studies, 55*, 79-111. https://doi.org/10.1016/j.destud.2017.09.001

Appendix A. *Selected Articles for Literature Review*

Articles	How design or service design relates to culture(s)?	Is culture a subject in the article?	Patterns of the dominant narrative
Akama, Y. (2009). Warts-and-all: The real practice of service design. In *Proceedings of the ServDes Conference on DeThinking Service; ReThinking Design* (pp. 1-11). Linköping, Sweden: Linköping University Electronic Press.	The paper critiques service design practices in Australia that are often documented and reported in a European manner as obstacles to contextual understanding the practice of service design.	Yes	Adapting to cultures
Akama, Y., Hagen, P., & Whaanga-Schollum, D. (2019). Problematizing replicable design to practice respectful, reciprocal, and relational co-designing with indigenous people. *Design and Culture, 11*(1), 59-84.	This paper criticizes the replicability of globally popular methods of design as well as their colonial legacies. The authors propose respectful, reciprocal, and relational approaches as an ontological commitment of co-design. The paper also encourages designers to cultivate a sensitivity to locality, culture, value, and knowledge in their practices.	Yes	Enacting cultures
Aldersey-Williams, H. (1990). Design and cultural identity. *International Journal of Technology and Design Education, 1*(2), 69-74.	The design has the responsibility to resist the global "cultural imperialism". In practice, design needs to display cultural identity, especially regional cultural identity.	Yes	Describing cultures; Enacting cultures
Baek, J. S., Kim, S., Pahk, Y., & Manzini, E. (2018). A sociotechnical framework for the design of collaborative services. *Design Studies, 55*, 54-78.	In the Discussion, the authors refer McDonaldization to as dehumanized modern services, which appears in the culture of a rationalized society (p.71).	No	Describing cultures
Baek, J. S., Kim, S., & Harimoto, T. (2019). The effect of cultural differences on a distant collaboration for social innovation: A case study of designing for precision farming in Myanmar and South Korea. *Design and Culture, 11*(1), 37-58.	This paper explores the influence of cultural differences encountered in the collaboration between Myanmar Social Enterprise and South Korean University in a design project of Soil Sensors and related Services. By reflecting upon the process and outcomes, they highlight the cultural gaps observed and how they were reinforced or bridged during the collaboration across distance. The authors also emphasize the need for designers to be more sensitive about the cultural difference, especially the invisible and potential needs, values, and notions of users and other actors.	Yes	Describing cultures; Adapting to cultures
Bailey, S. G. (2012). Embedding service design: The long and the short of it. In *Proceedings of the 3rd Service Design and Service Innovation Conference* (pp. 31-41). Linköping, Sweden: Linköping University Electronic Press.	This paper suggests that the embedding of design methods, practices, and cultures into organizations requires conceptual changes in culture and behavior. In the author's fieldwork, employees' change in language and behavior toward design can be initiated by raising awareness of design practices and being engaged in design projects or workshops.	Yes	Enacting cultures
Bowen, S., McSeveny, K., Lockley, E., Wolstenholme, D., Cobb, M., & Dearden, A. (2013). How was it for you? Experiences of participatory design in the UK health service. *CoDesign, 9*(4), 230-246.	This paper mentions that in healthcare services and NHS Hospitals there are some distinctive cultural settings to which participatory design needs to adapt (p. 231). In the Discussion, this paper uses the institutional culture of participation as a future vision to illustrate that the participatory approach needs to be better embedded in organizations.	No	Adapting to cultures; Enacting cultures
Christensen, B. T., & Ball, L. J. (2018). Fluctuating epistemic uncertainty in a design team as a metacognitive driver for creative cognitive processes. *CoDesign, 14*(2), 133-152.	This paper focuses on how Scandinavian design teams understand and design for Chinese users and suggests that the cross-cultural interpretation is unstable and vague, while the uncertainty also reflects the creative potential of design.	Yes	Adapting to cultures
Clemmensen, T., Ranjan, A., & Bødker, M. B. (2017). How cultural knowledge shapes design thinking: A situation-specific analysis of availability, accessibility and applicability of cultural knowledge in inductive, deductive and abductive reasoning in two design debriefing sessions. In B. T. Christensen, L. J. Ball, & K. Halskov (Eds.), *Analysing design thinking: Studies of cross-cultural co-creation* (pp. 153-171). Boca Raton, FL: CRC Press.	This paper questions the homogeneity and unity in design thinking, and holds that the thinking of designers and consultants is often biased by their cultural knowledge. The study adopts region and country as important criteria to classify cultures.	Yes	Adapting to cultures

Appendix A. Selected articles for literature review (continued)**.**

Articles	How design or service design relates to culture(s)?	Is culture a subject in the article?	Patterns of the dominant narrative
Denington, C. (2018). Trendslation–An experiential method for semantic translation in service design. In *Proceedings of the Conference on Service Design Proof of Concept* (pp. 1049-1063). Linköping, Sweden: Linköping University Electronic Press.	This paper discusses the potential role of service design as a cultural intermediary. In service design practices, cultural materials and phenomena can be translated into new service offerings and details.	Yes	Describing cultures; Shaping cultures; Enacting cultures
Gaver, B., Dunne, T., & Pacenti, E. (1999). Design: cultural probes. *Interactions, 6*(1), 21-29.	This paper introduces the cultural probe as a design method to describe and understand the local culture in the design process.	Yes	Describing cultures
Holmlid, S., & Evenson, S. (2008). Bringing service design to service sciences, management and engineering. In B. Hefley & W. Murphy (Eds.), *Service science, management and engineering education for the 21st century* (pp. 341-345). Boston, MA: Springer.	This study summarizes different service design methods to model and prototype the behavior, characteristics, and culture of users and other actors.	No	Describing cultures
Huang, K. H., & Deng, Y. S. (2008). Social interaction design in cultural context: A case study of a traditional social activity. *International Journal of Design, 2*(2), 81-96.	This study unfolds the detailed complexity of the traditional culture of tea and advocates that the product and process of interaction design should be able to display and embed specific cultural characteristics and inheritance.	Yes	Describing cultures; Shaping cultures
Hussain, S., Sanders, E. B. N., & Steinert, M. (2012). Participatory design with marginalized people in developing countries: Challenges and opportunities experienced in a field study in Cambodia. *International Journal of Design, 6*(2), 91-109.	This paper presents a case of participatory design with adults and kids in rural Cambodia. The authors describe in detail the barriers they have encountered to use participatory design here, and how they have adapted the design approach to local culture. They suggest that Khmer culture is an important factor that influences the project. For example, in Khmer culture, children who use artificial legs are found to be in a vulnerable position (p.94); Khmer culture attaches great importance to "face", which often makes participants rarely express criticism in participatory design (p. 99).	Yes	Describing cultures; Adapting to cultures
Hyde, P., & Davies, H. T. (2004). Service design, culture and performance: Collusion and co-production in health care. *Human relations, 57*(11), 1407-1426.	This paper explores the value of framing the production and transformation of organizational cultures as a crucial purpose of service design in healthcare. The authors particularly focus on the complex relationship between organizational culture and performance.	Yes	Enacting cultures; Shaping cultures
Janzer, C. L., & Weinstein, L. S. (2014). Social design and neocolonialism. *Design and Culture, 6*(3), 327-343.	Based on the studies of neocolonialism, this paper reflects on the claims, practices, and methodologies of social design and argues that designers need to be more sensitive to complex social and cultural cues and structures. In particular, the paper criticizes the tendency to detach design practices from the context.	Yes	Enacting cultures
Jensen, M. B., Elverum, C. W., & Steinert, M. (2017). Eliciting unknown unknowns with prototypes: Introducing prototrials and prototrial-driven cultures. *Design Studies, 49*, 1-31.	Based on the reflection on how prototype is used in the company, this paper advocates the establishment of prototrial-driven cultures in the company, which encourages employees to be more sensitive to the uncertainties encountered in prototyping.	Yes	Enacting cultures; Shaping cultures
Joly, M., Cipolla, C., & Manzini, E. (2014). Informal; Formal; Collaborative: Identifying New Models of Services within Favelas of Rio de Janeiro. In *Proceedings of the 4th Conference on Service Design and Service Innovation* (pp. 57-66). Linköping, Sweden: Linköping University Electronic Press.	The author shares a local self-organizing social innovation and mutual assistance project in Favelas of Rio de Janeiro. Based on the language and logic of service design, this paper further discusses how this project can suggest a new service model.	Yes	Describing cultures
Julier, G., & Munch, A. (2019). Introducing design culture. In G. Julier, M. N. Folkmann, N. P. Skou, H. C. Jensen, & A. V. Munch (Eds.), *Design culture: Objects and approaches* (pp. 1-11). London, UK: Bloomsbury Publishing.	This book chapter explores design culture as a core concept and perspective to expression and historical roots of design practice, research and value proposition.	Yes	Enacting cultures

Appendix A. Selected articles for literature review (continued).

Articles	How design or service design relates to culture(s)?	Is culture a subject in the article?	Patterns of the dominant narrative
Kang, L. (2016). Social design as a creative device in developing Countries: The case of a handcraft pottery community in Cambodia. *International Journal of Design, 10*(3), 65-74.	This paper criticizes the tendency towards cultural imperialism in design interventions for developing countries and encourages social designers to engage closely with local knowledge and values in their practice. The author also emphasizes the need to empower participants at the very beginning of design.	Yes	Adapting to cultures; Enacting cultures
Kim, M. (2018). An inquiry into the nature of service: A historical overview (part 1). *Design Issues, 34*(2), 31-47.	This paper explores the meaning of the service in the changes of Western history and culture.	No	Enacting cultures
Kim, B. Y., & Kang, B. K. (2008). Cross-functional cooperation with design teams in new product development. *International Journal of Design, 2*(3), 43-54.	This article discusses the key factors for the successful collaboration of a cross-functional design team. One of the most important factors for success is to create an appropriate unified organizational culture.	No	Shaping cultures
Lee, J. J., & Lee, K. P. (2007). Cultural differences and design methods for user experience research: Dutch and Korean participants compared. In *Proceedings of the Conference on Designing Pleasurable Products and Interfaces* (pp. 21-34). New York, NY: ACM.	This paper presents four cultural factors that influence the user research process. Based on the comparison of user research practices in South Korea and the Netherlands, the guidance of user research applied in South Korea is proposed.	Yes	Adapting to cultures
Light, A. (2019). Design and social innovation at the margins: Finding and making cultures of plurality. *Design and Culture, 11*(1), 13-35.	This paper shares a design experience in the northern borderlands of Finland to consider how marginal design practice and narrative contribute to the cultural plurality of design practice and dispense with the orthodoxies of design.	Yes	Enacting cultures
Manzini, E. (2016). Design culture and dialogic design. *Design Issues, 32*(1), 52-59.	This paper emphasizes that design culture is an unstable and plural entity, and suggests that solution-ism and participation-ism in design culture tend to simplify the complexity and contradiction of co-design. And this proposition sees co-design as a social conversation, where everyone encounters each other with their skills and culture.	Yes	Enacting cultures
Moalosi, R., Popovic, V., & Hickling-Hudson, A. R. (2007). Product analysis based on Botswana's postcolonial socio-cultural perspective. *International Journal of Design, 1*(2), 37-45.	Based on an analysis of Botswana's traditional indigenous artifacts and products, the authors distill the characteristics of the emotional, cultural, and social factors that accompany Botswana's culture. This paper argues that post-colonial product design should be able to embody, reflect, and mediate social and cultural factors and convey them to users.	Yes	Describing cultures; Enacting cultures
Moalosi, R., Popovic, V., & Hickling-Hudson, A. (2010). Culture-orientated product design. *International Journal of Technology and Design Education, 20*(2), 175-190.	This paper proposes a culture-oriented product design model, which aims to help designers integrate cultural factors in the design process, including understanding the user's culture; using culture as a resource for product development and promoting culture-oriented innovation.	Yes	Describing cultures; Adapting to cultures; Shaping cultures; Enacting cultures
Morelli, N. (2003). Product-service systems, a perspective shift for designers: A case study: the design of a telecentre. *Design Studies, 24*(1), 73-99.	This paper theorizes the framework of the product service system. Within this framework, design practices need to understand, link, and mediate different cultures such as design culture, customer culture, and service provider culture (p. 77).	No	Describing cultures; Shaping cultures; Enacting cultures
Nelson, H. G., & Stolterman, E. (2000). The case for design: Creating a culture of intention. *Educational Technology, 40*(6), 29-35.	To facilitate a design approach to these world-making projects, there is a need to create a design context or culture where people can commonly share an understanding of the nature and utility of design.	No	Enacting cultures
Nilsson, B., Peterson, B., Holden, G., & Eckert, C. (2011). Design Med Omtanke: Participation and sustainability in the design of public sector buildings. *Design studies, 32*(3), 235-254.	In the Discussion, this paper discusses the risks and possibilities of the application of a participatory design approach developed in Sweden in other countries. The authors suggest that the long history of consensus and participation in Swedish culture are the context in developing this approach (p. 252).	No	Adapting to cultures

Appendix A. Selected articles for literature review (continued)**.**

Articles	How design or service design relates to culture(s)?	Is culture a subject in the article?	Patterns of the dominant narrative
Pirinen, A. (2016). The barriers and enablers of co-design for services. I*nternational Journal of Design, 10*(3), 27-42.	This paper presents 20 barriers and enablers in codesign practice. In this paper, the author argues that codesign needs the change in organizational culture (p.28). Organizational hierarchy and culture are the main barriers in cross-organizational codesign (p.29). For multinational technology corporations, codesign methods also need to be able to adapt to different cultures (p.39).	No	Describing cultures; Shaping cultures; Adapting to cultures
Pries, J. F. F., Van Boeijen, A. G. C., & Van der Lugt, R. (2013). Deep inside friendly territory: Involving remote co-researchers to understand global users. In *Proceedings of the 3rd Conference on Service Design and Service Innovation* (pp. 205-215). Linköping, Sweden: Linköping University Electronic Press.	This paper presents a remote cross-cultural approach to user research in order to help researchers understand the differences, characteristics, and needs of groups in different national and professional cultures.	Yes	Describing cultures
Schønheyder, J. F., & Nordby, K. (2018). The use and evolution of design methods in professional design practice. *Design Studies, 58,* 36-62.	In the Findings, this paper mentions that the culture of the customer, cost, and available time to delivery can influence how a design method is adopted and adjusted (p. 49).	No	Adapting to cultures
Sangiorgi, D. (2011). Transformative services and transformation design. *International Journal of Design, 5*(2),29-40.	This paper elaborates on the principles, approaches, and values of transformation design. The author emphasizes that introducing human-centric design culture and participatory culture in organizations is important.	No	Describing cultures; Shaping cultures
Sangiorgi, D., Fogg, H., Johnson, S., Maguire, G., Caron, A., & Vijayakumar, L. (2013). Think services: Supporting manufacturing companies in their move toward services. In *Proceedings of the Conference on Service Design and Service Innovation* (pp. 253-263). Linköping, Sweden: Linköping University Electronic Press.	The paper discusses the need for managers to promote a change from manufacturing-centered culture to service culture when manufacturing companies enter the service market (p. 255, 261).	No	Shaping cultures
Schadewitz, N. (2009). Design patterns for cross-cultural collaboration. *International Journal of Design, 3*(3), 37-53.	This study focuses on remote cross-cultural collaboration in design learning. The author proposes 11 cross-cultural collaboration patterns, based on the observation of collaborative design practices among students who come from different regions and countries in design learning.	Yes	Adapting to cultures
Ssozi-Mugarura, F., Blake, E., & Rivett, U. (2017). Codesigning with communities to support rural water management in Uganda. *CoDesign, 13*(2), 110-126.	Participatory design methods can better understand and bridge cultural differences between design researchers and community members to facilitate the implementation of technical solutions.	No	Describing cultures; Adapting to cultures
Strickfaden, M., Heylighen, A., Rodgers, P., & Neuckermans, H. (2006). Untangling the culture medium of student designers. *CoDesign, 2*(02), 97-107.	This paper examines the composition and function of "cultural medium" in the context of design education. Cultural medium is defined as the substances, phenomena, and traces which function as raw material for design concept generation. The authors clearly suggest that different cultures can affect the design process, as the difference of cultures indicates different ways of knowing and doing.	Yes	Describing cultures; Enacting cultures
Stuart, F. I. (1998). The influence of organizational culture and internal politics on new service design and introduction. *International Journal of Service Industry Management, 9*(5), 469-485.	This paper presents a conceptual framework for understanding the influence of service culture and internal politics on design.	Yes	Adapting to cultures
Taoka, Y., Kagohashi, K., & Mougenot, C. (2018). A cross-cultural study of co-design: The impact of power distance on group dynamics in Japan. *CoDesign, 17*(1), 22-49.	This paper compares the application effects of codesign Workshop in Europe and Japan and suggests that the presence of designers in Japanese workshops will create a hierarchical structure to limit the participation of non-designers.	Yes	Adapting to cultures
Walker, S. (2013). Design and spirituality: Material culture for a wisdom economy. *Design Issues, 29*(3), 89-107.	The paper problematizes that spirituality has been less accorded in the progress of modernity and postmodernity. The author particularly suggests to cultivate a material culture that advocates inner development and reflective awareness in design practice.	Yes	Enacting cultures

Appendix B. *Interview Guide*

After the interviewees accepted the invitation to participate, they were asked to sign an informed consent form that explained the research plan and interview content. Then, the interviewer began the interview with a self-introduction and informed the interviewee that the audio recorder would start.

Theme	Questions
Background	• Can you tell me about yourself? • What is your educational background? • How many years have you been a professional service designer?
Cultural perceptions	• What does culture mean to you in the context of service design? • Can you tell me about one of your design projects that you think is most culturally relevant?
Describing	• What cultures do you think you encountered in your project? • What did you do to understand these cultures? • Which service design methods did you find useful in building this understanding? • If interviewer shares any service design activity: Could you help me go through this experience?
Adapting	• In what ways did you try to adapt to these cultures, if at all? • Which service design tools were most helpful in adapting to these cultures, if any were? • If interviewer shares any service design activity: Could you help me go through this experience?
Shaping	• How did the goals of the service design project relate to the cultures you mentioned? • How did service design methods help you to influence culture, if at all? • If interviewer shares any service design activity: Could you help me go through this experience?
Enacting	• How do you feel your own cultural background influenced the way you conducted this service design project? • How might your design knowledge have influenced users or other stakeholders in this project? • How do you think the experience of this project could change the way you do design? • If interviewer shares any service design activity: Could you help me go through this experience?

Appendix C. *Background of Interviewees and Their Practices*

Nation of birth	Nation where they received service design education/training (language)	Regions of practice [a]	Project types [b]	Sectors of projects
China	China (in Chinese and English); Italy (in English)	Italy	University	Female sexuality
China	Italy (in English)	China	University	Urban community
China	U.K. (in English)	South Asia	Consulting company	Manufacturing industry; Consulting
China	Italy (in English)	Italy	University	Female sexuality
China	China (in Chinese and English); Italy (in English)	China	Consulting company	Digital commerce; Consulting
China	China (in Chinese); U.K. (in English)	China, U.K.	Consulting company; University	Healthcare; Public sector; Digital commerce; Consulting
China	Italy (in English)	Italy, China	Consulting company	Public sector
France	Italy (NG [c])	Italy, Australia	Cooperation	Telcom; Enterprise organization
Germany	Germany (NG)	Japan	Consulting company; Freelance	Sustainability; Consulting
South Korea	U.K. (in English)	South Korea, U.K.	Freelance; University	Enterprise organization; Consulting
Sweden	Sweden (in Swedish and English)	Sweden	University	Healthcare
Mexico	Norway (in English)	Norway	Consulting company	Enterprise organization; Consulting
Brazil	Norway (in English)	Norway	Consulting company	Product development; Consulting
Sweden	Sweden (NG)	Sweden	Government, International organization	Governmental policy; Immigrant
Chile	Norway (in English)	Chile, Norway	Government, University	Government organization; Healthcare
Germany	NG (NG)	U.S., German	Consulting company	Enterprise organization; Consulting
Italy	Italy (in English); China (in English)	China	University	Eco-tourism
India	Italy (in English)	U.S.	Cooperation	Healthcare; Product development
The Netherlands	NG (NG)	The Netherlands	Consulting company	Consulting
Japan	U.S. (in English)	Japan, India	Consulting company	Enterprise organization; Consulting
Chile	U.K. (in English)	Uganda, Nepal	NGO; Consulting company	Healthcare; Education

Note: a. Defined by the practices that the service design practitioners recounted to the interviewer.

b. Defined by the organization that is responsible for the service design project.

c. NG stands for Not Given which means the data is not shared explicitly by the interviewees.

PUBLICATION 3

Professionalised Designing in between Plural Makings

Duan, Z. (2022). Professionalised Designing in between Plural Makings. In S. Miettinen, E. Mikkonen, M. Dos Santos, and M. Sarantou (Eds.) *Artistic Cartography and Design Explorations Towards the Pluriverse* (pp. 156–170). New York: Routledge.

14 Professionalised designing in between plural makings

Zhipeng Duan

Abstract: Designing is considered an ability that is endowed to everyone at large, going beyond one's professional expertise. However, without a careful examination of the colonial legacies, instituting everyone's creative practices as designing encourages the making of nondesigners as being isomorphic to the design professions. The chapter aims to evoke more imaginations of how designing relates to other makings practices while not fully rendering them as designing. Here, the general term 'making' is employed to indicate a scope emphasising the richness of the divergent practices of forming, causing, doing or coming into being, in which designing is only one or several modes of making. In this chapter, through a literature review, I first examine how the discourse and narrative of design professions over-occupy makings. This is followed by a mini autoethnography that illustrates how multiple practices of makings make transformative change and enhance the hierarchy in a 'design' project of remote care that I am engaged in. This chapter concludes by proposing the plurality of makings as a method of introspection to sensitise our design practices, as well as bodily and affective experiences. In the scope of plural makings, participation does not necessarily mean inviting them to enter the design process but rather means an embodied designer joining in the meshwork of ongoing makings.

Keywords: Designing, making, plurality, non-designer, practice

Introduction

'Everyone designs'. Simon (1988, p. 67) uses this phrase to suggest design as a common ground for communicating creative activities among different professions. Subsequently, similar expressions further spread the autonomy of people in designing and redesigning their existence (e.g., Escobar, 2018; Manzini, 2015). Designing is considered an ability that is endowed to everyone at large, going beyond their professional expertise (Manzini, 2015). This argument is aligned with recent studies on ontological design that see design as inseparable from what it is to be human and fundamental to becoming human (Fry et al., 2015, p. 286). For instance, Willis (2006, p. 70) suggests that to design is to deliberate, plan and scheme in ways that prefigure our actions and makings. Ontological design involves a concern about the retrieval and reimagination of heterogeneous forms of confronting the dangerous and concurrent conditions of coloniality, patriarchy and capitalism (Fry, 2017). Design can potentially be transited from a tool for Western modernity to a tool for reimagination (Escobar, 2018).

However, without a careful examination of the colonial legacies, instituting everyone's creative practices as designing encourages the makings of nondesigners

DOI: 10.4324/9781003285175-16

isomorphic to the design professions (Suchman, 2021; Willis, 2018). Hence, the current chapter aims to evoke more imaginations of how designing relates to other makings practices while not fully rendering them as designing. Here, I deliberately employ the general term 'making' to indicate a scope emphasising the richness of divergent active practices of forming, causing, doing or coming into being. For Fry (2019, p. 69), making is the agency of human and world formation. Correspondingly, designing is narrowed down to one or several professionalised modes of making that are typically related to dominant Western modernity. Informed by studies of the pluriverse (Law, 2015; Escobar, 2018), this division acknowledges that different practices have the inconsistent capabilities of enacting futures. One mode of designing has no ontological priority because when a mode becomes visible by revealing coherent methods, values and institution, it often conceals more (Fry et al., 2015).

In what follows, I first present three approaches to how the discourse and narrative of design professions over-occupy the practice of making in design epistemology. I particularly coin the term 'design-ise' to problematise the notion that professional designing occupies a privileged position in the discourse and material of change, while other forms of making need to be expressed by the knowledge of designing. This is followed by an autoethnography to illustrate how multiple practices of makings can lead to transformative change and enhance the hegemony; this is shown through a 'design' project that I was involved in. Based on a reflection of the ethnography, the chapter concludes by considering how design professions can join in the ongoing meshwork of makings.

Designised makings

The word design appeared in English in the middle of the sixteenth century, referring to a plan or scheme intended for subsequent execution (Margolin, 2015). Similarly, in other European languages (Italian *design*, Spanish *dibujar* and French *dessin*), the connotations of design signify more about drawing a conceptual image—the clear or visual expression of an intention, idea and plan (Ingold, 2013). This assumption has been accepted in contemporary design research, which is often coined by the intentional operations focusing on 'how things should be' (Margolin, 2007; Bremner & Roxburgh, 2014). Conditioned by this assumption, designers, including architects and planners, are expected to be able to create a design concept for the desired future. Here, the concept of design refers to an abstract form of ideation that is often materialised by language and functioning in design (Dong, 2007). It is considered a primary generator prior to the real existence of an object (Darke, 1979). A pre-existing design concept envisioning and conditioning various futures legitimises the practices of design professions (Ingold, 2013). Design professions are often required to have the intellectual capability of delineating, prototyping and evaluating this design concept. The creation of design concepts in professional designing is not exactly equal to the anticipatory foresight manifested in other makings because it enrols relational makings to reach and scale up an evenly shared consensus of the future. Thus, designing tends to position and limit the foresight of other makings expressed only in a design process. In the epistemology of designing, makings tend to become programmed, rationally sequenced, time managed and positioned as succeeding the intellectual creation of design concepts. There is a tendency to create a design concept in a design project that is detached from its implementation and use, while the implementation

and use are implicated in other makings that not always aligned with the design project.

Making as the implementation of a design concept

First, there are practices of making about formation, oversimplified here as the implementation referring to the execution of a design concept which succeeds designing. For instance, in a retrospective study of Alberti's treatise *On the Art of Building in Ten Books* circa 1450, Ingold (2013) finds that Alberti deliberately elevates the recognition of architects by distinguishing the profession from the 'humble' mason, carpenter and other build workers. Alberti (1988, p. 7) believes that the architect has the ability to 'project the entire form in mind without any resources to the material' (cited in Ingold, 2013, p. 49). In this book, the practice and knowledge of architecture are untangled from the actual construction process, in which there are numerous overlaps between an architect and mason. The knowledge and wisdom of geometry that masons and carpenters have built up in practice were often less documented in Alberti's times (1988, p. 7). This notion of designers being devoted to building design concepts still remains to this day, and beyond the scope of architecture, it can be seen in a design paradigm that centres on building a solution to address a specific problem. Manzini (2016) calls this 'solution-ism', where designers build for a solution the dominant, if not single, possibility to solve a problem and, thus, promote changes. For example, the Double Diamond (British Design Council, 2015) and the design model of 'fuzzy front end' (Sanders & Stappers, 2008), which are two globally famous frameworks, all convey this notion that designing distinctly ends when a design concept of the solution is delivered. The rest of the practice after design is expected to be the handover, implementation and iteration needed to launch a conceptual solution idea (e.g., in service design, abundant design models such as the service blueprint [Shostack, 1984] and principles [e.g., Lin et al., 2011] are elaborated on to consistently put service concept into action and operation [Yu, 2021]). Within the discourse of design concepts, it is difficult to grasp how change can happen in an alternative way or even if the change that happens inside the making of implementing a concept (Manzini, 2016).

Making as habitual use

There are other practices of making that are recognised as being used. There are many practices called 'use' that exist in the scope of designing, here referring to what people do with an object (Kohtala et al., 2020). Conceptualising the interactions between people and objects as using can be manifested in the widespread culture of employing the term 'user' in design practice to delineate the people who utilise a product, service or building. The term 'user' is so taken for granted that there is neither a clear definition nor enough etymological study in the design community of it. One possible contemporary origin is computer science or engineering, which has widely coined the term end-user to distinguish people who only 'use' software. The term 'user' is closely concomitant and affiliated with the knowledge of experts, such as designers, developers and engineers. People can barely call themselves users without the presence of these experts. Knowledge about the needs, interests, desires and habits of users which produced mainly by design practices is less rooted in the everyday life of

users. Rather, the knowledge on users is more serving as expert knowledge aiming to better designing or engineering *for* users. The term 'user' implies that people can be grouped because they have many characteristics in common when interacting with an object (Ritter et al., 2014, p. ix). The value proposition of user centricity requires designers to concentrate on the needs and interests of users (Norman, 2013) and to develop products or services with better usability and experience (Woolrych et al., 2011). Value is employed to promote a cultural change that encourages enterprises to develop more products and services that meet users' needs (Deserti & Rizzo, 2019; Junginger, 2012).

Design practices value the needs and interests of users but often narrow and eliminate the heterogeneous changes possibly made through the practice of use. What users do when using a product or service is always beyond an interaction with a product or service that is predesigned with a certain teleology (Kohtala et al., 2020). The practices of different users are always contextual and multiple directional and entangled with other ongoing practices. In a comprehensive taxonomic study based on a literature review in design, human-computer interaction, consumption and science and technology studies, Kohtala et al. (2020) find that the *use as-is* that connects functions to the designed aims is often a starting point to establish a spectrum of innovation and design capabilities of users. Considering people's practices solely as using could produce a sense of dehumanisation by framing users as independent and rational (Marmont, 2019). The impersonal interaction between the user and service or product (e.g., the interaction between a user and Uber) in the design narrative tends to conceal the encounter among people (e.g., the interaction between the passenger and taxi driver) (Appadurai & Alexander, 2020). Teleology implies that users' practices can be well-arranged as specific functions in the design concept. Within the design concept, the journey of a user representing heterogeneous people displays a set of replicable and timeless events and processes with fixed interactions with other actors, regardless of the time these events take place. The purpose and approach of use are prenarrated before the real use, hence determining how we use an object (Björgvinsson et al., 2012). Designed objects always condition the being and knowing of us and structure our sense of time and the future (Escobar, 2018; Fry et al., 2015; Tonkinwise, 2016). As such, using is difficult to be oriented towards an alternative future but can better be oriented towards the future that designing made. One example of how to design conditional use comes from an anthropological study in Silicon Valley (Appadurai & Alexander, 2020), in which it was found that many task-oriented apps (e.g., Uber) valuing user experience, including convenience, joviality and efficiency, tend to encourage users to be habitual and mindless, hence increasing user stickiness. As suggested (Appadurai & Alexander, 2020, p. 90), habitual actions do not easily produce new knowledge.

Utilising the knowledge of making in design

It should be noted that the epistemology of the implementation of the design concept and habitual use constitute the worlding of how design relates to other practices of making. Referring to Tsing (2010), the term 'worlding' defines the situation rather than providing a description of what is happening. There are growing complexities of heterogeneous making, including implementation and use encountered in design practice. Therefore, there is a need to understand how the complexities

of other makings are engaged in design practice. The engagement of nondesigners particularly touches on the democratic movement towards participatory design or co-design and its critiques that have been occurring for nearly half a century. There are growing critiques of the dominant position of designers and architectures *in* the design process and calls for involving more users and other experts as designers (e.g., Oosterhuis, 2014; Robertson & Simonsen, 2012). Participatory design or co-design tends to encourage the utilisation of the knowledge of other actors in the design process. Extracting knowledge from users and actors can help to draw different interests and desires together, but it may hardly be sufficient: Transient design practices and life-long everyday practices of actors are disproportionate. Concentrating on the knowledge produced in design practices fails to fully acknowledge the dynamics of actors' ongoing practices. Even though some actors participate in the design process, they can also twist, change, forget their participations and carry the participations, through their practices towards other directions that diverge from the expectations of designers (Agid & Chin, 2019).

To unpack this failure, reviewing the research in the 1970s, when participatory design was developed, is helpful. In an influential study in 1973, design theorist Rittel and urban theorist Webber used the term 'wicked problem' to express the dilemma facing designers and planners in building a unified solution in a plural society where different knowledge and practices coexist. In subsequent studies, as Akama (2015) suggests, co-designing tends to concentrate on the former—the connection—while the divergence between practices is relatively omitted. Design is believed to have the ability to introduce different knowledge and experience into the design process to explore, envision and develop solutions more collaboratively (e.g., Mattelmäki & Sleeswijk Visser, 2011). A growing body of research has been committed to exploring how co-design or participatory design accommodates heterogeneity (e.g., Eriksen, 2012). However, framing collective creativity mainly in design is paradoxical to this commitment.

The co-designing approach encourages people with different types of knowledge to detach themselves from their ongoing situated practices. In the context of design, they would not be able to carry out daily practice but instead share their knowledge in a designerly way, a term coined by Cross in 1982 to indicate a distinct way of knowing that is evidenced in designers' practice. There is a underlying premise that other participants' knowledge rooted in their practices can be converted into information in their communications (Strathern, 2018). Anthropologist Mosse (2019) finds that during a series of participatory events with farmers in western India, there is much farming experience and knowledge not mediated by language. Knowledge of farmers was hardly represented through participatory techniques when removing their practical contexts. Strathern (2018, p. 30) suggests that the way of reaching an agreement by sharing and communicating knowledge risks ironing out the difference of existence by flattening viewpoints and ideas which would better appreciate the context from which experts can operate. Without sensitivity about divergence, co-design for other participants can be oversimplified as a knowledge-sharing session. The different interests, values and intentions risk being translated by a set of dominant languages, concepts and knowledge that might draw one world-making project into another (Tsing, 2015). Translation is the accountability of designing to other makings and their futures, as it often leads to violence. A translation often endorses that the host worldview and knowledge are commensurable if the process of translation does not

point out the discrepancy between the translated and the translating (Satsuka, 2015). For instance, Appadurai and Alexander (2020) find that apps are becoming so complex that users find it difficult to make a change in how they use these apps, but user research can involve them as designers and testers in the design process. As such, users' failures and deviated actions can be translated into contributions to co-design events. Another profound example is the digital takeout platform. Chen (2020) finds that this platform, which is empowered by an algorithm, has the ability to collect the delivery time of riders. The specific information of riders and their daily delivery practices are extensively collected and analysed; their data and information can be used to plan and anticipate the shortest time and route required for other rider deliveries. Hence, a rider's participation risks yielding further oppression of other riders.

Designised makings manifested in the above three subsections entail attempts to explain other practices of making by design and enrol these practices as functional segments in the design project. By doing so, designers understand the goals, interests and values of makings that are inconsistent with design practices, here in a simplified and marginalised way, while the project threatens to endorse hegemonic worldviews. The aforementioned examples of medieval build works, users of a Silicon Valley app and a food takeout platform demonstrate that marginalisation is not only discursive but also material because other practices limit the enactment of an alternative future without joining in the designing practices. For the design itself, the result of extending the design to every making is a reduction in design (Fry et al., 2015). Designisation implies the tendency to refuse to be contaminated; that is, the wisdom and knowledge of heterogeneous practices that cannot be well translated by design will be difficult to enter the domain of design. Therefore, the epistemology of designised making also contributes to overformulising design methods and processes as the fluidity and diversity inside the design decrease.

Appreciating the plurality of makings

Given these considerations, we, as the knowers of design, need to reimagine how the practices of designing can relate to other makings while acknowledging that the purposes, values and interests of different actors are not evenly shared. As makings are constantly going on, design practices need to sensitise ourselves to trace them and respond to them more dynamically. There is a need for a pluralistic epistemological framework that might be able to broaden perspectives; doing this can help take note of other makings to let more worlds, including materials, practices and intentions, into a story of making futures. In the end, this can influence design professions. Shifting our focus to makings requires more attention be paid to how transformative changes happen and how the hegemonic world is being made (Suchman, 2011).

In the next section, I present an autoethnography, through which I write about my experiences of encountering multiple trajectories in a 'design' project (Ellis et al., 2011). At a hospital in a coastal city in China, I participated in a doctor's meeting where I expected to observe how they would *design* a process of applying a remote care platform to patients with pulmonary nodules for surgical rehabilitation. According to the functions designed in the platform, after discharge, patients are expected to collect their health data through the app and compatible medical devices, such as spirometers. Doctors are then supposed to check the patient's health status and provide support through a web-based management platform. As a service designer, my

observations came in the design research phase. I hoped to understand their working habits and design abilities. These observations could help me design for and with them later. However, this presupposition became uncertain because the designing, using and implementing were intertangled, so their practices could not be summarised.

This ethnography is anchored as being 'auto', here by mainly considering the inherent tension between my twofold identities—a designer and ethnographer—in the field. As a project designer, my practices constitute the field of ethnography. I am responsible for promoting the project and making the platform applicable at the hospital through my design knowledge. Design knowledge inevitably became a crucial lens through which to remember and analyse what is happening in the field. As an ethnographer, I intended to describe and interpret different actors' practices and also reflect on my design practices in plural makings. This twofold approach resonates with Tim Ingold (2017)'s argument on the embodied participant observation, an anthropological way of doing ethnography. As he suggests, 'To observe is not . . . to objectify. It is to notice what people are saying and doing, to watch and listen, and to respond in your own practice' (Ingold, 2017, p. 23). To design in this study is my way to respond to and hence join in other practices for observing. In order to better observe others in design practice, I also tried to deviate from design knowledge to allow me to perceive the heterogeneity existing in the practices of makings.

Autoethnography is not only about writing personal experiences, but more importantly, it involves accountability for narrating the relationship between oneself and others (Tolich, 2010). During the write-up, I also employed the interviews and conversations that I conducted with the doctors to compare and contrast my personal experiences (Ellis et al., 2011). Those who were involved were doctors, a patient and her family member; they all signed informed consent before or during my participant observation to ensure they understood their appearance in my research (Tolich, 2010). Pseudonyms were applied to protect their anonymity. One value of autoethnography is to create accessible texts to produce aesthetic and evocative narrative descriptions that enable readers to feel the feelings and conditions of others (Winkler, 2018). In the current study, I hope to resonate with those who know design and help them look back, find and sensitise the practices of makings existing in their design practices. I also used drawing to interpret key scenes during the writing process (Causey, 2017). When drawing these illustrations, I can deliberately put in more details that seem not relevant to the project I am working on. For instance, within drawings, I can share how the desks of doctors' office are untidy by presenting some specific materials (e.g., teas, keyboards and papers) on their tables. By doing so, I hope to disturb the single viewpoint on the design project and allow rooms to notice others makings were taking place.

Making transformation

'This office is different than you'd expect, isn't it?' said Doctor Fu when he ushered me into the office and down the long corridor of the thoracic surgery ward. There were three other young doctors in the office. Four were medical graduate students who were participating in this project. Fu continued, 'You can sit wherever you like. This [the office] is really messy'. The office, which was around 20 square metres, held eight tables with desktop computers, with 11 chairs scattered about. These desks, chairs and computers did not belong to any specific doctor; any doctor in the department

could use them. The stacks of objects in the room were evidence of the interwoven work and lives of these different doctors. Medical books, models of lungs and gifts of tea were crammed into many corners. Unfinished hot milk tea implied that there were other doctors here not long ago.

There were other things that indicated rapid changes happening in their work. The CT light tables gathered dust on the wall, while the young doctors checked the CT images on the computers. Many blank forms were piled neatly and were more than a metre high in the corner next to the door. They were the vestiges of the doctors' work before the movement to paperless offices beginning in 2020. In addition, there were many different printed forms on the desks, including the records of prescriptions, medical tests, surgical statements and discharge notes. The doctors needed to fill them out on the computer in the office and print them out. Why did these records need to be printed out? Based on the communication with the doctors, I found the reason was that the inpatient platform through which the doctors filled out the records was not linked to the archives department. The printed forms would be collected by nurses regularly and then scanned into the digital version once sent to the archives department. When the paperless movement ended, one of the main jobs of medical graduate students was to help their leading surgeon fill out these forms in bulk. Before the movement, students needed to handwrite these forms for their surgeon.

The last inpatient form was the discharge record, which meant that the patient's treatment was officially terminated when the patient was discharged. The remote care project asked the doctors to extend their working scope to rehabilitation after leaving the hospital. The paperless movement coexisted with the remote care project. Taking quick notice of the move away from paper can help us understand the change in remote care and how it was entangled in between makings. This move away from paper was not the ideal shift from one mode to another, in which all paper would be removed. Besides, the paperless movement gave a new form of the hierarchy between medical graduate students and surgeons as it was still students doing this monotonous work of filling forms, however, more efficiently. The movement reminded me that the platform conditions the futures of rehabilitation care, but I might not expect to apply the platform as an isolated vision of better futures and it could also reproduce one dominant hierarchy.

Half an hour after I arrived, a surgeon, Dong, arrived at the office. He had just finished his last surgery. Every week, Dong carried out an estimated ten surgeries. Even though Dong could finish his surgery and outpatient by 5 to 6 p.m., unless something unexpected happened, his research work had just begun. In terms of promotion for doctors in the Chinese healthcare system, research projects and articles are more important than the quality of treatment. Dong told me that he often stayed at the hospital until 9 to 10 p.m. He had worked at this hospital for more than two years. Compared with other surgeons, Dong was relatively new. He had to manage several different research projects. The remote care project was one of them. For him, applying the platform was a clinical experiment. As a study, he planned to compare the efficiencies of rehabilitation for patients with and without the platform.

Dong covered his face with his hands as he sat back in his chair and then updated his surgical status on the desktop computer. Ten minutes later, he turned his chair around to the other graduate students. As Dong was about to speak, the graduate students rotated their chairs around. They began the discussion about each student's graduation thesis. They worked together and not only on the project. Dong, as their

senior, was also responsible for guiding them in their studies and research. Then, the discussion was redirected to the remote care project.

The meeting that I wanted to observe happened all of the sudden. They formed a very subtle circle while the other doctors were working outside. In Figure 14.1, I illustrate this situation from an overhead perspective. 'The platform looks quite complicated', Dong said, 'How about each of us starting to learn one segment of the platform? We must learn it very well. We must teach patients well. We must ensure that we have good data'. Wang, one of the students, then said, 'I can learn how to use the doctor platform and how to register an account for patients. Wu, would you like to learn how to teach patients how to use the app? You two guys could teach them how to use the devices. How about this?' Dong did not reply to Wang but directly said, 'Now, I'll go to the ward. Yesterday, I found one of my patients who would be willing to rehabilitate'. No reply here meant confirmation. 'By the way, I will also ask patients to sign the informed consent and patient's information reports', Wang added. Then, the two men went to the storeroom and brought a big box with all the medical devices to the office. That was when I realised that what I was observing was not just a design meeting.

When the students were learning about the platform, I followed Dong to the ward. The patient, Yanming, was a woman of around 50. It was the day after her surgery, and her husband was at her bedside. Rather than directly inviting her to the project, Dong first focused on rehabilitation in their conversation, including what Yanming could do after discharge and the exercises involved in rehabilitation. Then, gradually, Dong said, 'Like we said yesterday, we have a research project, and we'd like you to participate in it'. Instead of using technical terms like remote care and data collection or medical terms like rehabilitation, he said, 'Anyway, when you're at home, just try to use it, and we will help you in the hospital. My students will come over here to help you use it in 10 minutes'.

Dong came back to the office and said, 'All right, is everybody ready now?' On the way to the ward, they ranked the process of teaching Yanming in order of doctors' feelings of difficulty regarding each segment. According to their discussion, Wang would first introduce the overview of the study and ask Yanming to sign the informed consent form. Then, the two men would help her use devices and Wu would help her use the APP. 'Then, we *suí jī yīng biàn* (随机应变), a Chinese idiom which means to improvise neatly according to the change of opportunity and circumstance', said Wang. Was this a moment of designing? Yes and no. Like what designers do, their discussion indeed formed a rough service process that could be referred to when they needed to use the platform with other patients. However, the service process was enacted by colloquial and later embodied practice rather than abstracted and concreted by other languages and materials as a transferable design concept. In addition, the design comprises the doctors' use and implementation of the platform. On the one hand, they are the users of the platform, conditioned by the preset function of the platform. On the other hand, they were working in medical research, intending to collect data of good quality. To do so, they need to guarantee that the functions of the platform are expected to be routinely used by the patients and themselves. In this sense, this is also a moment of implementation. Designing, using and implementing hung together, all manifested in their practices at the same time. How can I give their practices a name to mediate these three categories by my design knowledge? My provisional strategy involved suspending the question of conceptualisation and acknowledging the insufficiency of design knowledge. Doing so allowed room for me to see and learn from strange but ongoing practices.

Figure 14.1 The 'project meeting' in the doctor's office.

When we entered the ward, we filled it and squeezed in the bedside space. Without us, the ward was already overcrowded because six beds were put in a space originally designed for four. This crowding might imply a limitation of medical resources and bad service experiences. After this event, Dong told me that for patients, the cost of surgery in this hospital was relatively cheaper than other hospitals in the city.

Crowding also indicates one's activities and gestures can be seen, perceived and hence responded to naturally by others. There was a very smooth connection among the different doctors, Yanming and her husband. Because the doctors had only a rudimentary understanding of the platform, they were unable to answer all the patients' questions about the platform. This was neither a mistake nor a problem. They just needed to continue to learn or change the process. The patient's questions were not always related to the project; the questions varied from how Yanming could install batteries to when she could swim after discharge. The patient's husband was also closely engaged in the process. For example, when the doctor told the patient how to use the electrocardiograph, her husband directly rolled up his shirt to stick an electrode slice to the skin of his chest to help Yanming learn how to use it.

Along with this, I observed different activities in this ward, and if I had questions, I could ask them directly. There were some practices of 'designing' happening. Fu asked me, 'Brother Zhipeng, what do you think of making a poster in the corridor? I think introducing the project to patients only by talking is not enough'. I said, 'Sounds great! Could we later discuss how to make this poster?' I illustrate this connection in Figure 14.2 by imagining multiple activities from Yanming's perspective.

Figure 14.2 Training patients to use the platform: research and rehabilitation.

Medical study, using the platform, husband's care and my design research were all being enacted in this room. One's activities are always related to others'.

Teaching Yanming took about 40 minutes. Then, the doctors returned to their offices and began discussing what to do next. 'Ok, does every learn how to teach patients?' said Dong. 'We need to involve 500 patients in two years. Next time, let us try to teach patients using only two people'. The discussion became more serious and gloomier then. One patient for 40 minutes of training meant that they would be overwhelmed. The doctors discussed the division of labour among the different doctors based on their daily routines and possible ways to reduce the time it took to teach patients. Without the presence of patients, their discussions centred more on their studies. For example, one of their focuses was on how to collect effective data. The benefits of patients were not well discussed. In addition, most of the work was assigned to graduate students. In the following months, the project strongly disturbed their study routines. The project leaders would not be expected to consider them as authors or well-paid in the project. In fact, the labour fee for these students in the project was 1,500 Chinese Yuan per month.

'Do you have any suggestions, Zhipeng?' Dong asked. I was involved beyond merely being an observer. I brought the idea of making a poster proposed by Fu and emphasised it: 'This study, for you, I guess, is your work, but for patients, it is their treatment. Maybe we can extend our scope and take a look at what you and patients really need in the project beyond collecting data'. Here, I could feel that my participation slightly disrupted the discussion. I proposed making some new posters or brochures with illustrations to introduce remote care and rehabilitation, through which I hoped to redirect this project and move it to something beyond just a medical study. This proposal evoked more discussion about how they could change their way of treating patients.

Discussion and conclusion

This chapter questions the epistemological assumption that the practices of design professions are conceptualised as independent creations of intellect from other practices. Within this framework, designers are encouraged to understand the relationality of multiple practices through a prefabricated perspective. Different practices are expected to endow specific functions, such as use and implementation, to join in the world-making project of design. This assumption of designisation may contribute to the decline and homogenisation of design knowledge because it restrains our imagination of how the transformative change happens, thus making design clumsy in trying to promote transformations. If we hold a singular assumption that the complex functions of society and culture are conditioned by prior design, the value of design tends to be limited to proposing a more elaborate design concept for the world and to expecting that the world is ready for it (Ingold, 2013).

Appreciating the divergence between making and designing allows us to turn our attention to the relationality with potentials and tensions that contain transformational messages in other makings. Through ethnography, I hope to demonstrate the insufficiency of prefabricated understanding in design professions. The ongoing change should be watched and reinterpreted carefully within the encounter. During my practice of design research, there are many other things being made, enhanced or damaged, including the rehabilitation of Yanming, her family ties, the doctors'

medical study, the doctors' promotion system, the scaling up of remote care platform, the digitalisation of healthcare and the hierarchy at the hospital. The opposite of designisation is not to clearly mark, define, pick out and protect these makings and then claim they are not designing. Doing so is the other side of the coin of designisation because a clear distinction may encourage assimilation or segregation. In overlapping practices, antidesignisation begins from appreciating the plurality of makings as an ontological condition that people are participating in different world-making projects but stay together and influence each other. The doctors did not deliberately distinguish their study from the family's care, nor did they fully utilise the care in the study. The flexible and respectful interactions between doctors and patients around the medical study and surgical rehabilitation had enabled a new remote care technology to be nascent in the local hospital.

Acknowledging the plurality of makings as an ontological condition, we might need to bring more relationalities into our sight. I agree with those design scholars who claim that studies of relationalities are needed for a systemic understanding of complex situations (e.g., Sanders & Stappers, 2008; Postma et al., 2012; Fuad-Luke, 2014). Utilising the knowledge of relationalities as an intellectual tool for better design practices matters but is hardly enough because these relationalities indicate multidirectional initiatives of plural makings that cannot be abstracted and used coherently by design. Through my mini autoethnography, I hope to start evoking readers to think of design in the guest position as ongoing practices that constitute the conditions of existence of design. For example, the last discussion with the doctors showed less care about patients and also the young doctors. My proposal of making posters here was an echo of the situation to raise attention to other issues rather than to transfer this discussion to a design process. My guest position did not indicate detaching oneself from the meshwork but involved observation points in and across different the boundaries of makings. This position allows us to see the coincidence and confrontation among makings that designers cannot fully take control of and that one design framework cannot fully encompass. Seeing such relationality of plural makings can become a method of introspection to sensitise our practices (e.g., dialoguing, sketching, drawing, modelling and prototyping), as well as bodily and affective experiences, to the specific situation rather than to the body of existing design knowledge and methods. Some scholars argue for extending the scope of the co-design process from using design methods to the embodied practices of designers to enable contextualised knowing and creating (e.g., Kimbell, 2011; Light & Akama, 2012; Akama et al., 2019; Agid & Chin, 2019). If the scope is plural makings, participation does not necessarily mean inviting them to enter the design process, but rather, it means an embodied designer joins in the meshwork of ongoing plural makings.

References

Agid, S., & Chin, E. (2019). Making and negotiating value: Design and collaboration with community led groups. *CoDesign*, *15*(1), 75–89.

Akama, Y. (2015). Being awake to Ma: Designing in between-ness as a way of becoming with. *CoDesign*, *11*(3–4), 262–274.

Akama, Y., Hagen, P., & Whaanga-Schollum, D. (2019). Problematizing replicable design to practice respectful, reciprocal, and relational co-designing with Indigenous people. *Design and Culture*, *11*(1), 59–84.

Alberti, L. B. (1988). *On the art of building in ten books*. MIT Press.

Appadurai, A., & Alexander, N. (2020). *Failure*. Polity Press.

Björgvinsson, E., Ehn, P., & Hillgren, P. A. (2012). Design things and design thinking: Contemporary participatory design challenges. *Design Issues*, *28*(3), 101–116.

Bremner, C., & Roxburgh, M. (2014). A photograph is evidence of nothing but itself. In P. Rodgers & J. Yee (Eds.), *The Routledge companion to design research* (pp. 219–230). Routledge.

Causey, A. (2017). *Drawn to see: Drawing as an ethnographic method*. University of Toronto Press.

Chen, L. (2020). ┌字控制'下的┌┌秩序 -- 外┌┌手的┌┌控制┌究 [Labor order under digital control: A study on the labor control of take-out platform riders]. *社┌┌┌究*, *6*, 113–135.

Cross, N. (1982). Designerly ways of knowing. *Design Studies*, *3*(4), 221–227.

Darke, J. (1979). The primary generator and the design process. *Design Studies*, *1*(1), 36–44.

Deserti, A., & Rizzo, F. (2019). Embedding design in the organizational culture: Challenges and perspectives. In G. Julier, A. V. Munch, M. N. Folkmann, H. Jensen, & N. P. Skou (Eds.), *Design culture: Objects and approaches* (pp. 39–51). Bloomsbury Visual Arts.

Design Council. (2015, March 17). *What is the framework for innovation? Design Council's evolved Double Diamond*. www.designcouncil.org.uk/news-opinion/what-framework-innovation-design-councils-evolved-double-diamond

Dong, A. (2007). The enactment of design through language. *Design Studies*, *28*(1), 5–21.

Ellis, C., Adams, T. E., & Bochner, A. P. (2011). Autoethnography: An overview. *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research*, *12*(1). https://doi.org/10.17169/fqs-12.1.1589

Eriksen, M. A. (2012). *Material matters in co-designing: Formatting & staging with participating materials in co-design projects, events & situations*. Malmö University, Faculty of Culture and Society.

Escobar, A. (2018). *Designs for the pluriverse: Radical interdependence, autonomy, and the making of worlds*. Duke University Press.

Fry, T. (2017). Design for/by "the Global South". *Design Philosophy Papers*, *15*(1), 3–37.

Fry, T. (2019). *Becoming human by design*. Bloomsbury.

Fry, T., Dilnot, C., & Stewart, S. (2015). *Design and the question of history*. Bloomsbury Publishing.

Fuad-Luke, A. (2014). Design (-ing) for radical relationality: "Relational design" for confronting dangerous, concurrent, contingent realities. In J. Ma & Y. Lou (Eds.), *Emerging practices in design. Professions, values and approaches* (pp. 42–73). China Architecture & Building Press.

Ingold, T. (2013). *Making: Anthropology, archaeology, art and architecture*. Routledge.

Ingold, T. (2017). Anthropology contra ethnography. *HAU: Journal of Ethnographic Theory*, *7*(1), 21–26.

Junginger, S. (2012). Public foundations of service design. In *Service design with theory: Discussions on change, value and methods* (pp. 12–18). Lapland University Press.

Kimbell, L. (2011). Designing for service as one way of designing services. *International Journal of Design*, *5*(2).

Kohtala, C., Hyysalo, S., & Whalen, J. (2020). A taxonomy of users' active design engagement in the 21st century. *Design Studies*, *67*, 27–54.

Law, J. (2015). What's wrong with a one-world world? *Distinktion: Scandinavian Journal of Social Theory*, *16*(1), 126–139.

Light, A., & Akama, Y. (2012). The human touch: Participatory practice and the role of facilitation in designing with communities. *In Proceedings of the 12th participatory design conference: Research papers* (Vol. 1, pp. 61–70). Association for Computing Machinery.

Lin, M. C., Hughes, B. L., Katica, M. K., Dining-Zuber, C., & Plsek, P. E. (2011). Service design and change of systems: Human-centered approaches to implementing and spreading service design. *International Journal of Design*, *5*(2).

Manzini, E. (2015). *Design, when everybody designs: An introduction to design for social innovation*. MIT Press.

Manzini, E. (2016). Design culture and dialogic design. *Design Issues*, *32*(1), 52–59.

Margolin, V. (2007). Design, the future and the human spirit. *Design Issues*, *23*(3).
Margolin, V. (2015). *World history of design*. Bloomsbury Academic.
Marmont, G. (2019). *Nanopoetics of use* [Doctoral dissertation, University of Brighton].
Mattelmäki, T., & Sleeswijk Visser, F. (2011). Lost in co-X: Interpretations of co-design and co-creation. In L. L. Chen & N. Roozenburg (Eds.), *Proceeding of the 4th world conference on design research*. TU Delft.
Mosse, D. (2019). Can the experience of participatory development help think critically about "Patient and Public Involvement" in UK healthcare? *Sociological Research Online*, *24*(3), 444–461.
Norman, D. (2013). *The design of everyday things: Revised and expanded edition*. Basic Books.
Oosterhuis, K. (2014). Game changers. *Next Generation Building*, *1*(1).
Postma, C., Lauche, K., & Stappers, P. J. (2012). Social theory as a thinking tool for empathic design. *Design Issues*, *28*(1), 30–49.
Rittel, H. W., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Sciences*, *4*(2), 155–169.
Ritter, F. E., Baxter, G. D., & Churchill, E. F. (2014). *Foundations for designing user-centered systems*. Springer-Verlag London.
Robertson, T., & Simonsen, J. (2012). Participatory design: An introduction. In J. Simonsen & T. Robertson (Eds.), *Routledge handbook of participatory design* (pp. 1–18). Routledge.
Sanders, E. B. N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *Co-design*, *4*(1), 5–18.
Satsuka, S. (2015). *Nature in translation*. Duke University Press.
Shostack, L. (1984). Designing services that deliver. *Harvard Business Review*, *62*(1), 133–139.
Simon, H. A. (1988). The science of design: Creating the artificial. *Design Issues*, *4*(1/2), 67–82.
Strathern, M. (2018). Opening up relations. In M. de la Caden & M. Blaser (Eds.), *A world of many worlds* (pp. 23–52). Duke University Press.
Suchman, L. (2011). Anthropological relocations and the limits of design. *Annual Review of Anthropology*, *40*, 1–18.
Suchman, L. (2021). Border thinking about anthropologies/designs. In K. Murphy & E. Wilf (Eds.), *Designs and anthropologies: Frictions and affinities* (pp. 17–34). University of New Mexico Press.
Tolich, M. (2010). A critique of current practice: Ten foundational guidelines for autoethnographers. *Qualitative Health Research*, *20*(12), 1599–1610.
Tonkinwise, C. (2016). Failing to sense the future: From design to the proactionary test drive. *Social Research: An International Quarterly*, *83*(3), 597–624.
Tsing, A. (2010). Worlding the matsutake diaspora: Or, can actor—network theory experiment with holism? In T. Otto & N. Bubandt (Eds.), *Experiments in holism: Theory and practice in contemporary anthropology* (pp. 47–66). John Wiley & Sons.
Tsing, A. (2015). *The mushroom at the end of the world: On the possibility of life in capitalist ruins*. Princeton University Press.
Willis, A. M. (2006). Ontological designing. *Design Philosophy Papers*, *4*(2), 69–92.
Willis, A. M. (2018). *The design philosophy reader*. Bloomberg.
Winkler, I. (2018). Doing autoethnography: Facing challenges, taking choices, accepting responsibilities. *Qualitative Inquiry*, *24*(4), 236–247.
Woolrych, A., Hornbæk, K., Frøkjær, E., & Cockton, G. (2011). Ingredients and meals rather than recipes: A proposal for research that does not treat usability evaluation methods as indivisible wholes. *International Journal of Human-Computer Interaction*, *27*(10), 940–970.
Yu, E. (2021). Design for service implementation: Proposing a service implementation framework and exploring design practices. *The Design Journal*, 1–24.

PUBLICATION 4

How Practices Come Together: Situating design by attending to relational practices

Duan, Z. (2023). How Practices Come Together: Situating design by attending to relational practices. *She Ji: The Journal of Design, Economics, and Innovation, 9*(1), 33–57.

she ji
[ʃə: dʒi:]

How Practices Come Together: Situating Design by Attending to Relational Practices

Zhipeng Duan

Keywords
Design profession
Design practice
Situatedness
Relational practice
Proximity

Received
September 4, 2022
Accepted
May 10, 2023

ZHIPENG DUAN
The Oslo School of Architecture and Design, Norway
duan.zhipeng@aho.no

Abstract
When acting in complex sociocultural contexts, designers often encounter other people engaged in differing practices. Non-design practices and design practices co-evolve in reciprocity. However, this article argues that design culture encourages designers to rely uncritically on performing established design activities as a way to demonstrate their professionalism. Designers may encounter difficulties in concretely perceiving and describing how their everyday practices are entangled with people and things. This may lead design professionals to adopt a detached position that can prompt self-doubt about whether they contribute positively to others' lives. This article explores how designers can become attentive to the situated nature of their design practice. Drawing on recent theories of practice, this article argues that design professionals should attend to the relational practices of others who work near an acting designer. Design practice and other practices are relational. These relational practices mutually constitute the conditions of existence, maintenance, and transformation for each other. Using auto-ethnography and analysis, the article examines the positive potential of four ways of attending to relational practices. These four ways are *tracking*, *recounting*, *repositioning*, and *responding*. While they are not exhaustive, these four categories can enable designers to develop a more nuanced understanding of their working context and appropriate situated strategies for design action.

https://www.sciencedirect.com/journal/she-ji-the-journal-of-design-economics-and-innovation
https://doi.org/10.1016/j.sheji.2023.05.002

Introduction

Many mainstream design activities begin with design tools that designers assume they can apply universally without considering the sociocultural context in which designers use them. Designers who rely on these design tools often fail to recognize that these tools emerge from a history rooted in the advanced economies of the developed world. The history and nature of these tools often make them unsuited to other cultures. When designers attempt to use them in projects located in other societies and cultures, this history can complicate their uptake.[1] With this perspective as a background, this study begins by considering the predicament of professional designers who are trained in such emerging design domains as service design and social design. The article unpacks a concern about a culture that encourages designers to emphasize established design activities as a way to demonstrate their professional competence.

Designers are often trained to make sense of complicated practices and experiences from the narrow perspective of professional activities. The professional activities of a designer may designate a cluster of well-defined, short-term formulas of action. For example, Anne-Laure Fayard and her colleagues identify typical action forms of service design that include design research (evidence collection via diaries, pictures, sketches, personas), visualization (using sketches, journeys, maps, blueprints, Legos), and prototyping (using paper, cardboard, bodystorming, role playing).[2]

This article is concerned with a significant gap. Designers often limit their perspectives to transient design activities. This can work against the aspiration of using design practice for positive change in the world. That creates a disproportionate gap between the ways designers work and the aspirations they hope to achieve. The narrow focus on professional design activities makes it difficult for designers to recognize how their situated practice is embedded in a social and cultural context. Consequently, designers may find it difficult to appreciate how their work is situated in contextual relationships. Instead, they tend to believe that their creativity lies in performing given forms of action. These difficulties may lead designers to doubt whether they make a meaningful contribution to others.

The purpose of this article is to help designers attend to the situated nature of their design practice. In so doing, this article describes how design practices can be consciously situated by attending to relational practices. The article's understanding of relational practices is informed by recent scholarship on the formation of relations through practices.[3] The article draws on theories of practice generated at the intersection between anthropology and science and technology studies (STS). This study expands on Theodore Schatzki's work that describes how practices are "embodied, materially mediated arrays of human activity."[4] Relational practices involve ongoing arrays of activity occurring in temporal and spatial proximity where actors mutually constitute each other's conditions of existence, maintenance, and transformation.

Design is a relational practice that can reproduce and reorganize local relations.[5] Design practice also exists in between other practices, which also contribute to forming relations. For example, a funder might shut down a designer's working plan on user research and then opt for agile development of

1 Yoko Akama, Penny Hagen, and Desna Whaanga-Schollum, "Problematizing Replicable Design to Practice Respectful, Reciprocal, and Relational Co-designing with Indigenous People," *Design and Culture* 11, no.1 (2019): 60–62, https://doi.org/10.1080/17547075.2019.1571306.

2 Anne-Laure Fayard, Ileana Stigliani, and Beth A. Bechky, "How Nascent Occupations Construct a Mandate: The Case of Service Designers' Ethos," *Administrative Science Quarterly* 62, no. 2 (2017): 272, https://doi.org/10.1177/0001839216665805.

3 Annemarie Mol, *The Body Multiple: Ontology in Medical Practice* (Durham, NC: Duke University Press, 2002); Annemarie Mol, *Eating in Theory* (Durham, NC: Duke University Press, 2021); Marilyn Strathern, *Partial Connections*, updated ed. (Lanham, ML: Rowman & Littlefield Publishers, 2005).

4 Theodore R. Schatzki, "Introduction: Practice Theory," in *The Practice Turn in Contemporary Theory*, ed. Theodore R. Schatzki, Karin Knorr Cetina, and Eike von Savigny (London: Routledge, 2001), 11.

5 Bruna Ferreira Montuori et al., "Towards Relational Practices in Design," in *Change, Voices, Open*, vol. 1 of *Design Revolutions: IASDR 2019 Conference Proceedings*, ed. Martyn Evans, Annie Shaw, and Jea Na (Manchester: Manchester Metropolitan University, 2019), 437, https://e-space.mmu.ac.uk/id/eprint/626767; Erica Dorn and Tara Dickman, "Towards Relational Design Practices: De-centering Design through Lessons from Community Organising," in *Proceedings of Relating Systems Thinking and Design*, vol. RSD11, ed. Goran Matic, Cheryl May, and Ben Sweeting (Brighton, UK: Systemic Design Association, 2022), article no. 182, https://rsdsymposium.org/towards-relational-design-practices/.

a digital platform.[6] Or perhaps a local resident might use a designer's material prototypes for purposes beyond those originally envisioned by the designer.[7] Professional design activities can neither entirely conceive a design practice without the involvement of other practices, nor can a design practice present itself as independent from a world where relational practices are intertwined. The discussion of relational practices reveals the need for a more profound acknowledgment of the world-making capacities of others, which might differ from the familiar modes of professional design practice.

To inquire into relational practices, I conducted autoethnographic research on possible ways of consciously attending to relational practices. I reflected on how these ways helped me situate my design practices. Autoethnography is an approach to research and writing that foregrounds cultural and social experience by describing and analyzing personal experience.[8] This autoethnographic investigation is based on my experience designing for a remote care service in a public hospital in Shanghai, China. While engaging in design practices, I also conducted eight months of participant observation of my own practices and those of other people. The findings of my autoethnographic research propose four possible ways of attending to relational practices. The four ways are *tracking*, *recounting*, *repositioning*, and *responding*. By framing the empirical findings as ways rather than methods, this study aims to encourage designers to explore how they could attend to context-specific relational practices instead of focusing on devising replicable professional activities.

The article explores two key questions that are relevant to practicing designers. First, it bridges the space between recent academic debates on the role of relational practices in world-making and the practical domain of design. In doing so, this article provides designers with a deeper understanding of the situated relations between design and non-design practice. Such understanding challenges not only static assumptions about the context of design practice but also a narrowed focus on professional activities in shaping how designers make sense of their work. Second, this article proposes relational practice as a workable means of supporting designers in building attentiveness to the situated nature of their work. The four ways I propose enable designers to appreciate their subjective perception of what is close to hand in order to build nuanced understandings of context and develop more localized action strategies.

This article also contributes to the existing design literature by highlighting a practice-based approach that investigates the situated nature of design practices and explores their relationship with diverse practices. The four ways of attending to relational practices outlined here challenge the prevailing tendency in design research to separate design practices from mundane life. Instead, they present a means of attending to their inherent entanglement to make the situated nature of design practices comprehensible for design researchers.

Background: A Narrow Focus on Professional Activities

Designers from nascent design professions, such as service design,[9] are eager to leverage their design skills and establish the credibility of design practices. They often aspire to address social issues in their work and make a positive,

6 Ayah Younis, "Trajectories of International Development," in *Design for Social Innovation: Case Studies from Around the World*, ed. Mariana Amatullo et al. (New York: Routledge, 2022), 96–97.

7 Zhipeng Duan, Josina Vink, and Simon David Clatworthy, "Narrating Service Design to Account for Cultural Plurality," *International Journal of Design* 15, no. 3 (2021): 17, http://www.ijdesign.org/index.php/IJDesign/article/view/4146.

8 Carolyn Ellis, Tony E. Adams, and Arthur P. Bochner, "Autoethnography: An Overview," *Forum: Qualitative Social Research* 12, no. 1 (2011): 273, https://doi.org/10.17169/fqs-12.1.1589.

9 Fayard et al, "How Nascent Occupations Construct a Mandate."

long-term impact on society. In the practices of individual designers, however, the narrow focus on established professional design activities may be apparent in the prioritization of performing typical activities. Trained designers are often encouraged to treat their performance of well-established design activities as an important means of demonstrating their professionalism.[10] However, by prioritizing these activities, these designers' practices imply an exaggerated trust, similar to scientism, in the universality of formulated design action forms.[11] Their practices imply that a design tool is considered useful because it has been proven by other practices repeatedly, but to get results from it, a designer or a participant in a design activity must believe in it and engage in its process of recursion.[12] The narrow focus implied by this perspective encourages designers to apply established forms of actions without scrutinizing how these relate to the local context.

Further, the narrow focus of professional activities is also evident in narratives of the design process. Designers often tend to narrate their design practices across different contexts by emphasizing emblematic episodes of performing typical design activities, for example, how designers create design methods and what people do in workshops.[13] The ways that designers narrate what happens in design practice influence the ways that designers analyze their working approach. Anne Marie Willis suggests that the production of design knowledge often gives epistemological weight to designers' self-understanding.[14]

A troubling consequence of this narrow focus of perspective ensuing from professional design activities is that designers' unit of analysis is often an aspect of short-term design activity. Designers might condense the social meaning and value that is encoded in their everyday practices into the causes and consequences of either one or several design activities. Both narration and analysis of one's practice are integral to the process of generating knowledge by way of that practice.[15] A narrow focus may be one consequence of a designer's crisis in the exploration of alternative forms of practice, as the professional mode becomes a simplified reference for envisioning other possibilities of action.[16]

For students engaged in design education, this narrow focus sometimes prevents them from recognizing what is unique in their perspective, and in their own ways of doing and knowing. They often believe that their creativity comes from their performance of well-established design activities than from their own capabilities. Professional designers also grapple with self-doubt regarding the extent to which their practice contributes to the world-making capacities of others. As they invest most of their energies and time in professional activities, designers realize the likelihood that they will lose their connections with other participants as soon as the design activity ends.[17] Additionally they often know that the impact of design activities on others often becomes untraceable as the participants rush into other projects. These self-doubts are founded in the designers' recognition that transient design activities fall short of the designers' aspirations for making positive or profound changes in the world. The narrow focus of professional activities risks eroding designers' ability to articulate what they really do within a situated context. Accordingly, discussions of the effects, roles, and uses of design methods

10 Ibid., 272.
11 Ahmed Ansari, "Politics & Method: Design Thinking Arrives in Pakistan," *Medium*, January 19, 2016, https://aansari86.medium.com/politics-method-cd4cc2c8f5e6.
12 Ibid.
13 Duan et al., "Narrating Service Design," 17.
14 Anne Marie Willis, introduction to *The Design Philosophy Reader* (London: Bloomsbury Publishing, 2018), 2.
15 Tim Ingold, *Being Alive: Essays on Movement, Knowledge and Description* (Oxford: Routledge, 2011), 159.
16 Tony Fry, Clive Dilnot, and Susan C. Stewart, *Design and the Question of History* (London: Bloomsbury Publishing, 2015), 152.
17 David Mosse, "Can the Experience of Participatory Development Help Think Critically about 'Patient and Public Involvement' in UK Healthcare?," *Sociological Research Online* 24, no. 3 (2019): 454–56, https://doi.org/10.1177/1360780418797718.

often obscure important concerns about what constitutes a transformative change ensuing from an applied design practice.[18]

It should be noted that the author's explicating of the predominance of well-established design activities is not to diminish the value of these forms of design activities. For instance, the user journey map, which originates from consulting, has proliferated as a replicable design tool. To problematize the narrow focus of designers' perspectives is not to deny that a user journey map can play a powerful role in clarifying complex workflows within an enterprise.[19] Designers shouldn't presume that bridging new knowledge and new ways of practicing design across contextually situated social practices is inherently wrong.[20] The problem that follows from of privileging of the narrow focus of well-established design activities concerns unthinkingly involving professional design activities. The value of performing a professional design activity always resides in the specificities of the situation and needs to be examined carefully and repeatedly.

The narrow focus of professional activities encourages a detached perspective that may lead designers to produce and represent the dominant model.[21] Such detachment seemingly makes professional activities free from any subject bias and hides their localized, racialized, and gendered configurations.[22] Lucy Suchman observes a phenomenon where designers, coming from an unspecified place, continue to "ignore their positionality within the milieu of social relations" and claim to be able to see the whole social picture and design for it.[23] This article argues that the detached perspective of being nowhere implied by the designers' failure to specify their position in design culture is less that designers naturally neglect the situated nature of their practice, and more an issue of de-embedding meaning. The consequence of de-embedding meaning is that educated designers actively perpetuate detachment by narrowing their interests to their own professional activities, consciously or unconsciously. As such, there is a need to support designers to proactively counter this de-embedding process. Designers must consciously re-situate their practices back into their social and cultural context. It follows that the dual agendas of disrupting the narrow focus on professional activities and re-situating design practices into context resonate with one another.

A Practice-Based Approach to Resituating Design Practices

Theories of practice and practice-based design research emphasize the situated nature of design and, as such, are useful resources that this study builds on. The situated nature of practices can only be fully comprehended within the live contexts where they are produced and performed.[24] The theories of practice stream draws on an anthropological focus on people's embodied and situated interactions with people and things in their everyday activities.[25] Informed by theories of practice, early practice-based design research challenged the individualistic traditions of design research in which design is conceptualized as individual cognition (e.g., design thinking) or an intellectual approach (e.g., design as the co-evolution of problem and solution).[26] More recently, the verb "designing" has been widely used to emphasize how

18 Lucy Suchman, "Anthropological Relocations and the Limits of Design," *Annual Review of Anthropology* 40 (October 2011): 3, https://doi.org/10.1146/annurev.anthro.041608.105640.

19 Bansi Mehta, "Simplifying Complex Enterprise Workflows Using Journey Mapping," *Bootcamp*, Feburary 17, 2021, https://bootcamp.uxdesign.cc/simplifying-complex-enterprise-workflows-using-journey-mapping-21769a43e0ee.

20 Anna Lowenhaupt Tsing, *Friction: An Ethnography of Global Connection* (Princeton: Princeton University Press, 2005), 8–9, https://doi.org/10.2307/j.ctt7s1xk.

21 Madina Tlostanova, "On Decolonizing Design," *Design Philosophy Papers* 15, no. 1 (2017): 52, https://doi.org/10.1080/14487136.2017.1301017.

22 Ibid.

23 Lucy Suchman, "Located Accountabilities in Technology Production," *Scandinavian Journal of Information Systems* 14, no. 2 (2002): 95, http://aisel.aisnet.org/sjis/vol14/iss2/7.

24 Silvia Gherardi, "Situated Knowledge and Situated Action: What Do Practice-Based Studies Promise?," in *The SAGE Handbook of New Approaches in Management and Organization*, ed. Daved Barry and Hans Hansen (London: SAGE Publications Ltd, 2008), 519, https://doi.org/10.4135/9781849200394.

25 Lucy Kimbell, "Beyond Design Thinking: Design-as-Practice and Designs-in-Practice," (paper, presented at the CRESC Conference, Manchester, September 2009), available at https://codecamp.com.br/artigos_cientificos/beyond_design_thinking.pdf.

26 Ibid.

design practice is a generative, transformational process enacted by the situated interactions of designers with other people.[27] Practice-based design research advocates for the designer's ability to actively intervene to stimulate innovation.[28] Researchers' interest in design methods has also shifted towards evaluation of how design methods actually work in everyday practice.[29]

While many design researchers acknowledge the practical capabilities of the designer, the dynamic context of design practice is often treated as pre-existing. For instance, there are prevalent metaphorical dichotomies in design discourses that divide design practices from other happenings (e.g., actor and stage, or focus and context). In such couplings, designers and design participants are accorded an active role concerning who can learn, move, collaborate, and intervene. What surrounds these actors is a passive undergoing of events or objects onto which designing imposes or projects an impact. Although researchers argue for a need to re-embed design practices with the lived context,[30] the dynamic nature of this context often remains elusive for designers. Theories of practice helpfully note that design practices coexist within other ongoing practices.[31] A further lesson from design researchers' theories of practice is that there is a need to acknowledge the practical abilities of others who are intertwined with design practices.

Acknowledging the capabilities of others entails believing that other practices are endowed with world-making capacities, even if these do not necessarily reference the logic, knowledge, and discourse of design. Professional design practices can refer to one or several action modes, yet these have no special authority to represent other practices.[32] Other people may relate to a design practice not only because they are participants in design activities, or users of designed products, or executors who implement design concepts, but because the world their practices enact is the place where design practice resides.[33] Designers who can embrace an enlarged understanding of the situated nature of practice will be better equipped to uncover cues for exploring the situated nature of design practice. This will enable them to appreciate how design practice is woven into its local and partial connections with relational practices.

Deepening Understandings of Relational Practices

This section delves deeper into the understanding of relational practices based on recent discussion of the formation of relations through practices.[34] It draws on theories of practice located at the intersection between science and technology studies and anthropology. Three key claims pertaining to the understanding of relational practices are developed, and I show how these can provide new insights for situating design practices.

Relating Practices through Material Proximity

The pivotal claim of the ensuing discussion of relational practices proposes that relations are generated through what people do together in proximity to each other in everyday life.[35] This claim reflects the Western philosophical tradition that things are related to each other based on their similarity. In that tradition, the determinants of a relationship include shared traits such

27 Yoko Akama and Alison Prendiville, "Embodying, Enacting and Entangling Design: A Phenomenological View to Co-designing Services," *Swedish Design Research Journal* 9, no. 1.13 (2013): 32, https://doi.org/10.3384/svid.2000-964X.13129; Anne-Marie Willis, "Ontological Designing," *Design Philosophy Papers* 4, no. 2 (2006): 70, https://doi.org/10.2752/144871306X13966268131514.

28 Claire Hoolohan and Alison L. Browne, "Design Thinking for Practice-Based Intervention: Co-producing the Change Points Toolkit to Unlock (Un)-sustainable Practices," *Design Studies* 67 (March 2020): 102–32, https://doi.org/10.1016/j.destud.2019.12.002.

29 Jan Fredrik Schønheyder and Kjetil Nordby, "The Use and Evolution of Design Methods in Professional Design Practice," *Design Studies* 58 (September 2018): 36–62, https://doi.org/10.1016/j.destud.2018.04.001; Jung-Joo Lee, "The True Benefits of Designing Design Methods," *Artifact: Journal of Design Practice* 3, no. 2 (2014): 5.1–5.12, https://doi.org/10.14434/artifact.v3i2.3951.

30 Akama and Prendiville, "Embodying, Enacting and Entangling Design," 30; Yoko Akama, "Being Awake to *Ma*: Designing in Between-ness as a Way of Becoming With," *CoDesign* 11, no. 3-4 (2015): 262–74, https://doi.org/10.1080/15710882.2015.1081243.

31 Schatzki, "Introduction: Practice Theory," 15.

32 Fry et al., *Design and the Question of History*, 150.

33 Zhipeng Duan, "Professionalised Designing in between Plural Makings," in *Artistic Cartography and Design Explorations towards the Pluriverse*, ed. Satu Miettinen et al. (New York: Routledge, 2022), 157–61, https://doi.org/10.4324/9781003285175-16.

34 Mol, *Body Multiple*; Mol, *Eating in Theory*; Strathern, *Partial Connections*.

35 Mol, *Eating in Theory*, 121.

as social status and biological features.[36] However, anthropologists often find that the formation and differentiation of social relations do not necessarily align with shared traits. Rather, by *doing* more things *together*, people form relations that can diverge from the principle of pre-determined similarity.[37] For example, beyond genetic similarity, human kinship involves relations like growing up together, sharing meals, and borrowing money from each other.[38] Connections between people form because people come into proximity with each other through what they do.[39] The proximity of different people not only assembles and explicates various forms of practice, but also contributes to the formation of new kinds of practice.[40] As a context-sensitive practice, design is juxtaposed with other people and things which carry on their practices. As such, the embodied proximity of a designer (which can be termed as their "nearby") is an important facet of the context of design practice. The nearby of designers is the site where design practices render designers' different and contextualized identities by way of their entanglements with other practices.

Practices Bring out Porous Boundaries

The second claim is that, despite the condition of proximity, relationships between practices are local and partial. Marilyn Strathern advocates the concept of "partial connection" to think about the dynamics of local relations that transcend the binary model of whole versus partial.[41] Different practices have boundaries, but these boundaries are porous, which allows others to enter and participate, but not to occupy. Strathern uses fractal graphics drawn from geometry to illustrate partial connection. In fractal images, the boundary of one figure allows other figures to enter. To enter the boundary of a figure is not to encroach upon the whole figure, but rather to imply a distinction by which each figure can be identified. Viewing a figure in isolation can provoke a state of chaos, as this isolated figure is located in a map without centers, a genealogy without generations, and a kaleidoscope with imperfect repetitions.[42] Similarly, within partial connections, it is possible to find different narratives to illustrate how different things can seem to contain each other, yet enact different and multiple identities through relational practices.

Informed by the idea of partial connection, a situated practice often engages limited people and materials. The insight for the design domain, which typically emphasizes systemic and holistic change, is that the designer's systemic thinking can still only function within specific proximate relations due to situated positionality. As scholar Donna Haraway noted, the assertion that "everything is connected to everything" is inadequate.[43] Rather, "everything is connected to something, which is connected to something else. While we may all *ultimately* be connected to one another, the specificity and proximity of connections matter [because of] *who we are bound up with and in what ways.*"[44]

Relations between Practices Are Often Non-coherent

Recent scholarly discussions on relational practices have established new understandings of collaboration. Since the industrial era, collaboration has often been understood as a goal-aligned, logically consistent whole that connects different practices as functionalized elements. However, ethnographies of relational practices have questioned this assumption. For example,

36 Ibid., 103–4.
37 Ibid., 104.
38 Ibid., 120–21.
39 Ibid., 120–24.
40 Biao Xiang, "The Nearby: A Scope of Seeing," *Journal of Contemporary Chinese Art* 8, no. 2-3 (2021): 153–54, https://doi.org/10.1386/jcca_00042_1; Anna Lowenhaupt Tsing, *The Mushroom at the End of the World* (Princeton: Princeton University Press, 2015), 17–25.
41 Strathern, *Partial Connections*.
42 Ibid., xx.
43 Donna J. Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Croydon, UK: Duke University Press, 2016), 173.
44 Ibid., emphasis original.

Dutch anthropologist Annemarie Mol's ethnographic study on a type of vascular disease known as arteriosclerosis offers a vivid example of how relational practices intertwine non-cohesively.[45] In her study of arteriosclerosis patients in the Netherlands, a patient complained to a technician of leg pain when walking, but as the technician could not detect any unusual sounds via stethoscope, the technician asked the patient to discuss his symptoms with the doctor again.[46] The result of the examination contrasted with the patient's self-evident pain and led to a downgrading of its importance. This suggests to Mol that the relational practices of healthcare for patients of arteriosclerosis do not cohere within a singular model of collaboration.

Within the scope of relational practices, there are more layers of collaboration to unfold. Not all collaborations are desirable or sustainable, and not everyone benefits from them.[47] Temporary defection, quitting, contamination, and betrayal are as likely to occur as coherent collaboration.[48] In uncomfortable or incongruous collaborations, the violence generated by participants' professional practice can exist simultaneously with positive change such as improvement, care, and restoration. These apparent contradictions may persist beyond the design practice itself. The discussions of relational practices invite us, as designers and design scholars, to re-imagine what a good design practice may look like when the practices we encounter do not always form a comfortable alliance.

Designers' attention to relational practices, informed by the anthropology and science and technology studies research detailed above, has the potential to help designers form dynamic relations between themselves and their context. However, scholars in these fields have principally articulated concepts of relational practices for analytical purposes.[49] Their studies can stimulate designers' capacity for imagining alternatives concerning the relations amongst things, but they are not sufficiently informative about how designers' incongruous relational practices can effect positive change in the world. Modelled on my service design practice in a public hospital in Shanghai, China, the following sections investigate possible ways of consciously attending to relational practices. In the process, I reflect on how these ways helped me to better situate my professional work.

Empirical Methodology

This section on empirical investigation adopts an autoethnographic approach based on participant observation of my own practices and of nearby people within the development of a service design project in Shanghai. By definition, autoethnography is an approach to research and writing that aims to use the researcher's lived experiences to illuminate cultural experiences.[50] The ensuing section applies autoethnographic principles to illustrate aspects of my argument.

Methodological Consideration

The primary objective of this empirical investigation is to examine relational practices and how I engage with and attend to them. I have deliberately chosen an autoethnographic approach to investigate the situated relations

45 Mol, *Body Multiple*.
46 Ibid., 62.
47 Tsing, *Friction*, 13.
48 Elizabeth Shove, Mika Pantzar, and Matt Watson, *The Dynamics of Social Practice: Everyday Life and How It Changes* (London: SAGE Publications Ltd, 2012), 94.
49 Marilyn Strathern, "Relations," in *The Open Encyclopedia of Anthropology*, ed. Felix Stein, initially published May 30, 2018, http://doi.org/10.29164/18relations.
50 Ellis et al., "Autoethnography," 273.

between my design practice and the practices of others that occur in proximity to me.

This investigation observes two core principles for employing an autoethnographic approach. First, this investigation appreciates the value of detailed "thick descriptions" of cultural occurrences which are captured through personal experience in autoethnographic research.[51] According to anthropologist Clifford Geertz, thick description refers to the interpretation of cultural meanings through intensive, small-scale, and dense accounts of social life.[52] Secondly, my ethnographic approach is intentionally self-referencing, as my aim is to account for relations between self and others.[53] I grant equal importance to understanding how I attend to other people's practices, and how others relate to mine. This reciprocal autoethnographic perspective is crucial for the data collection and analysis process.

Project Background

This autoethnography is situated in a collaborative project called DigiRemote, which involved different research institutes, companies, and hospitals from China and Norway. The main purpose of DigiRemote is to leverage shared knowledge to assist Dongshan Hospital in Shanghai in establishing a human-centric remote care service for patients undergoing thoracic surgery. A Norwegian company, ReCare, supported the project through its platform, which includes an app and compatible medical devices like spirometers to enable patients to collect their health data and access care and support remotely. This platform has been in use in European countries for several decades. The DigiRemote project involved several different sub-projects with various branches such as service design, ReCare's project of promoting patient-centric techniques, and Dongshan Hospital's local clinical study. It should be noted that ReCare and Dongshan Hospital are pseudonyms applied to de-identify the organizations I describe.

My fieldwork primarily focused on a clinical study of this platform, which involves various practices by doctors, patients, platform providers, and myself as a designer. Initially, researching design by observing a clinical study was confusing. A researcher's normative expectations for a clinical study would assume the model of a rigorous and unobtrusive process. At the outset, the clinical study and service design project were expected to be two separate parts of DigiRemote. However, as the project progressed, entanglements between the two became generative and coextensive. Doctors' expectations for patients to use the remote platform implied a service model, but in the event the doctors found that many patients refused to enroll in their research. This is the kind of situation where service design comes into play.

Doing Autoethnography

My empirical design practice with DigiRemote ran from January 2021 to September 2021. For eight months, I lived near Dongshan Hospital and undertook various professional design activities to support the DigiRemote project. For example, I organized three service design workshops and prototyping sessions with doctors and patients to formalize key touchpoints of

51 Stacy Holman-Jones, Tony Adams, and Carolyn Ellis, "Introduction: Coming to Know Autoethnography as More than a Method," in *Handbook of Autoethnography* (New York: Routledge, 2016), 33, https://doi.org/10.4324/9781315427812.

52 Clifford Geertz, *The Interpretation of Cultures: Selected Essays* (New York: Basic Books, 1973), 3–30.

53 Ingo Winkler, "Doing Autoethnography: Facing Challenges, Taking Choices, Accepting Responsibilities," *Qualitative Inquiry* 24, no. 4 (2018): 240, https://doi.org/10.1177/1077800417728956.

Table 1 **Keys events that I participated in and observed.**

Key events (online, offline, or hybrid)	Times	Dates	Participants	My role
Meetings between Dongshan Hospital and ReCare (hybrid)	9	From February to July, 2021	Surgeons, master's students, employees	Facilitator, organizer, speaker, observer
Seasonal cross-organizational meetings (hybrid)	2	April, July, 2021	Surgeons, nurses, master's students, employees	Facilitator, organizer, speaker, observer
Enrolling patients from Dongshan Hospital (offline)	24	From March to September, 2021	Patients, family members, surgeons, master's students, employees	Facilitator, observer
Biweekly internal meetings of Dongshan Hospital (online and offline)	15	From March to September, 2021	Surgeons, master's students	Facilitator, organizer, speaker, observer
Weekly internal meetings of ReCare (online)	27	From February to September, 2021	Employees	Speaker, observer
Events for ReCare's other projects in Shanghai (hybrid)	7	From March to June, 2021	Employees, doctors, nurses, civil servants of Chinese government	Observer, speaker
Roadshows or exhibitions of ReCare in Nanjing (offline)	1	June, 2021	Employees, investors, civil servants of Chinese government	Observer

the service. My professional activities were not isolated from each other, but neither did they form a continuous story.

Table 1 summarizes the key events that I engaged in and observed beyond professional work. For example, I visited Dongshan about twice weekly to shadow doctors for 3 to 6 hours per time. I also attended over 50 meetings supported by Dongshan or ReCare. Shadowing allowed in-depth observation of the everyday practices of others. I listened to the outpatient surgeons, followed ward rounds, and observed dressing changes. By immersing myself in the everyday lives of people at the hospital, I gained a nuanced understanding of the different actors involved. The acquisition of a more nuanced understanding shifted my ways of perceiving both others and myself. These understandings are not detached from the service design practice, but rather help me respond to them through my situated practice. I documented my experience in photographs, audio recordings, and field notes (which were taken with the consent of people involved). Along with this on-site data, I kept a diary to chronicle the DigiRemote project and to produce some initial reflections on my practices, feelings, and observations.[54]

Analyzing Relational Practices through the Lens of Events

Overall, this study analyzed autoethnographic data through the lens of specific events. Events are episodes that function as influential turning points in

54 Marion Engin, "Research Diary: A Tool for Scaffolding," *International Journal of Qualitative Methods* 10, no. 3 (2011): 296–306, https://doi.org/10.1177/160940691101000308.

the investigation process.[55] Event analysis is an approach that unpacks the entanglements of practices associated with complicated situations within the healthcare context.[56] Events are limited and localized sites where different practices encounter and interact with each other and inspire change. Linking different events has the potential to reveal the patterns of different practices interacting with each other, and the extent of their interactions.

The temporal nature of practices reflected in the data is an important dimension in event analysis. In the process of reviewing past experiences, I tried to map out events that I documented during field research. I focused on instances in which I was stimulated by other peoples' work and where I perceived that their practices had an impact on the formation of the service. In reviewing my collected materials, I sorted through different events chronologically. I documented participants, practices, decisions, or changes related to each event, across different phases. Subsequently, I created seven journey maps showing how doctors and patients interact for remote care services. Each map represents different "time slices" of the evolving service. They depict the temporary shape of the service as I observed it on specific dates, rather than a repeatable service concept. As Figure 1 shows, I printed

55 Mary Beth Happ et al., "Event Analysis Techniques," *Advances in Nursing Science* 27, no. 3 (2004): 239, https://doi.org/10.1097/00012272-200407000-00008.

56 Ibid., 246.

Figure 1
Mapping events of service design and relational practices. © 2023 Zhipeng Duan.

the seven journey maps and events in chronological order and posted them on the wall. Then I posted the relevant photos around events to enhance the material sense of a lived reality.[57] I also highlighted new materials that I and other actors made to support the service formation.

Autoethnographic research is relevant for articulating fieldwork events and building a written account of practices based on those experiences.[58] After the mapping exercise, I began writing over 40 narratives for different events and also affixed these to the wall. Next, the analysis involved a round of meaning condensation.[59] This entailed a distillation of each story into a simple description of how I interacted with people to bring others and their practices into the service design project. These descriptions of my actions were further condensed into four key ways, each of which showed a different means by which I attended to relational practices. These ways are *tracking*, *recounting*, *repositioning*, and *responding*. These ways are not meant to be exhaustive, but rather a summary of my attempts to attend to relational practices within the context of my experience at hospitals. By thickening one representative story for each and adding more details that corresponded with the chosen way, I deepened my understanding of these four ways. Physical data (e.g., photos, notes) helped me to recall particular events. The process of writing allowed me to weave the relations of practices through the lines of texts, which enhanced my interpretation of the different ways.

The enhanced accounts of single events this approach generated rely upon literary techniques.[60] To better accommodate different practices and avoid framing these stories singularly as professional design stories, I tried to avoid relying on the conceptual repertoire of design expertise and instead adopted the language used by other actors.[61] Importantly, these stories are not just my stories. I acknowledge that crafting stories inevitably brings in the experiences of others, which my writing cannot adequately represent.[62] To ensure the reliability and validity of each story, I showed them to seven participants who were mentioned in the stories, including surgeons, master's students, and employees. Having gained consent, I invited these people to reflect on what had happened.[63]

Findings

In this section, I describe four possible ways to attend to relational practices. First, *tracking* involves following the movement of relational practices over time and across multiple sites to observe how the world is constituted across differences. Second, *recounting* entails giving an account of the changes that occur in relational practices when telling a design story. Third, *repositioning* involves recognizing design as a partial world-making practice that co-enacts social meanings with other practices. Fourth, *responding* means reacting to changes during the occurrence of relational practices to influence the dynamic process subtly and intentionally. Next, I unpack each way using the vehicle of a story along with retrospective accounts illustrating how acting in each way enabled me to situate design practice. Pseudonyms are used throughout these stories to protect participants' privacy.

57 John Collier and Malcolm Collier, *Visual Anthropology: Photography as a Research Method*, revised ed. (1967; University of New Mexico Press, 1986), 10.

58 Michael Humphreys and Tony Watson, "Ethnographic Practices: From 'Writing-up Ethnographic Research' to 'Writing Ethnography,'" in *Organizational Ethnography: Studying the Complexities of Everyday Life*, ed. Sierk Ybema et al. (London: SAGE Publications Ltd, 2009), 40, https://doi.org/10.4135/9781446278925.

59 Svend Brinkmann and Steinar Kvale, "Analyzing Interviews," in *Doing Interviews* (London: Sage, 2007), 106–7, https://doi.org/10.4135/9781529716665.

60 Humphreys and Watson, "Ethnographic Practices," 43.

61 Duan et al., "Narrating Service Design," 19.

62 Sarah Wall, "Easier Said than Done: Writing an Autoethnography," *International Journal of Qualitative Methods* 7, no. 1 (2008): 49, https://doi.org/10.1177/160940690800700103.

63 Winkler, "Doing Autoethnography," 6.

Tracking

I consciously followed the movements of other people over time and across sites to observe how the world is constituted across differences. Tracking allowed me to closely observe relational practices, which made it possible to interpret situated interrelations, such as how one event leads to another, and how meanings are conveyed, concealed, or distorted during happenings. I tracked practices around use of A4-Sized copy paper to show the situated relations and frictions among surgeons, master's students, and nurses during digital transformations:

> I first became interested in the A4 paper issue when I witnessed the unsuccessful experience of master's students enrolling patients to the clinical study in March 2021. These students were involved in the project of remote care because their supervisors were engaged in this clinical study. The enrolment began well, and the patient agreed to participate in the study. However, it failed because students could not print out the informed consent, rental agreement, and a 34-page Care Report Form all of which needed to be signed by the patient for enrolment. The printer in the doctor's office had run out of ink that day. A student, Qing, told me the printer was funded and managed by a nurse who had accused her of wasting too much paper and ink. The nurse refused to provide a new printer cartridge. Overhearing their conversation, I could feel Qing's stress and the nurse's anger. Recently, the project surgeon had criticized the students for the low enrolment rate.
>
> Why was printing research documents considered a waste? The A4 paper problem directed my attention to the existing inpatient digital platform (Figure 2, left). Several days later, I questioned a student who told me that the printer and A4 paper were installed for the inpatient digital platform through which the surgeon could prescribe treatment plans for every patient. However, this platform was not connected to the archives, so the doctors had to print out all the inpatient files and leave them in a plastic basket (Figure 2, right). These papers were then sent to the archives department for scanning and digital filing. Therefore, the nurse's printer was placed in the doctor's office, and nurses were responsible for office consumables. Printing research

Figure 2
Inpatient digital platform, printer, package of A4-sized paper (left) and red plastic basket to hold forms in the doctor's office (right). Image courtesy of Zhipeng Duan.

> documents was a matter of tacit consent between doctors and nurses. The discontinuity between the documentation platform and the inpatient platform formed an invisible gap. Printing and rescanning had initially offered a temporary solution for this gap, but had been perpetuated over time.
>
> This friction was entwined with hierarchical inequalities between the surgeon and students. Inpatient documents and research documents were rarely printed by the surgeon. Instead, it was the students' job: "During my shift, I often spent all afternoon using the inpatient platform. It was really exhausting and I didn't learn anything," one student said. The transfer of archival work onto students was an implicit structural pressure. "No one told me I should do these [using the inpatient platform and printer]. Because my seniors did these, I naturally do these." Consequently, it was often students and nurses who needed to confront the printing problem.

Tracking the flow of A4 paper in a thoracic surgery department may seem irrelevant to the formation of remote care services. Nevertheless, writing on its situation in this space helped me to understand how a remote care platform could affect much more than the future of rehabilitation care. Tracking helped me anticipate that the formation of the remote care service would be entangled with other complex issues. These include the passive position of master's students, and the tensions between surgeons and nurses. Tracking also made me aware that building a new service might intensify these tensions. Being curious and paying attention to relational practices helped me to grasp the complexities implicated in this design situation.

By tracking relational practices, I was able to acquire insight that is both limited and fluid. That insight is limited by finite vision and other senses and, therefore, only allows for a partial understanding because no one can track everything at the same time. It follows that tracking is not a foolproof way forward because it employs a detached perspective to build a totalized understanding of a social system. However, this limitation can also be an advantage that helps uncover the heterogeneous relations usually hidden by coherent narratives and logic. I came to understand that the viewpoint is fluid in the sense that relational practices are constantly changing with the flow of positions and perspectives. This led me to understand that practices are emergent and continuously growing.

Recounting

Recounting involves giving an account of the changes that occur in relational practices when telling the design story to others on different occasions. The next story is about an emergent change in relational practices. The socially-situated frictions mentioned in the previous story were revealed during a routine meeting and led to changes in the remote care service. I attended that meeting, and based on what I noted, I wrote the following story, which I included in my May 2021 presentation to the Norwegian partners about the progress of my fieldwork. I tried to tell others clearly about ongoing changes, deliberately using everyday language rather than design jargon, even though I felt uncomfortable in doing so.

> By April 2021, the clinical study was not going well. Almost half the patients refused to enroll. At a regular meeting of ReCare and Dongshan in April, Simon, a European employee, was asking how doctors felt when using

the platform. Wuming, one of the students, suddenly opened his notebook, which contained a list of changes he wanted the company to make to the platform, such as adding a discharge date on the patient profile page. Wuming had gathered these ideas based on the experiences of master's students. He went through them quickly, speaking in Chinese. Through the online talk and translation, Simon found it quite difficult to respond to all Wuming's recommendations.

If anything was conveyed successfully during the Zoom discussion, it was the emotion of exhaustion: "All I can do every night after work is this project," Wuming said. Jiao, a Norwegian Chinese employee, captured these dissatisfactions clearly, saying in Chinese, "In Norwegian hospitals, we often have a dedicated nurse for this. This should not be the job of you doctors. Why don't you hire someone? In your research funding, there is coverage for labor costs." The discussion opened up a focus on introducing new roles. Ideas for employing nurses and outsourcing intermediaries were discussed. The students thought of using their peers as they could access Dongshan Hospital easily and also possessed medical knowledge. They were also perceived as being more approachable. Next day, the students posted an advertisement for recruitment through their social networks of WeChat (Figure 3).

Inspired by the experiences of the Norwegian nurses, the master's students' rebellion against their situation led to the emergence of a new model of service. Telling a story about other people's experiences made me aware of the role of others in forming the service. But more importantly, I saw recounting as a way to actively connect myself with others. Before giving the presentation described above, I thought there were risks to relating other people's choices and decisions, because I might not be able to describe what happened in a way that reflected what the actors in the story actually felt. I presumed others might even be angry with me for exposing embarrassing situations. However, I realized that recounting could reflect my goodwill. This realization was reinforced following the delivery of my narration to the people directly involved in the story. I realized narrating could allow people to perceive that I invested effort into understanding their difficult situations. Even though I might

Figure 3
Job posting. The original image did not include an English translation. The author added it using Miro. Image courtesy of Zhipeng Duan.

initially have misunderstood them, showing goodwill encouraged people to correct my perception of their experience. Recounting allowed me to gain the trust of different people who consequently gave me more freedom to observe and act outside the typical remit of a professional designer. For example, I was invited to lead internal meetings of doctors and prepare discussion topics for meetings. Recounting a story that was not included in my design project gradually disrupted my preconception that design practices and clinical studies occurring in proximity could be independent of each other.

Repositioning

Repositioning means recognizing design as a partial world-making practice to be apprehended in relation to its evolving relations with other practices. The next story illustrates how a design workshop spawned from relational practices initiated subsequent practices.

> The proposal for a workshop came about as a result of the regular April meeting mentioned in the previous subsection. In the meeting, people agreed to attend a workshop because they recognized its potential usefulness. One month previously, I made recommendations to ReCare and Dongshan on running a workshop to assess the value of the platform, but the Norwegian company declined because they wanted to manage the uncertainty present in the early phase in the Chinese market. This time, the April meeting revealed confusion and many dilemmas. My permission to conduct the workshop was partially contingent—granted because I was present when friction first arose. Attendees didn't know what the design workshop would entail, but this unfamiliar approach offered a possible way forward.
>
> In the workshop, participants raised concerns that, in clinical studies, doctors often pay a lot of attention to data collection. However, little thought is given to what the data are being collected for. I talked about this question with Haimi many times before the workshop. Haimi was an employee of the Norwegian company based in China. She was worried about whether the doctors recognized the value of the new platform and said, "This platform is not only for the research but also for patients and their rehabilitation. What do you doctors think about patients' rehabilitation?" This question led the discussion to the issue of post-surgical rehabilitation. Wanli, a surgeon, confessed that there was virtually no communication with patients after their surgery, let alone any remote care provision. Other participants took notice, and Wanli became very animated, spending 20 minutes explaining why rehabilitation matters so much for lung cancer patients. This conversation diverted the doctors' interest away from the clinical study concerning data quality and directed it toward the issue of how to improve patient rehabilitation.
>
> In this workshop, we formed 11 initiatives, some of which were implemented immediately. For example, students halted unnecessary monitoring tasks in the clinical study. Not all the initiatives were realized, but I heard that Wanli persuaded other surgeons outside the project to start talking to their patients about rehabilitation and remote care. Yet, such outreach proceeded with difficulty. Other colleagues were inactive, as they had no responsibility for this clinical study. However, several decisions and initiatives were directly based on knowledge encountered in the workshop, and these increased further after the event.
>
> There were also some unexpected changes after the workshop. For example, the students made an information poster and displayed it on the wall. They

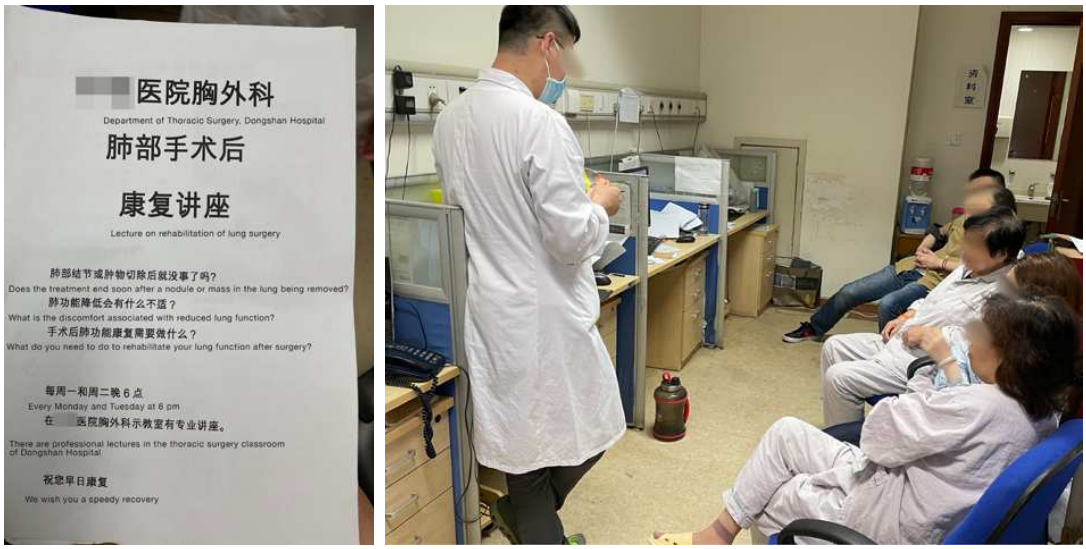

Figure 4
Lecture poster (left) and rehabilitation lecture (right). The original photo on the left did not include an English translation. The author added it using Photoshop. Image courtesy of Zhipeng Duan.

implemented a public lecture for all patients convalescing after thoracic surgery, hoping to better engage the patients in proactive recovery (Figure 4).

In recounting the story of this workshop, I have tried to convey my feeling of lack of control over processes. I felt this lack of control not only in the workshop itself but in how the workshop came about and in the effects it produced. In a solutionist framework, design has an important role in building solutions as predictive outcomes. The practices that follow from design practices are routine implementations or uses. However, designers may find doubt arises regarding whether or not the design is connected to and affects the wider world directly. This doubt is compounded by the reality that workshops and other design activities only reach a very limited number of people. For example, it was very difficult for me to invite doctors and patients who were not DigiRemote partners to participate in the design workshop. But doctors' posters and lectures helped to bring more patients into the process of forming the service. I could never have expected that doctors' lectures would take place before my workshop. Knowledge and values created within design practices take time to grow, alter, problematize, or be forgotten, and it is through the practices of others that such attributes are taken further afield. Repositioning helped me notice that the world is constantly changing and that my ability to conduct professional design activities implies that I am able to join that change rather than my ability to change the world.

Responding

During weekly hospital visits, I had further chances to react to other changes prompted by relational practices. Subsequently, I realized I could influence

the dynamic process subtly. This activity constitutes responding, the fourth way to appreciate relational practices. Responding to relational practices allows me to add my forces to the flow of other practices, temporally and in a way that other people should find safe and personally unchallenging. The following story of responding to relational practices involves an event that took place two months after the workshop.

> On July 19, 2021, I sat with Wanli at a restaurant beside the Huangpu River, having invited him after my regular observation session at Dongshan Hospital. This was just a private dinner at a popular Sichuan fish restaurant where latecomers might queue for two hours. Our fish was served very late, and while waiting, we discussed various topics, from life in Shanghai to ambiguity in medicine. Wanli introduced me to the ambiguity of decision-making in thoracic surgery and the preferences for particular treatments in the thoracic and respiratory departments. This ambiguity led us back to the topic of the rehabilitation plan.
>
> In the previous workshop, doctors decided to make a rehabilitation plan for their clinical study. Two months had passed, but there had been no progress. On the one hand, the doctors were busy, and on the other hand, they were concerned about the plan's ambiguity. To what extent did the plan need to be clear? Wanli said he didn't have experience in making plans for patients. He recently read some articles which provided rehabilitation plans in the form of clinical studies. These plans offered clear exercise criteria, expecting the patient to undertake exercise in a rigorous manner. He pointed out that patients who were especially poor or undereducated might be unable to measure exercise accurately enough.
>
> "Is it more important to encourage patients to act than to expect the patient to execute the plan perfectly?" I asked. "Yes! I met a patient who was a dancer. After her surgery, I asked her to do deep breathing every day. With her dance training, she recovered really well after half a year. The lung that was removed was well compensated by the other. Deep breathing every day.… Then if you feel good one month later, you could take more aerobic exercise." I noted down "deep breathing" and "aerobics" and said, "Can these be the two core axes to develop an accessible plan?"
>
> We drafted a very rough rehabilitation plan based on these two keywords. Wanli said, "Patients are worried about if the exercise can damage their wound. We should encourage them. People who like to square dance can continue dancing; people who like to swim can continue swimming." Based on our discussion, I made an initial plan and circulated it to patients, company employees, and doctors. Consequently, more people became involved in the plan-making.

This story conveys a sense of improvisational collaboration that was accidental and tentative. The doctor and I had not premeditated our discussion, and I had not expected to help build a rehabilitation plan during the dinner. That the discussion happened at this time implies a shared openness and desire for inclusiveness that enabled us to act in other projects, which was the clinical study in this case. Responding to relational practices can help designers directly join the flow of practices in enacting world-making. After the workshop, I worried about whether the rehabilitation plan would become a tool for doctors to meet their expectations that patients should passively follow their instructions to the letter. If the clinical study still imposed this

expectation, much as doctors were expected to use the platform perfectly, the rehabilitation plan would continue legitimizing the existence of the platform as a tool to exert control over patients' lives. I was excited that Wanli and I had relaxed the expectations of the plan as a strict self-management program during our unanticipated discussion. There was a subtle change. The plan was being remade into an incentive for patients to start beneficial exercise, rather than a plan intended for management or data collection.

Discussion

The purpose of this study is to explore possible ways to aid designers in building attentiveness to the situated nature of their practices. Previous design literature has highlighted the potential benefits of contextualizing design practice through recognizing and navigating the plurality that prevails within a specific context. This plurality includes organizational legacies,[64] norms and beliefs,[65] cultures and worldviews.[66] These all imply different realities and ways of being[67] that warrant the attention of designers. However, these dimensions of plurality often remain too abstract to inform the day-to-day practices of designers. Instead, these elements tend to be re-incorporated into professional design tools which encourage designers to analyze, map, and visualize the context as a whole. The pursuit of analytical wholeness may help designers make the multiplicity of different contextual aspects explicit. Yet this pursuit is often of little help to designers in answering how they themselves relate to the whole they are analyzing. It does not help them recognize where they are in the whole, and how they can actually influence that whole. As existentialist philosopher Emmanuel Levinas puts it, the human subject is "not defined by its references to a whole, by its place within system, but by starting from itself."[68]

Building on an autoethnographic investigation, this article has elucidated four distinct ways of attending to relational practices. The four ways bring relational practices to the fore to support designers in evaluating their subjective perceptions of what occurs in proximity. By evaluating their perceptions, designers can better understand how they form relations with the world through their practices. Attending to relational practices enriches designers' appreciation of the spaces in which they can apprehend the interrelation between themselves and the world. Prospectively the four ways are helpful for developing a more nuanced understanding of a designer's context and how a designer might devise suitable localized strategies for action. First, *tracking* suggests a way to make relational practices more observable through the designer's involvement in the activities surrounding them. Doing this requires designers to be present when other practices are taking place. Through tracking, designers may form a more complex picture of the landscape of relations of everyday working life. By carefully situating themselves between relational practices, designers can become more accountable to their context. This helps to prevent designers from inadvertently presupposing or reproducing a worldview that is vastly different from the people living in that context. Second, *recounting* suggests that narrating relational practices helps designers become actively aware of how their practices should be directly connected to the context, and it can deepen their connections to the context.

64 Sabine Junginger, "Organizational Design Legacies and Service Design," *The Design Journal* 18, no. 2 (2015): 209–26, https://doi.org/10.2752/175630615X14212498964277.

65 Daniela Sangiorgi et al., "Designing as Negotiating Across Logic Multiplicity: The Case of Mental Healthcare Transformation toward Co-design and Co-production," *International Journal of Design* 16, no. 1 (2022): 35–54, http://www.ijdesign.org/index.php/IJDesign/article/view/4171/975.

66 Ann Light, "Design and Social Innovation at the Margins: Finding and Making Cultures of Plurality," *Design and Culture* 11, no. 1 (2019): 13–35, https://doi.org/10.1080/17547075.2019.1567985; Yoko Akama and Joyce Yee, "Seeking Stronger Plurality: Intimacy and Integrity in Designing for Social Innovation," in *Open Design for Everything*, ed. Cecile Kung, Elita Lam, and Yanki Lee (Helsinki: Aalto University Press, 2016), 173–80, available at https://www.hkdi.edu.hk/images/about/publication/academic/Open%20Design%20for%20Everything.pdf.

67 Arturo Escobar, *Designs for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds* (Durham, NC: Duke University Press, 2018), https://doi.org/10.1215/9780822371816.

68 Emmanuel Levinas, *Totality and Infinity: An Essay on Exteriority*, trans. Alphonso Lingis (Dordrecht, NL: Kluwer Academic Publisher, 1979), 299–300, https://doi.org/10.1007/978-94-009-9342-6.

Third, *repositioning* indicates that recognizing closeness to relational practices can help designers to develop a sensitivity to their positionality. Noticing which practices are happening close by, and which are more distant and less visible, enables a designer's recognition of what is nearby. Fourth, *responding* demonstrates how proactive participation in other ongoing practices can serve as a starting point for careful embedding of professional practice in local contexts.

The four ways presented in this article underscore the idea that the knowledge and values of design are transmitted, grown, altered, and destroyed through collisions between design and relational practices. Current design literature increasingly emphasizes that the value of design practice lies in catalyzing transformative change.[69] Recent studies suggest that the practical experience of individuals working in proximity to designers, especially participants in design activities, can serve as a catalyst for social change.[70] The article further contributes to this stream of design literature by suggesting that relational practices occurring in proximity to design activity offer an important means for designers and other people to coordinate their capabilities to catalyze change within partial relations.

This study challenges a research tradition in which researchers deliberately separate professional practices from mundane life, which necessarily involves multi-directional practices. This separation is evident in the tendency of designers to frame the design process as one that neatly encompasses formulated professional activities to the exclusion of other practices.[71] It is also evident in the tendency to interpret diverse world-making projects through the knowledge and discourses of professional design activities.[72] Building on practice-based design literature, which emphasizes the active roles of designers, this article suggests a need for commitment to acknowledging the coexistence of heterogeneous practices as a necessary condition in design research. Investigating how practices converge with design can help researchers uncover the positionality, contributions, and potential risks of design in particular contexts.

Limitations and Future Research

While this article reveals the possibility of situating design practice through attending to relational practices, it does not sufficiently explore certain ethical aspects. The author of this article suggests there is a need to investigate what attentiveness entails for cultivating respectful and less harmful design practices. Many practices exist in proximity to working designers, and a limited focus prevents designers from seeing and appreciating them. Attending to relational practices does not mean giving a panoramic depiction of everything that is going on around them. In my autoethnography, I chose to notice, write about, and respond to practices that are not random or neutral, but plurally informed by my theoretical, political, and personal inclinations. This approach pulled some practices (e.g., those of surgeons or master's students) very close to me, while potentially diverting my attention from others (e.g., those of nurses and patients). While this article reveals the unevenness of engagement between relational practices and

69 Daniela Sangiorgi, "Transformative Services and Transformation Design," *International Journal of Design* 5, no. 2 (2011): 29–40, http://www.ijdesign.org/index.php/IJDesign/article/view/940/344; Erling Björgvinsson, Pelle Ehn, and Per-Anders Hillgren, "Design Things and Design Thinking: Contemporary Participatory Design Challenges," *Design Issues* 28, no. 3 (2012): 101–16, https://doi.org/10.1162/DESI_a_00165.

70 Katarina Wetter-Edman, Josina Vink, and Johan Blomkvist, "Staging Aesthetic Disruption through Design Methods for Service Innovation," *Design Studies* 55 (March 2018): 5–26, https://doi.org/10.1016/j.destud.2017.11.007; John McCarthy and Peter Wright, *Taking [A] part: The Politics and Aesthetics of Participation in Experience-Centered Design* (Cambridge, MA: MIT Press, 2015), https://doi.org/10.7551/mitpress/8675.001.0001.

71 Akama, "Being awake to *Ma*," 266–67.

72 Lucy Suchman, "Border Thinking about Anthropologies/Designs," in *Designs and Anthropologies: Frictions and Affinities*, ed. Keith M. Murphy and Eitan Y. Wilf (Santa Fe, NM: School for Advanced Research Press, 2021), 19.

design practices, I acknowledge that it is not enough to simply be aware of uneven degrees of attention. My closeness to the doctors may reflect my subconscious privileging of the group representing the dominant position in the hospital research context. My awareness of relational practices allowed me to grasp the designer's positionality more fully. Future research that attends to relational practices should work toward a better understanding of how to cultivate designers' attention to the practices of disadvantaged and marginalized groups.

It is also important to note that the four ways of attending to relational practices presented here are not framed as prescriptive design tools, but are instead given as propositions to help designers unpack different design practices that reach beyond the current scope of professional design activities. Subject to the limitations of the empirical data, the ways proposed are not exhaustive, nor can they be generalized. In my findings, I have tried to avoid explicitly stating how one can track, recount, reposition, and respond. Instead, I have presented various implications and reflections concerning what I did. For example, intervening in work that is not relevant to that design profession may be considered transgressive in a highly institutionalized organization. The value of presenting the four ways lies in providing foundational direction to inspire appreciation for the practical abilities of others, and for building embedded relations between designers and the people acting in proximity. In future, researchers should not only pay attention to examining the different conjunctions between designers and others within various working situations, but also to how they might enable designers to attend to what may be learned from relational practices.

Conclusions

A possible way out of the detachment that pervades dominant professional design practices lies in the designer's ability to actively perceive, explicate, and establish relationships with people and things around them. Forming such relationships help people to notice how they tread within an interwoven network of multiple ongoing practices. Design approaches that unconsciously connect the designer to a distant and abstract whole not only fail to establish the situated meaning and value of their practices, but also raises self-doubts about those practices. Attending to what other people do in proximity can potentially aid designers in knowing their positionality and how they join in the dynamic and emergent making of the world. By adopting an autoethnographic approach and proposing four ways of attending to relational practices, this article takes the initiative in stimulating new possibilities for action within situated and interconnected contexts where designers can potentially contribute to partial repair and transformation of the world.

Declaration of Interests

There are no conflicts of interest involved in this article.

Acknowledgments

I am deeply grateful to the people I encountered during my field research for their trust and generous sharing of knowledge. This article was improved with guidance and supervision from Josina Vink, with feedback from the editors and two anonymous reviewers, and through discussions with Biao Xiang. This project has received funding from the Research Council of Norway through the Centre for Connected Care (C3).

References

Akama, Yoko, and Alison Prendiville. "Embodying, Enacting and Entangling Design: A Phenomenological View to Co-designing Services." *Swedish Design Research Journal* 9, no. 1.13 (2013): 29–41. https://doi.org/10.3384/svid.2000-964X.13129.

Akama, Yoko. "Being Awake to *Ma*: Designing in Between-ness as a Way of Becoming With." *CoDesign* 11, no. 3-4 (2015): 262–74. https://doi.org/10.1080/15710882.2015.1081243.

Akama, Yoko, and Joyce Yee. "Seeking Stronger Plurality: Intimacy and Integrity in Designing for Social Innovation." In *Open Design for Everything*, edited by Cecile Kung, Elita Lam, and Yanki Lee, 173–80. Helsinki: Aalto University Press, 2016. Available at https://www.hkdi.edu.hk/images/about/publication/academic/Open%20Design%20for%20Everything.pdf.

Akama, Yoko, Penny Hagen, and Desna Whaanga-Schollum. "Problematizing Replicable Design to Practice Respectful, Reciprocal, and Relational Co-designing with Indigenous People." *Design and Culture* 11, no.1 (2019): 59–84. https://doi.org/10.1080/17547075.2019.1571306.

Ansari, Ahmed. "Politics & Method: Design Thinking Arrives in Pakistan." *Medium*, January 19, 2016. https://aansari86.medium.com/politics-method-cd4cc2c8f5e6.

Björgvinsson, Erling, Pelle Ehn, and Per-Anders Hillgren. "Design Things and Design Thinking: Contemporary Participatory Design Challenges." *Design Issues* 28, no. 3 (2012): 101–16. https://doi.org/10.1162/DESI_a_00165.

Brinkmann, Svend, and Steinar Kvale. "Analyzing Interviews." In *Doing Interviews*, 101–19. London: Sage, 2007. https://doi.org/10.4135/9781529716665.

Collier, John, and Malcolm Collier. *Visual Anthropology: Photography as a Research Method*, revised ed. University of New Mexico Press, 1986. First published 1967.

Dorn, Erica, and Tara Dickman. "Towards Relational Design Practices: De-centering Design through Lessons from Community Organising." In *Proceedings of Relating Systems Thinking and Design*, vol. RSD11, edited by Goran Matic, Cheryl May, and Ben Sweeting, article no. 182. Brighton, UK: Systemic Design Association, 2022. https://rsdsymposium.org/towards-relational-design-practices/.

Duan, Zhipeng, Josina Vink, and Simon David Clatworthy. "Narrating Service Design to Account for Cultural Plurality." *International Journal of Design* 15, no. 3 (2021): 11–28. http://www.ijdesign.org/index.php/IJDesign/article/view/4146.

Duan, Zhipeng. "Professionalised Designing in between Plural Makings." In *Artistic Cartography and Design Explorations towards the Pluriverse*, edited by Satu Miettinen, Enni Mikkonen, Maria Cecilia Loschiavo dos Santos, and Melanie Sarantou, 156–70. New York: Routledge, 2022. https://doi.org/10.4324/9781003285175-16.

Ellis, Carolyn, Tony E. Adams, and Arthur P. Bochner. "Autoethnography: An Overview." *Forum: Qualitative Social Research* 12, no. 1 (2011): 273–90. https://doi.org/10.17169/fqs-12.1.1589.

Engin, Marion. "Research Diary: A Tool for Scaffolding." *International Journal of Qualitative Methods* 10, no. 3 (2011): 296–306. https://doi.org/10.1177/160940691101000308.

Escobar, Arturo. *Designs for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds*. Durham, NC: Duke University Press, 2018. https://doi.org/10.1215/9780822371816.

Fayard, Anne-Laure, Ileana Stigliani, and Beth A. Bechky. "How Nascent Occupations Construct a Mandate: The Case of Service Designers' Ethos." *Administrative Science Quarterly* 62, no. 2 (2017): 270–303. https://doi.org/10.1177/0001839216665805.

Fry, Tony, Clive Dilnot, and Susan C. Stewart. *Design and the Question of History*. London: Bloomsbury Publishing, 2015.

Geertz, Clifford. *The Interpretation of Cultures: Selected Essays*. New York: Basic Books, 1973.

Gherardi, Silvia. "Situated Knowledge and Situated Action: What Do Practice-Based Studies Promise?" In *The SAGE Handbook of New Approaches in Management and Organization*, edited by Daved Barry and Hans Hansen, 516–27. London: SAGE Publications Ltd, 2008. https://doi.org/10.4135/9781849200394.

Happ, Mary Beth, Valerie Swigart, Judith Tate, Margaret H. Crighton. "Event Analysis Techniques." *Advances in Nursing Science* 27, no. 3 (2004): 239–48. https://doi.org/10.1097/00012272-200407000-00008.

Haraway, Donna J. *Staying with the Trouble: Making Kin in the Chthulucene*. Croydon, UK: Duke University Press, 2016.

Holman-Jones, Stacy, Tony Adams, and Carolyn Ellis. "Introduction: Coming to Know Autoethnography as More than a Method." In *Handbook of Autoethnography*, 17–47. New York: Routledge, 2016. https://doi.org/10.4324/9781315427812.

Hoolohan, Claire, and Alison L. Browne. "Design Thinking for Practice-Based Intervention: Co-producing the Change Points Toolkit to Unlock (Un)sustainable Practices." *Design Studies* 67 (March 2020): 102–32. https://doi.org/10.1016/j.destud.2019.12.002.

Humphreys, Michael, and Tony Watson. "Ethnographic Practices: From 'Writing-up Ethnographic Research' to 'Writing Ethnography.'" In *Organizational Ethnography: Studying the Complexities of Everyday Life*, edited by Sierk Ybema, Dvora Yanow, Harry Wels, and Frans Kamsteeg, 40–55. London: SAGE Publications Ltd, 2009. https://doi.org/10.4135/9781446278925.

Ingold, Tim. *Being Alive: Essays on Movement, Knowledge and Description*. Oxford: Routledge, 2011.

Jan Fredrik, Schønheyder, and Kjetil Nordby. "The Use and Evolution of Design Methods in Professional Design Practice." *Design Studies* 58 (September 2018): 36–62. https://doi.org/10.1016/j.destud.2018.04.001.

Junginger, Sabine. "Organizational Design Legacies and Service Design." *The Design Journal* 18, no. 2 (2015): 209–26. https://doi.org/10.2752/175630615X14212498964277.

Kimbell, Lucy. "Beyond Design Thinking: Design-as-Practice and Designs-in-Practice." Paper, presented at the CRESC Conference, Manchester, September 2009. Available at https://codecamp.com.br/artigos_cientificos/beyond_design_thinking.pdf.

Lee, Jung-Joo. "The True Benefits of Designing Design Methods." *Artifact: Journal of Design Practice* 3, no. 2 (2014): 5.1–5.12. https://doi.org/10.14434/artifact.v3i2.3951.

Levinas, Emmanuel. *Totality and Infinity: An Essay on Exteriority*. Translated by Alphonso Lingis. Dordrecht, NL: Kluwer Academic Publisher, 1979. https://doi.org/10.1007/978-94-009-9342-6.

Light, Ann. "Design and Social Innovation at the Margins: Finding and Making Cultures of Plurality." *Design and Culture* 11, no. 1 (2019): 13–35. https://doi.org/10.1080/17547075.2019.1567985.

McCarthy, John, and Peter Wright. *Taking [A]part: The Politics and Aesthetics of Participation in Experience-Centered Design*. Cambridge, MA: MIT Press, 2015. https://doi.org/10.7551/mitpress/8675.001.0001.

Mehta, Bansi. "Simplifying Complex Enterprise Workflows Using Journey Mapping." *Bootcamp*, Feburary 17, 2021. https://bootcamp.uxdesign.cc/simplifying-complex-enterprise-workflows-using-journey-mapping-21769a43e0ee.

Mol, Annemarie. *The Body Multiple: Ontology in Medical Practice*. Durham, NC: Duke University Press, 2002.

Mol, Annemarie. *Eating in Theory*. Durham, NC: Duke University Press, 2021.

Montuori, Bruna Ferreira, Ana Julia Melo Almeida, Viviane Mattos Nicoletti, Verena Ferreira Tidei de Lima, and Maria Cecilia Loschiavo dos Santos. "Towards Relational Practices in Design." In *Change, Voices, Open*, vol. 1 of *Design Revolutions: IASDR 2019 Conference Proceedings*, edited by Martyn Evans, Annie Shaw, and Jea Na, 430–43. Manchester: Manchester Metropolitan University, 2019. https://e-space.mmu.ac.uk/id/eprint/626767.

Mosse, David. "Can the Experience of Participatory Development Help Think Critically about 'Patient and Public Involvement' in UK Healthcare?" *Sociological Research Online* 24, no. 3 (2019): 444–61. https://doi.org/10.1177/1360780418797718.

Sangiorgi, Daniela. "Transformative Services and Transformation Design." *International Journal of Design* 5, no. 2 (2011): 29–40. http://www.ijdesign.org/index.php/IJDesign/article/view/940/344.

Sangiorgi, Daniela, Josina Vink, Michelle Farr, Gillian Mulvale, and Laura Warwick. "Designing as Negotiating Across Logic Multiplicity: The Case of Mental Healthcare Transformation toward Co-design and Co-production." *International Journal of Design* 16, no. 1 (2022): 35–54. http://www.ijdesign.org/index.php/IJDesign/article/view/4171/975.

Schatzki, Theodore R. "Introduction: Practice Theory." In *The Practice Turn in Contemporary Theory*, edited by Theodore R. Schatzki, Karin Knorr Cetina, and Eike von Savigny, 1–14. London: Routledge, 2001.

Shove, Elizabeth, Mika Pantzar, and Matt Watson. *The Dynamics of Social Practice: Everyday Life and How It Changes*. London: SAGE Publications Ltd, 2012.

Strathern, Marilyn. *Partial Connections*, updated ed. Lanham, ML: Rowman & Littlefield Publishers, 2005. First published 1991.

Strathern, Marilyn. "Relations." In *The Open Encyclopedia of Anthropology*, edited by Felix Stein. initially published May 30, 2018. http://doi.org/10.29164/18relations.

Suchman, Lucy. "Located Accountabilities in Technology Production." *Scandinavian Journal of Information Systems* 14, no. 2 (2002): 91–105. http://aisel.aisnet.org/sjis/vol14/iss2/7.

Suchman, Lucy. "Anthropological Relocations and the Limits of Design." *Annual Review of Anthropology* 40 (October 2011): 1–18. https://doi.org/10.1146/annurev.anthro.041608.105640.

Suchman, Lucy. "Border Thinking about Anthropologies/Designs." In *Designs and Anthropologies: Frictions and Affinities*, edited by Keith M. Murphy and Eitan Y. Wilf, 17–33. Santa Fe, NM: School for Advanced Research Press, 2021.

Tlostanova, Madina. "On Decolonizing Design." *Design Philosophy Papers* 15, no. 1 (2017): 51–61. https://doi.org/10.1080/14487136.2017.1301017.

Tsing, Anna Lowenhaupt. *Friction: An Ethnography of Global Connection*. Princeton: Princeton University Press, 2005. https://doi.org/10.2307/j.ctt7s1xk.

Tsing, Anna Lowenhaupt. *The Mushroom at the End of the World*. Princeton: Princeton University Press, 2015.

Wall, Sarah. "Easier Said than Done: Writing an Autoethnography." *International Journal of Qualitative Methods* 7, no. 1 (2008): 38–53. https://doi.org/10.1177/160940690800700103.

Wetter-Edman, Katarina, Josina Vink, and Johan Blomkvist. "Staging Aesthetic Disruption through Design Methods for Service Innovation." *Design Studies* 55 (March 2018): 5–26. https://doi.org/10.1016/j.destud.2017.11.007.

Willis, Anne-Marie. "Ontological Designing." *Design Philosophy Papers* 4, no. 2 (2006): 69–92. https://doi.org/10.2752/144871306X13966268131514.

Willis, Anne Marie. *The Design Philosophy Reader*. London: Bloomsbury Publishing, 2018.

Winkler, Ingo. "Doing Autoethnography: Facing Challenges, Taking Choices, Accepting Responsibilities." *Qualitative Inquiry* 24, no. 4 (2018): 236–47. https://doi.org/10.1177/1077800417728956.

Xiang, Biao. "The Nearby: A Scope of Seeing." *Journal of Contemporary Chinese Art* 8, no. 2-3 (2021): 147–65. https://doi.org/10.1386/jcca_00042_1.

Younis, Ayah. "Trajectories of International Development." In *Design for Social Innovation: Case Studies from Around the World*, edited by Mariana Amatullo, Bryan Boyer, Jennifer May, and Andrew Shea, 46–99. New York: Routledge, 2022.

ERRATA LIST

Revision Date: 02 Feburary, 2024

Dissertation Title: Soiling Service Design: Situating professional designing among plural practices

Page(s)	*Line(s)*	*Type of Revision*	*Original Text*	*Revised Text*
i	2	Proofreading	has traveled	has travelled
2	39	Proofreading	in non-Nothern regions	in non-Northern regions
4	17	Proofreading	insights wihin the report	insights within the report
4	29	Proofreading	that of she if	that if
8	40	Proofreading	occuring around	occurring around

10	Table 1.1	Proofreading	**Resesarch purpose**	**Research purpose**
10	Table 1.1	Proofreading	appended papers	appended papers.
11	33	Proofreading	monolitihc view	monolithic view
13	2	Proofreading	the possiblity	the possibility
15	2	Proofreading	catgories of others,	categories of others,
15	7–8	Proofreading	field service design	field service design.
17–18	5 (p. 17)–4 (p. 18)	Extension	This study is anchored in the domain of service design and aims to contribute to it. Table 2.1 exemplifies selected articles. These works reflect typical contributions to understanding service design practices as described in the service design literature published during the last decade. To be more precise, I consider the service design literature which is informed by general design studies as the primary domain in which this study engages, questions, and contributes. As such, this study also engages general studies which elaborate on design practice. Table 2.2 exemplifies articles and books from general design studies that are	This section delineates the boundaries of the theoretical domain. Overall, the current study is anchored in the domain of service design and aims to contribute to it. To be more precise, I consider the service design literature which is informed by general design studies as the primary domain in which this study engages, questions, and contributes. As such, this study also engages general studies which elaborate on design practice. Table 2.1 highlights 15 selected studies to outline the domain of service design. In this table, I have selected articles published in both design-focused journals (such as *Design Issues* and *Design*

			typically employed to understand the service design practices discussed in this thesis and associated publications. This section delineates the boundaries of the theoretical domain. It begins...	*Studies*) and service-specific journals (such as *Journal of Service Research*). These studies reflect major contributions to understanding service design practices during the last decade. On the other hand, Table 2.2 displays 13 selected studies and books from general design studies that are typically employed to comprehend the design practices discussed in this thesis and its associated publications. The table includes recent journal articles that directly aim to elaborate on the design practice (e.g., Schønheyder & Nordby, 2018) and seminal works that have profoundly influenced the theorization of design practices from the 1970s to the 2010s (e.g., Darke, 1979). While the strategies for selecting articles in both tables differ, they converge in the intention of delineating the theoretical background of this doctoral study. By exemplifying relevant articles, I aim to clarify which intellectual resources have been pivotal in forming my understanding of service design practice. Doing so also helps the reader recognise the author's limitations and potential biases in understanding service design. Based on the selected current studies, this section begins...

23	16	Proofreading	(e.g., Clark et al.,, 2000).	(e.g., Clark et al., 2000).
27	30	Proofreading	to distill specific	to distil specific
32	14	Proofreading	a more humble repositioning	a humbler repositioning
32	23	Proofreading	analyzing specific	analysing specific
34	25	Proofreading	collective endeavors	collective endeavours
35	6	Proofreading	design (cited from Vink, Koskela-Huotari et al., 2021, p. 173).	design. (cited from Vink, Koskela-Huotari et al., 2021, p. 173)
40	4	Proofreading	word, labor, action	word, labour, action
41	33	Proofreading	individual behavior	individual behaviour
47	1	Proofreading	ontological turn is has been	ontological turn has been
47	20	Proofreading	put the recipent	put the recipient
48	8	Proofreading	colored by	coloured by
49	13	Proofreading	from Mol, 2002).	from Mol, 2002, p. 82).
49	27	Proofreading	and analyzing large	and analysing large
55	2	Proofreading	experiments (Adapted	experiments. (adapted

55	17	Proofreading	dug or plowed and	dug or ploughed and
59	Table 3.1	Proofreading	Overview of two experiment clusters	Overview of two experiment clusters.
63	Table 3.2	Proofreading	and their practices (Cited	and their practices. (Cited
65	Table 3.3	Proofreading	Interview guide (Cited	Interview guide. (Cited
66	4	Proofreading	and analyzing the material	and analysing the material
68	8	Proofreading	and to to make other	and to make other
69	4	Proofreading	Centre for Connceted Care, n.d.	Centre for Connected Care, n.d.
69	10	Proofreading	, I traveled to	, I travelled to
70	13	Proofreading	platforms involved in DigiRemote	platforms involved in DigiRemote.
72	Table 3.4	Proofreading	practices of service design	practices of service design.
74	2–3	Proofreading	Photo: An anonymous workshop participant Image courtesy of Zhipeng Duan.	workshop. (Photo by an anonymous workshop participant)
75	3	Proofreading	helped doctors enroll	helped doctors enrol

76	Table 3.5	Proofreading	participated in and observed	participated in and observed.
77	4	Proofreading	Photo: Zhipeng Duan	Image courtesy of Zhipeng Duan.
78	14	Proofreading	DigiRmote project.The	DigiRmote project. The
81	9	Proofreading	by analyzing data through	by analysing data through
85	14	Proofreading	school, therefore	school; therefore
85	22	Proofreading	critically analyzing the	critically analysing the
88	20	Proofreading	this endeavor is	this endeavour is
91	14	Proofreading	over-emphasing the	over-emphasising the
92	Table. 4.1	Proofreading	...RQ1 and contributions of my publications	...RQ1 and contributions of my publications.
95	25	Proofreading	hospital (p. 16–17).	hospital (pp. 16–17).
97	13	Proofreading	interests, behaviors	interests, behaviours
117	12	Proofreading	e.g., Tlostanova 2017, 2019;	e.g., Tlostanova, 2017, 2019;
119	Table 6.1	Proofreading	and research questions	and research questions.

122	34	Proofreading	to be labeled as “design”.	to be labelled as “design”.
123	9	Proofreading	division of labor (Kim, 2018).	division of labour (Kim, 2018).
129	25	Proofreading	their endeavors	their endeavours
132	38	Proofreading	research endeavors	research endeavours
137	4-6	Citation format	Akama, Y. (2009). Warts-and-all: the real practice of service design. In *First Nordic conference on service design and service innovation*, (pp. 1–11). Oslo: The Oslo School of Architecture and Design.	Akama, Y. (2009). Warts-and-all: the real practice of service design. In *Proceedings of 1st Service Design and Service Innovation conference, ServDes.2009* (pp. 1–11). Linköping, Sweden: Linköping University Electronic Press.
138	16	Citation format	*Research* (pp.101–110).	*Research* (pp. 101–110).
140	5	Citation format	Dictionary. (n.d.).	Dictionary. (n.d.b).
140	26–27	Citation format	In Fitzsimmons J. A. & Fitzsimmons M. J. (Eds.),	In J. A. Fitzsimmons & M. J. Fitzsimmons (Eds.),
141	29–30	Citation format	36(4), 273–290.	*36*(4), 273–290.
142	10	Citation format	In Denzin, N. K. & Lincoln, Y. S. (Eds.),	In N. K. Denzin & Y. S. Lincoln (Eds.),
142	10–11	Citation format	The SAGE Handbook of Qualitative Research, (pp. 777–804).	*The SAGE Handbook of Qualitative Research*, (pp. 777–804).

142	13–14	Citation format	Group Ltd. *(*Original work published 1970*)*	Group Ltd. (Original work published 1970)
142	23	Citation format	*NatureCulture*, (3), 67–86.	*NatureCulture*, *3*, 67–86.
143	23	Citation format	*(*Original work published 1953*)*	(Original work published 1953)
143	24	Citation format	Introduction:Thinking	*Introduction: Thinking*
143	28	Citation format	*The ontological turn*	*The Ontological Turn*
143	30–33	Citation format	Holmlid, S. (2007) Interaction Design and Service Design: Expanding a comparison of design disciplines., *Nordes 2007: Design Inquiries*, 27-30 May, University of Arts, Craft, and Design, Stockholm, Sweden. Retrieved September 4, 2023, from https://doi.org/10.21606/nordes.2007.031	Holmlid, S. (2007) *Interaction Design and Service Design: Expanding a comparison of design disciplines*. Nordes 2007: Design Inquiries, 27-30 May, University of Arts, Craft, and Design, Stockholm, Sweden. https://doi.org/10.21606/nordes.2007.031
144	21	Citation format	IDEO design thinking (n.d.).	IDEO design thinking. (n.d.).
144	22	Citation format	2023, https://designthinking.ideo.com/	2023, from https://designthinking.ideo.com/
146	20	Citation format	(Eds.), *Doing interviews* (pp. 102-120).	(Eds.), *Doing Interviews* (pp. 102-120).
146	22	Citation format	personas. https://www.lab.gob.cl/	personas. Retrieved October 4, 2023, from https://www.lab.gob.cl/
146	32	Citation format	Oxford: Architectural Press Lee, J. J. (2014). The True Benefits of Designing Design	Oxford: Architectural Press.

			Methods. *Artifact: Journal of Design Practice*, *3*(2), 5.1–5.12.	
146	33–34	Citation format	Lee, J. J. (2014). The true benefits of designing design methods. *Artifact: Journal of Design Practice*, *3*(2), 5.1–5.12.	Lee, J. J. (2014). The True Benefits of Designing Design Methods. *Artifact: Journal of Design Practice*, *3*(2), 5.1–5.12.
147	1	Citation format	(1979). *Totality and infinity:*	(1979). *Totality and Infinity:*
147	30	Citation format	Routledge. *(*Original work published 1950*)*	Routledge. (Original work published 1950)
148	5	Citation format	Power and positionality:	Power and Positionality:
149	4	Citation format	*Alive in the writing:*	*Alive in the Writing:*
150	2	Citation format	, 12(6),	, *12*(6),
150	10	Citation format	Amsterdam: BIS	Amsterdam: BIS
151	26–27	Citation format	*This is service design doing:*	*This Is Service Design Doing:*
153	1–2	Citation format	(2008). “Service-dominant Logic: Continuing the evolution”.	(2008). Service-dominant Logic: Continuing the evolution.
153	2	Citation format	, 36(1), 1– 10.	, *36*(1), 1–10.
153	30	Citation format	Doing autoethnography:	Doing Autoethnography:

Zhipeng Duan

SOILING SERVICE DESIGN

Professional service design knowledge has travelled globally, detached from its larger Western history and contexts. However, the dissemination of professional knowledge has remained highly abstract, making it challenging for individual designers to grasp the underlying perspectives and debates associated with it. Against this backdrop, this doctoral study explores the relationships between individual service designers and the contexts they must navigate. It aims to illuminate the complications faced by service designers when striving to establish genuine and meaningful connections between their professional practice and the local contexts.

By drawing on practice theories and employing multiple empirical research approaches, the contributions of this thesis are twofold. Firstly, the study elaborates on the detached views held by service designers which restrain them from situating their practices. Such views condition how designers perceive their connection to the world and lead to the potential for a sense of meaninglessness. Secondly, this study draws out an alternative possibility of relating professional design to local contexts. By proposing various ways of doing and knowing as means to attend to relational practices, the thesis suggests the ability to situate design practice can be cultivated through attentiveness to what others do.

Design practice does not necessarily form an inherent-coherent process, but rather entangles with other practices, each shaping the conditions for the others' existence. Messy encounters soil the established understanding of service design. Appreciating the encounters aids designers in finding means to participate in an ongoing process of world-making.

Zhipeng Duan is a design researcher. His research explores the situatedness of praxis and knowledge of design, in an evolving cultural context. As part of the Centre for Connected Care (C3), his research particularly responds to the transformation of healthcare services in both Norway and China.

ISBN: 978-82-547-0367-0
ISSN: 1502-217X

PhD thesis 123