Chapter 1: Introduction

Keywords: partnership, collaboration, craft

In Chapter 1 I present the project on which the theoretical writing of this book builds: The Partnership Quilt. This is the outcome of a collaborative research and making project that took place in 2017. In this chapter, I address the importance of partnership work when working on projects with people who experience stigma, criminalisation, or are in other ways made marginal in our society. I introduce my partners on this project: Changing Lives and Six Penny Memories. Through my introduction to the project and project stakeholders, I start to chart the journey this book will take the reader on to understanding how research processes can honour histories and collaboration to develop a shared praxis of hope to work towards better worlds together

Chapter 2: Crafting, Quilting, and Social Justice

Keywords: quilting, history of craft, embroidery, social justice

In Chapter 2 I chart a history of sewing and quilting in particular relate to issues of social justice; I document experiences of oppression in Chile and China before honing in on histories of sewing in the North of England and how women have used quilting as a way of making a personal statement. Bringing this idea of advocacy through sewing into the world of electronic textiles, I draw out opportunities for these two disparate approaches to craft can come together in the context of sex work research. To conclude this chapter, I highlight how participatory e-textiles making can help document, unravel, and advocate for changes in oppressive systems towards more socially just worlds.

Chapter 3: Quilting Research

Keywords: participatory research, meaningful design process, praxis of hope, social justice

In Chapter 3, I continue this thread of discussion focusing specifically on the relationships between quilting and research. First, I build an understanding of what I perceive to be meaningful action and design processes, building on work that addresses the use of digital technologies in charities and other third sector services. Then, I think through how working towards more just worlds in this space can also relate to the development of a shared praxis of hope where we are able to better care for ourselves, one another, and our planet. After this reflexive writing on theory, I start to bring in examples from the crafting process involved in making The Partnership Quilt – about the porous roles of participants, the importance of relational expertise, and how we can look behind the seams of the quilt to uncover hidden labour involved in research projects.

Chapter 4: Exploring The Partnership Quilt

Keywords: materiality, metaphors, quilting, histories

In Chapter 4, I step away from reflecting on the process, and instead point my attention directly to the outcome of the project: the artefact that is The Partnership Quilt. I present it, explain what it is made of, and draw on the meanings behinds its multiple physical and

metaphoric layers. By describing the different materials and tools that were used to create the quilt, I reflect on how the artefact relates to histories of quilting and advocacy I described in Chapter 2, as well as how the stitches that were created in its process of making in Chapter 3 can tell us more about the care that is embedded in the artefact due to the attention to detail that was paid by all participants.

Chapter 5: Digitally Quilting Social Justice

Keywords: social justice, craft, collaboration, partnership, social justice

In the final, fifth, chapter, I bring together learning from all previous chapters to draw conclusions on how an ethos of social justice in the creation of collaboratively created e-textiles can promote meaningful and collaborative projects that bridge the divide between academia and charity service delivery to actively work towards and promote the development of more just futures and worlds. To conclude the book, I draw out two areas of reflection on quilting e-textiles as a participatory research process as a personal yet shared experience for wellbeing, and as a way of crafting sustainable partnerships and service delivery. Finally, I chart a potential future for digitally augmented craft practices where I see the sewing of e-textiles as a form of, and process for, collective action.

ACKNOWLEDGEMENTS

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Chapter 1: Introduction

Seeing the personal and the political in research processes can lead to alternative ways of engaging methods as well as designing and building technologies. Law (2004) calls this a "risky and troubling process" and one that takes time. I have been thinking about writing this book since I started writing about The Partnership Quilt in 2017. I never felt like I was able to fully describe my thoughts about the project, the methodological implications of it on my future research, the ways in which it brought together interests from HCI, STS, arts-based research, and organisational practice from my partners at Changing Lives. I wasn't able to put my finger on the ways in which this project has had impacts not only on those who were involved in the project (as is described, for example, in a case study written by a member of staff at Changing Lives titled 'Linda's story' in Chapter 5), but also on myself as a person, a researcher, an educator, and a sewer. What I am trying to do with this book is to create an artefact that brings together all these different perspectives and to entangle them with literatures, with meanings beyond the original intention of this crafted artefact. In a way, I am trying to hold the realities of the quilt steady, just for a moment, "against a background of flux and indeterminacy" (Law, 2004). As such, the text herein is a result of reflection, crafting, writing, and many shared cups of tea. It goes beyond the original intention of The Partnership Quilt project and extrapolates my own understanding of research practice and movements towards justice and how these relate to e-textiles and charity service delivery.

Since the development of the first digital looms, technologies have been intimately tied to the development of new services, tools, or ways of communicating. This means they are also closely related to changes we work on in society, as well as debates related to oppressions, marginalisation, empowerment, and justice. Technologies continue to change our personal, political, working, and social lives. Technologies and data power new systems and play huge roles in our constantly evolving discourses on justice, criminal systems, and marginalisation. Especially in recent years, these kinds of topics have been more explicitly addressed with developments in public and academic discourse addressing issues of benefits systems (Eubanks, 2018), racism (Noble, 2018), workers' rights in the gig economy (Bates *et al.*, 2020), and many more. However, we also know that "Technology is always a form of *social* knowledge, practices and products. It is the result of conflicts and compromises, the outcomes of which depend primarily on the distribution of power and resources between different groups in society" (Judy Wajcman in *Feminism confronts technology*, as seen in Costanza-Chock's *Design Justice* (2019)).

In recent years technology designers and researcher have started to embrace this interconnected social knowledge when thinking about the development of new tools or services. As part of this, we have started to bring in more theoretical work related to the meanings of justice, as well as more pragmatic approaches of how we can use our research practice to aid existing movements working towards more just worlds. Researchers have focused on many different topics such as reproductive health (Almeida, Comber and Balaam, 2016; Michie *et al.*, 2018), street harassment (Dimond *et al.*, 2013; Grove, 2015; Wånggren, 2016; Weiss, 2016), or benefits systems in the US (Eubanks, 2018), but are also making arguments of looking at research *processes* as one of the ways of working towards better worlds (Asad, 2019). While the topic of 'justice' is of course highly contested in philosophical discourse, it is only quite recently that researchers in Human-Computer Interaction (HCI) – a field dedicated to the design, development, and exploration of the

ways in which humans interact with technologies – have looked at different topics and are starting to build more nuanced understandings of the terminology. For example, Dombrowski, Harmon, and Fox (2016) have explored the concept of Justice-Oriented Interaction Design, while Asad (2019) has explored various issues of Prefigurative Politics as a way of enacting Research Justice, Smyth and Dimond (2014) have explored issues of Anti-oppressive design, while Fox et al. (2016, 2017) have explored issues of Social Justice and Design in workshops. PI have also explored issues of Justice-Oriented Ecologies when working with sex work support services specifically (Strohmayer, Laing and Comber, 2019) as well as lessons we can learn from sex workers when discussing justice-oriented technologies (Strohmayer, Clamen and Laing, 2019) – work which I will address again later in the book. But there have also been critiques of how we do this kind of work using traditional (to our discipline) techniques (Rosner *et al.*, 2018; Harrington, Erete and Piper, 2019; Rosner, 2019).

Drawing on Participatory Design (PD) approaches, Asad (2019) develops thinking on prefigurative politics in design processes, where researchers can become 'academic accomplices' (Asad *et al.*, 2019) for our collaborators. This is reminiscent of work in Digital Humanities, such as Ferris and Allard's (2016) notion of "affective alliances" between researchers and sex workers. In this book, I see the relationships my partners and I have built as these kinds of accomplices and alliances. And I see the process as a way of not only working towards a shared goal, but that the work we did together is a valuable and useful outcome in and of itself.

Puig de la Bellacasa (2011) says that "ways of studying and representing things can have world-making effects". Based on this, I believe that research processes can, and do, have effect on the spaces they are being carried out in. Especially when working with charities, this should not be taken lightly. Taking this way of thinking into the design of novel technologies, we can also understand 'design' to be a way of "thinking, learning, and engaging with the world." (Costanza-Chock, 2019). As such, instead of designing projects that aim to study in detail what is happening to understand existing processes, I design projects that actively embrace the possibility of having these *world-making effects* Puig de la Bellacasa talks about.

As such, this book responds to Costanza-Chock's (2019) invitation in their book titled *Design Justice* "to build a better world, a world where many worlds fit; linked worlds of collective liberation and ecological sustainability" as well as Daniela Rosner's (2018) book titled *Critical Fabulations* to provide an entanglement and detanglement of the ways in which crafts, technologies, and movements towards more socially just worlds can come together.

However, it is important for me to note here that I am not implying that technologies, even if designed appropriately, are an easy way to fix complex problems. As Costanza-Chock (2019) writes: "Thinking that tools provide silver bullets without taking the time to really understand community contexts is also a recipe for failure […] what ultimately matters is not tool adoption: it is people's struggles and their lived experiences". Rather, I hope to show that working together at the intersections of traditional craft and digital technologies (even, or perhaps especially when they are not particularly novel in and of themselves), in contexts that are stigmatised, marginalised, and harmed in society can help move towards more just worlds.

I do all of this through an in-depth analysis of a project I worked on with a local charity and professional quilters called *The Partnership Quilt*. I draw on interdisciplinary literatures and reflect on how this project has helped me shape an understanding of research practice and crafting, of partnerships and collaborations, and the opportunities working in this way brings about in multiple ways.

Donnell (1990), a quilt theorist and feminist activist, has developed the notion of *Quilt Poetics,* which I draw on throughout the book, in which she writes that "to be interest in the theory and practice of quilt-making means to look for fair dealing […] it indicates a readiness to fight against all obstacles preventing us from creating a better world together" (Donnell, 1990). Further to this, the tradition of patchwork has a home in almost every culture in the world. It is something we are all familiar with in some ways, and "Above and beyond all utility, [quilts] serve a people's need for decoration and give free rein to their creative talents." (von Gwinner, 2010).

Science and Technology Studies (STS) literatures we have considered notions of research processes for a long time. This relates to the goal "of 'opening up the black box' in order to demystify science and technology, that is, to analyse the process of production as well as the product" (Star, 1988). Just like Star was interested in the work that was behind the work (particularly that made by assistants, technicians, and students), I am interested in the work that was needed to make The Partnership Quilt happen. But this is not only the work I carried out as a researcher, but the work that my collaborators and co-makers participated in to make this project not only feasible, but also successful.

Sewing metaphors in academic writing[1] and quilt poetics (Donnell, 1990; Witzling, 2009) help me understand this project in a new light. They allow me to look into the seams of the project, into the corners of practice that too often are left ignored. To do this, and similar to Star and many other feminist STS and HCI researchers, I take an ecology approach to analyse this project. I draw on some of my previous work where I developed the idea of Justice-Oriented Ecologies – a conceptual framing for designing technologies with and in third sector organisations to understand the work they do and to develop new approaches or technologies to improve and/or change this work in positive ways (Strohmayer, Laing and Comber, 2019) as well as STS (Star, 1988; Law, 2004) and quilting literatures (Donnell, 1990; von Gwinner, 2010). This allows me to look beyond the workshops in which we produced our relationships and the quilt and instead also allows me to look at the work before the work, the impacts this project has had, and the ways in which histories of craft and social justice in our region impacted this project.

I see research as work that is 'doing' and 'acting' (Reid, 2006) in the research process, where data can be understood as a representation of these actions and individual interpretations of the world which can ultimately feed into organisations practice. The sewing and organisational work necessary to create the artefact and develop relationships are data,

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[1] https://blogs.lse.ac.uk/lsereviewofbooks/2016/05/27/the-materiality-of-research-woven-into-the-fabric-of-the-text-subversive-material-metaphors-in-academic-writing-by-katie-collins/

analysis, and outcome all at once. As such, images and other creative data become part of the vocabulary and grammar of this book.

In this book, I reflect on the making process as well as the physical, material, and social outcomes of a Feminist Participatory Action Research (FPAR) project titled *The Partnership Quilt*. Through the in-depth description and analysis of The Partnership Quilt as a research process and hybrid design artefact that brings together digital interaction and traditional crafts practices, I will highlight the importance of creative activities in (digital) charity service delivery and participatory research practice. Furthermore, I address the ways in which aspects of this kind of creative, collaborative, and community-driven digital interaction can create new opportunities for research impact to promote social justice with and for participants.

The work described in this book is deeply qualitative and generative in nature. It develops novel approaches to service design and thinks differently about traditional research methods. Using interdisciplinary literatures from Human-Computer Interaction (HCI), Design, STS, and other disciplines, the work inhabits space at the porous borders between these disciplines. It aims to understand through designing, and to design through understanding; developing a dialogue between design work and participant and researcher-participant action that is underpinned in contextualised knowledges of sex worker rights and justice for sex workers.

Partnership Work

As the name of the book suggests, partnership was integral to the thinking and making behind the words in the book and the project it draws from. The Partnership Quilt was made in collaboration between Changing Lives staff, volunteers, and clients as well as Six Penny Memories and Newcastle University. From other research projects, such as Sagar and Jones' work in Wales, we learn that multi-agency working has resulted in safer work environments for sex workers, particularly those experiencing multiple forms of marginalisation, stigma, and violence (Sagar, 2007). It is also accepted that an evidence-based approach should be taken in healthcare services (Grenfell *et al.*, 2016), which I would also extend to other wellbeing services; particularly when working in settings that are stigmatised. This kind of evidence-based development of services can happen when researchers and practitioners work together – bringing together knowledge, experience, and expertise in different but mutually necessary spaces.

Drawing on this learning, our quilting project started out as an activity for sex workers and women who have been sexually exploited to work on during drop-in sessions in Northumberland. Together, we worked for over a year to craft a quilted blanket, through which we were able to share our varied experiences of taking part in drop-in services. Through the crafting process itself, we were able to develop relationships with one another that led to the improvement of service delivery for service users as well as the development of further collaborations. Embedding capacitive touch sensors into the quilt also allowed us to turn our traditional crafted artefact into a piece of interactive art. When parts of the quilt are touched, this interaction triggers the playing of an audio-file via connected headphones; allowing those who interact with it to listen to the voices of those who created it. Touching the quilt triggers short snippets of a recorded reflection about the quilt itself and the process of crafting it; foregrounding the voices of service users to express how this kind of

service delivery impacted their everyday lives. The Partnership Quilt is the outcome of a collaborative research and making project that took place for over a year in 2017/2018.

Of course, I hope that you learn something from reading this book, but I am also very conscious that much of what the project I am using to think through bigger issues of research justice, digital service delivery, and our role as researchers is not *new.* Capacitive touch sensors are nothing new for technology researchers, and embedding them in textiles won't be new for e-textiles experts. Those working in third sector organisations or who support people in difficult life situations won't be surprised to find out that creative activities and long-term engagements will help build relationships with service users and/or clients. However, what made this particular project successful and what I am advocating for we do more of is to bring unrelated approaches together. To do what we know works. To bring together disparate approaches that ultimately change practice in new ways; that help us better understand what we do and why we do it in these better ways. We should engage in more long-term thinking and working, more collaborations, multi-agency engagements, and more caring, respectful, sustainable collaborations in which we can develop truly participatory projects.

This kind of learning is highlighted by my foregrounding of collaboration as an integral part of the research process itself. This is achieved by promoting the importance of multiplicity, polyvocality, and reflexivity in research practice, and presenting tangible actions and design work that developed from and through this collaborative and reflexive design process. This methodological framework is based on the embeddedness of myself, the technologies, and the research in existing ecologies of service delivery and wider contexts of care and histories of craft-activism in the North East of England. This book pushes back on technosolutionism and instead complicates our understanding of *solutions* and *justice-oriented technologies*. It also pushes back on current foci on *innovation* and *novelty* as the be-all and end-all of projects. Instead I argue we should think and write more about maintenance work and/or the social, political, and other outcomes of what happens with and through technologies.

In a way, the process and outcome of making the quilt supported the building of deep, trusting, and sustainable partnership between myself as a researcher and staff at Changing Lives. At the same time, The Partnership Quilt is an example of how e-textiles and design research can support and promote social justice outcomes. Working so intimately with service providers and users has enabled me to learn from their expertise. It has encouraged us to adapt our different practices in ways that we did not foresee, and our learning and actions became entangled in one another's work. Through the organic development of the project as part of our ongoing relationship-building, we were able to advance justice for service users as improved service delivery and were able to use the finished artefact as a way of starting conversations about the needs of women who may have multiple complex needs and experiences of the sex industry with various public and academic audiences. It has also laid the groundwork for continued collaborations, as well as the development of a new service pathway within the organisation, pointing towards the importance on craft and other creative activities.

Changing Lives

Changing Lives are a charity based in the North East of England but who administer many projects and services across the country. They support people of all genders, across various pillars, including homelessness, sex work and exploitation, criminal justice support, and job

support schemes. Many of their clients experience multiple, and often intersecting, complex experiences of trauma, violence, stigma, or needs. Two of their projects are called Girls are Proud, and Male Action Project (GAP/MAP): these support women and men who are involved in the sex industry respectively. While they understand that people of all genders are involved in the sex industry, it is due to funding structures that they have separated out these two specific genders. This part of their service repertoire provide services to support people engaged in sex work, survival sex, or experiencing sexual exploitation. Changing Lives work to support people throughout the country, but the GAP/MAP project specifically works across a large conurbation in the North East of England. Changing Lives use a people-focused approach and do outreach and drop-in work, but also provide more structured support for individuals and groups. They follow a three-stage Theory of Change with their service users based on 'being, becoming, and belonging'. As they guide clients through this process of change, they support clients' immediate needs, validate their trauma, encourage the learning of new skills, and ultimately help them foster healthier relationships.

On top of carrying out their service delivery, GAP/MAP have also been involved in some research projects. For example, the PEER project documented experiences of street-based sex workers in Newcastle through peer-research carried out by sex workers (Laing & Irving 2013). Building on this, Professor Maggie O'Neil carried out a Participatory Action Research project titled 'Peer Talk' that provided a platform for the hidden stories of women who "sell or swap sex" in Teesside in the North East of England (O'Neill et al. 2017). More recently, I have also co-led an exploration into the use of digital technologies on International Day to End Violence Against Sex Workers with Laura Mcintyre and Sarah Charlton with the GAP service (Strohmayer, 2019; Strohmayer *et al.*, 2020).

Six Penny Memories

To be able to complete the project, we also worked with expert quilters. At the time of the project, Six Penny Memories were made up of a Duo of quilters – Kim and Debbie. They are authors of books and quilting patterns, create quilting toolkits, have hosted a series of quilting tutorials on TV and host a variety of quilting workshops. At the time, Kim also used to own a quilting shop in Durham County, called The Fat Quarter Shop.

Six Penny Memories were contacted by one of the members of staff at Changing Lives who were working on The Partnership Quilt with us. She was a support worker who started the sewing of small quilt blocks in a drop-in centre alongside a volunteer who was also an avid quilter. After Kim and Debbie became involved in the project, they were able to lend their quilting expertise to the project – guiding us through the process of creating quilt blocks, sewing them together, and finishing of the quilted blanket. They also played an integral role in the creation of the e-textiles layer of the quilt, which ultimately is what made it interactive.

Summary

In the following chapters, I let the story of discovery, of entanglement, and of ultimate disentangling of this messy web of work, experience, and metaphors unfold. I start this off in Chapter 2 by drawing on academic and non-academic literatures. I chart a history of sewing and quilting in particular relate to issues of social justice; I document experiences of oppression in Chile and China before honing in on histories of sewing in the North of England and how women have used quilting as a way of making a personal statement. Bringing this idea of advocacy through sewing into the world of electronic textiles, I draw

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