Mechanisms of moral responsibilities: Designing and deploying digital technologies for perpetrators of domestic violence

Rosanna Frances Bellini

Submitted in partial fulfilment of the requirements of the degree of Doctor of Philosophy

Newcastle University

School of Computing

April 2021

Abstract

Where prevention and intervention resources should be focused to mitigate domestic violence is an important topic within academic policy and practice. While there are a range of digital tools available to support victim-survivors subject to domestic violence, no tools have been designed to challenge the abusive and harmful behaviours of perpetrators. In this thesis, I explore the experience of how existing and novel technologies used in the context of perpetrator interventions in the third sector within the United Kingdom are being leveraged to rebalance the over-responsibility society bestows on victim-survivors, along with the under-responsibility we ascribe to perpetrators. I accomplish this through developing a conceptual framework that seeks to promote spaces for design and further intervention capable of assisting such organisations in holding perpetrators responsible for their abusive behaviours and facilitating their journey of behaviour and attitude change towards non-violence.

Through this work, I conceptualise the compelling moral responsibilities intrinsic to interactions with technological systems between perpetrators and support workers, which I elicit through a focused ethnography. I highlight four spaces of negotiation concerning a person's responsibility for changing their abusive behaviour, which I refer to as 'mechanisms' to convey their fundamental and interconnected nature: self-awareness, acknowledging the extent of harms, providing peer support, and being accountable to demonstrate change. To further investigate these spaces for negotiation, I conducted three studies to understand the contextual dependencies of design that focuses on the responsibility of domestic violence perpetrators through: (1) the development of an interactive storytelling system to promote learning about agency and perspective-taking, (2) the design of a smartphone application to support crisis management and the prevention of physical violence, and (3) the design, deployment and evaluation of an asynchronous peer support process between two groups of perpetrators.

The outcomes of this conceptual and empirical inquiry are manifold. First, I provide a detailed account of how responsibility is explored in practice between support workers and perpetrators to suggest design considerations for future systems in this context. Secondly, I provide a conceptual framework to aid researchers and designers in better navigating designing for responsibilities for violent behaviours, and outline implications for how this might be achieved. Finally, I offer a methodological and ethical

considerations which outlines ways in which support workers and perpetrators can be actively included within the co-design of digital tools while mitigating the elevation of risk. These contributions aim to fundamentally reimagine the roles and possibilities for digital tools within domestic violence, looking beyond today's victim-focused and security-oriented paradigms to propose a more transformative orientation focused on preventing the harm done by perpetrators.

Acknowledgements

Writing this thesis has been a deeply personal and intellectual journey, but by no means one I have taken alone. I would like to begin by praising the people that made this odyssey possible through their depth of care, support and understanding.

I must first express enormous gratitude to my supervisors, who have acted as sturdy riverbanks to my river, guiding me in the right direction while simultaneously letting me forge my own way. To Dr Jan Smeddinck; it has been a true delight to have been his supervisee, to know him personally, and to benefit from his endless encouragement and motivation while completing my thesis. I must thank him for always believing in and adamantly supporting my attempts to complete this work and to pursue my vocation in academia. To Professor Nicole Westmarland, who graciously adopted me (an initially passionate yet rambling stranger) into her incredible world of expertise, and whose depth of insight, perspectives and approaches truly know no bounds. Carrying out this work under Nicole's supervision has been a thoroughly valuable experience, and her gifts of unwavering support, opportunities and understanding will never be forgotten. She will always be a scholarly inspiration to me. To Professor Simon Forrest, who arrived midway through this work but whose mark on it is indelible, and whose generosity is unmatched. His deep insight, responsiveness and gentle assistance helped me make sense of the deep complexity of my findings and approaches, pulling me out of states of near-research paralysis as I grappled with the sheer volume of concepts and perspectives in front of me.

I must personally thank Barnardo's North East for welcoming me so warmly into their practice; I have thoroughly enjoyed spending time with their wonderful staff members. To Carol Butler, Janice Chandler, Karen Sibbald and Anna Fordham, with whom I have had many a thoughtful discussion, early morning coffee and laugh throughout the course of this work. I especially appreciate that so much of their precious time was dedicated to assisting and informing my investigations and deployments across the last three years. To Mike Bedford, who was such a wonderful host and made Splitz feel so welcoming; I doubt anything could surpass the tour I was treated to of the Caen Hill Locks or the White Horse of Wiltshire as part and parcel of a field site visit. To Respect; special thanks must go out to Victoria Page, Sara Kirkpatrick, Jo Todd and Ippo Panteloudakis for permitting me to assist in navigating such a new and concerningly understudied space. Their efforts leave me thoroughly in awe of their ability to continuously and tirelessly lobby for a safer and more just world.

To my fellow PhD students in Digital Civics – Sean Peacock, Sebastian Prost, Jen Manuel, Dr Reem Talhouk and James Hodge in particular – for their years of friendship, good humour and endless capacity to listen to my torments and joys if I was ever in need. My PhD has felt anything but lonely with such incredible individuals around.

Words also cannot express just how truly indebted I am to have had Dr Angelika Strohmayer as a mentor, colleague, and close friend across and beyond the length of this work. It has been a true pleasure to watch her thrive academically and personally. A special thanks must also be shared here with Matthew Marshall, who is in every way a surrogate brother to me thanks to his continuous encouragement and belief in my abilities. I am continuously impressed by his ability to overcome significant obstacles on his hero's journey, while still having the energy to lift others up.

To everyone at fempower.tech, thank you so much for caring and being prepared to raise your voice when it mattered. This network has been a truly wonderful space to grow within. Specific acknowledgements go to Samantha Mitchell Finnigan, Janis Meissner, Arlind Reuter and Hazel Dixon for keeping me company all these years. I am also incredibly fortunate to have drawn on the knowledge and expertise of the Centre for Research into Violence and Abuse (CRIVA) brought together by Nicole Westmarland. CRIVA coffees, their events, mailing lists and writing events have been invaluable in keeping me going and continuously inspiring me to continue to work in the face of adversity with persistence and poise, as they do.

To my family – Guy, Clare, and Francesca Bellini – for their constant support, love, and pride in my achievements. I am so fortunate to have such an attentive familial network whose energy I can draw on any time I pick up the phone or make the journey back home to Leeds.

Finally, to my partner Matthew Jennings, who has been there since before I knew that I wanted to embark on this doctorate. I couldn't have asked for a more supportive and encouraging companion, who has made all the difference to me, both professionally and personally. His ability to provide a stable, safe, and truly fulfilling space has made it possible for me to be the best self that I am today.

Dedication

If you are reading these words, this thesis is dedicated to you, reader.

Collaborations

I had the pleasure of collaborating with two talented software developers that helped to deliver two of the digital systems contained within this work.

Chapter 5 describes the interactive storytelling system Choice-Point. This system was developed in collaboration with Daniel Jackson who carefully transformed a design concept to a functional trial version of the system. He then graciously listened to our feedback on ways the system could be improved and incorporated these suggestions into the final version of the system as presented in this work. His guidance on the shared digital session between mobile and web-based devices proved invaluable in ensuring the system was interactive, and ultimately a joy to use.

Chapter 7 describes the repurposing of an existing digital system for the use in an asynchronous peer support network activity Fragments of the Past. This chapter utilises JigsAudio that was developed prior to the conduct of this PhD research. This system was originally designed as novel approach by Dr. Alexander 'Zander' Wilson to engage participants to draw and record audio messages on perspectives on where they live. Zander helped locate two JigsAudio devices before my deployments and assisted in the data retrieval for further analysis.

Table of Contents

Abstract .... *i*

Acknowledgements .... *iii*

Dedication .... *v*

Collaborations .... *vi*

Table of Figures .... *xiii*

Chapter 1. Beginnings *1*

1.1. From Silence to Noise **1**

1.2. Research Statement **4**

1.3. Research Aims and Questions **4**

1.4. Thesis Structure **5**

1.5. Thesis Contributions **7**

1.6. Related Publications **8**

1.6.1. Peer-Reviewed 8

1.6.2. Non-Peer Reviewed 9

1.7. Rationales for Engagement **9**

1.7.1. Academic Rationale 9

1.7.2. Personal Rationale 11

Chapter 2. Digital Responses to Domestic Violence: The Perpetrator Gap *14*

2.1. Introduction and Chapter Overview **14**

2.2. Defining Domestic Violence and Abuse **14**

2.2.1. Victim-Survivors and Perpetrators 16

2.2.2. Characterising Domestic Violence in the United Kingdom 17

2.3. Absent Perpetrators: The Problem of Domestic Violence **18**

2.3.1. Domestic Violence Perpetrator Programmes 20

2.3.2. Content, Ideology and Mode of Delivery for DVPPs 22

2.4. The Importance of Responsibility for HCI and Design **24**

2.4.1. Defining Responsibility 25

2.4.2. Exploring Responsibility in HCI 29

2.4.3. Responsible Design for Violence Prevention 30

2.4.4. Designing for Responsibility for Violence Prevention 32

2.5. HCI and Supporting Responsibility Work 34

2.5.1. Designing Digital Responses to Domestic Violence 35

2.5.2. Digital Support for Perpetrator Rehabilitation 37

2.5.3. Engaging Theory and Practice in Violence Prevention 39

2.6. Opportunities for Design and Intervention 40

2.7. Chapter Summary 42

Chapter 3. Methodological Approach 43

3.1. Introduction 43

3.2. Feminist Standpoint Epistemology 44

3.3. Second-Person Action Research 46

3.4. Feminist Action-Approaches to Working with Men 48

3.5. Research Partners 49

3.5.1. Barnardo’s 50

3.5.2. Respect 51

3.6. Research Investigations 51

3.7. Investigations and Data Collection Methods 53

3.7.1. Entering the Space for Design 54

3.7.2. Choice-Point: Fostering Awareness and Choice 57

3.7.3. Time Out: Supporting Reflection and Crisis Management 59

3.7.4. Fragments of the Past: Curating Peer Support Processes 61

3.7.5. Digital Artefacts 63

3.8. Grounded Theory Data Analysis 63

3.9. Ethics and Ethical Considerations 65

3.9.1. Attaining Ethical Approval and Research Design 65

3.9.2. Practicalities of Working with Perpetrators 66

3.9.3. Wellbeing 67

3.10. Chapter Summary 69

Chapter 4. Focused Ethnography: Entering the Space for Design 70

4.1. Introduction 70

4.2. Setting the Scene 71

4.2.1. Making an Introduction 71

4.2.2. Orchard/Mosaic 72

4.2.3. Participants and Services ... 72
4.3. Findings ... 74
4.3.1. A day in the life of Orchard/Mosaic ... 74
4.3.2. Reflections ... 77
4.4. Grounded Theory Findings ... 78
4.4.1. Self-Awareness and Perspective-Taking ... 78
4.4.2. Acknowledging the Extent of Harms ... 81
4.4.3. Providing Support and Community ... 82
4.4.4. Being Accountable to Demonstrate Change ... 84
4.5. Discussion ... 86
4.5.1. Technology as Surfacing Responsibilities ... 87
4.5.2. Embracing and Accounting for the Mundane ... 88
4.5.3. Designing for Responsibilities ... 89
4.6. Chapter Summary ... 90
Chapter 5. Choice-Point: Fostering Awareness and Choice ... 92
5.1. Introduction ... 92
5.2. Background Literature ... 93
5.2.1. Simulations and Domestic Violence ... 93
5.2.2. Second-Person in Interactive Storytelling ... 94
5.3. Contextualising Choice-Point ... 95
5.4. Trialling the Choice-Point System ... 96
5.5. The Choice-Point System ... 98
5.5.1. Story ... 98
5.5.2. Character Roles and Voting ... 100
5.5.3. Choices ... 100
5.6. Study Design ... 103
5.6.1. Expert Critique by Facilitators ... 104
5.6.2. Deployment with Perpetrators: Domestic Abuse Awareness Project ... 104
5.7. Design Workshop with Victim-Survivors ... 106
5.8. Data Collection and Analysis ... 106
5.9. Findings ... 107
5.9.1. Narrative Pathways ... 108
5.9.2. Raising Levels of Awareness ... 109
5.9.3. Creating a Lack of Control ... 110

5.9.4. Comfortable and Uncomfortable Realities 112

5.10. Discussion 114

5.10.1. Restricting Agency to Inspire Discussions on Agency 115

5.10.2. Piercing the Magic Circle 117

5.11. Chapter Summary 118

Chapter 6. Time Out: Supporting Reflection and Crisis Management 120

6.1. Introduction 120

6.2. Background Literature 121

6.2.1. Digital Interruptions for Harm Prevention 122

6.2.2. The Time Out Technique 122

6.3. Contextualising the Guided Time Out 123

6.4. Stage One: Exploratory Focus Group Discussions 125

6.5. Stage One: Findings 126

6.5.1. Taking Change Away 127

6.5.2. Interrupting Violence 128

6.6. First Design Iteration of the Guided Time Out 130

6.7. The Design Concept 134

6.8. Stage Two: Feedback on Technology Concepts 135

6.9. Stage Two: Findings 136

6.9.1. Rigidity Against Flexibility 137

6.9.2. Access and Control 139

6.10. Finalising the Design Concept 140

6.11. Discussion 143

6.11.1. Parameter of Participation 144

6.11.2. Externalising Guidance 145

6.12. Chapter Summary 147

Chapter 7. Fragments of the Past: Curating Peer Support Processes 148

7.1. Introduction 148

7.2. Background Literature 149

7.2.1. Peer Support Technologies and Post-DVPPs 149

7.2.2. Asynchronous Communication and Making for Change 150

7.3. Contextualising Fragments of the Past 151

7.3.1. Ethics Approval ... 153
7.3.2. Designing for Asynchronous Support ... 154

7.4. Study Design and Participants ... 155

7.5. Stage One: Design Workshops with Group N ... 156

7.6. Stage One: Findings ... 158

7.6.1. Balancing Parts with Wholes ... 158
7.6.2. Mixing the Digital and Non-Digital ... 159

7.7. Stage Two: Fragments of the Past ... 160

7.8. Stage Three: Crafting the Fragments ... 163

7.8.1. Stage Three: Findings, Artefacts ... 163

7.9. Stage Three: Findings, Themes ... 165

7.9.1. Audibly Augmenting Reality ... 165
7.9.2. Curating Identities ... 166

7.10. Stage Four: Receiving Peer Support ... 167

7.11. Stage Four: Findings ... 168

7.11.1. Looking Back to Look Forward ... 168
7.11.2. Communicating Honesty ... 169

7.12. Discussion ... 171

7.12.1. Responsible Channels for Passing Support ... 171
7.12.2. Identity Work Around Perpetration ... 173
7.12.3. Collective Responsibility for Individual Responsibility ... 175

7.13. Chapter Summary ... 176

Chapter 8. Discussion: A Journey Revisited ... 178

8.1. Introduction ... 178

8.2. Digital Preventative Responses to Domestic Violence ... 181

8.2.1. Narrative Vignettes of Digital Support Work with Perpetrators ... 183
8.2.2. Provision of Digital Systems for Perpetrator Interventions ... 186

8.3. Responsibilities for Violence in HCI ... 189

8.3.1. A Conceptual Framework for Designing for Responsibilities ... 191
8.3.2. Suggestions for Digital System Design for Perpetrators ... 197

8.4. HCI and Supporting Responsibility Work in DVPPs ... 201

8.4.1. Un-Safety Work: The Purpose of Working with Perpetrators ... 203
8.4.2. Parameters of Participation: Methodological Approaches in Including Perpetrators ... 206

8.5. Overview and Consideration of Contributions 209

8.6. Chapter Summary 211

Chapter 9. Endings and Beginnings 213

9.1. Introduction 213

9.2. Work and Contributions 213

9.3. Reflections on Research Practice 215

9.4. Future Directions 217

9.5. Final Thoughts: A Call to Action 220

Bibliography 224

Appendix 259

Appendix A 260

Appendix B 281

Appendix C 291

Table of Figures

FIGURES

Figure 1: Watson's Three-term Relationship of Responsibility Between Two Parties 26
Figure 2: Watson's Three-Term Relationship with Macnamara's Accountability and Shoemakers Answerability Illustrated 27
Figure 3: Smith's Responsibility as Answerability Reformation of the Three-Term Relationship 28
Figure 4: Geographic Locations of Charity Partners in England, UK 53
Figure 5: Timeline and Action Research Cycle for First Investigation 54
Figure 6: Physical and Digital Fieldnote Journals 56
Figure 7: Timeline and Action Research Cycles for Second Investigation 58
Figure 8: Timeline and Action Research Cycles for Third Investigation 60
Figure 9: Timeline and Action Research Cycles for Fourth Investigation 62
Figure 10: Process of Mechanisms of Moral Responsibilities for Violence Prevention 89
Figure 11: Sketch of initial system concept [Left] against paper prototypes that were used to facilitate discussion [Right] 96
Figure 12: Screenshot of First Iteration of Choice-Point: A HTML-only Webpage 97
Figure 13: [Left] Mobile view of Choice-Point with one of Sharon's 'choices' displayed. [Right] Other characters and audience members have cast their votes for two of the three different options. 99
Figure 14: Screenshot of passages representing Choice-Points #1-#4 as presented within the Twine GUI 102
Figure 15: Carol, Karen, Anna and Janice engaged in interactive design activities in the expert critique design workshop 105
Figure 16: [Left] Participant selecting from a number of choices at Choice-Point #3 [Right] Independent written evaluation of Choice-Point 107
Figure 17: Glow Community Centre, Stoke on Trent 126
Figure 18: Section of shared document with potential list of technologies that were safe and feasible within the context of the Tech vs Abuse Funding 132
Figure 19: Design mockup of the Toolbox of behaviour change techniques, inclusive of the Guided Time Out. 134
Figure 20: Description of the Guided Time Out used in the FGDs 135
Figure 21: Screens 1-5 of the Guided Time Out 141
Figure 22: Screens 6-10 of the Guided Time Out 142

Figure 23: Screens 11-13 (Optional) of the Guided Time Out 143
Figure 24: Making Connections pack: [Left] Incomplete; [Right] complete 156
Figure 25: [Left] *Three's a Crowd*; [Right] Four participants completing the activity 157
Figure 26: [Left] JigsAudio system with FoTP passport [closed]; [Right] A Group G participant listening to Group N fragments. 162
Figure 27: A participant's finished set of fragments 164
Figure 28: [Left] N1's fragment and [Right] N10's fragment for '*Making Progress*' 166
Figure 29: Process of Mechanisms of Moral Responsibilities for Violence Prevention 192

TABLES

Table 1: Names, Job Titles and Services of Study Participants 73
Table 2: Participant demographic characteristics, including age, gender, job role, risk level and course number 104
Table 3: Data of the semantic rating (1: Very Negative to 5: Very Positive) of each choice-point (1–20) within the branching narrative and the resulting story ending for the six run-throughs within the Steps to Change groups A, B and C. Each choice within Choice-Point is highlighted depending on the character role played by the participants, as shown in the legend at the bottom. 108
Table 4: Participant Demographics of Gender, Risk Level (Perpetrator) or Professional Role (Research Sites)..126
Table 5: Participant Demographics of Site Location, Gender, Age and Risk Level 136
Table 6: Participant Demographics of Age, Gender, Risk Level (Perpetrator) or Professional Role (Barnardo's)..155
Table 7: Three's a Crowd token descriptors..158
Table 8: Number of fragments and audio clips 164
Table 9: Findings and Theoretical Considerations for Moral Responsibilities through and with Technologies 197

Gaslight

'People who have never seen [the film] *Gaslight* (1944) or who have only read second-hand descriptions of it often say that Greggory's entire purpose, the reason that he makes the lamp flicker is to drive Paula mad, as though that is the sum of his desires. This is probably one of the most misunderstood aspects of the story. In fact, Greggory has an extremely comprehensive motivation for his actions: the need to search for the jewels unimpeded by Paula's presence. The flickering gas lamps are a side effect of that pursuit and even his deliberate madness machinations are directed to this very sensible end and yet there is an unmistaken air of enjoyment behind his manipulation. You can plainly see the micro expressions flick across his face as he improvises, torments, schemes. He enjoys it, it serves him, and he is twice satisfied. This is all to say his motivations are not unexplainable, they are in fact aggravatingly practical; driven by greed, augmented by desire for control and shot through with a cat's instinct for toying with its prey. A reminder, perhaps, of the fact abusers do not need to be and rarely are cackling maniacs — they just need to want something and not care how they get it.'

Dream House as 9 Thornton Square,

In the Dream House by Carmen Maria Machado

Chapter 1. Beginnings

1.1. From Silence to Noise

Once positioned as a hidden crime, domestic violence has in recent years emerged as a mainstream criminal justice, moral, social and health issue in the United Kingdom (Machado, 2020). As digital technologies have become more ubiquitous, greater attention has been paid to how such systems can play a role in assisting violence prevention. Despite the growing visibility of individuals affected by such harm, as a social and legal concept, the reasons why domestic violence occurs continue to be overlooked, obscured, or misunderstood. In *A Deafening Silence: Hidden Violence Against Women and Children*, Patrizia Romito presents an astute perspective on this increase in visibility:

> *"Breaking the silence [on domestic violence] is acceptable as long as each act of violence is presented as isolated, as long as the perpetrators appear to be in an exceptional situation, prey to uncontrollable emotions. Above all it is acceptable to talk about violence, but never male violence ... We have gone from silence to noise, but with what capacity to get to the bottom of male violence and prevent it?"* (Romito, 2008, p. 5)

This quote correctly communicates the true challenges associated with preventing domestic violence: that perpetrators are the cause of violence, that violence is far from an isolated occurrence, that perpetrators are far from exceptional, and that the individuals who cause such violence are most frequently male (ONS, 2020). Importantly, Patrizia (2008) questions why we, as a society, have become accustomed to 'breaking the silence' surrounding domestic violence, while remaining concerningly reluctant to embrace our capacity to challenge those perpetrating it. When the responsible agents (i.e. perpetrators) are not addressed in cases of abuse, there is an unfortunate tendency to expect those subject to violence, rather than those who cause it, to make the changes necessary to prevent violence (Lamb, 1991). This has resulted in many digital and non-digital responses that place the practical and symbolic responsibility for preventing abuse on the shoulders of those subject to it: victim-survivors (Westmarland *et al.*, 2013). As Kelly and Westmarland (2016) delicately point out, our communities paradoxically appear to contain far more victim-survivors than perpetrators. This misapplication of personal responsibility has been identified as not only symbolically unjust, but also unsustainable for long-term approaches to violence prevention. This is because many perpetrators who

do not receive an appropriate intervention for their behaviour go on to repeat harm in existing and future relationships (Hester and Westmarland, 2005). As patterns of violence, far from being ‘exceptional situations’, are caused by perpetrators inflicting patterns of abusive and harmful behaviours, it is essential that these individuals are brought into better focus within digital design and intervention.

The Human-Computer Interaction (HCI) community has begun to witness a growth in research addressing complex societal harms, such as domestic violence, and how we might better work with specialist services that respond to them. This has manifested in better descriptions of the complexities associated with privacy and security practices for victim-survivors (Matthews *et al.*, 2017; Rabaan, Young and Dombrowski, 2021), as well as digital interventions that provide technical expertise to help them navigate towards safety and lives free of violence (Freed *et al.*, 2019; Havron *et al.*, 2019). Research in other fields has identified that learning more about perpetrators’ motivations for doing harm can be an invaluable resource to inform preventative approaches (Hearn, 1998; Stanley *et al.*, 2012). The HCI community has also begun to show the first glimmers of being motivated by such approaches (Tseng *et al.*, 2020; Bellini *et al.*, 2021). The present work builds on this foundation by expanding such research to environments where perpetrators are managed in person and directly challenged on their behaviour.

Domestic violence support organisations are a prominent violence prevention approach that work directly with perpetrators within their own community. These organisations provide a broad range of services that seek to raise awareness, provide therapeutic support, oversee risk management and directly challenge the perpetrators of harm through intervention (Towers and Walby, 2012). Such interventions provide an essential, non-judgemental space in which an individual can be held responsible for their unacceptable behaviour, while also being equipped with the practical and conceptual means to cease engaging in violent and abusive behaviours. Such organisations are mindful that desisting from violence involves neither a linear behavioural progression nor the immediate cessation of abuse; instead, it is a complex and dynamic pathway that gradually unfolds over time (Morran, 2006; Downes, Kelly and Westmarland, 2014; Donovan and Griffiths, 2015). As charities and voluntary organisations play an important role in society, increasing attention is being paid to determining how researchers might better support service delivery and to developing a community of practice (Marshall *et al.*, 2018; Strohmayer, 2019). In the interests of supporting this pathway of change, it is important to investigate how we might better build and sustain interventions for

perpetrators with the aim of making the appropriate people responsible and providing them with ways to take responsibility for their behaviour.

Interventions that seek to discourage perpetrators from the use of harmful behaviours may be understood as sophisticated social interactions that exist within a complex social reality. This when we consider that different stakeholders, such as funders, victim-survivors and facilitators have explicit influence over what renders an intervention successful, in what contexts and why, making programmes challenging spaces to design for. In their *realist evaluation* of social programmes, Pawson and Tilley offer the valuable concept of *mechanisms* that describe the underlying social or psychological factors that drive the outcomes of such programmes (Pawson and Tilley, 1997). While this thesis does not seek to provide an evaluation of 'behaviour change' due to the complexity of measuring and judging the complexities of behaviour over a short time period (Gondolf, 2004), it does examine what it *is* in programmes, whether physical resources or mental reasoning, that bring about programme outcomes. It is valuable to examine what factors may help perpetrators who use violence to positively orientate themselves toward changing their behaviour and attitudes (Downes, Kelly and Westmarland, 2019), and how digital systems and tools may assist with this process of change. The work as contained within this thesis aspires to go beyond a descriptive approach of what mechanisms for social change exist in such programmes, and instead offer an additional theoretical offering into how and why such mechanisms for change are a valuable way to focus our attention through digital design and exploration.

The term *mechanism* also has a significant symbolic meaning in studies on violence and abuse, helping scholars describe how violence may be enacted through complex, articulated manoeuvres across society, even without the conscious will for many individuals to enact it. Consider the opening of this work with Patrizia Romito's (2008) indicator of the erasure of the terminology of men and perpetrators in conversations around violence; a linguistic *mechanism* that brings about erasure of the responsible agents. In such a way, the use of mechanisms here is deliberate that while there are indeed forces in place to hide violence from view, there are counter mechanisms that work to prevent violence. I introduce this piece of work to the Human-Computer Interaction community not solely as a thesis about domestic violence; instead, this thesis is about the people who use domestic violence against current or former intimate partners, and how we might better design digital systems with domestic violence support services to prevent these behaviours. This thesis takes the stance that such violence and

abuse, rather than being an inevitable fact of human existence, can be identified, reduced, and even largely eradicated with the appropriate attention and support.

1.2. Research Statement

The research presented in this thesis lies at the intersection of Human-Computer Interaction (HCI), domestic violence support interventions, and moral responsibilities for the use of violence. The present work aims to explore how digital technologies may be designed, deployed, and evaluated with and for perpetrators of domestic violence enrolled in formalised interventions. Such efforts are made in the interest of shifting the narrative around responsibilities for violence, and therefore the rectification of violent behaviours, to support a practical journey towards non-violence. I conducted this research with perpetrators, victim-survivors and domestic violence support services that are connected to domestic violence perpetrator programmes. Throughout this thesis, I am both guided by and contribute directly to safety-focused practice with perpetrators and previous work within the HCI field conducted within service design for sensitive and politicised groups.

1.3. Research Aims and Questions

As my motivations for study and the context into which I am entering have likely indicated, the research within this thesis is motivated by an important overarching question:

> *How might digital technologies be collaboratively designed and deployed with perpetrators of domestic violence to assist in their journey towards non-violence?*

To answer this question in more depth, I will answer the following sub-research questions across different chapters of this work:

> **RQ1.** How are digital technologies used in domestic violence perpetrator interventions to challenge, and support alternatives to, abusive behaviours?
>
> **RQ2.** How might digital systems be designed and deployed in such a way that they redistribute responsibilities for violence prevention towards perpetrators of domestic violence?
>
> **RQ3.** What are key methodological and ethical considerations for technology creation when collaborating with domestic violence support services and perpetrators?

1.4. Thesis Structure

This thesis will consider what can be learned from existing academic and practice-based literature relating to better contextualising the predominant framing of the problem of domestic violence, as well as highlighting effective alternatives that can be directly targeted at the individuals who perpetrate abuse.

Chapter 2 lays out the theoretical underpinnings of my research project. This is achieved by representing my position on the definition of, prevalence of and language surrounding domestic violence. This also includes identifying what the challenges are in addressing domestic violence - most crucially, the notable exclusion of perpetrators from most existing mitigation measures – and by means these challenges may be rectified. I suggest this may be performed through a refocus on responsibility for violence and thereby the cessation of violent behaviours, on the part of domestic violence prevention programmes. This overview also discusses how Human-Computer Interaction has directly designed for and with responsibilities. I highlight how scholars have described work within the third sector as a means of providing practical advice for future researchers.

Chapter 3 considers the methodology of the four research investigations upon which this thesis is built. This chapter includes a detailed description of these investigations, my primary research partners (*Barnardo's* and *Respect*), and my research approach. This includes the use of a second-person action research approach underpinned by feminist standpoint epistemology. My data collection methods (focused ethnography, design workshops, focused group discussions and artefacts) are covered before I go into detail regarding my preference for a grounded theory approach for my data analysis. Finally, I conclude with a detailed discussion about my ethical practice with respect to approval, my practice during data collection, and my own wellbeing.

Chapter 4 explores my first introduction to my site for design, with a focus on how digital technologies are currently being used in the delivery of perpetrator interventions in the third sector. I illustrate this environment using focused ethnography to elicit detailed narrative vignettes of the technologies in use at a support organisation, before describing how I formulated a theory from these accounts using a grounded theory analysis. Here, I present a conceptual framework that identifies spaces for further investigation, along with support to assist support organisations and designers in helping perpetrators navigate spaces for negotiation around responsibilities for violence prevention.

Chapter 5, the second data chapter, explores one of these spaces in the conceptual framework through the design, deployment, and evaluation of my first digital technology. This chapter describes *Choice-Point*, a digital system that explores how non-linear interactive storytelling can be used to facilitate perpetrators learning about agency, choice, and perspective-taking through interaction with a fictional narrative. This work demonstrates the potential for digital systems to be used as a means of exploring sensitive and potentially traumatising narratives, which are wrapped in the protective cloak of fiction while still being able to provoke meaningful reflections from perpetrators on their own relationship to the use of violence.

Chapter 6 explicates the findings from the third data chapter of this work, which targets a specific area for intervention. The development of the digital technology of a *Guided Time Out* is described here in detail; in brief summary, the research team aimed to develop a smartphone application that could be used to disrupt the build-up before (and thereby hopefully prevent) the onset of physical and emotional violence. The findings demonstrated that this design process identified some challenges raised in working with perpetrators in participatory ways, including the risk of co-opting the design process as a means of avoiding responsibilities for abusive behaviours.

Chapter 7, the fourth and final data chapter, explores the space for intervention that focuses on the process of peer support provision. This includes the design, deployment and evaluation of *Fragments of the Past*, a socio-digital activity in which one group of perpetrators asynchronously shared physical artefacts of important moments of change with another group of perpetrators, thereby providing the latter group with support and motivation for their journey towards non-violence. This chapter explores the ethical dimensions of such an exchange and highlights how a process of this kind might be used as a reflective tool for personal reflection on abusive behaviours.

Chapter 8 brings together all the different facets of the analyses described in the previous data chapters, before situating the contributions they make in the context of the existing academic literature. Within this chapter, the six contributions of the thesis are described and discussed in more detail, along with suggestions for how they might be used by the fields of knowledge to which they contribute. This chapter contemplates the provision of digital tools for the domestic violence sector, design recommendations for future technologies around responsibilities for violence, and new concepts to help inform ethical and methodological practices for researchers working with perpetrators of domestic violence.

Chapter 9 concludes this thesis with a summation of its contents, along with a reminder of the research aims and questions posed to guide the work and how these relate to the six contributions to the field of Human-Computer Interaction. This chapter also includes a reflection on the approach of the research efforts, prospective avenues for future research, and a call to action for those wishing to work to reduce the harm done by people who subject others to domestic violence.

In the appendices, all key documents used during the research process can be found, including the topic guides for interviews and focused group discussions, a sample of grounded theory analysis, and early designs for the digital systems described in this work.

1.5. Thesis Contributions

It is through these nine chapters and the process of responding to the research questions that I deliver novel contributions of knowledge, implications for practice, and developments in digital systems to the field of Human-Computer Interaction, as well as the wider practitioner research community. My primary contribution is an enhanced understanding of the ways in which digital technology can support new ways of challenging, reflecting on and providing alternatives to perpetrators' use of violent behaviours within the context of domestic violence interventions. This can be further broken down into six smaller and more specific contributions, as follows:

A. An ethnographic, narrative account of workplace practice that describes and interprets the relationships between technologies, support workers and perpetrators in violence prevention interventions.
B. The provision of two functional digital systems, and one detailed system image, to the wider domestic violence sector, aiming to better assist such organisations with the delivery of their work (including evaluation and assessment).
C. A lightweight, flexible design framework for digital service delivery aimed at structuring reflective processes around perpetrators' responsibilities for violence.
D. A series of implications for design regarding how digital systems might use this framework to encourage the formation of pro-social behaviours more effectively within the context of domestic violence prevention interventions.
E. The analytical concept of 'un-safety work' to describe the efforts that are performed by researchers, perpetrators and support services that act (whether implicitly or explicitly) to undo the historic burden of safety-work that has unjustly fallen on victim-survivors to carry.

F. A series of suggestions for researchers and practitioners who may seek to engage perpetrators directly in the design of digital technologies, along with suggestions for how this might be done to mitigate the risks of collusion.

1.6. Related Publications

These thesis contributions have directly extended the body of research relating to the design, deployment, and evaluation of digital technologies within the context of domestic violence service delivery with perpetrators. To facilitate the broader dissemination of this work, I have shared these findings with a wider academic and practitioner audience through workshop and conference presentations, publications in archival proceedings, journals, and magazine articles. These venues for discussion include peer-reviewed and non-peer-reviewed locations. The work within this thesis has been presented for discussion at:

1.6.1. *Peer-Reviewed*

1. **Rosanna Bellini**, Alexander Wilson, and Jan David Smeddinck. 2021. Fragments of the Past: Configuring Peer Support with Perpetrators of Domestic Violence. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21). Association for Computing Machinery, New York, NY, USA, 1–13. DOI: https://doi.org/10.1145/3411764.3445611
2. **Rosanna Bellini**, Nicola Dell, Monica Whitty, Debasis Bhattacharya, David Wall, and Pamela Briggs. 2020. Crime and/or Punishment: Joining the Dots between Crime, Legality and HCI. In Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems (CHI EA '20). Association for Computing Machinery, New York, NY, USA, 1–8. DOI: https://doi.org/10.1145/3334480.3375176 (PR)
3. **Rosanna Bellini**, Simon Forrest, Nicole Westmarland, and Jan David Smeddinck. 2020. Mechanisms of Moral Responsibility: Rethinking Technologies for Domestic Violence Prevention Work. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20). Association for Computing Machinery, New York, NY, USA, 1-13. DOI: https://doi.org/10.1145/3313831.3376693
4. **Rosanna Bellini**, Simon Forrest, Nicole Westmarland, Dan Jackson, and Jan David Smeddinck. 2020. Choice-Point: Fostering Awareness and Choice with Perpetrators in Domestic Violence Interventions. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20). Association for Computing

Machinery, New York, NY, USA, 1–14. DOI: https://doi.org/10.1145/3313831.3376386

5. **Rosanna Bellini**, Jay Rainey, Andrew Garbett, and Pamela Briggs. 2019. Vocalising Violence: Using Violent Men's Voices for Service Delivery and Feedback. In Proceedings of the 9th International Conference on Communities & Technologies - Transforming Communities (C&T '19). Association for Computing Machinery, New York, NY, USA, 210–217. DOI: https://doi.org/10.1145/3328320.3328405
6. **Rosanna Bellini**, Angelika Strohmayer, Patrick Olivier, and Clara Crivellaro. 2019. Mapping the Margins: Navigating the Ecologies of Domestic Violence Service Provision. In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19). Association for Computing Machinery, New York, NY, USA, Paper 122, 1–13. DOI: https://doi.org/10.1145/3290605.3300352 **(Honourable Mention Award)**

1.6.2. *Non-Peer Reviewed*

7. Victoria Page, Sara Kirkpatrick, **Rosanna Bellini,** and Victoria Cousins. 2021. Designing Digital Technologies for Perpetrators of Domestic Abuse: Learnings from Respect's Tech vs Abuse Project. RespectUK.
8. Nicole Westmarland, Hannah King and **Rosanna Bellini**. 2020. Domestic Abuse Awareness Project Evaluation Report. Durham County Council. Report (1) 2.
9. Nicole Westmarland and **Rosanna Bellini**. 2020. Coronavirus lockdown is a dangerous time for victims of domestic abuse – here's what you need to know. In The Conversation. URL: https://theconversation.com/coronavirus-lockdown-is-a-dangerous-time-for-victims-of-domestic-abuse-heres-what-you-need-to-know-134072
10. **Rosanna Bellini**. 2020. Why we're challenging domestic violence perpetrators with interactive storytelling. In The Conversation. URL: https://theconversation.com/why-were-challenging-domestic-violence-perpetrators-with-interactive-storytelling-130556

1.7. Rationales for Engagement

There are several motivations for conducting this research project, both academic and personal, which I will now discuss further.

1.7.1. *Academic Rationale*

In recent years, there has been a growing drive for the field of Human-Computer Interaction (HCI) to better understand and design for large-scale, systematic, societal challenges (Fox *et al.*, 2016); importantly, this has extended to include domestic violence (Dimond, Fiesler and Bruckman, 2011; Matthews *et al.*, 2017; Freed *et al.*, 2018). This initiative follows in the wake of decades of campaigning from women's movements and academic collectives seeking to promote the understanding of the harms caused by digital technologies within the domestic violence space. The addressing of such topics has in turn raised awareness of this issue and underlined the severity of harms that could be caused through irresponsible digital design (Nardi, 2000), inappropriate researcher motivations (Hoven, 2013; Durrant, Kirk and Reeves, 2014), and a lack of inclusion of situated knowledges from those affected (Haraway, 1988; Butler, 2009). Indeed, many scholars have encouraged these approaches by advocating that researchers in HCI adopt the mantle of *social responsibility*, thereby becoming more mindful of groups marginalised by society while actively working to combat the negative effects of systematic harms (Schneider *et al.*, 2009; Muller, 2011). In line with the growth of *Feminist HCI*, many scholars have identified that failing to act when faced with harmful practices, structures and activities serves to reinforce the status quo of violence (Bardzell, 2010a). This has also manifested in a meta-reflection on what role could be played by the HCI field itself in the pursuit of combating societal challenges in a way that is both responsive and responsible. In self-assigning ourselves a social mission that aspires to contribute towards a social good – such as an eradication of, or at least a reduction in violence – Joyojeet Pal (2017) also highlights that we also require appropriate ways of discussing it. Indeed, while there have been wider calls for researchers within social justice design to "*hold [those] responsible who foster or unduly benefit from the oppression of others*" (Dombrowski, Harmon and Fox, 2016), there are few works that follow this guidance and turn their focus on those who subject their current and former intimate partners to violence. As the field seeks to grapple with more significant problems that extend beyond technical challenges, it is important that more work is performed to better investigate how we '*hold [those] responsible*' (e.g., "those who foster or benefit from oppression") in practical and methodological terms. While working with perpetrators has been a long-established practice in the United Kingdom, more widespread calls for justice and fairness by an increasing number of HCI researchers (Dombrowski, Harmon and Fox, 2016; Fox *et al.*, 2016; Strohmayer, 2019) indicate that the field may be on the cusp of including perpetrators of oppression in a broader variety of approaches.

A richer understanding of, and sensitivity towards, design appropriate for working with those who use violence has long been identified by scholars as the crucial '*missing piece*' in preventative approaches (Respect UK, 2020). Research within criminology, policy analysis and psychology has long since developed an in-depth understanding through language and concepts around how perpetrators understand their actions to be justified, and how such justifications might be challenged through careful intervention design. Doing so has already resulted in a tentative optimism that the use of such perpetrator interventions, those that seek to hold perpetrators accountable for their choice to subject others to harm, can result in the reduction or overall cessation of harm. The wealth of information available in the field regarding design within sensitive settings (Birbeck *et al.*, 2017), and work with marginalised groups (Ahmed, 2018) can be appropriately drawn on so that perpetrator interventions can be identified as important sites for design in their own right. As such, there is a great deal of potential in exploring these sites with respect to the use of violent and abusive behaviours. This gap in understanding provided the inspiration for this research project and is where the present work seeks to make an original contribution to the academic literature and the domestic violence sector more broadly: specifically, by investigating perpetrator interventions as sites for design and exploring how digital technologies could potentially have a meaningful impact on how approaches to domestic violence are understood.

1.7.2. *Personal Rationale*

In my late teenage years, I began to develop an understanding of the world through a feminist lens, which was cultivated by my membership in FemSoc (Feminist Society) during my Undergraduate years and through fempower.tech[1] in my Postgraduate studies. The more I engaged with matters of feminist concern, such as domestic violence, the more I desired to better understand the challenges faced by vulnerable and marginalised groups. This was done not only to better contextualise the landscapes of oppression, but also to better inform my language, efforts, and motivations towards combatting them. I had also noticed that despite its rise in visibility, domestic violence remained excluded from major considerations regarding privacy and security, despite its known role in permitting perpetrators to extend and intensify their abuse. Digital technologies, for the most part, were also not designed to challenge abusive behaviours when they occur – the

[1] https://fempower.tech/ Mission statement: *We are a group of intersectional feminists who aim to raise awareness of feminist issues in HCI by being overtly critical and political of the field, raising voices of underrepresented groups and topics, presenting tangible outcomes, and taking on an activist role for this. We create a supportive and collaborative environment within Open Lab, academia, industry, and beyond. We are fempower.tech.*

one exception is the strategy of banning or blocking their accounts for a period of time, which only causes perpetrators to change tactics, create new accounts or find other ways to return and continue their abuse (Woodlock, 2017a; Freed *et al.*, 2018). As behaviour rarely changes in the absence of the appropriate support to do so, I realised that the expectation to deal with such abuse was frequently placed by default on the shoulders of those subject to abuse. From a social, economic, moral, and legal standpoint, this did not sit well with me, and I resolved to work within spaces that were trying to correct this injustice.

These motivations would be concretised when a colleague in Digital Civics shared with me that HCI scholars had begun to adopt second-wave feminist principles as a site for guidance, inspiration and action (Bardzell, 2010a). This was one of the first indicators that I might not need to keep my feminist aspirations and technical skills separate; in many ways, this work represents the union of the two. Early scholars that influenced my motivation to address the complexities of domestic violence from the perspective of HCI practice included Freed et al.'s (2018) comprehensive description of the various ways in which perpetrators were engaging in technology-facilitated abuse, as well as Clarke et al.'s (2013) beautiful presentation regarding the role of digital storytelling and photo-sharing in identity formation, conducted with a Black-led women's centre. Such works motivated me to acknowledge that while digital technologies should be understood as a potential tool of violence, there was also the potential for technologies to be designed and deployed in a way that was supportive and useful to those providing interventions for perpetrators.

My Master of Research dissertation for Digital Civics in 2018 focused on another part of the violence and abuse spectrum: occupational bullying and harassment within an academic context.[2] Importantly, it was through the research process of collecting qualitative participant accounts from those who had been the victim or perpetrator of abuse between colleagues through creative means that I became more interested in interventions working directly with abusive behaviours. In many ways, conducting this work first prompted my consideration of the sensitivity required in making space for people to disclose accounts of being victim of – or, in a few cases, perpetrating – abuse

[2] Rosanna Bellini, Patrick Olivier, and Rob Comber. 2018. "That Really Pushes My Buttons": Designing Bullying and Harassment Training for the Workplace. Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems. Association for Computing Machinery, New York, NY, USA, Paper 235, 1–14. DOI:https://doi.org/10.1145/3173574.3173809

between colleagues. I was intrigued that many individuals employed different methods of creative expression to communicate deeply uncomfortable experiences and emotions related to the subtlety of abusive behaviours. In such a way, I pivoted towards approaches of digital design that aim to be more personalised to the individuals involved, assisting them in making sense of their own experiences, while also facilitating changes in occupational responses to similar experiences. In many ways, these initial efforts laid the foundation for the findings in this thesis.

Chapter 2. Digital Responses to Domestic Violence: The Perpetrator Gap

2.1. Introduction and Chapter Overview

In this chapter, I present the research related to domestic violence service delivery, with a specific focus on perpetrators, digital responses to domestic violence and the theoretical tensions inherent in the gaps between individual and collective responsibility. As my approach draws on the interdisciplinary space of Human-Computer Interaction, this research area also includes a rich history of criminology, sociology, computer science and design that may frequently intersect and build on each other. Within this chapter, I first outline the language and analytical approach that I use when discussing domestic violence, drawing explicit attention to the linguistic placeholders for the agents involved, the patterns of behaviour that describe domestic violence (through a synthesis of definitions). I use this understanding to explore why work that focuses on encouraging perpetrators to reflect on their responsibility is important for violence prevention through presenting the context in which the studies reported within this thesis are based: namely, domestic violence perpetrator programmes. I continue by discussing how HCI has approached so-called 'responsible design' and how this has been made manifest in approaches to domestic violence. Despite the dynamism of the societal challenges that the field engages with, I argue that responsibility for rectifying or preventing harm is often left unassigned or considered to be a matter of interpretation in most contexts, which may inadvertently conceal the perpetrator's role in causing abuse. I conclude this overview by providing some examples of how third sector and charitable organisations may strive to develop and apply values-led approaches. I use the understandings I have acquired throughout this literature review to identify areas that merit exploration and investigation in the following chapters of this thesis.

2.2. Defining Domestic Violence and Abuse

Domestic violence describes a '*web of abuse*' (Kirkwood, 1993) or a '*constellation of violence*' (Dobash *et al.*, 1999), which include patterns of controlling, coercive, or threatening behaviour, violence or abuse between current or former intimate partners (HM Government, 2020). Abuse can include psychological, physical, sexual, economic, and emotional forms of abusive behaviour, although this list is by no means exhaustive. Controlling behaviour, for its part, can refer to making a person subordinate to another

within an intimate relationship, frequently depriving a victim-survivor of the means to secure independence from, to resist and/or to escape from the abusive situation, while coercive behaviour describes a pattern of assault, threats, humiliation and intimidation that is used to harm, punish, or frighten a person (Stark, 2009b). By including these definitions, I wish to emphasise here that what is being addressed within my thesis is not a representation of isolated acts of violence ('one-offs'), but rather patterns of violent, abusive and harmful behaviour engaged in by perpetrators towards their victim-survivors (Quéma, 2015). Kelly and Westmarland (2016) support this approach through their argument that the most prominent definition of domestic violence includes a 'single incident', which can conflate different forms of violence and abuse: namely, single incidents and repeated patterns of harm. The cross-government definition for domestic abuse is as follows (emphasis mine):

> *"**Any incident** or pattern of incidents of controlling, coercive, threatening behaviour, violence or abuse between those aged 16 or over who are or have been intimate partners or family members regardless of gender or sexuality …"*

Conceptualising (or, as Hearn (1998) describes it, 'incidentalising') domestic violence in this way can lead to a conclusion that women use violence at a similar rate to men (Archer, 2000), without consideration of the role of fear, frequency and levels of injury (Stark, 2004) or the context in which the violence takes place (Myhill, 2017). While many individual incidents can arguably catalyse a response from either victim-survivors or perpetrators to seek help with their behaviour, it is important to contextualise domestic violence as a pattern of crime and intent. I acknowledge here that my approach can (and frequently does) clash with a legal and enforcement system that Tuerkheimer (2004) argues promotes a '*transactional model of crime that isolates and decontextualises violence… concealing the reality of an on-going pattern of conduct occurring within a relationship*'. It is for this reason that, although I adopt the main aspects of the cross-governmental definition, I do so with the exclusion of 'single incidents', and only in reference to intimate partner violence rather than familial violence.

I prefer to use the term *domestic violence* (as opposed to *abuse*) throughout this thesis, as my goal is to emphasise the damage, harm, and indeed potential fatality to victim-survivors. It also draws attention to the domestic lens so as to include family and children, two groups that have been identified as having been excluded from the discourse (Hester, 2007). The retention of the word *domestic* is deliberate, seeking to underscore that we are discussing the kind of violence that frequently exists within the context of

cohabitation, marriage, or civil partnership. It is the fact that the perpetrator and victim-survivor are not only well known to each other but are (or were) in an intimate relationship with each other, that makes these situations particularly hard to deal with for the victim-survivor, support and criminal justice agencies, and the law. I also note that a variable range of terms ('domestic abuse', 'intimate partner violence', 'gender-based violence') may also be used interchangeably across this review, reflecting the formulations used within the existing corpus of work in HCI (Clarke *et al.*, 2013; Freed *et al.*, 2017; Matthews *et al.*, 2017; Ndjibu *et al.*, 2017).

2.2.1. *Victim-Survivors and Perpetrators*

To represent the polarised duality that characterises both the person who is on the receiving end of a criminalised act and that person's capacities to address, resist, prevent and otherwise cope with the harms inflicted by their ex- or current intimate partners, I use the term *victim-survivor* as a linguistic placeholder within this work (Lupton and Gillespie, 1994; Campbell, 1998; Hester *et al.*, 2006). My preference for the use of the term 'perpetrator' ('batterer' in the United States, or 'abuser' in Australia) as a placeholder for the agent of abuse is however far more uncertain and has moreover (as will be explicated in this thesis) long been a site of ongoing negotiation and compromise. This work seeks to promote an approach that, in the words of bell hooks, means that '*we hold people accountable for wrongdoing and yet … believe* [in] *their capacity to be transformed*; (hooks, 2016). While the term *perpetrator* may originate from a criminal justice framework, it is also important for this thesis; this is because it has the capacity to hold people responsible for their actions by both determining who subjected whom to what violence and by making it clear that to commit domestic violence is to perpetrate a heinous crime. When I use the word *perpetrator*, I refer to a person who perpetrates violent and abusive behaviours towards another.

The focus on the behavioural dimension of the term is critical here, as someone who perpetrates violently can also be someone does not perpetrate such acts in other circumstances. I do however note that the interventions included within this thesis may opt not to use language such as 'perpetrators' or 'abusers' during the intervention process; this is because many attendees can find these labels highly stigmatising, consequently experience fear of judgement, and therefore may initially refuse to engage in the process. However, every intervention I include does not shy away from naming violence as violence while referring to the perpetrators they work with as men. Naming men as men, for scholars such as Hearn (1998), can be just as important as naming the

perpetration as abuse when aiming to reflect the gendered nature of domestic violence. The nuances of the ways in which perpetrators orientate themselves towards the label of 'perpetrator' is discussed in more detail in my final exploration in Chapter 7.

2.2.2. *Characterising Domestic Violence in the United Kingdom*

The main evidence base for the prevalence of domestic violence in England and Wales reports that 2.3 million adults (aged 16–74) experienced domestic violence in 2020; this can be broken down into 1.6 million women and 757,000 men, collectively representing 5.5% of the adult population in the UK (ONS, 2019). Numbers pertaining to victim-survivors who do not report to the police (ONS, 2018), are normally captured through the Crime Survey for England and Wales (CSEW). In the vast majority of cases involving domestic violence, the agents of abuse are men, while the direct experience of being subjected to domestic violence is more prevalent among women than among men (Stöckl *et al.*, 2013). Women are also more likely to experience specific forms of violence than men: for example, they are five times more likely to be subjected to sexual violence, and suffer more repeated and systematic violence, severe assault, severe injuries and hospitalisations then men (Office of National Statistics, 2020). Any attempt to present an 'a-gendered' or 'genderless' understanding of domestic violence, even if it may at first glance appear fair and impartial, can lead to misrepresenting the reality of violence, which is highly gendered (Hearn and McKie, 2010). Crucially, gender, as discussed within this thesis, does not refer only to the categories of men, women and non-binary persons, but rather also to the socially constructed roles, traits, attitudes, behaviours, values, responsibilities, relative power, status and influence that are applied to these identities and reinforced on a daily basis (Burman *et al.*, 2010). As such, this represents a move away from the biological determinism of innate and immutable social characteristics, and towards the understanding that gender ascriptions and behaviour (including violence) are adopted from the environment in which they are situated (Hearn, 1998; Widom and Wilson, 2015).

Furthermore, patterns of violence perpetration change over time, and a wide variety of rates and manifestations of domestic violence exists across different cultures and countries. This difference in rates is so prominent that the World Health Organisation has argued that this data suggests violence is more a result of the social environment in which it is performed rather than the biological makeup of individuals (WHO, 2005). As such, I position domestic violence as a pattern of behaviour, as a pattern that men predominantly enact on others, and as a pattern enacted primarily against and on women. This is not to

imply that domestic violence that depends on different gendered dynamics should be treated less seriously or dismissed; rather, it is to say that to focus on the root causes of the problem of violence, it is important to be specific about the nature of the problem surrounding domestic violence. To better understand domestic violence, and thereby address its causes, it is crucial to recognise who it is that is doing the violence, why they are doing it, and their capacity to choose (and reasons for choosing) violent behaviours over non-violent ones. A lack of specificity about domestic violence has a significant and real-world impact on how associated interventions or 'solutions' are designed to respond to the challenge. Dombrowski et al. (2016) suggest that this is because problems do not exist *a priori*; designers or policy-makers instead formulate problems when they define and articulate a collection of issues on which to focus their attention. The act of defining a problem simultaneously creates the parameters by which it can be addressed and narrows the focus of the potential design solutions (Kolko, 2010; DiSalvo *et al.*, 2011).

2.3. Absent Perpetrators: The Problem of Domestic Violence

Dobash and Dobash (1981) argued that despite the historic evidence of men's abuse and violence against women, the issue had largely remained '*hidden in plain sight*' at the time: while it was reportedly widely known about, it was also often rendered invisible through sustained resistance from men (individually and collectively) to the idea of publicly recognising the extent and nature of the problem (Morran, 2011a). Many scholars contend that in the 1970s, domestic violence underwent an official 'rediscovery' within the United Kingdom and United States (Dobash, 2003), alongside the establishment of a network of refuges for women leaving an abusive household (now 'Women's Aid Federation') (Pizzey, 1974; Freeman, 1979). The related experiences of victim-survivors, then called 'battered women', helped to raise awareness and concern, as well as to provide demonstrable evidence of a growing problem that was far from a marginal occurrence and was in fact frequent and widespread. However, it was also around this time that prominent victim-blaming narratives began to inform the professional approach to domestic violence, such that policies and reports scrutinised how victim-survivors might have 'found themselves' in abusive relationships (Launuis and Lindquist, 1988; Campbell, 1998). Interventions across law enforcement, the legal system, social care, healthcare and housing demonstrate that most of these sectors continue to deal with victim-survivors aiming to secure their safety by removing them from harm (Douglas and Walsh, 2010). These decisions have been so far-ranging and pervasive that Lynn Beller (2014) described this approach of removing of victim-survivors (including children) from

an environment as following the maxim of '*if in doubt, take them [victim-survivors] out*'. This approach stands in contrast to focusing on the real cause of the issue: namely, the fact that perpetrators use violent and abusive behaviours within the context of domestic environments and intimate partnerships.

Perpetrators, as a result, were (and arguably still are) largely 'held to account' through the criminal justice system via a combination of arrests, warnings, restraining orders or imprisonment for the worst offenses. However, akin to early evaluations of criminal justice sanctions – which Hoyle and Sanders (2000) originally described as '*patchy and partial*' – the overwhelming majority of those prosecuted are not ultimately subjected to any criminal justice sanctions (Kelly and Westmarland, 2015; ONS, 2020). Although the impact of domestic violence on women, children and their relationships has been identified with increasing frequency in recent years, Stanley et al. (2011) note that effective intervention responses targeted at perpetrators rather than victim-survivors are far less developed. The exclusion of perpetrators from a comprehensive approach to prevention has been identified by John Devaney (2009) as resulting from several criminal justice system and social care organisations ignoring the gendered nature of violence perpetration. Brown et al. (2009) paint a similar picture, whereby male perpetrators within child welfare policies and practices were rendered as '*ghost fathers*', absent from strategies to improve safety and welfare for the family. Alongside Farmer and Owen (1995), Brown identified that the reported '*screening out*' of perpetrators from strategies for prevention led directly to greater scrutiny of victim-survivors. As stated in a recent governmental review of multi-agency approaches to cases of women and children living with domestic violence, there is a '*distinctive lack of accountability or responsibility attributed to the perpetrator*' (McBride, 2018). This quote reflects a familiar pattern within research, in which several biases towards blaming determine that there is an *overresponsibility* applied to victim-survivors to manage a violent situation, while an *underresponsibility* is assigned to perpetrators and their abusive actions (Lamb, 1999).

Despite three decades of evidence, this situation continues to exist, as indicated by Barlow et al.'s (2020) recent review of police response to coercive control; according to these authors, far greater amounts of resources and improved understandings are required due to the low rate of appropriate sanctions (whether arrest or referral to a moderated perpetrator intervention). The failings of the criminal justice system are especially acute for victim-survivors of domestic violence; this is because, unlike many other violent crimes, perpetrators return directly to the context in which harm and abuse was inflicted.

Importantly, uninformed criminal justice responses may not always lead to safer environments or outcomes for victim-survivors (Barata, 2007; Sherman and Harris, 2014). Perhaps of most concern, given that I position domestic violence as a behaviour, is the fact that there is minimal evidence of arrests or prosecutions leading to changes in men's use of violence and abuse (Berk *et al.*, 1992). As the impact of abuse renders children as additional victim-survivors, failure to provide appropriate sanctions for a perpetrator can result in a potential growth in the intensity and scale of domestic violence. Put simply, if we do not work effectively with perpetrators of domestic violence, we may permit domestic violence against vulnerable individuals to continue.

2.3.1. *Domestic Violence Perpetrator Programmes*

Domestic Violence Perpetrator Programmes (DVPPs) are interventions that seek to address the responsibility and accountability of perpetrator behaviour through working holistically with an individual. Kelly and Westmarland (2015) contend that such programmes should not be understood as an alternative to criminal justice sanctions, but rather as an investigation into '*whether men can be engaged in a process of change*', and that they indicate a '*symbolically important*' stance aimed at ensuring that these men take responsibility for their behaviour. The interventions have their origins in Duluth, Minnesota, United States in the 1980s as an experimental pilot run out of a women's shelter, with the twin aims of centring victim-survivor safety and holding male perpetrators to account (Pence and Paymar, 1993a). An important component this approach - termed a Coordinated Community Response (CCR) (Pence, 1983) to domestic violence - was a 24-week non-violence group-work programme for batterers (perpetrators), designed to reduce the likelihood of reoffending. Programme materials were based on detailed accounts from victim-survivors demonstrating that perpetrator violence manifested from a desire to attain power and control over them (Bilby and Hatcher, 2004), and were able to challenge myths about how and why perpetrators used violence (Pence and Paymar, 1993a). In various adaptations, the project has been delivered in many areas, both within the United Kingdom and internationally, since 1983 (Bilby and Hatcher, 2004).

Initial DVPPs within the United Kingdom were developed in the context of increased attention being paid to evidence-based approaches to offender interventions, along with associated questions regarding 'what works' in the context of a re-appraisal of legal sanctions (Morran, 2006). While initially perceived as broadly similar in their approaches due to their emphasis on cognitive-behavioural techniques and group work, DVPPs across

the UK vary considerably in their modes of delivery and content. Gondolf (2002) identifies the three prevailing paradigmatic approaches to such programmes as cognitive-behavioural, psychodynamic and pro-feminist. While other treatment approaches do exist, Barnish (2004) identifies that these are both rare and (in Barnish's opinion) contain various flaws. However, most programmes (particularly within Europe; Hamilton, Koehler and Lösel, 2013) overlap and coalesce around shared principles of how to reduce repeat abusive behaviours (Dalton, 2007). In Hamilton et al.'s (2013) survey of existing DVPPs across Europe, the average length of a complete programme was around 26 sessions, traditionally delivered over the course of 29 weeks, although most programmes report being responsive to the needs of the perpetrator if longer engagements are required (Bates, 2017). This included a report of an average session of approximately two hours, with group work being delivered between a range of eight to twelve perpetrators at a time (Phillips, Kelly and Westmarland, 2013); however, larger numbers may be more common in criminal justice settings (Hamilton, Koehler and Lösel, 2013).

DVPPs originate from the accounts of victim-survivors. This, in turn, directly informed the original focus of perpetrator interventions on challenging perpetrator attitudes and beliefs associated with domestic violence (Paymar and Barnes, 2007). As a result, much of the present intervention content of DVPPs is focused on learning and meaningfully demonstrating non-controlling, non-coercive and non-violent behaviour that their absence can (and frequently does) result in violence (Healey, Smith and O'Sullivan, 2009). DVPPs frequently may self-describe as *behaviour change* programmes for three reasons: they theorise that abuse holds its root in learned behaviour (rather than a phenomenon); they provide perpetrators with strategies for changing attitudes and behaviours (such as time out); and are frequently commissioned through a comparison of how many perpetrators have or have not 'changed' from using abusive behaviours. At a higher-level however, many programmes do not ground their practice in a wider theoretical framework around intention, action and behaviour akin to other behaviour change interventions (Morran, 2011a). As such, many perpetrator programmes may be better understood as borrowing aspects from behaviour change practice (and its language) such as self-management and goal setting but are motivated by community-driven aspirations such as re-education and restorative retribution. In this way, what is being scrutinised is changes in embedded beliefs and witnessing how this may manifest in observable behaviour (by victim-survivors and support workers) rather than evaluating the effectiveness of known behaviour change techniques or BCTs (Laing, 2002). DVPPs thus challenge perpetrators to directly take responsibility for the violence and abuse that they perpetrate against their

victim-survivor(s) while also providing spaces for personal reflection on the role of violence in their relationships. Beginning from this retributive standpoint enables the transfer of responsibility of behavioural reform to the perpetrator while also implying reformative goals for personal behaviour. Dobash et al. (2000) argue that this process should be understood as '*respectful retribution*', whereby making amends and working to remedy personal wrongs is understood as a fundamental part of the reformative processes. It is this perspective, as Paymar and Barnes (2007) argue, that represents the critical cornerstone of a dedication to forming long-term non-abusive attitudes and behaviour.

2.3.2. *Content, Ideology and Mode of Delivery for DVPPs*

The content of a DVPP may consist of offering alternative options to the use of violent and abusive behaviours through the teaching of social skills, introduction of behavioural management approaches, and exposure to material that might lead to enhanced victim-survivor empathy. Similar to many violence prevention interventions courses, components may include identifying and managing emotions, communication skills, general self-awareness, general coping skills and life skills (Hamilton, Koehler and Lösel, 2013). With regard to managing complex social situations, content can also branch into anger management and impulse control skills, conflict resolution skills, the impact of abuse on victim-survivors, the impact of abuse on children and the identification of power and control tactics (Bates, 2017). A significant number of programmes now also teach broader meditation and relaxation exercises, mindfulness, and strategies for taking care of one's mental and physical health (Bates, 2017). Finally, particularly for pro-feminist programmes, content includes material relating to consciousness about gender roles, socialisation factors relating to violence, and changing pro-violent thoughts (Brown, Hampson, and Family Violence Prevention Foundation of Australia, 2009). As a means of delivery, most DVPPs use role-play between perpetrators, along with DVDs and audio to communicate thematic content and provide avenues for discussion. It is also very common to provide perpetrators with handouts and exercises, while progress logs, workbooks or journals are also widely used in self-reflective study outside of the sessions. Given the wide range of individuals that can be labelled as perpetrating domestic violence, there are naturally tensions around delivering a 'one-size-fits-all' therapeutic approach to meet the needs of all attendees. Indeed, the extent to which programmes can be deemed effective has long been understood as directly dependent on the measures of success of the work, whether this be a complete cessation of violence, a dedication to desistance (Morran, 2011b), a reduction in the number of victim-survivors (Pence, 1983), an

increased level of victim-survivor agency and safety (Westmarland and Kelly, 2013), or other psychometric changes within a perpetrator (Lila *et al.*, 2013).

While DVPPs in the 1990s may have sought to prioritise evidence of non-violence as the desired outcome and measure of success, this can for many programmes lead to a somewhat simplistic approach to the way in which practice with perpetrators is carried out in order to 'evidence success'. Reportedly, this has come at the expense of paying attention to how the complexities of personal change among domestic violence perpetrators (and indeed all offenders), should be understood (Morran, 2011b). Kieran Cutting (2020) describes such situations using the umbrella term of *justification practices*, whereby third sector organisations in particular are constrained by funding requirements to inauthentically justify how such funding is spent through evidencing particular objectives. Importantly, these justifications can be made irrespective of whether these objectives are legitimate from the perspective of the organisation or service users involved. For example, at face value, a reduction in the number of reports of domestic violence could indicate to a funder that the DVPP has done 'work that worked' in the context of violence prevention. However, from a provider's perspective, this could indicate that victim-survivors feel less confident in reporting such abuse through professional channels (such as to the service's integrated safety officer or to law enforcement). Wistow, Kelly and Westmarland (2017) also agree that too great of a focus on the extent to which DVPPs 'work' with reference to a range of measures can '*neglect the more nuanced questions of content and implementation*'. Indeed, David Morran (2011b) contends that researchers and practitioners have pivoted from the principal concern of 'what works', which dominated the 1990s, towards a more holistic scrutiny of '*who works?*' and '*what matters?*'. As this process has progressed, there have been calls for practitioners and researchers to pay more attention to exploring novel counselling approaches and innovations in work with perpetrators, so as to continuously improve on a small but influential knowledge-base (Morran, 2011b). Regarding the return to a core aspiration (and evaluative holistic measure of success) of the original IDAP for programmes, perpetrators and victim-survivors, Pence and Paymar (1993, p. 4) state that:

'To change long-held patterns, men must acknowledge the destructive nature of their present behaviours and accept the responsibility for their actions'

Historically, it has been the explicit *lack of focus* surrounding responsibility that has inadvertently resulted in undue attention and onus being placed on victim-survivors to

make changes in their lives in order to avoid abuse (Brown *et al.*, 2009; Stanley *et al.*, 2011). Westmarland and Kelly identified that support agencies that removed emphasis on the responsibility for victim-survivors to respond to domestic violence were positively associated with an increased level of self-worth and a direct improvement of their 'space for action' (Kelly and Westmarland, 2015). Further investigating ways to support the exploration of responsibility within the context of perpetrator work not only yields further insight into extending the impact of violence prevention work, but also provides an opportunity for exploring our own moralities and the ways in which we do, or do not, hold people responsible for their use of harm against others.

2.4. The Importance of Responsibility for HCI and Design

As the power of technology to produce both benefits and harms has become clearer, debates concerning responsibility have broadened. As such, the tension between a top-down approach to active enactment of values (such as responsibility), and how this might be measured, designed for, and evaluated within DVPPs, are seemingly mirrored within existing narratives in the field of Human-Computer Interaction. Indeed, the field has undergone what many have termed a 'responsibility renaissance', whereby systems that may have been previously understood as value-neutral have gradually risen to '*existential significance*' today (Platonova, Kokarevich and Shapovalova, 2016). Responsibility has been described as one of the most important modern ethical issues, leading to detailed introspection regarding *who* we are making responsible and *how* this is done across many areas of social or ecological crisis (Adam and Groves, 2011; Stilgoe, Owen and Macnaghten, 2013; Grimpe, Hartswood and Jirotka, 2014). This can be seen through a growing interest in how responsible design might be applied to difficult societal challenges, and how we might better design for the personal or collective responsibilities of those involved. However, the field has yet to explicitly identify the differences between *responsible design* and *designing for responsibility* (both in terms of taking and embodiment), particularly regarding violence and abuse. While the two are based on similar concerns, and each perspective can likely benefit from the other, it is important to recognise their foundational differences.

Digital media and systems now mediate a growing amount of our interpersonal communications, meaning that they are often vehicles for technology-facilitated abuse. As such, the role of digital tools and their intersection with domestic violence – both in terms of how such systems exacerbate the risks for harm and how they could be the means to prevent it – should not be overlooked. Importantly, the lack of discussion surrounding

digital interventions has already been raised as a concern by several HCI scholars, who note that an absence of such discussion may restore prior challenges of victim-blaming mentalities for harm to individuals, their data, and their devices (Dombrowski, Harmon and Fox, 2016; Lang *et al.*, 2018; McDonald *et al.*, 2020). When any shift occurs between conceptualising individual and collective phenomena, particularly regarding safety and violence, Sharron Lamb (1999) reports that there can be a tendency to obscure or trouble the notions of individual agency, responsibility, capacity, and control. LaRose et al. (2008) further describe these situations within technical design as producing '*responsibility gaps*', where determining how an individual should or could respond in the face of complexity is met with uncertainty. Such careful handling of responsibility in technical design is reportedly vital, as the misapplication of responsibility, whether with regard to attribution, accountability or answerability, can directly result in intensified impacts of such harm and violence (Adam and Groves, 2011). For example, as Parkin et al. (2019) and Matthews et al. (2017) identify, assigning a victim-survivor the duty of securing their digital devices, removing themselves from an abusive home environment, and answering for their actions adds to the intensity of the violence experienced by that individual. In other words, by not focusing on responsibility, we risk recreating the same challenges as before, in that we hold the wrong persons responsible and permit the continuation of abuse by perpetrators, who go unchallenged. Although I cannot claim to plug these *responsibility gaps* entirely within this section, I can identify them and further conceptualise them as spaces in which scholars are already doing some of the work of sense-making about responsibility; in this way, I can identify how we might perform this with perpetrators.

2.4.1. *Defining Responsibility*

Responsibility is not a novel concept; it is an idea that has been described as '*both old and new*', constituting an important theme in research and technical practice (Stilgoe, Owen and Macnaghten, 2013). The term originates from the Latin word *respons-*, meaning 'answered' or 'offered in return'; this potentially communicates its core characteristic of being '*directly embedded within social relations*', and by its very nature describes the connection from one person to another, to society and to overarching values such as fairness, safety and justice (Young, 2011). The concept is multivalued and polysemous, and best understood through the delineation of the different contexts in which the term is applied, which include collective responsibility, legal responsibility, moral or personal

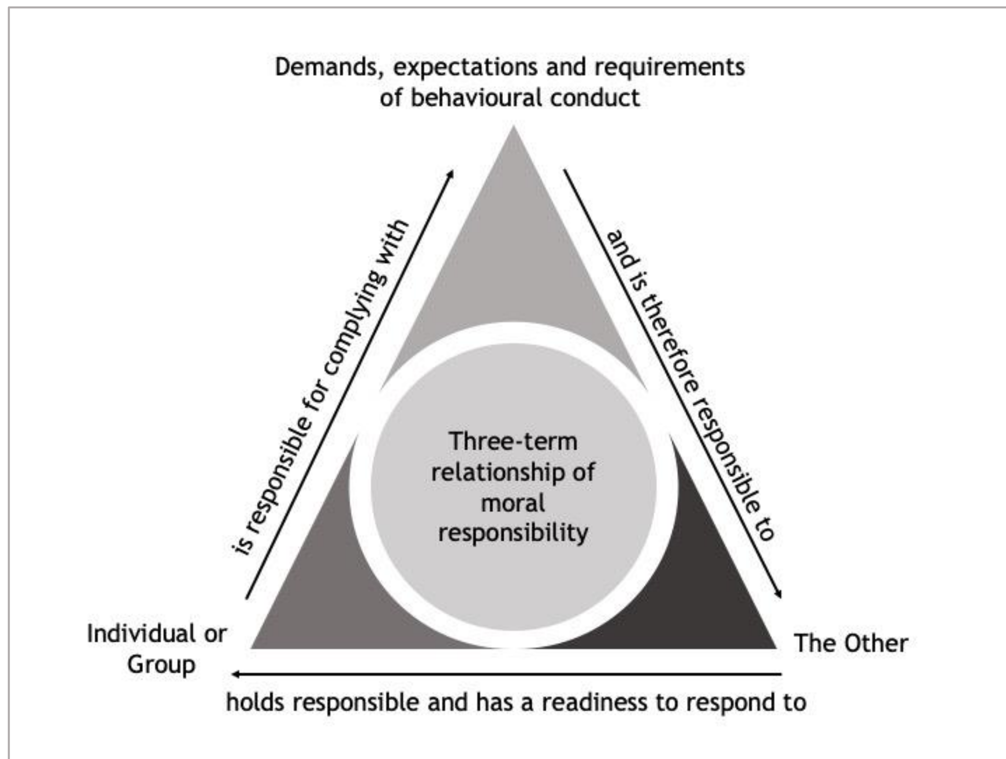


Figure 1: Watson's Three-term Relationship of Responsibility Between Two Parties

responsibility and social responsibility. Indeed, these multiple locations influenced Robert Albin (2018) to express that it is one of the '*richest concepts in the modern ethical vocabulary*'. This richness entails that the concept possesses many different interpretations and dimensions, which leads to the conflation of distinctive meanings in everyday language (Fincham and Jaspars, 1980; Shaver, 1985; Platonova, Kokarevich and Shapovalova, 2016). As domestic violence frequently necessitates a judgement not only whether an *individual* exercises their power and capacity to bring about an action (i.e., responsibility over events), but also that this behaviour relates to a code of approved or disapproved conduct (i.e., morality), it is important to focus further attention on *moral responsibility*. Morality is a valuable concept here as desistance from violence requires following a set of personal and/or social standards for commonly agreed standards in relation to behaviour and attitude, and thus can be better tailored to specific contexts, social settings and time periods. I deliberately leverage this language as attention on individual responsibility masks the collective and societal influences on its occurrence, while criminal responsibility situates understanding and performing actions within a fixedly criminal justice framework that many perpetrator interventions sit outside of.

Peter Strawson (1962) portrayed moral responsibility for an individual's conduct in term of human reactions to his or her conduct, described in his work as 'reactive attitudes'. These attitudes, he contends, can be positive or negative, as we present our approval or disapproval to another person's behaviour, thereby attributing responsibility depending on the reaction. Building on Strawson's reactive interpretation, Gary Watson (1996) presented two faces of moral responsibility: responsibility as deep moral appraisal, and accountability (Figure 1). Responsibility as deep moral appraisal is a means of evaluating a person's moral capacities and character as they are embodied in their behaviour. This appraisal is undertaken in terms of praise and blame, and considering certain sets of standards and maxims. We often see this used in the discussion of the perpetration of domestic violence, particularly when arguments are used to excuse or minimise the responsibility that perpetrators have for their own actions (Hearn, 1998; Lamb, 1999; Manchikanti Gómez, 2011). Sharron Lamb, for example, critiques the explanations of perpetrators who act in 'the heat of the moment' based on rage and anger, thereby reducing their intentionality towards the use of violence, or excusing someone's use of violence through exposure to domestic violence when growing up (Lamb, 1999). She positions these arguments against the following question: *did such individuals have realistic alternatives to violence?* In response, and while acknowledging the influencing factors of both explanations, she argues that yes, they did (Lamb, 1999).

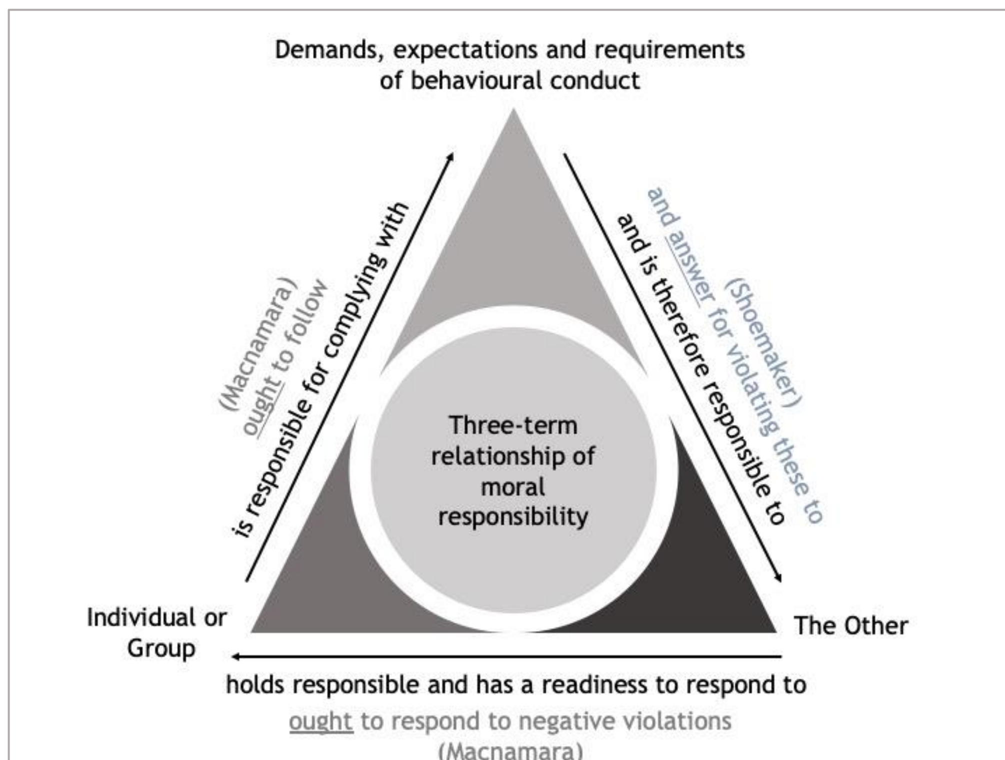


Figure 2: Watson's Three-Term Relationship with Macnamara's Accountability and Shoemakers Answerability Illustrated

Watson's second interpretation of responsibility as accountability is the process of being accountable through what he describes as a three-term relationship, in which one individual or group is held by another to certain expectations, demands or requirements. The person subject to these demands is said to be responsible to the other for complying with the demands, which implies a readiness to respond to them in certain ways. Coleen Macnamara (2011) clarifies that accountability here is in accordance with the 'ought'-ness of both parties that justifies and legitimises (frequently) negative responses to violations of social norms or codes (Figure 2). For example, if a person uses abusive and threatening language towards an intimate partner, they are then accountable to the fact the victim-survivor feels hurt, threatened, and intimidated. Finally, a missing but vital final component of responsibility is argued for in David Shoemaker's (2011) exploration of moral responsibility: answerability. He considers answerability with the charge to justify one's actions by arguing that an individual should provide an answer by conveying their reasons for acting or responding in a particular way (Figure 3).

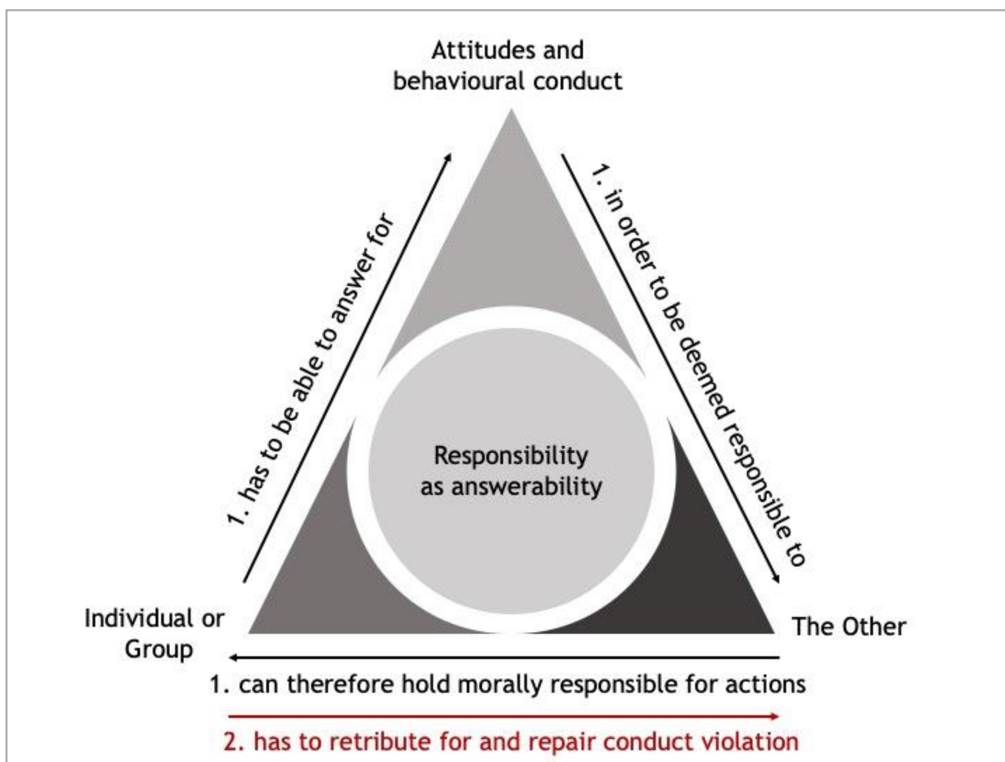


Figure 3: Smith's Responsibility as Answerability Reformation of the Three-Term Relationship

However, as Albin (2018) establishes, this does not entail that such answers should be accepted; for example, justifying the use of abusive behaviours because of a bad day at work or a headache does not qualify as a moral reason for the use of these behaviours. In doing so, Albin (2018) is able to describe that someone bears a burden, an *ought* to act or not to act, that must go beyond a casual explanation in order to explain and justify moral

actions and attitudes. I stress this burden or weight here, as determining the burden of responsibility is vital in navigating who is to make amends or changes because of violence.

However, Angela Smith (2015) has raised concerns and doubts that such a distinction between responsibility as attribution (Strawson, 1962), as accountability (Watson, 1996; Macnamara, 2011) and as answerability (Shoemaker, 2011) is neither theoretically viable or practical, leading to confusion rather than clarification in debates around individual responsibility. Instead, she proposes that there is a single and unified concept of individual responsibility that underlies our actual moral practice, which she terms '*responsibility as answerability*' (Figure 3). What she stresses is that a moral agent is required to do what she refers to as the 'heavy lifting' of responsibility. This 'lifting' is done primarily through the quality of answerability: a person who is morally responsible is one who can intelligibly be asked to 'answer for' their attitudes and conduct. As such, she describes this process as the '*key to opening the door to further moral responses that may (depending on the case) appropriately follow upon the answer they give*' (Smith, 2015). Focusing on responsibility as answerability is important, as it places a focus on qualities that are normally (and unfairly) excluded from moral judgments yet have a notable and crucial effect on our actions, such as beliefs, moods and emotions: potential *mechanisms* for change (Pawson and Tilley, 1997). This is an essential consideration in the context of domestic violence, as many uses of harmful and abusive behaviour may arise from attitudes and emotions that are notoriously difficult to address. As individuals shape their emotions with reference to their own ideas and belief systems, Tavris (1989) and Lamb (1991) both argue that society must hold perpetrators responsible for the ideas that lead to the violence and abuse of others. It is through this clarification that the weight of justifying the use of violence is necessarily linked with the weight or burden of rectifying it, which is in line with the goals of *respectful retribution* (Dobash *et al.*, 2000) for rectifying harms. This is the specific area of moral responsibility as 'answering for' conduct violations such as violence that is the most important to scrutinise and design for going forward.

2.4.2. *Exploring Responsibility in HCI*

In her review of the role of responsibility in technical systems, Grimpe et al. (2014) argue that discussing blame within software groups (Norman and Reed, 2002; Alechina, Halpern and Logan, 2017), natural disasters (Gotterbarn, 2001) and legal cases (Chockler *et al.*, 2015) are familiar representations of a *consequentialist framing of responsibility*. This is where work is predominantly focused on the '*unforeseen consequences and*

reverberations of modern digital tools and services' (Grimpe, Hartswood and Jirotka, 2014). These approaches are thus largely focused on the consequences of an action, such as causing a system to fail or actively producing unjust decisions (Dombrowski, Alvarado Garcia and Despard, 2017). While understanding and accounting for the result of a sequence of actions of events may be important, Gotterbarn (2001) identifies that consequentialism plays a concerningly dominant role in our discussion of responsibility in the context of technology creation. He argues that framing responsibility as only a means to determine blame when something goes wrong – an instance of what he terms as *negative responsibility* – is a fundamental misunderstanding of the extent of the concept (Gotterbarn, 2001). I contend that by thinking about responsibility and blame, I may be able to target the '*actual sources of irresponsible outcomes*' (Stilgoe, Owen and Macnaghten, 2013) and provide a richer consideration of responsibility's wider dimensions. When we examine the richer qualities of responsibilities, we are focusing on the active and dynamic aspects that are continuously negotiating and renegotiating values, meaning and purpose between different agents. Importantly, we need to broaden discussions around responsibility so that they go beyond focusing on system designers and operators as the audience of interest and instead focus more on system users.

Carl Mitcham (2020) describes that while there has been a positive dynamism in the focus on technical responses to societal challenges, there has also been a '*promiscuous, polymorphous invocation of the concept of responsibility*', which awaits disclosure or interpretation in most technical contexts. This is in contrast to the growing body of work that explores how justice (Dombrowski, Harmon and Fox, 2016; Strohmayer, 2019), equity (Asad, 2019; Corbett and Loukissas, 2019), gender equality (Sultana *et al.*, 2018; Hope *et al.*, 2019), and fairness (Corbett-Davies *et al.*, 2017) might be achieved for research partners and participants. Many researchers have accordingly grappled with this challenge through recommendations for researchers and/or designers to facilitate explicit orientation around responsibility through the concepts of *responsible design* (DiSalvo, 2009) and, to a lesser extent, through *designing for responsibility*. These two approaches are mutually reinforcing and constructive for the site of designing for domestic violence, as I shall now discuss in further detail.

2.4.3. ***Responsible Design for Violence Prevention***

An essential facet of responsible design is its promotion of challenge to dominant power structures and the design of systems that cannot be easily misused or abused. This can include recommendations for researchers and/or designers to explicitly sensitise

themselves to the environments in which they work; for example, Sultana et al. (2018) encourage fully anticipating the impact of technology design within patriarchal systems, which they term '*design within the patriarchy*'. Such works argue that researchers should acknowledge not only that the design of digital tools and services takes place within these structural injustices, but also that such tools might be actively designed so that they combat or conversely exacerbate marginalisation, violence and harm towards specific user groups (Strohmayer, Laing and Comber, 2017; Asad *et al.*, 2019). In flipping the concept of negative responsibility, Gottenbarn (2001) introduces the notion of *positive responsibility,* where designers and developers are obliged to have regard for the consequences of their actions for others. Indeed, several HCI works have appealed for a greater critical consciousness surrounding the role of the designer and their responsibilities to scrutinise their identity, topic area choice and technical design (Ahmed, 2018; Brulé and Spiel, 2019). Bardzell et al. (2010a) and Dombrowski et al. (2016) have produced frameworks and design considerations that aim to make this introspective process an integral part of the research itself. Baumer and Silberman (2011), on the other hand, seek to critically examine the broader systematic context of a pre-defined 'problem'. These works represent attempts to expand the narrow, top-down approach towards responsibility, which may equate to legal liability, to an understanding of responsibility as a reflexive practice that must be engaged with continuously across the field of design.

Many works within the domestic violence space argue that because developers do not consider the use case of domestic violence, designs that might improve usability for some users may also actively put victim-survivors at greater risk. For example, location services on most smartphones are active by default, which can aid the user in identifying local services or navigation around a city; however, they may also provide a perpetrator with ample information on their victim-survivor's movements if they are being coercively controlled (Woodlock, 2017a). Such research has framed the problem of domestic violence as one of unlawful, illegal and immoral access, entry and social engineering into victim-survivors' lives, their devices and their data (Arief *et al.*, 2014; Leitão, 2019a). This is best represented through Arief et al.'s (2014) promotion of *sensible privacy*, whereby software designers and developers consider ways to simultaneously restrict a perpetrator's access to a victim-survivor's personal data, devices, or user interfaces while also enhancing the victim-survivor's right to privacy and agency.

Matthews et al. (2017) characterise the unique digital privacy and security practices of victim-survivors towards their personal devices during, in the process of leaving and after leaving an abusive relationship. In her work, Matthews et al. (2017) develops a conceptual framework designed to facilitate better understanding of the risks of physical or remote attacks when access to devices by perpetrators may be interrupted, such as when leaving a shared domestic environment. Freed et al. (2018) carefully construct an 'attack taxonomy' from the accounts of victim-survivors to describe the numerous ways in which perpetrators use both technical and non-technical methods to perpetuate and intensify their abuse. These include tracking a victim-survivor's location through their mobile global positioning system (GPS), physically destroying digital devices, posting content to humiliate or harm, and impersonating a victim-survivor (Freed *et al.*, 2018). Some scholars have also sought to extend Freed et al.'s (2018) findings through targeting a specific subset of technologies – such as the *Internet of Things* – in order to examine how attacks on such devices may manifest in different ways. For example, Tanczer and colleagues (2018) argue that because IoT devices implement relatively weaker security protections compared to other tools (e.g. smartphones), perpetrators are more easily able to bypass system protections to conduct their attacks. The work of Leitão (2019b) also mirrors Harris et al.'s (2020) 'omnipresent' perpetrator through sharing accounts of victim-survivors having their lights and heating turned off remotely through smart home controls. As evidenced, HCI already boasts a strong (and steadily growing) body of work around domestic violence that implores designers and researchers to actively consider how they might prevent current and future harms through more sensitive design approaches and processes. While responsibility discourse has thus far been fixedly focused on the duties that the designer or researcher should exemplify, I now move on to examine how HCI researchers, developers and designers might design for the responsibilities (and the negotiations of such) between users.

2.4.4. ***Designing for Responsibility for Violence Prevention***

A complementary, but lesser-examined approach to the concept of responsibility within design is that of designing for responsibility: to actively consider and encourage responsible user behaviour by outlining the agency, capacity and duties of a user towards themselves and other agents. This has been identified as a challenging concept to design for, as some scholars have noted that whether user behaviour can be measured as responsible is entirely dependent on how the designers and developers conceptualise responsible behaviour and expressions of responsibility (Kiran, 2012). In building on an understanding of domestic violence, many approaches have sought to better equip victim-

survivors with the tools necessary to protect them from abuse by perpetrators (Arief *et al.*, 2014). Within the field, early efforts to protect victim-survivors from perpetrators took the form of personal safety alarms, potentially foregrounding the risk of the physical violence over other forms of abuse (Westmarland *et al.*, 2013). These technologies may offer victim-survivors peace of mind as to their personal safety and security, particularly if at risk of immediate, isolated harm in a public place. In Dieterle's et al.'s (2015) design, *SafelySocial*, emphasis was placed on the application's ability to discretely communicate with emergency services if a domestic situation escalated to a state in which the victim-survivor may have felt physically threatened. A similar application, *TecSOS*, designed to resemble a smartphone, demonstrated similar functionality, with the added functionality of audio recording the environment once an alarm was triggered (TecSOS, 2011). Mohan and colleagues (2017) addressed non-consensual disrobing through smart-clothing in the form of smart underwear that can alert friends and family, sound an auditory alarm, activate odour-emitting capsules to create an '*immediate repulsion effect*' for the perpetrator, and call emergency services (Mohan, Sra and Schmandt, 2017). Personal safety alarms are such a common design approach that many police forces have incorporated them into their response to identified high-risk victim-survivors as a means of protection from their perpetrator(s) (Natarajan, 2016). Karusala and Kumar (2017) examined the mandate for mobile phones sold in India to have panic buttons installed post-2017 as a means of increasing users' sense of safety in private and public spaces. The authors argue that such a device-based approach would likely have a limited impact on preventing harm and violence towards women due to the lack of interaction and understanding with women's values, lack of infrastructural support, and the increased onus on the individual to keep themselves safe (Karusala and Kumar, 2017). Thus, and perhaps concerningly, when the field of HCI has designed for responsibility, it has focused on the responsibilities of the victim-survivor to keep themselves safe or perform the 'safety work' required to avoid violence (Stanko, 1995).

In stepping outside of the realm of violence prevention technologies, work of Lizzie Coles-Kemp (2020) stands as a notable exception to a focus on the creation of digital technologies, as it encourages both designers and participants to understand their reciprocal responsibilities to each other in order to ensure the safe and secure use of digital technologies. This is reflected in Fox et al.'s (2018) work on internet of things (IoT) devices, such as menstrual product dispensers, which contends that actively designing for the negotiation of responsibility across communities should be a core concern of IoT development, in terms of the ways in which design is both done and conceptualised. When

doing design, Fox and colleagues argue for prioritising the design of technologies that permit groups to leverage the responsibilities of maintaining adequate levels of resources as a collective, rather than placing undue burdens and requirements on the individual (Fox, Silva and Rosner, 2018). Jansen et al. (2020) also contribute to the discourse that problematises one-directional responsibilities for care through promoting a model in which patients and practitioners jointly and informally exchange advice in order to prioritise behavioural or social change goals. In so doing, although the behaviour in question is anti-social, individuals in both groups have joint responsibility for conversation, assessment, monitoring and expressing a readiness to be responsive to changes in their care. There can, however, still be a tendency to approach designing for responsibility as an approach that results in something that can be measured, evaluated and optimised; this is similar to the tensions surrounding 'what works' and evidence-based metrics of engaging with perpetrators (Scott and Wolfe, 2003; Kekulluoglu, Kokciyan and Yolum, 2018; Jansen *et al.*, 2020). These tensions are markedly more noticeable when the technologies in question are designed externally to the environment in which they will ultimately be used, purposed and made sense of (Strohmayer, Clamen and Laing, 2019).

2.5. HCI and Supporting Responsibility Work

Freed et al. (2017) argue that any technical researchers who wish to develop interventions with a positive impact must work within existing domestic violence service ecosystems. Within the context of the United Kingdom, organisations that deliver and design interventions for perpetrators primarily comprise a variety of non-profit organisations (NGOs), voluntary organisations and community organisations, including registered charities (LGA, 2008). Such organisations are frequently referred to in HCI as 'third sector organisations' (TSOs). While many of these organisations have varying hierarchies and funding sources, they are commonly independent of government, are value-driven (i.e. motivated to achieve social goals), and reinvest any surplus to pursue these goals (Defourny, 2013). As third sector organisations function in a space that is neither governmental nor for-profit, their service delivery can be intrinsically tied to the politics promoted by the organisation (James and David, 2016). As a result, the third sector space has long been identified as a powerful ally in bridging the distance between theorised and actualised changes for research participants. Crivellaro et al. (2019) identify third sector service design not only as complex, relational and important, but also as '*powerful engines for wider societal transformations*'.

HCI has thus begun to identify the inherent value in performing research within the socio-culturally or ethically complex and sensitive spaces covered by the third sector, as working within an existing ecosystem can improve the visibility of societal challenges that may not have been apparent before. For example, domestic violence organisations are normally especially challenged from a resource perspective as a result of the impacts of economic crises and austerity (noted by several HCI papers, including Light, Powell and Shklovski, 2017; Marshall *et al.*, 2018; Bellini *et al.*, 2019). As performing and delivering research deliverables do not hold identical value to academic and non-academic partners, several scholars have argued that such activities must not undermine the existing trust between providers (Vines *et al.*, 2013; Corbett and Le Dantec, 2018a; Marshall *et al.*, 2018). Cibin et al. (2020) provide an explicit focus on '*intermediaries*', individuals that help to shape intentions, values and experiences between design researchers and communities. The positioning of researchers as negotiators is also present in the work of Dow et al. (2019), who outline their responsibilities to balance the dangers of becoming assimilated into infrastructure that does not best meet service user needs with the requirement to be committed to long-term design and collaboration. Asad (2019) appears to mirror this work through promoting prefigurative design with communities that seek to '*frame conversations and negotiate boundaries*' around the work to be performed with researchers and partners to optimise the outcomes and impact of the collaborative work. Because small changes can have a substantial impact, there have been recent calls to acknowledge the role of third sector partners and the needs of people, organisations, and communities, and thereby to actively try to include them within research. However, Strohmayer et al. (2018) caution that researcher engagement with the third sector is a '*double-edged sword*': while HCI can affect real change, the risk of causing harm through unforeseen outcomes is also magnified. While there is scant literature that specifically addresses this topic, maintaining respectful and ethical working relationships is tacitly understood as something to strive for, particularly in work combating violence against women (Downes, Kelly and Westmarland, 2014; Westmarland and Bows, 2018)

2.5.1. *Designing Digital Responses to Domestic Violence*

The field of HCI has boldly approached the complexities inherent to domestic violence by directly improving our understanding of the issue (Matthews *et al.*, 2017; Freed *et al.*, 2018), suggesting co-designed approaches for tools and services (Clarke *et al.*, 2013; Clarke, 2015), and identifying ways in which HCI researchers can act as important and valued parties in abuse prevention (Freed *et al.*, 2019; Havron *et al.*, 2019). Notably, in more recent years, the field has shifted gradually from promoting the use of a single tool

– such as a GPS tracker – as the means by which a victim-survivor can protect themselves (Westmarland *et al.*, 2013) and towards a service-led response in working with professionals (Freed *et al.*, 2017; Bellini *et al.*, 2019; Havron *et al.*, 2019). For example, after identifying the need for victim-survivors to mask the digital footprint left after activities such as browsing online, Arief et al. (2014) designed a '*Selective Sanitisation*' service to be used within a Black and ethnic minority women's organisation, which permitted users to browse domestic violence-related sites without these being stored in the browser history. This was in direct response to reports from the organisation of perpetrators tracking a victim-survivor's activity via online sites, representing an attempt to monitor and exert control over them as part of a continued cycle of coercion and control. Freed et al. (2019) promote a concept called 'clinical computer security', whereby a trained technologist performs a face-to-face consultation with a victim-survivor to help them understand and navigate technology-related issues. These include concerns over account or device compromise, along with guidance in identifying likely technical insecurities. Havron et al. (2019) also described the design of the clinic through outlining the novel consultation protocol for volunteers in their handling of victim-survivor cases, as well as the implications of advising for next steps. Both sets of authors also describe the complexities associated with being seen as the new 'node' within an IPV ecosystem, and thus assigned high levels of trust and authority that occasionally extended beyond their expertise, such as being asked about forensic evidence for court proceedings (Freed *et al.*, 2019; Havron *et al.*, 2019).

Building on the security flaws identified in IoT devices, Parkin et al. (2019) used these security implications directly to design a novel heuristic walkthrough that suggests ways in which victim-survivors might delay or block perpetrators from remote access to their devices. In so doing, these authors cultivated a set of user tasks to identify holistic threats that a perpetrator could theoretically pose to their device ecosystem. For their part, moving beyond a focus on security, Clarke et al. (2013) position technology as a means of augmenting existing therapy-orientated service delivery through exploring the practices of cultural probes and photo-sharing and their role in identity construction for women who have left their perpetrator of domestic violence. Such approaches seem to acknowledge, respond and actively combat what Leitão (2019a) describes as victim-survivors reportedly already '*feel[ing] overwhelmed with the current challenges of managing their privacy and security*'; this is done by locating the duty to protect at the service rather than the individual level. As all these works demonstrate, the role of technology in service delivery when working directly with perpetrators is notably

underexplored, with the potential ways that technology could be designed to promote desistance rarely studied. There is accordingly a rich potential for further investigation into directly engaging with perpetrators as individuals with the capacity to change and desist from violence, whether through technical or non-technical means (Morris and Bans, 2018).

Many charities are both resource-poor and technically under-skilled, which can prompt a dependency on turning singular experiences of service users into '*static, reusable design resources*' if not designed appropriately (Cutting and Hedenborg, 2019). Considering this, many scholars have argued for further placing the role of creating and interacting with technologies within the hands of service users themselves. Importantly, the rise of relatively cheap and accessible electronic prototyping systems can provide new opportunities for people in diverse situations to build and manipulate technical devices and processes. There is a latent potential to leverage the ability to shift the dynamic away from the consumption of corporate-designed devices towards what Fox and Le Dantec (2014) describe as a more '*egalitarian structure of user-as-designer*'. However, HCI scholars have long been aware that it is not enough to provide such tools, expect that participants may be handed technical objects to use, and presume that they will respond creatively to service design (Wallace *et al.*, 2013; Fox and Le Dantec, 2014; Crivellaro *et al.*, 2019).

2.5.2. *Digital Support for Perpetrator Rehabilitation*

Curiously, when technology has been designed specifically for perpetrators of domestic violence, it has historically been with the goal of collecting more fine-grained details about their psychology, or their biological responses to external stimuli such as social situations or threats. Crane et al. (2018) describe the potential for medicalised digital tools to produce a comprehensive picture of a physiological condition, including psychometric evaluations of the individual profile of perpetrators. Seinfeld et al. (2018) puts these aspirations into action by placing convicted perpetrators in a virtual simulation, constructed from the perspective of the victim-survivor, in order to examine the impact of perspective-taking and cognitive empathy when compared to a control non-perpetrator group. Using immersive virtual reality (VR), participants engaged in a process of embodiment designed to induce a sense of inhabiting a life-sized virtual body, then experienced a virtual male perpetrator entering their environment, exhibiting abusive speech and gestures alongside a progressive invasion of the participant's personal space. In a follow-up study, Seinfeld and colleagues (2020) extended this to '*addressing socio-*

affective impairments', such as perpetrators reporting reduced levels of empathy, through arguing that virtually taking a victim's place would lead to an increased capacity to identify ambiguous emotional stimuli. Many scholars examining virtual environments have accordingly praised their ability to facilitate the experience of embodying 'the other', or virtually experiencing an interpersonal situation that might not be possible (or ethical) to replicate in real life (Landau, 2020). However, given the increasing dependency on simulative approaches, Bennett and Rosner (2019) caution against the use of simulation as a means of increasing empathy for others. These authors argue that such situations place an individual (in this case a victim-survivor) in a staged, theatrical and vivid representation of events, whereby the tellers of the story frame onlookers as 'spectators' or 'empathisers', prioritising their own interpretation of another's experience rather than acknowledging the difference in experiences (Bennett and Rosner, 2019). Nevertheless, such approaches still demonstrate that there is a capacity to leverage existing and emergent technologies to better understand, work with and engage perpetrators in matters related to their behaviour.

As Mike Nellis (2006) has previously argued in a review of electronic monitoring, more can be done to ensure that technical advancements for perpetrators make a '*conscious educative effort*' to support therapeutic outcomes rather than reinforcing punitive values. While I have already established that most of the understanding about domestic violence is (understandably) sourced through the accounts of victim-survivors, some works have sought to explore digital design from a perpetrator perspective. Grimani et al. (2020) examine the covert online strategies that users perform not only to escape intimate partner violence, but also to perpetrate it. Verbaan et al. (2018) ran a special interest group at the Conference on Human Factors in Computing Systems to explore the potentials and challenges for technology use within a prison population. With the goal of raising awareness of the psychological stress experienced by female perpetrators when returning home, Teng and et al. (2019) designed re-entry training through critical story and production elements with incarcerated and formerly incarcerated women. More recently, Tseng et al. (2020) used an analysis of online relationship forums to create an additional taxonomy of the ways in which perpetrators of intimate partner surveillance conduct their attacks. Each of these studies demonstrate a gradual growth in the number of HCI scholars that are actively addressing and designing for domestic violence within their work, while additionally embracing the social complexities that it poses to technical design and use. However, one area that remains underexplored is the role that technology might play in

the delivery of interventions for perpetrators as a means of reflecting on one's abusive behaviours or crisis management.

Digitalisation of in-person resources has also been argued to offer opportunities that broaden the use of technology to promote desistance through more tailored approaches based on evidence-informed services (Stratton, Powell and Cameron, 2017). Within a criminal justice context, Morris and Knight (2018) worked with perpetrators to co-design complementary digital media as a means of promoting desistance. These clips involved basic examples of skills modelling to provide users with a clearer idea of what successful coping might look like. These authors argue that explicitly '*enshrining the stories and voices*' of perpetrators has been credited with providing increased understanding of perpetrator needs, which were made more accessible by ensuring that the content and '*rehabilitative visions*' are co-owned with their creators (Morris and Knight, 2018). In another work, Morris and Bans (2018) also investigate a digital-enabled programme for learning cognitive behavioural therapy skills; here, the goal is to motivate, inform, and build a procedural understanding of coping skills for perpetrators of domestic violence via the use of (previously described co-designed) complementary digital media. However, these works situate technical innovation and design within the context of rehabilitation and prison, contexts that the authors acknowledge can hamper the generalisation of technical-led approaches within the community (Morris *et al.*, 2019). As managing perpetrators of domestic violence may not intersect with criminal justice approaches, the authors appeal for greater inclusion of digital tools and services in the delivery of interventions with perpetrators outside of a criminal context.

2.5.3. *Engaging Theory and Practice in Violence Prevention*

Importantly, while there is a multitude of theories that highlight causal factors relating to the existence of domestic violence (e.g., Attachment Theory (1960)), Wistow et al. (2017) has noted that there are stark explanations for how and why some perpetrators choose to change their behaviours and others do not. David Morran is one of the only exceptions to this, scrutinising the theoretical frameworks upon which many programmes depend that define the user of violence, the reason for the use of violence, theories of change and methods of evaluating success across DVPPs (Morran, 2019). If we consider that theory is the abstraction of practice, and practice the application of theory, the two concepts are tightly intertwined about DVPPs and require further consideration for work in this space. Specifically, DVPPs are commonly understood as an expression of practice based on a theoretical description of how and why domestic violence happens. Indeed,

Pawson and Tilley (1997) describe such programmes as "*theories incarnate*" whereby understandings of what gives rise to inappropriate behaviour, such as that of domestic violence, directly informs how changes may be made to these patterns. In such a way, if observing and directly work with the practice of delivering interventions with and for perpetrators, it is thus important to engage with the means to both cultivate theory or theoretical interpretations of what is witnessed.

Scholars have long highlighted the inherent value in theoretical lenses through its use in "*conceptualising issues in professional practice and explicating their consequences*" as a means to witness, understand, suggest an explanation, alter practice and then begin the cycle once more (Charmaz, 2014). In the interest of decentring the prominence in the process of a researcher in community-driven approaches, this can mean directly acknowledging that practitioners themselves may theorise and produce theory alongside the researcher. In the space of violence and abuse research, research that has its direct origins in activist practice, it as such important to share this responsibility to detect the "*underlying patterns and relationships*" that may otherwise go unnoticed (Lynne and Jill, 2008). As I shall highlight through my choice to use Kathy Charmaz's *Constructivist Grounded Theory* (2014) in Chapter 3, it is as such important to position practitioners in domestic violence as contributing both valuable understanding of their practice that generate theoretical findings *and* draw on such theories to inform this practice. In doing so, theory as produced through this work aims to be fallible, dependent on the context and never completely final. As my work does not seek to replicate the works of scholars who have already highlighted the theoretical frameworks that programmes depend on (Gondolf, 2004; Morran, 2019), I shall focus on theorising what resources (material and immaterial) are created that help to provide space for reflections on abusive behaviours. Providing my findings in this manner may help to explain what is being done, explain the relationship between resources and means to change behaviours while enhancing the growth of the professional area of support work with perpetrators.

2.6. Opportunities for Design and Intervention

This review has introduced the research space of how digital technologies might be designed and developed to support work surrounding responsibility for domestic violence with perpetrators, within the context of DVPPs in TSOs. I have foregrounded some of the challenges of working to prevent domestic violence – most notably, that perpetrators are frequently excluded from preventative approaches. I identify that this is partly due to a lack of focus on the responsibility of the agents involved, as well as an understanding of

violence as being primarily caused using abusive behaviours. I have as such grounded multivalued concepts, such as responsibility, where the attribution of blame, accountability and answerability all intersect with surrounding patterns of domestic violence. This has also been framed as work to be done in collaboration with third sector organisations and as a contribution to the continued development of both TSO and violence prevention research within the HCI field. To conclude this review, I now turn to the opportunities associated with pursuing research into the intersection of perpetrators of domestic violence, digital approaches to violence prevention, responsibility negotiation and the third sector.

One of the key opportunities suggested by research in this space relates to the fact that the field is gradually gaining an understanding of how perpetrators may use technologies for abusive means (Matthews *et al.*, 2017; Freed *et al.*, 2018). This is also complemented by the potential to leverage technologies in order to better measure and understand perpetrators' responses (Seinfeld *et al.*, 2018, 2020). However, there is yet no work that positions perpetrators as people we should work with directly. This also stands in contrast with overarching calls to ensure that perpetrators are being properly held to account for the harm that they inflict on others (Respect UK, 2020); notably, we do not provide perpetrators with the tools to support them in better orientating themselves towards pathways of non-violence. Accordingly, while we cannot let violence go unchallenged, it is also true that in the process of challenging, we need to provide those who use abusive behaviours with the means to choose alternative behaviours and better understand the impact of their actions on others. Therefore, better understanding the ways in which we can support novel forms of responsibility work, which go beyond questions of where blame should be applied and progress towards finding new ways of reminding perpetrators of their duties to behave (eventually, independently of intervention), is vital to the further prevention of violence for victim-survivors. I outline the specificities of responsibilities that might be further investigated in my Methodology in Chapter 3, as well as my approach to my Focused Ethnography in Chapter 4.

Related opportunities also include initially exploring the design requirements for the interactions as they apply to third sector work within the context of DVPPs. While there is a large body of existing work that examines the extent to which such interventions 'work', there has been a stark lack of focus on the content of such interventions, or on what methods can be meaningfully applied to delivering tools and concepts designed to prevent violence and the extent to which this is possible. While efforts have been made

to explore how the men themselves understand, in their own words, their challenges and means of support for change, we have yet to see how this might manifest within digital service delivery to assist this gradual movement towards non-violence. While I have been able to provide a conceptual basis for how we might understand responsibility in design for change, there is still more work and understanding to be done if we are to better implement and bolster efforts to work with perpetrators directly, rather than defaulting to top-down punitive approaches. Such opportunities will be explored in greater detail in Chapters 4, 5, 6 and 7, which provide the evidence to better inform alternative approaches.

2.7. Chapter Summary

This chapter has discussed the background and literature of intersecting fields that inform my understanding and approach to designing for perpetrators of domestic violence. I began by defining the scope of my work, the agents involved in this thesis and what approaches have been applied to working with perpetrators. In exploring the community-led approaches to managing perpetrators of domestic violence, I have identified domestic violence perpetrator programmes (DVPPs) as being a highly suitable site for intervention to facilitate the mitigation of harm to victim-survivors. I then produced a detailed overview of how the field of Human-Computer Interaction has designed for domestic violence through the lenses of both responsible design and designing for responsibility. I next turned to explore the use of digital technologies that might be used to begin addressing these challenges through intersecting strands of research into third sector working, violence prevention and behaviour rehabilitation. Finally, I discussed the opportunities and imperatives for further research into this topic. In the next chapter, I provide a description of the methodology used in my research to properly investigate opportunities for HCI in this space.

Chapter 3. Methodological Approach

3.1. Introduction

In my previous chapter, I provided the historical context of how violence prevention approaches that involve working with perpetrators of domestic violence are formed out of a desire to symbolically hold those responsible for abusive behaviour to account. I also outlined how, without a discrete focus on responsibilities, there is a tendency to focus solely on the responsibilities of victim-survivors to keep themselves safe, or on removing them from the context of harm. This challenge is particularly relevant to Human-Computer Interaction's exploration of ways to support social justice, as well as to better understand the consequences of social technologies. In exploring the above, I outlined how positioning perpetrators as individuals who are actively designed for within DVPPs could seek to supplement this unsustainable practice and thus aid in the prevention of violence. This was paired with explicitly understanding *moral responsibility as answerability*, to conceptually clarify what is meant by responsibility in this context as it pertains to wrongdoing. The previous exploration concludes by emphasising that it is perpetrators, rather than victim-survivors, that need to do the 'heavy lifting' of navigating a pathway to non-violence. This work now needs to carefully consider what methodological approach would be most suitable, safe, and effective to implement so that this can occur.

The way in which I engage with this research necessarily flows from my epistemological commitments. Accordingly, in this chapter, I intend to carefully reflect on how my approaches, assumptions and methods coalesce in the four investigations that make up this work. First, I describe my orientation to feminist standpoint theory along with how this has provided the framing for knowledge creation in my second-person action research approach. Within this theory, I draw attention to how I navigated the complexities of work with perpetrators who occupy a dominant standpoint position and the importance of critical reflection in my data collection. I then describe my community research partners, Barnardo's and Respect, before conducting an in-depth discussion of the investigations contained within this work, illustrated with reference to how I leveraged a qualitative mixed methods approach within each study. More detail on methods specific to investigations can be located within their specific chapters and the overview of my data

analysis practice attached in Appendix B. These methods were used to identify answers to the following overarching research question:

> *How might digital technologies be collaboratively designed and deployed with perpetrators of domestic violence to assist in their journey towards non-violence?*

To provide more precise answers to this question, I will be guided by the following sub-research questions across different chapters of this work:

> **RQ1.** How are digital technologies used in domestic violence perpetrator interventions to challenge and support alternatives to abusive behaviours?
>
> **RQ2.** How might digital systems be designed and deployed in such a way that they redistribute responsibilities for violence prevention with perpetrators of domestic violence?
>
> **RQ3.** What are the key methodological and ethical considerations for technology creation when collaborating with domestic violence support services and perpetrators?

I conclude this chapter with a description of my ethical approval processes, alongside my reflections on the considerations, complexities, and challenges of performing this research.

3.2. Feminist Standpoint Epistemology

This thesis has sought to adopt a feminist methodological approach across all stages of the research process. This approach has helped to shape my epistemological assumptions, the research questions asked, the focus of research, and the methods selected as suitable for this inquiry. Both Human-Computer Interaction and feminisms have been identified as well-placed to enter into a dialogue that is '*mutually beneficial to both disciplines*' (Fox *et al.*, 2017). This is because the pluralities of feminisms are well-positioned to support the field's increasing awareness of its social and cultural responses, while HCI can offer feminisms the practical tools required to design, develop and mobilise technical innovation that can challenge gendered inequalities (Bardzell, 2010b; Schlesinger, Edwards and Grinter, 2017; Bellini *et al.*, 2018). Importantly, while feminist research is informed by a broad range of feminist theory, Rhode identifies feminist work as characterised by three central commitments in its perspective: to promote equality

between women and men, to make gender a critical focus for analysis, and to identify the fundamental social transformation necessary for full equality across the sexes (Rhode, 1990). As domestic violence is both a determiner of and evidence of gendered inequality (Garcia-Moreno, 2013), work that seeks to mitigate and prevent its impact is thereby feminist, whether or not it is explicitly named as such (Skinner, Hester and Malos, 2013). Such a stance is important for this work, as work of this kind includes the development of strategies to mitigate these harms through the inclusion of non-women, specifically perpetrators.

Feminist epistemologists and HCI scholars have long maintained that claims to fact and truth attained from research are far from being value-neutral, and have historically been used to privilege particular ways of knowing over others (Haraway, 1988; Harding, 2004; Almeida *et al.*, 2016). In developing feminist standpoint theory, Smith argued that an articulation of women's experiences is important to an understanding of how their realities are organised, as well as the ways in which social relations and societal structures inform those experiences (Smith, 1997). For this reason, domestic violence is an especially important topic to work with from the perspective of standpoint epistemology: first, because exploring standpoints can provide situated knowledges that challenge oppressive practices, and second, because the concept itself originates from the standpoint of the oppressed (victim-survivors) (Stark, 2009a; Dobash and Dobash, 2015). Adopting this perspective on how knowledges are produced by dominant power structures is important to any research on matters of oppression; thus, it is crucial for me to understand and acknowledge that I cannot exist outside such structures. Instead, it is important for me to be open, honest, and reflective about the types of knowledges produced by the people I work with and how these might shape the research process. When research activities are conducted with domestic violence practitioners, who are disproportionately women, and victim-survivors that are speaking from a position of oppression, this is even more essential. When such individuals' unique experiences of oppression are ignored, side-lined, or criticised as subjective, this can mean that such approaches to prevention reinforce the very structures that cause violence; this becomes especially important in Chapter 6. While I am a woman, and thereby more likely to be subject to such systems of oppression, it is vital that my work does not claim to 'speak for' victim-survivors' ways of knowing. To the fullest extent possible, in two out of the four investigations presented this work (see Chapters 5 and 6), I and my research partners have actively sought to make space for victim-survivors' knowledges. Respect for the victim-survivor standpoint also manifests in the choice of research partners for this thesis, as Barnardo's and Respect's

perpetrator services are explicitly 'survivor-informed' or led by evidence-based practice based on victim-survivor accounts.

3.3. Second-Person Action Research

The investigations described within this thesis follow a second-person action research orientation towards knowledge creation (Reason and Bradbury, 2013). Such an approach is dedicated to seeking transformative change through the simultaneous process of taking action and doing research, which are linked through critical reflection (Lewin, 1946). Rather than a specific method, action research (AR) instead refers to a practice of social enquiry that necessitates coordinating decision-making across multiple stakeholders to respond to challenges inherent within practice (McTaggart, 1999; Groundwater-Smith and Irwin, 2011). At the level of second-person action research, a small group of researchers and practitioners share an intention to generate '*mutual transformation*' through learning about their practice and themselves around a shared area of concern (Reason and Bradbury, 2013). Within the context of this work, I sought to identify organisations that had a shared concern around the nature of perpetrator services, as well as the level of digital support they may be afforded across DVPPs. It was therefore important to select a method that was effective in practice *with and for such partners* in research (Bradbury and Reason, 2006) to satisfy the above-mentioned aims of the thesis, as well as to produce novel insights while simultaneously ensuring they are of use to their local context; this is accomplished through drawing on an organisation's '*practical knowing that is embodied in daily actions*' (Dickens and Watkins, 1999). In the absence of such novel insights, I foresaw that it would be very difficult to understand how such organisations might experience or value a technology, particularly given that a system could be poorly designed, difficult to use or incompatible with their work practice. The second-person orientation to research can be contrasted with first-person AR, which focuses on the work of the researcher, and third-person AR, for individuals within a wider societal context, although these levels may coalesce across various stages of AR (Tolman and Brydon-Miller, 2001). Such a desire for involvement and active participation draws from wider discussions around participatory action research (PAR), which seek to involve all possible stakeholders in the process of research itself. However, many scholars argue that AR is inherently participatory when performed well and permits greater flexibility around levels of engagement and stake (Greenwood and Levin, 2007; Reason and Bradbury, 2013). Procedurally, AR is most frequently characterised through a conceptual spiral of steps, with each cycle composed of a circle of planning, acting, observing and reflecting on the

investigation in an iterative manner (Susman and Evered, 1978). However, real-life action research processes have been reportedly far more flexible than suggested by the discrete stages and stakeholders present in the theory (Cunningham, 1993), with some scholars arguing that the core quality of AR is the '*cycling back and forth to better understand the problem situation (within the persons, the organisation, the system)*' by means of a series of research-informed action experiments (Dickens and Watkins, 1999).

All of the investigations in this thesis involve working directly with the support organisations Barnardo's and Respect (see 3.5 Research Partners) over an extended period of time; this was done to enable a more in-depth exploration of a key area of their service delivery that they were interesting in acting on. Through early relationship-building stages, email exchanges and discussions at coffee breaks during conferences, a very rudimentary vision statement for an area of interest within their service delivery was co-developed between the project teams at Barnardo's or Respect. As this research initially approached domestic violence from an academic perspective, I initially played the role of a '*friendly outsider*', with little practical knowledge about working with community partners or perpetrators beyond safeguarding training (Greenwood and Levin, 2007, p. 124). As a result, I was directly dependent on and thus found it easier to privilege the local 'insider' knowledge that is valorised in AR discourse, and therefore found it easier to ensure that my partners had an equal stake in the performance of the work. Our discussions also touched on projected timelines, suggested ways in which we could work together, which services might be suitable for trialling our action-orientated approaches (such as prototypes), and how this understanding could feed into their evidence base for practice. As such, the design of each of the systems within this work (see Chapters 5, 6 and 7) was shaped by practitioners having an active stake in member-checking (verification of the data being collected) and debriefing (being given space to voice concerns or comments) at each stage of an iterative cycle. This was conducted in several ways, including informal conversations, securing approval before 'moving ahead' with a design via an in-person meeting (Barnardo's) or online meeting (Respect), or holding a formally organised evaluation meeting at the conclusion of a deployment to reflect on and consider what had been learned from or achieved by the project. As AR leverages actions undertaken in response to emergent evidence, these group reflections acted as the '*reflection in action*' towards both the outcomes of intervention(s) and how they were accomplished. This proved to be highly compatible with the working practices of both Barnardo's and Respect, as both organisations were required to participate in justification

practices to evidence how resources were being allocated and what deliverables such work had produced (Cutting, 2020).

Each investigation completed at least two action research 'cycles', except for the investigation included in Chapter 4 which contained a disrupted cycle due to a change in method. At least three action research cycles were planned for Chapter 6, but the process had to be cut short due to the impact of the global COVID-19 pandemic. While the structure of the cycle was highly compatible with both Barnardo's and Respect's working practices, completing a tertiary or 'final' cycle of research activities proved extremely difficult. This was due to the need I identified to strike a delicate balance when using action-oriented approaches to social enquiry in domestic violence organisations: that is, to ensure that the obligation to act (through prevention) does not come at the cost of safe working for the 'sake of acting' (Hegarty *et al.*, 2016). All organisations involved in this work were under significant financial pressure to deliver their services (discussed in more detail in Chapter 4), meaning that the material conditions of staff availability required to restart a new cycle were often absent following the cessation of service funding. More detail as to how each cycle was achieved is presented in my description of investigations and research partners later in this chapter.

3.4. Feminist Action-Approaches to Working with Men

What makes feminist standpoint epistemologies and action research particularly compatible within this work is their shared rejection of '*a view from nowhere*' in knowledge creation, instead favouring the idea that the researcher directly influences the values and interests inherent to a mode of inquiry (Haraway, 1988). Both approaches also emphasise the impetus for social change within research (Wigginton and Lafrance, 2019) and actively seek to improve understanding from perspectives that do not hold a dominant position within social structures (Bradbury and Reason, 2006; Hayes, 2011). While its focus on positionality and emancipatory visions is clearly compatible with domestic violence support organisations, predominantly populated as they are by people with marginalised identities, it is slightly trickier to apply this theory to working with perpetrators of domestic violence. This is because a common principle within feminist standpoint theory is that of facilitating spaces for women's and marginalised identities' views to be heard to acquire understanding from an oppressed position. While some scholars may argue that perpetrators do experience a form of marginalisation (Ramsey, 2015), perpetrators also do not occupy such a position. This challenge is addressed by critical men's and masculinities scholars, who counter that men, while occupying a

dominant position, remain '*all too visible yet invisible to critical analysis and change*' (Hearn, 1998, p. 3). In the area of technical design, Perez (2019) explicitly highlights that men's gender, ability, sexuality or racialised identity is rarely understood as being scrutinised or designed for, other than when this deviates from hegemonic masculinity. This highlights a thorny issue in this work: namely, the need to strike a balance between the aim of critically probing the exclusion of perpetrators (most frequently men) from a focus for design and the reality that this could potentially reproduce the dominance of those being researched. This must be reflected upon and addressed if such risks within this research are to be mitigated.

I worked through this thorny issue through a focus on working practitioners who have experience in working with victim-survivors to 'ground' my approaches (3.5 Research Partners), adopting an ethical practice that emphasises engaging critically with perpetrators (3.9 Ethics and Ethical Considerations), using a constructivist grounded theory data analysis method that allows the prioritisation of some situated knowledges (practitioners, victim-survivors) over others (perpetrators) (3.8 Grounded Theory Data Analysis). Not engaging critically within this space can mean such engagements with perpetrators, if not carefully analysed may mean that *"the oppressed [women] should work to repair the damage done to them by the oppressor [men]"* - and in doing so work in a counterintuitive way to the emancipatory visions of feminisms (Hanmer, 1990).

3.5. Research Partners

In the case of domestic violence projects, Sullivan (2018) argue that including and ensuring the appropriate participation of advocates can be critical to successful and mutually beneficial research. HCI scholars have also recommended that researchers work with community bodies that have similar - although not necessarily identical – value systems when considering work with at-risk populations (Dombrowski, Harmon and Fox, 2016; Strohmayer, 2019). Considering this, I provide a description of my two primary third sector research partners that co-led my four investigations within this work, details of which are provided in Chapters 4, 5, 6 and 7, and illustrate my working relationship with each organisation. Four more support organisations were involved in the delivery of the research in Chapter 6, namely Splitz, Glow, Hampton Trust, and TLC; however, for reasons relating to the COVID-19 pandemic, these organisations were unable to participate at the same level of engagement as Barnardo's and Respect. This is reflected on in more detail in Chapter 6.

All research partners involved in the present research either have practices in line with (Barnardo's, Splitz, Glow, Hampton Trust and TLC) or directly maintain (Respect) accredited safety-focused principles in their work with perpetrators and men who identify as victim-survivors. These principles explicitly outline methods of documentation, along with qualities for staff training, and are in line with legal safeguarding practices for work with vulnerable populations. This factor was explicitly sought out to ensure that all services are process-driven and performed in the interest of working towards safer outcomes for victim-survivors, practitioners, and perpetrators.

3.5.1. *Barnardo's*

Barnardo's (est. 1866) is the largest charitable organisation in the UK that cares for vulnerable children. It runs over 900 services across the UK, including counselling for children who have been abused, fostering and adoption services, vocational training, and disability inclusion groups. Their aim is to *'provide the best outcome for every child, no matter who they are or what they have been* through' (Barnardo's, 2020). As of 1990, the organisation extended its service delivery to incorporate vulnerable persons such as victim-survivors, and later developed interventions for perpetrators. Barnardo's has now been running DVPPs in Newcastle since 2006 with funding from Safe Newcastle, a community safety partnership, and are one of the only providers in the North East to offer such a programme (Kemp and Felton, 2017). While Barnardo's conduct many of their services across England and Wales, within this thesis I worked primarily with the *Barnardo's Newcastle* and *Barnardo's Gateshead* branches at their respective workplaces.

Even though both Barnardo's branches were led by (reportedly) strict practice guidelines set by their London headquarters, I experienced a great appetite for innovation around how such services were delivered, and what technologies could be used to do this. However, this appetite often had to be placated through the realities of the socio-economic climate that delivering services may entail, and as such the design choices for mundane technologies (discussed in Chapter 4) prioritised basic or pre-existing systems. Nevertheless, I noticed that there was a focus on designing technologies that improved the *experience* of receiving such an intervention, and that success was determined based on perpetrator involvement in the discussions-at-hand and the success of the transfer of learning outcomes, rather than through measuring a 'change' in behaviour through technical means. I speculated that this could be because of positioning technologies as a compliment to the formal intervention materials and themselves, rather than a means to deliver their commissioned support work.

3.5.2. *Respect*

Respect (est. 2011) is a UK-based charity founded from the informally organised National Practitioners' Network (NPN), whose aim is '*to relieve the distress caused by domestic violence, educate individuals working with perpetrators and victim-survivors, view to increase the physical safety and mental well-being of those who have experienced domestic violence*' (Respect, 2019). Respect is a membership organisation, with around 75 members as of 2020, and is best known for managing the accreditation of DVPPs, providing a nationally recognised quality assurance scheme for organisations working with perpetrators of domestic violence in the UK. The Respect Standard can be awarded to voluntary, statutory, or private organisations, through a two-stage process across 24 months. The first stage focuses on the safety and risk management process of an organisation, while stage two focuses on the assessment of quality, effectiveness, and innovation. This process is underpinned by safety-focused principles that seek to provide guidance and stakeholder reassurance in interventions with perpetrators, in the interests of ensuring safety for victim-survivors, practitioners, members of the public and perpetrators more broadly. As such, Respect has an extensive history of working with researchers to continuously improve the basis of evidence for these standards and uses these findings to influence public policy, such as the Domestic Abuse Bill (2018), and now (2021). The organisation also provides two active helplines: the Respect Helpline, established in 2004, for men and women who have been perpetrators of violence, and the Men's Advice Line, set up in 2007, for men who are victim-survivors of domestic violence.

Respect's approach to designing technology was decidedly (and understandably) more risk-averse to innovation to service delivery through technology. While the organisation had the financial means to develop exploratory technologies (unlike Barnardo's), I found that these were heavily influenced by two factors; ensuring that whatever was produced could be validated as 'safe' by victim-survivor services, and that the technology was a means to directly extend existing service delivery. In such a way, this meant Respect frequently opted to explore technologies, such as a smartphone application, that could be easily communicated to organisations and funding bodies, while providing providers the ability to *measure to what extent* a perpetrator was engaging with changing attitudes and behaviours. This focus on measuring change and engagement proved to be a contrast to Barnardo's focus on improving experience, though this can be somewhat anticipated given that Respect set best practices rather than practicing delivery for perpetrators.

3.6. Research Investigations

As described in Chapter 2, Domestic Violence Perpetrator Programmes (DVPPs) vary significantly, from their ideological approach to violence prevention and programme content to the practical aspects of multi-agency work and programme run-time (Bates, 2017). These differences are further multiplied when considering the '*postcode lottery*' of domestic violence service provision, a term used to describe the unequal distribution of support services, legal aid and appropriate responses from law enforcement (Coy, Kelly and Foord, 2009). While the ambition of this thesis, in line with my appreciation of situated knowledges (Haraway, 1988), was never intended to present a generalisable approach to all DVPPs, I nevertheless strived to accommodate and design for the differences between the contexts in which any potential digital intervention could be deployed. I was curious about how different ways of designing for perpetrators in conjunction with domestic violence support organisations might manifest in different interpretations of digital systems and activities. As a result, my four investigations were conducted across six geographic regions, selected largely due to the placement of my charitable collaborators within England, and consisting of (primarily) the North East, London, South East, South West, West Midlands and North West (Figure 4).

This thesis comprises four investigations, each of which explores a different facet of intervention work with perpetrators, with the final three investigations being directly informed by the spaces for design identified through my first investigation. In the spirit of presenting a narrative pathway to non-violence, these investigations are presented in this work to form a rough chronology of changing abusive behaviours: from sensitising to the topic of domestic violence (Chapter 4), to learning to be self-aware of one's own abusive behaviours (Chapter 5), to acknowledging the extent of harms and disrupting the onset of such harm (Chapter 6), to concluding with sustaining change within community and supporting others to do so (Chapter 7). As the above shows, such investigations – while occupying separate cyclic processes of second-person AR, as I illustrate below – are

interrelated and representative of the fabric of challenging, supporting and sustaining meaningful ways to reflect on abusive behaviours for perpetrators.

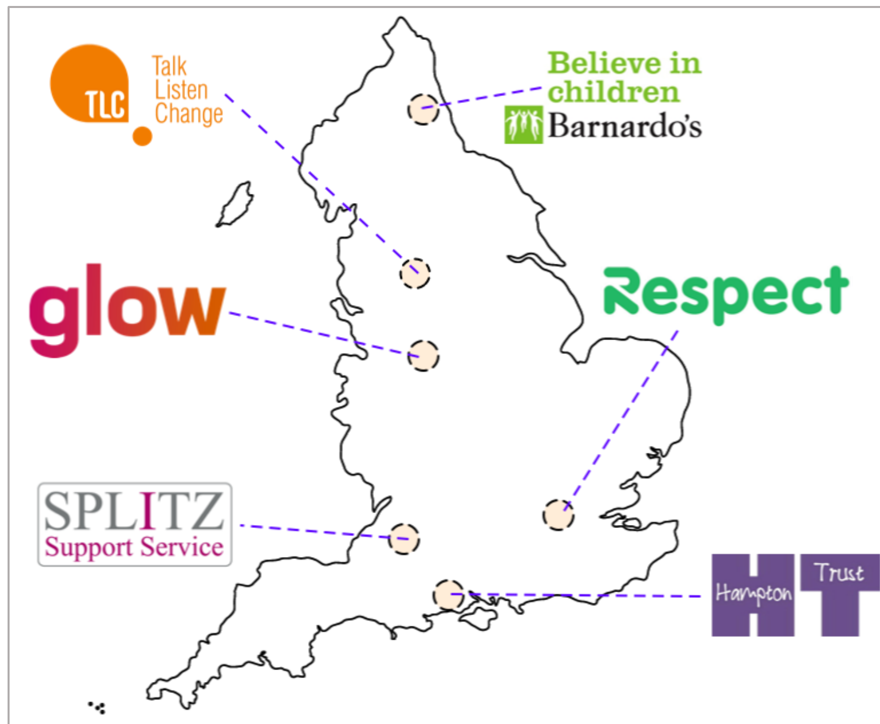


Figure 4: Geographic Locations of Charity Partners in England, UK

3.7. Investigations and Data Collection Methods

Collaborating with domestic violence services using second-person action research from the perspective of feminist standpoint theory to work with men requires a careful selection of methods that are epistemologically complementary to the aspirations of this work. However, the domestic violence sector is broadly subject to rapidly evolving circumstances due to a high rate of staff turnover caused by overwork and the withdrawal of funding resulting from loss of contracts in competitive tendering (Towers and Walby, 2012). HCI scholars Akama and Light (2018) have drawn explicit attention to the importance of a researcher's flexibility, responsiveness and 'readiness' to adapt to rapidly changing research contexts. These authors even go so far as to stress that this adaptability may be more valuable than process-focused methodologies (Light and Akama, 2014). Such an orientation to change is highly suitable for this work. I next discuss the selection of my research methods, the cycles of AR that were performed, and how they aligned with my research partners' expectations. Please note that akin to most AR research the stages contained within these cycles are not as neat as a diagram may depict (Greenwood and Levin, 2007), and rather very fluid and responsive to emergent context changes. Therefore, I have aspired to included obsolete and irrupted cycles, along with the

indeterminate *reflect* and *replan* stages. Importantly, such cycles were drawn up retrospectively

3.7.1. *Entering the Space for Design*

My first investigation, described in detail in Chapter 4, explored the space for design for digital technologies and systems within a third sector organisation context (Barnardo's) in delivering perpetrator interventions. This work focused on developing a holistic representation and understanding of how practitioners work with perpetrators in assisting their journey towards non-violence. This first investigation also served the joint purpose of sensitising my collaborators to the particularities of Human-Computer Interaction research methods (Slovák, Frauenberger and Fitzpatrick, 2017), and subsequently served as the foundation for other methods in my second, third and fourth investigations. Focused ethnographies have a long history of being used to understand women's lives, activities, and experiences – and more recently those who oppress them so are highly combatable with such a context and standpoint theory. Figure 5 depicts the single AR cycle that took place over the focused ethnography for this work also highlighting the 'false start' of the work when a traditional ethnography was attempted before being converted to a focused ethnography; efforts which I discuss below.

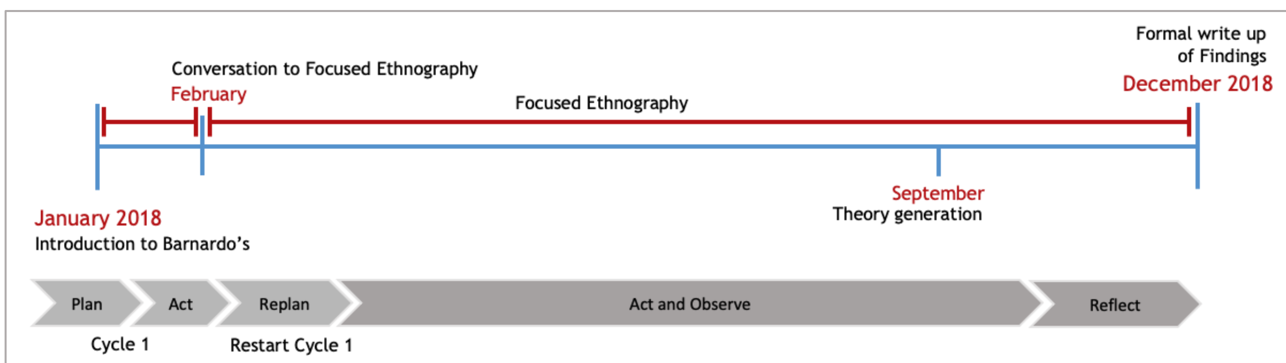


Figure 5: Timeline and Action Research Cycle for First Investigation

3.7.1.1. Focused Ethnography

In attempting to build a '*holistic picture of a local environment*' (Hayes, 2011), many HCI ethnographers have commonly made use of ethnographic insights that could potentially be transformed into interventionist strategies for localised and realisable changes within AR. Ethnographies, at their core, constitute a written holistic representation of how people lead their lives in their environments and can support an understanding of the beliefs that help them to make sense of their world (Muecke, 1994; Baskerville and Myers, 2015). As a type of observational research, focused ethnography necessitates positioning the researcher as participating in the setting – even if marginally – as they detail patterns of social interactions and how these are understood within their local contexts. In the

case of *participant observation*, the approach used in this work, researchers join the participant group and their activities, thereby becoming part of the group and the phenomena being studied, while simultaneously taking care to observe and describe all events, behaviours, and artefacts of a social setting. Such an approach has often been advocated for due to its cultivation of the components required for forming strong relationships of trust between researchers and their collaborators, particularly within the context of violence and abuse (Scully, 1990; Hudson, 2005).

The ethnographic approach undertaken within this work was selected in response to two main factors: first, helping to answer the first research question of this thesis; second, in recognition of the fact that an engaged, observational approach is suitable for services working with perpetrators. In order to explore how technologies were being used within perpetrator interventions, I needed to both sensitise myself to the space for design and build relationships of '*mutual exchange*' while simultaneously working to determine how (or even if) certain technologies could be feasibly applied in this setting (Reason and Bradbury, 2013). Accordingly, methodological approaches that focus on the everyday experience of working with perpetrators were preferable, particularly with respect to my need to create something of use to my collaborators. Second, while sensitisation does not necessitate first-hand exposure, I soon discovered that my research collaborators may not always appropriately narrate their interactions with technology through non-observational methods; this is entirely understandable, given that HCI researchers have explicitly stated that the frequent design goal of digital systems is to render them invisible through familiarisation and ubiquity (Rehman, Stajano and Coulouris, 2002; Dourish *et al.*, 2010). I first encountered this phenomenon at the conclusion of an interview with a refuge manager on the use of technology for violence prevention in her organisation, which I conducted at the end of my Master of Research degree. Upon swiping me out of the building, she realised that she had neglected to mention the existence of the key-card system that played a vital role in securing a space of safety for both victim-survivors of sexual abuse and staff at the organisation; it was, in her words, '*part of the furniture*', used so frequently that it went unnoticed. This event directed me to explore approaches that were sensitive to method triangulation (Muecke, 1994), combining the use of different methods attempting to observe, inquire about and understand people's

experiences, interpretations, and their interactions and relationships to technology and violence prevention.

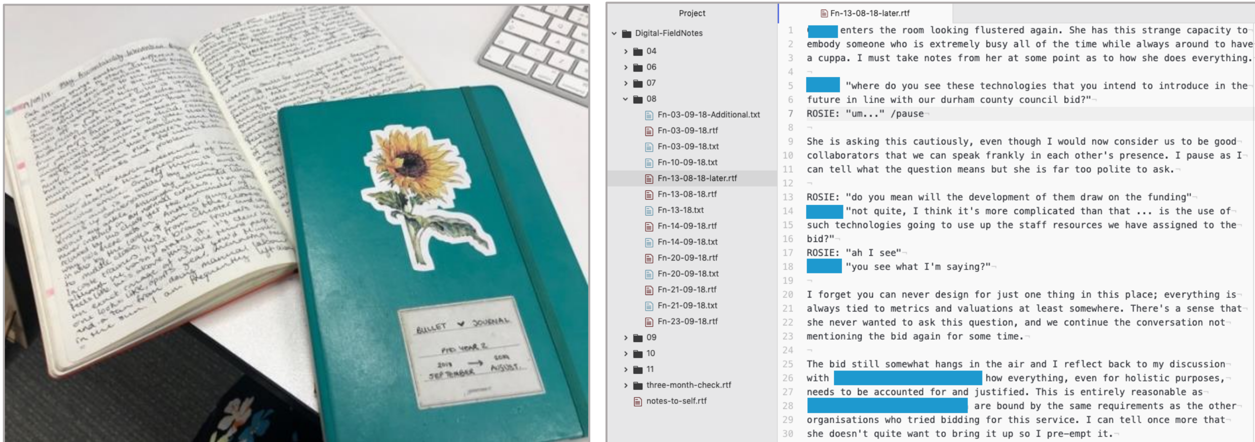


Figure 6: Physical and Digital Fieldnote Journals

While I had initially set out to perform what is now known as a 'traditional' ethnography, within a month of commencing this work, both I and my collaborators decided to opt instead for a *focused* ethnography (Knoblauch, 2005). Barnardo's, like many other domestic violence support services, were considerably understaffed, overworked, and overstressed. As a result, while their organisation always made me feel welcome and part of their working practice, support services were rarely conducted in a single setting at a particular time, but rather unfolded in a '*myriad of different settings and situations*', including cars, community centres and coffee shops (Knoblauch, 2005). These were complex and multifaceted activities that I found were not being captured through my full-time presence in the offices, and I found that the rhythm of my data collection naturally consisted of intense, short bursts through focused explorations around technologies and practice. In fact, these qualities appeared to make it better suited to the complementary method of a *focused* ethnography, which turned out to be clearer in focus and application.

To collect field notes for this study, I dedicated several notebooks (Figure 6) to highly *thick descriptions* of observed events, which went beyond surface appearances of context, detail, and social relationships (Lincoln and Denzin, 2004). These included me noting my impressions of the significance of voices, actions, and meanings, as ascribed by both participants and I, in perpetrator or staff behaviours within the context of their Newcastle workplace, named Orchard/Mosaic. Member-checking about the actions of staff and others was also performed to ensure that my interpretation of events was accepted and representative of working practice in Orchard/Mosaic. This process was performed through quarterly presentations to the Barnardo's workers on my findings, 'in-situ' clarifications of the meaning of events within the hub, and staff members' participation in the analysis of

this study. This acted as a means of opening a space for dialogue to better capture how participants in the study made sense of events that formed their practice with perpetrators. The accounts that they shared with me not only presented what Mol (2003) describes as '*grids of meaning*' for me to extract, but also conveyed their own ethnographies about how they themselves perform prevention work in practice. The semi-structured interviews and focused group discussions I used at certain junctures were informed by the descriptions of these social practices and grids of meaning. In this way, my participants became co-producers, as by telling me stories of practices, they directed my attention as a researcher in particular ways.

After each field visit, I gradually transformed my reflections into a digital field diary, which was added to and reflected upon post-engagement. This data collection effort resulted in approximately 610 A5 pages of field notes. Audio recordings of informal interviews, observations of service users and focused group discussions eventually totalled 32 hours and 11 minutes of material; 20 hours and 19 minutes were selectively transcribed to aid in analysis relevant to the work at hand. The content was selected for further analysis based on relevance and clarity, with off-topic and off-the-record conversations excluded from analysis or deleted entirely if the subject matter was confidential between myself and my participants. I will note here that the removal of confidential material was rare, occurring only twice throughout the period of my engagement: one such removal involved a reference to a business-critical decision about the financial funding for a service, while the other was suggested by a staff member on behalf of a service user who had unwittingly disclosed a personal account of abuse that implicated other non-service users.

3.7.2. *Choice-Point: Fostering Awareness and Choice*

The second investigation, described in Chapter 5, directly builds on one of the four identified potential areas in which digital technologies could assist DVPPs in helping to move perpetrators along a journey of non-violence. This work explores the design, development, and lightweight evaluation of a web- and mobile-based system called *Choice-Point*. This system is designed for use in a perpetrator intervention that aims to support conversations around choice, perspective-taking, and agency by presenting complex social scenarios using non-linear, interactive storytelling. Participants can take on specific fictional roles in each scenario set in a domestic environment, whereby their choices have an impact on the outcome. While the design impression of the Choice-Point system is described in more detail in Chapter 5, I here wish to draw attention to the initial exploratory sessions, facilitated through two design workshops that each consisted of two

parts. Figure 7 displays the two complete AR cycles of this work, illustrating the two sets of design workshops and deployment process for Choice-Point. This figure also illustrates with an asterisk the work that was performed by Dan Jackson.

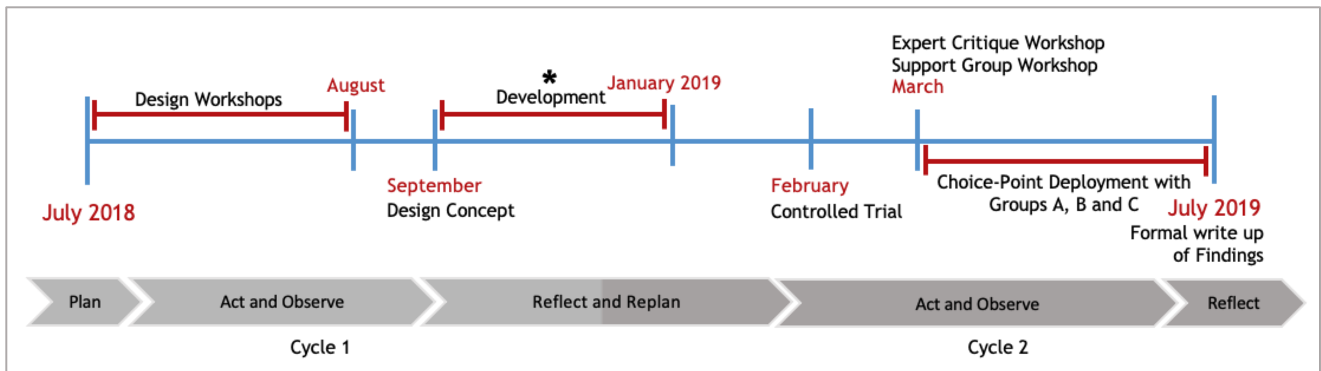


Figure 7: Timeline and Action Research Cycles for Second Investigation

3.7.2.1. Design Workshops

Design workshops are a meeting of collaborators to start or finalise a design, or to progress through the process of brainstorming to overcome an obstacle with an existing design. Alternatively, such approaches have also been used within HCI to impart knowledge to participants regarding a specific aspect of design. The four design workshops for this investigation were directly developed from an in-depth member-checking and debriefing session hosted at my workplace, during which the conceptual framework developed in Chapter 4 was presented and critiqued. Two design workshops were initially used with Barnardo's staff members to ideate the Choice-Point system. The first workshop used prompts to explore Barnardo's staff members' perceptions of how technologies were being used for self-awareness (i.e., in public campaigns, e-learning courses) and where these could cross over with domestic violence interventions. This first workshop resulted in an early concept of the Choice-Point system (then named 'what happens next?'). A second workshop leveraged paper prototyping and tangible mock-ups to explore its physical qualities. Once Choice-Point had reached its final design, another two design workshops were established, one with the Barnardo's team as a 'Expert Critique' and another with victim-survivors. These workshops aimed to elicit critical conversations on how interactive storytelling might be used as an approach to engage perpetrators around considering the perspectives of others.

The use of design workshops proved to be surprisingly successful for brainstorming how the conceptual framework elicited through the focused ethnography could be used as design material to manifest different designs. I note that this is surprising because such an approach has the potential of being experienced by participants and collaborators as

a '*blunt instrument*' that is artificial and forced upon a particular context (Rosner *et al.*, 2016). In particular, I was conscious that jumping in to 'design' something could inadvertently prioritise the creative and critical potential of my Barnardo's collaborators over their perceptions of materials and activities and the historical context of such a research environment (Harrington, Erete and Piper, 2019). Nevertheless, Barnardo's informed me that they thoroughly enjoyed this approach, particularly when these design workshops were hosted away from Orchard/Mosaic, as this permitted them the conceptual and physical separation from their work necessary for '*reflection-in-action*' (Hayes, 2014).

3.7.3. ***Time Out: Supporting Reflection and Crisis Management***

In the third investigation of this work, described in Chapter 6, work was conducted with Respect to investigate how a digital tool might aid facilitators in the delivery of a crisis management tool that could be used alongside the delivery of a DVPP. The focus of this case study was to develop a smartphone application, Guided Time Out, as a means of directly interrupting the onset of physical violence. This relied on a perpetrator acknowledging the potential extent of harms that could occur if they found themselves approaching a state in which they would become violent, and therefore physically removing themselves from their victim-survivor to engage in calming activities through the smartphone application. As Respect is a peak body organisation that does not directly provide DVPPs, the spaces for design expanded to other domestic violence support organisations, namely TLC, Glow, Hampton Trust, and Splitz, all based in England. Due to the impact of the COVID-19 coronavirus pandemic in 2020, this investigation is the only one that did not manifest in the form of a physical prototype. Instead, this work focuses on the findings from the investigative focus group discussions conducted with each of these organisations in turn, and how these informed a design mock-up contained in Chapter 6 that acts as the deliverable for this work. Figure 8 displays the two AR cycles that made up this work including the two rounds of Focus group discussions (FGDs) that are reported in the chapter. Despite the cessation of funding, it was possible to complete the final cycle through the production of a mock-up as a form of '*reflection in action*'

(Greenwood and Levin, 2006). This figure also illustrates work with an asterisk that was performed by the two team members at Respect that made up the research team.

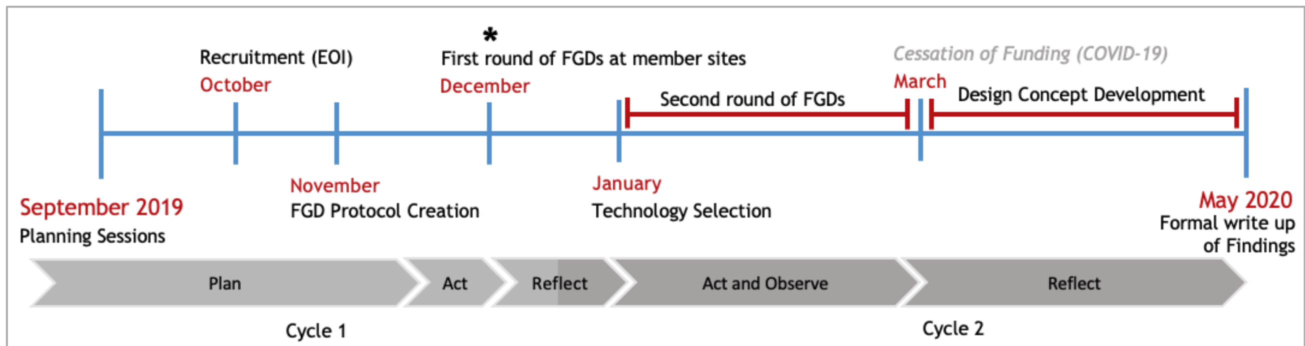


Figure 8: Timeline and Action Research Cycles for Third Investigation

3.7.3.1. Focus Group Discussions

Focus group discussions (FGDs) are an investigative way to explore the collective dynamics of a specific group of individuals through the use of open-ended and explorative questions around a shared topic (Cornwall and Jewkes, 1995). Unlike an interview, where a researcher adopts the role of investigator, focus group discussions permit the researcher to facilitate and moderate the discussion of the group, taking a peripheral rather than central role. In doing so, FGDs offer participants the crucial flexibility to lead and adapt the topics of interest as the discussion progresses with others in their shared social practice. This approach offers space for participants to negotiate over differing paradigms and worldviews as they relate to specific concerns. In practice, and in a context where cooperative working practices are core to safe practice, the adoption or creation of a key technology that is imposed by an individual rather than a group of practitioners can cause immediate problems. Additionally, as Respect were keen to listen to a range of their members' perspectives on the potential of certain technologies, focus group discussions made it possible to hear the views of a relatively large number of interested participants, without demanding unsustainable amounts of time or resources. As group dynamics and synergistic relationships have a significant influence on the quality of findings (Krueger, 2014), for this work, it was beneficial to select individuals who were already known to each other, and who either worked or were present within the same services.

FGDs are also a viable method of engaging perpetrators in sharing reflections on their behaviours and how digital technologies intersect with these behaviours. Willingness to fully engage in a group discussion is instrumental in generating useful data and may be achieved more readily within a homogenous group. While the personal characteristics of perpetrators vary widely, most organisations who host DVPPs run group sessions of perpetrators of the same gender, language and relative risk level (Bates, 2017), which

can generate useful insights into matters of shared concern in FGDs (Krueger, 2014). Importantly, DVPPs by design share the essential characteristics of a focus group discussion, such as by promoting pro-social conversations around behaviours and seating attendees so that they can see each other. As such, DVPPs themselves can be understood as reducing the barriers to conducting FGDs with perpetrators, as such data collection methods directly complement existing intervention sessions with minimal disruption to existing sessions.

For this investigation, two rounds of FGDs were conducted with practitioners, perpetrators of domestic violence enrolled in a DVPP and victim-survivors receiving support from such organisations, for a total of nine FGDs. In the first round, which comprised six discussions, I aimed to identify perpetrators' motivations and methods for changing their behaviours, with or without technology, while also eliciting practitioner ideas for how digital technologies might help in the delivery of a DVPP. Following a round of analysis that summarised the main findings from these initial discussions, I and Respect engaged in coordinating the selection of three technology-based ideas that were then returned to the same groups for critical evaluation. This second round of FGDs was conducted through five FGDs with facilitators, perpetrators and victim-survivors and focused on mock-ups of three digital systems, with the goal of anticipating both the benefits of and barriers to their use in a DVPP setting. Both stages of this investigation took place across two Respect membership organisations (Hampton Trust in Southampton and Glow in Stoke-on-Trent), while the first stage took place only at Talk, Listen and Change (TLC), Manchester. An additional two FGDs were scheduled to take place at TLC for Stage Two; however, due to the COVID-19 lockdown, these were unable to occur. Although digital data collection methods such as surveys or remote focus groups were considered, these were ultimately ruled unsuitable; this is because TLC chose to furlough[3] a significant number of staff members, meaning that their capacity to participate in research was vastly reduced due to the increased pressure this would exert on non-furloughed staff.

3.7.4. *Fragments of the Past: Curating Peer Support Processes*

The final investigation, described in Chapter 7, explored the challenges experienced and reported by practitioners at Barnardo's in the course of their work with perpetrators at

[3] Under the Corona Virus Job Retention Scheme (CVJRS), also known as 'furlough', employers can claim a grant covering 80% of the wages of an employee requiring to be furloughed in an effort to help employers avoid mass redundancies due to the impact of COVID-19.

the end of a DVPP. The focus of this work was on the challenge of ensuring that perpetrators who finish the programme continue to maintain or progress along the journey towards non-violence, which may be achieved through peer support activities. This investigation focuses on how a group of perpetrators, upon completion of a DVPP, worked to design a peer support activity named *Fragments of the Past*, during which time they created digital artefacts recording their perspectives on the programme. These artefacts were then shared with another group of perpetrators at the beginning of a DVPP as a means of providing support and encouragement for changing abusive behaviours. Akin to my second investigation, this study also used design workshops to conceptualise and develop a digital process; however, I will also later draw attention to how such a method was simultaneously used to design a peer identity. Figure 9 shows the two cycles of AR that I performed with two groups of perpetrators of domestic violence enrolled on a DVPP. Once more, akin to the other investigations of two cycles the reflect and replan stages happened simultaneously.

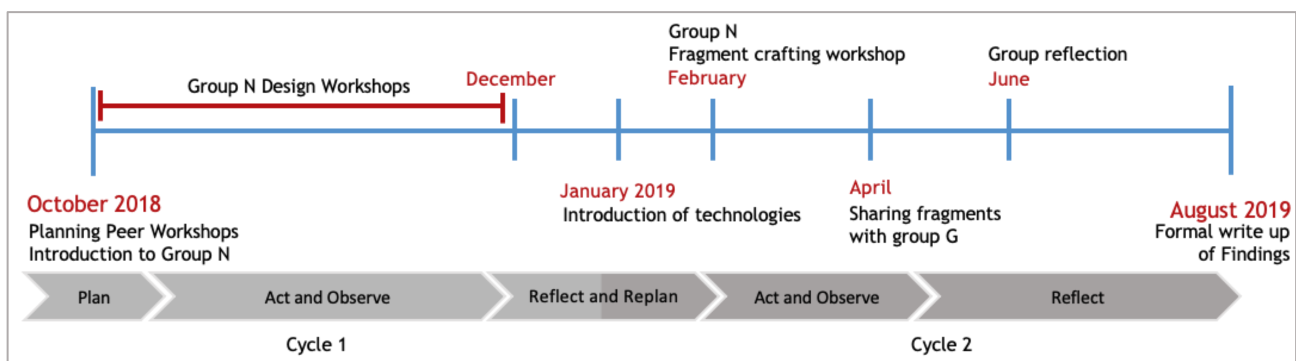


Figure 9: Timeline and Action Research Cycles for Fourth Investigation

3.7.4.1. Design Workshops

As previously mentioned, design workshops can be used to conceptualise or further investigate design problems within an area of concern. I was already aware that preparing participants for design work, particularly participants with low levels of technical literacy, represents an acute challenge in sensitive settings (Lindsay *et al.*, 2012; Birbeck *et al.*, 2017). For this investigation, however, I purposed the method to work closely with ten perpetrators of domestic violence to simultaneously sensitise them to the adoption of a peer identity. While most workshops specify that a design workshop should ideally result in an outcome of progression in understanding a design problem or concretising a design, some scholars have highlighted that simply participating in such design workshops can also benefit participants. For example, many scholars have noted that workshops bring together like-minded individuals and can cultivate the environment for a community of practice to develop (Davis *et al.*, 2017; Fox *et al.*, 2017; Bellini *et al.*, 2018). Michie et

al. (2018), for example, highlight design workshops as a method of sharing personalised narratives around politically sensitive issues and creating a means for people to connect with each other. This work inspired the use of specific activities, described in more detail in Chapter 7, to be built around permitting participants to engage in self-reflective activities *alongside* contributing ideas for how digital technologies could augment this process.

3.7.5. *Digital Artefacts*

Within the context of this thesis, the term 'artefact' denotes any tool, system or material produced from a design process. While not methods in and of themselves, this mode of data collection was especially important in the fourth investigation, as digital artefacts served jointly as sources of data and as meaningful representations of a perpetrator's involvement in *Fragments of the Past*. Moreover, as artefacts are tools that embody both my own and my collaborators' choices, theories, and practices, they arguably serve as appropriate entities for both data collection and analysis. Although it is not the goal of this thesis to promote my systems as 'solutions', it is however interesting to examine how their design and physicality came to be in response to a predefined problem within the space of domestic violence (Dombrowski, Harmon and Fox, 2016). For example, in my work on *Fragments of the Past*, many digital artefacts were created by my participants through the process of my design workshops to illustrate their journey of through the programme; when placed together, they formed a digital road map of progress across the group.

3.8. Grounded Theory Data Analysis

Across all four of my investigations within this thesis, my focused ethnography, focused group discussions and outcomes of design workshops produced data that were analysed using a Grounded Theory approach. Grounded theory is a systematic method of analysing and collecting data that commences with an inductive inquiry, and is suited to the exploration of individual processes, interpersonal relations and the reciprocal effects between individuals and larger social processes (Charmaz, 2014). In being open to multiple theoretical underpinnings, it is therefore highly suitable for application to a range of epistemologies (such as feminist standpoint theory) and theoretical understandings. While many other qualitative analysis methods, such as interpretative phenomenological analysis (IPA) or narrative analysis, may also attempt to produce detailed descriptions of meaning-making, grounded theory attempts to produce a conceptual exploratory level of a phenomenon that can illuminate, explore and help with

theorising about social or relational processes (Creswell, 2012). It is this theoretical and exploratory framework that has been identified to assist practitioners and researchers, while permitting both identities to generate theories on practice, while drawing on relevant theories themseslves. While there are many variations on the grounded theory approach, ranging from its origins in (arguably (Mills, Bonner and Francis, 2006)) relativist pragmatism (Glaser and Strauss, 1999) to social constructionism (Charmaz, 2014), I gravitated towards the 'social constructivist' variation in order to respect, appreciate and directly work with the multiple realities offered by my collaborators and participants. This data analysis approach is suitable for this work because it requires a deep immersion into the data produced by my collaborators and participants in their interactions with technologies. This deep immersion felt naturally compatible with the '*reflection in action*' that I was performing with Barnardo's and Respect (Greenwood and Levin, 2007). Importantly, comparing such data and analysis in several rounds to continuously refine and improve the theory also ensured that I was naturally double-checking my understanding of the context, the space for design and the dynamics of domestic violence. I immersed myself within the data before proceeding with line-by-line coding of audio transcript or digital field notes. I coded for processes, actions and meanings that aided in defining the connections between data. This was then (frequently) followed by a secondary round of coding, where wider memos from my detailed notes were incorporated into the construction of a set of tentative categories. Such categories can and would be frequently broken down and reformed across various stages of comparison.

In my early stages of data collection, I found myself somewhat overwhelmed by the technically complex and lengthy process advocated for by Glasser and Strauss (1967), finding this rigorous process to evoke Melia's statement that the '*technical tail [is] beginning to wag the theoretical dog*' (Melia, 1996). Nevertheless, I found the inbuilt systematic checks and refinements of major theoretical findings to be invaluable in guiding my approach to nuanced and frequently contradicting conclusions while in the field. However, in refining my approach and honing my coding activities using faster approaches and the constant comparative method, I found myself becoming accustomed to the approach I was using. For my focused ethnography in Chapter 4, as stated previously, the process of typing up the physical notes into a digital field diary provided me with space to ask secondary coding questions and actively plan to address the missing aspects in my data on the next visit. This was aided by my use of the axial coding framework, which forced me to examine the phenomenon under question through piecing together my categories in a narratively coherent way. Unlike the other chapters in this

work, this was the only process that resulted in the full construction of a theory, which I discuss in more detail in Chapter 4. The data captured for my subsequent investigations was directly informed by this theoretical guide to design, and I was hesitant to pile 'theory on theory' before validating and trialling such an approach. For their part, the analyses presented in Chapters 5, 6 and 7 were conducted using a less resource-intensive version of axial coding, where connections between each category were identified and illustrated but not supplemented through a complete saturation of these categories. As a means of maintaining the rigour of the original method, at the conclusion of each investigation, I used comparative analysis with any outstanding sources of data to check, fill out and extend my existing conceptual categories to determine the sensitivity of my analysis to the context. I include samples of my written and digital fieldnotes, along with examples of the open coding process, category consolidation and theory generation, in my Appendix B.

3.9. Ethics and Ethical Considerations

Both perpetrators and victim-survivors are classified as at-risk and vulnerable populations. As there are a number of ethical considerations that are perceived to be acute within studies on violence and abuse (Downes, Kelly and Westmarland, 2014; Westmarland and Bows, 2018), I here share the steps I followed that informed my safe and ethical practice. This is in line with the calls made by Ross (2005), who urges that researchers studying violence and the aftermath of violence take an ethical stance by conducting research in a way that '*does justice*' to both the research participants and the other parties involved. Researchers accordingly have the responsibility not to increase the risk for victim-survivors, and where possible, to contribute to reducing such risks.

3.9.1. *Attaining Ethical Approval and Research Design*

The work described in this manuscript followed Newcastle University's guidelines and underwent evaluation by the Faculty of Science, Agriculture and Engineering (SAgE) board of ethics. As all my investigations involved direct contact with human subjects, full ethical approval (consisting of a detailed project outline, proposed research methods, participant consent, risk procedures and mitigation strategies, and confidentiality agreements) was sought for each investigation individually. If any changes were made to studies that had already gained approval, these documents were subsequently updated to provide a comprehensive overview of what research was taking place. My initial ethics submission proved to be a very lengthy process, as the board expressed 'significant concern' with respect to my personal safety in performing any research with this population group,

disputing the inclusion of any face-to-face work with them in my research at all (Appendix B). Despite common misconceptions, most men who use violence and abuse in a domestic setting do not use violence against others, particularly towards researchers or facilitators in a controlled setting (Hester, 2006; Westmarland and Bows, 2018). As a compromise, many of my ethical approvals were contingent on strict adherence to my safety protocols, although these were sometimes out of step with the safe practice as performed at Barnardo's. These recommendations, as I will describe in Chapter 7, changed the very shape of the types of technologies I could create with this social group.

Each support worker included in my research has extensive experience in working with perpetrators and would provide critiques and contribute towards the running schedule to identify risks, challenges, or threats to safe-guarding for victim-survivors, staff, perpetrators, and the research team. After agreeing to our shared research plan, each team member would normally judge my activities to be unlikely to cause an undue escalation of risk to service users (including victim-survivors) and reminded me of the safety procedures if I or a participant required additional support, advice, or care. My participants involved across this work were a representative sample of the risk profile (standard-medium) of perpetrators enrolled on DVPPs. Written consent forms were used at the start of each major study stage and verbal consent from each participant was also sought before research could commence. Each current or ex-partner of perpetrators enrolled in the DVPP – and by extension, participating in my investigations – was offered support through an integrated safety service to coordinate care, facilitate communication and ensure safety checks are conducted on victim-survivor wellbeing. Irrespective of their relationship status with the perpetrator, each man within my investigations was asked to refer to victim-survivors by their first name in conversation to respect and humanise them in discussion.

3.9.2. *Practicalities of Working with Perpetrators*

Throughout this thesis, as has been outlined in existing Human-Computer Interaction work, I repeatedly struggled with the institutionalised nature of attaining and explaining ethical consent from the people with whom I worked closely (Luger and Rodden, 2014; Brown *et al.*, 2016; Strohmayer *et al.*, 2018). This was compounded by the understanding that many perpetrators may believe that consenting to participate in research connected to their re-education would place them in a more favourable light with the managing authorities (Hudson, 2005). Conversely, some may consider that refusal to take part would be detrimental to their future. Hearn et al. (2007) recommend that researchers clearly

explain their separation from authorities to ensure that expectations of the research process are accurate. As such, throughout all my engagements with perpetrators in this thesis, it was made explicitly clear (verbally and in writing) that the research study was separate from all organisations involved and would only interconnect with them if a safeguarding risk was highlighted in the session, activating the limits of my confidentiality agreement.

In many cases of working with perpetrators of violence, feminist researchers may be exposed to views that they may wish to challenge or provide an alternative to, but find themselves unable to do so without influencing the participant responses (Westmarland and Bows, 2018). Indeed, the perception of researchers 'challenging' perpetrators by taking on the role of another authority to scrutinise their behaviour can and does lead to participants disengaging from participation in the sessions or the research process. A number of works promote a neutral, passive presentation of the self in the presence of perpetrators, such as Scully's presentation of a '*supportive, neutral and non-judgemental façade*' – one that she herself found did not feel genuine (Scully, 1990). I personally found it especially difficult to subdue my own views when silence is so often associated with approval of or downplaying sexist statements. In these cases, I found the awareness of a perpetrator's tendency to use denial, minimisation and blame of others to feed into a '*healthy scepticism*' – as recommended by Hearn et al. (2007) – that provided me with the confidence and willingness to carefully explore the possible inconsistencies and contradictions in their accounts. In many ways, each conversation I had with a perpetrator was a balancing act: holding a non-judgmental space by listening to them attentively, but also intervening through careful, reflective questioning where appropriate. While many did not retract their original sexist statements – nor did I wish them to – this did mean that I had offered them spaces within my research to allow them to negotiate their own views through discussion while simultaneously mitigating what Ptacek terms a '*tacit approval of the behaviour*' (Ptacek, 1988). On occasion, some of my participants reported identifying their own inconsistencies or contradictions within their responses, which made for more insightful data than would have been obtained had these statements not been addressed at all.

3.9.3. *Wellbeing*

The field of HCI is no stranger to dealing with risky, upsetting, and sensitive work. A small body of work in this field has already emerged that deals with familial and intimate relationships ranging from grief (Walter *et al.*, 2012) and relationship breakups (Herron

et al., 2016) to child abuse (Cook and Helbig, 2008). However, there is still a notable lack of guidance on how researchers should orientate themselves within this space and manage the emotional impact that is inherently involved in sensitive work with participants (Balaam *et al.*, 2019). An area that I found to significantly impact my wellbeing in my encounters with perpetrators is best described by Crewe and Ievin's use of the term 'ethical quandary' to describe their work with individuals incarcerated for violence (Crewe and Ievins, 2015). In my work with perpetrators, I found myself having to reconcile my own moral position, as my research frequently required building rapport with research participants to be effective. This, in some cases, lead me to feel as though I genuinely *liked* the person I was working with, while simultaneously trying to rectify the reasons why I liked this person who, from a moral and ethical perspective, repulsed me. I found solace in Scully's reflection on her guilt at having a similar experience with convicted sex offenders: *'such emotions may be more expected when the subjects are people with a sympathetic cause … but convicted rapists are human too'* (Scully, 1990). Moreover, as a means of rectifying the rapport that I was aware some individuals will form with professionals to explicitly manipulate and cause further harm, I was mindful of those who were hurt by such violence as a means of ensuring that my HCI work would not act as a '*collusive arrangement … that ignores or denies the violence done to victims*' (Cowburn, 2013).

However, it is once again rare for a HCI researcher to continuously remind themselves of the harm caused by their participants – frequently in a speculative manner, as I did not have access to the accounts of victim-survivors personally. Thus, I was continuously thinking about violence, even if the conversation itself was about anything but. In applying the 'ethic of care' to my participants, I also sought to find ways to apply care and ethics to myself in my practice. I did this through applying Moncur's (2013) recommendations for the practicing of 'self-care' strategies at a personal level, which include time spent in nature and processing traumatic experiences with professionals. For me personally, this included seeking out supervisors, support groups and networks that allowed me to go both inside and outside of the formal structures of my work, drawing on them for guidance in conjunction with my personal care practices. Finally, I have attempted to respond to Balaam et al.'s (2019) calls for the field to carefully consider formally sharing emotion work within the community to transform future institutional approaches to sensitive work (such as work addressing violence) through publication of my findings and webinars on keeping well. Details of my emotional work performed across this work can be found in my Appendix A.

3.10. Chapter Summary

In this chapter, I have described the methodological underpinnings of this thesis. Specifically, I have explained and justified my choice of a second-person action research approach and how it is supported by a feminist standpoint epistemology towards knowledge production. I have also briefly described my use of discrete methodological tools that build on and contribute towards these approaches through my selection of research partners, data collection practices and modes of analysis suitable for the sensitivity of the space. I conclude by describing the process of attaining ethical approval, along with the practical ethical concerns associated with performing safety-focused work with perpetrators with respect to consent and mannerisms, while also addressing the impact of such work on my wellbeing.

Chapter 4. Focused Ethnography: Entering the Space for Design

4.1. Introduction

This chapter outlines how I conducted, and gleaned lessons from, the process of initially sensitising to the setting in which I was to undertake my empirical work. This was accomplished through a 12-month focused ethnography conducted in Barnardo's northern hub, 'Orchard/Mosaic', and the community centres where this organisation delivers their perpetrator interventions. This work and the chosen methodology were used to obtain answers to my first research question: *How are digital technologies used in domestic violence perpetrator interventions to challenge and support alternatives to abusive behaviours?* Specifically, I was interested in two key aspects of this question: what technologies (if any) are currently being used in interventions with perpetrators of domestic violence, and how these technologies are used for violence prevention purposes within the interventions themselves. My goal in focusing on these two aspects was to form an imprint of their '*practical knowing that is embodied in daily actions*' in working with perpetrators at a descriptive and analytical level (Dickens and Watkins, 1999). The work described in this chapter also formed the foundation for my investigations that followed, building on my feminist standpoint orientation toward interventions aiming to prevent domestic violence outlined in Chapter 2, along with the methodological commitments outlined in my qualitative approaches, as discussed, and described in Chapter 3.

I begin by describing my introduction to this research context, Orchard/Mosaic, where three out of the four investigations presented within this work were conducted, and illustrating this workplace by means of a 'day in the life' of their work practice. This vignette narrates their important, everyday management of perpetrators and details how technology intersects with the delivery of domestic violence perpetrator interventions in mundane but meaningful ways. I then present my grounded insights into how technology might further enhance and positively reinforce attempts to teach and support perpetrators to choose to behave non-violently towards an intimate partner. These analytical insights form the cornerstone that supports the design, implementation, and deployment of the three

digital systems presented in the following three chapters of this thesis. The investigation in this chapter was published and presented at CHI'20[4].

4.2. Setting the Scene

4.2.1. *Making an Introduction*

I first contacted Barnardo's through a meeting with three workers who related to the Domestic Abuse Awareness Project (to be described in detail in Chapter 5). During my conversation with these three workers, Carol, Janice, and Karen, over coffee at their northern hub Orchard/Mosaic, they expressed their combined curiosity and concern over the presence of technology in their service delivery efforts. Over the past five years, they had noticed an increase in perpetrators' technology-facilitated abuse against victim-survivors in their case load, which they attributed to the larger number of digital services and products now available to consumers at an accessible price (i.e. 'smart' devices; Leitão, 2019a). These rapid developments had outstripped their own use and knowledge of technical tools, with many workers reporting that they found themselves dependent on their service users' knowledge of technology. This situation reportedly made them feel uncomfortable; they, after all, were supposed to be the ones who were knowledgeable regarding what constituted abuse, rather than being reliant on what perpetrators told them. Karen disclosed in no uncertain terms that she perceived this to be a significant power imbalance during service delivery, as workers did not have the knowledge required to identify or challenge such behaviours. They also noted that unlike other harm prevention work, such as drug and alcohol services, there were few if any digital systems present to facilitate the teaching of session content or to help reinforce the learned behavioural management techniques outside of the interventions. After I disclosed my technical abilities in the context of systems implementation and design, their suggestions for potential digital activities, feedback systems and websites clearly indicated that there was an appetite for careful innovation within the syllabus to explore how digital systems and tools could support them in their work. The head of Orchard/Mosaic, Carol, then agreed that I could engage with them further through their organisational and social services at their northern charity hubs across Newcastle and Gateshead. These initial discussions informed the types of activities provided by Barnardo's that I included in my

---

[4] Rosanna Bellini, Simon Forrest, Nicole Westmarland, and Jan David Smeddinck. 2020. Mechanisms of Moral Responsibility: Rethinking Technologies for Domestic Violence Prevention Work. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20). Association for Computing Machinery, New York, NY, USA, 1–13. DOI:https://doi.org/10.1145/3313831.3376693

application for ethical approval; where possible, these aimed to represent the contingencies and day-to-day realities of working in the organisation (as I describe in *A Day in the life of Orchard/Mosaic*). This approach is in line with recommendations for ethnographers to build relationships and encourage informal interactions that permit '*exploration, reflectivity, creativity, mutual exchange and interaction*' with the community group in their context before research design and ethics processes are complete (Caine, Davison and Stewart, 2009; Rashid, Hodgson and Luig, 2019). I was subsequently required to register as a volunteer, provide references of prior employment and follow through with a disclosure and barring service (DBS) check for working with vulnerable groups.

4.2.2. *Orchard/Mosaic*

The Orchard/Mosaic building, owned by Barnardo's since 1989, is in the relatively wealthy Newcastle-upon-Tyne suburb of Jesmond on a thriving street backed by shops, bars, and a small supermarket. In addition to servicing the city centre, the hub also receives many service referrals for perpetrators and victim-survivors from many semi-rural surrounding districts. As is the case for most domestic violence support services, physical space is an issue, with the organisation rarely having rooms available for all support services to run at one time. As a result of this lack of available space, my focused ethnography also extended to include community centres, children's centres, schools, town halls and cafés across Durham, Darlington, and Gateshead, where Orchard/Mosaic also ran domestic violence services. In this way, Barnardo's Orchard/Mosaic is not only represented by its building in Jesmond, but also extends to the access and use of distributed, local community spaces. Orchard/Mosaic services at the Jesmond location also included the sexual behavioural unit, 'Circles of Support and Accountability' (CoSA), and therapeutic support services specialising in bereavement, sexual abuse and young offenders (Barnardo's, 2016). As I was interested in researching services for perpetrators of domestic violence, for the purpose of this study I opted to examine the services provided to, and the workers who directly coordinated services for, this social group (Table 1). Please note that photographs of the interior are not included in this thesis out of respect for protecting the security of the building and the occupants in their delivery of violence prevention services.

4.2.3. *Participants and Services*

The scope of this work covered three support services: the *Domestic Abuse Awareness Project* (DAAP), the *Domestic Abuse Prevention Programme* (DAPP) and *Leveraging Peer*

Support (LPS). These services comprised the core of my 12-month focused ethnography (January 2018 – December 2018), which was itself made up of 49 separate engagements with six staff members who worked at Mosaic/Orchard (see Table 1). These engagements included 26 group meetings within the main building, three design workshops with staff at my workplace, four focused group discussions with service users in local community centres, five one-day-long observations in the office and 15 observations and co-participations in service delivery (DAAP, DAPP and LPS) across community centres. Group meetings were hosted internally at Orchard/Mosaic and ranged from highly structured planning of upcoming services (60–90 minutes) to informal and relaxed catchups over coffee in which we reviewed delivery performance and perpetrator behaviours. If a support worker's time allowed, these meetings sometimes spun off into informal interviews or focus group discussions exploring issues that had arisen (45–130 minutes). Observation of and participation in perpetrator interventions were normally biweekly (3–8 hours) and gradually evolved from non-participant observation to participant observation as I began to lead group discussions and deploy interaction design activities. For the presentation of this work, I have used pseudonyms to refer to my collaborators, both to preserve their right to confidentiality and protect them from potential targeting.

Name	**Job Description**	**Services**
Carol	Head of Orchard/Mosaic, Jesmond (H)	DAAP, DAPP and LPS
Janice	Group Coordinator (GC)	DAAP
Anna	Junior Project Liaison Officer (JPLO)	DAAP, DAPP, LPS
Karen	Support Worker (SW)	DAAP, DAPP
Jean	Support Worker (SW)	DAPP
Michael ('Mikey')	Therapist, Support Worker (T-SW)	DAPP
Service Descriptions		
DAAP	Domestic Abuse Awareness Intervention, two-day weekend course for ≤ 15 men on myths, facts, and realities about domestic violence	
DAPP	Domestic Abuse Prevention Programme, 26-week intervention	
LPS	Leveraging Peer Support, eight design workshops to create a peer support network for DAPP finishers	

Table 1: Names, Job Titles and Services of Study Participants

The sample of people involved in the study included 62 men involved in the DAAP, 19 men involved across the DAPP and 11 involved in the LPS, for a total of 92 perpetrators (Table

1). There is perhaps a slight over-representation of men in this study, as could be expected in the general population, as services for adults (over 18 years of age) offered by Barnardo's are gender-segregated and the organisation received a significantly larger referral rate of men-women (ONS, 2019). While there was the potential of including a small number of women who use force in this study, this introduced its own complications for two reasons. Women who use force, or 'women perpetrators', were described by staff as predominantly victim-perpetrators who leveraged violence as a means of self-defence (as opposed to control) against their perpetrator, meaning that the required language and approach to the intervention was distinctly different from the DAAPs. Secondly, due to the small number of women in the referral pathways, it had not been possible for Barnardo's to run an all-women perpetrator group for several months, meaning that one-on-one interventions were the only option; under these circumstances, my observation would be less appropriate owing to the need to preserve service user privacy.

4.3. Findings

In this section, I first present a narrative collation of my ethnographic field notes to better represent what a typical 'day in the life' of violence prevention work in Orchard/Mosaic looks like from the perspectives of both support workers and the perpetrators enrolled in their interventions. In doing so, I hope to provide an illustrative description of the practice that conveys how digital technologies intersect with the delivery of perpetrator work, and accordingly to provide a descriptive and analytical answer to my first research question. I then conduct a closer examination of the spaces that are or *could* be created by technology to open dialogue, as well as to support learning about violence prevention strategies and the formation of new obligations for perpetrators to desist from violence.

4.3.1. *A Day in the life of Orchard/Mosaic*

It is early morning when I tap on the window that looks into the Orchard/Mosaic office on Osborne Road. It's a damp, misty Tuesday, and I'm a little tired from the lack of sleep of the night before, but the brisk walk from my house in Heaton to Jesmond has served to nudge me awake. I spot Carol's blonde hair bobbing up and down slightly in time with her typing, likely a frantic response to an email using Barnardo's Secure Email Outlook. She's unperturbed until I tap louder, glancing around the room until she catches my eye and grins before disappearing. She unlocks the front door and motheringly ushers me into the office space, silently mouthing an offer of coffee over the sound of four support workers mumbling into landline phones and tapping their fingers against their desktop keyboards. I agree to coffee, then perch slightly awkwardly by the photocopier due to the lack of

spare desks, as a staff member has already swooped in to make a call from Carol's phone, appearing to relish the relinquished space. Nothing is wasted in this office. The photocopier whirs into life, making me start. Mikey, a recently graduated therapist, apologises profusely, almost to the point where I feel like he is exaggerating, and blurts out that he's in need of worksheets to prepare for his client. Mikey offers that applying the old-fashioned paper-based methods make it easier to ensure that his client is, in his words, 'doing the work properly'. Before I can ask him what he means by this, he moves swiftly into the hallway, where his client is waiting for one-on-one work.

It's just hit 09:00AM, and soon the office is alive with the sound of incoming emails from a variety of agencies, including courts, police, health agencies and other domestic violence services requesting or reporting information on clients. I hear snippets of conversations but attempt to avoid focusing on specifics out of concern for client privacy. Carol pulls up a stool for me by her desk and looks me right in the eye before dramatically frowning and revealing that she's about to write a very tough email to a probation officer about potentially pulling a man from the programme. She shares that a man on the programme has been showing improvement in his moods and attitudes; despite his insistences in the programme, however, his victim-survivor is telling another story. Carol recounts that she frequently must 'play detective', teasing out who said what to whom and why, and more importantly, whether there is a problem with a perpetrator attempting to collude or manipulate the service. It's times like these where she must use her professional judgement, experience with perpetrators, empathy for the victim-survivor and whatever information she has available to assess whether someone is progressing on the programme. For this man, being pulled from the programme will mean he remains on the child protection list that she updates within the client's case file in Barnardo's secure systems, subverting his original motivations for completing the programme. It appears to me that evidence of change – or at least the lack thereof – holds a lot of weight within those systems.

At lunch, I take a walk around Jesmond. As I do so I find there is something jarring about going from discussing how a perpetrator recently put one of his victim-survivors in intensive care to examining the lunchtime offers in Waitrose. The mundanity of violence, as it were, although of course it's anything but mundane to those being subjected to that behaviour. After lunch I join a meeting in the Daisy Room with Carol, Janice, Anna and Karen to design the digital feedback form required for the DAAP; the form asks attendees what they have learned from the intervention and their thoughts regarding potential

improvements to service delivery. The atmosphere in the room is palpable, a mixture of curiosity and excitement along with a paradoxical sense of disquietude. While Anna easily adapts to the SurveyMonkey interface I am demonstrating, and readily compares it to other technologies she has used before, I sense a reluctance in Karen to have a hand in designing the survey. Karen shares that she has a long history of raising ideas for digital activities that cannot be resourced by Barnardo's, whether financially or due to lack of labour availability; as such, they learn to make do with what they have. As if on cue, our chat is temporarily disrupted by Jean, a support worker who is expressing her frustration in being unable to locate an important USB stick that acts as a digital store for intervention activities. The team frequently uses USB sticks for non-sensitive digital resources such as educational videos, despite being discouraged from doing so for security purposes, out of familiarity and the ease with which they can be transported from one location to the next for service delivery. Anna, well-versed in Barnardo's secure storage functionality, describes this workaround to me casually, providing examples of how flexible on-the-ground service delivery needs to be due to cancellations and room changes.

By the time the evening rolls around, the large Rainbow Room has cleared out and needs to be set up for the evening's domestic violence prevention programme, which eight men are expected to attend. I assist Carol in arranging the chairs in a circle before moving the projector and its screen through the double doors from the Main Office, as the small TV normally used for these sessions is reportedly 'on the blink'. Gradually, one by one, several men enter the room, sit down, and engage in casual conversation with each other before Carol does a headcount. After identifying those three men are absent, she moves next door to contact them. One attendee offers to instant message one of the missing men. Carol and Mikey quietly agree to change the format of the session from group activities to a group discussion due to lower than expected numbers. Just as one of the missing men appears, the session starts with a 'check-in' that asks each man in turn to report whether they had used a Time Out that week. Two men report that they had used the crisis management tool but disclose vastly different interpretations of how it should be used, with only one man applying it 'appropriately' according to Mikey. Mikey then moves next door to print out a timeout plan when the man again requests guidance for using the tool. This week's session is themed around understanding men and masculinity in modern society; to this end, Carol and Mikey screen the short film 'We Believe: The Best Men Can Be' by Gillette, first aired in January 2019 (Procter & Gamble, 2019)*. The clip is less than two minutes long but incites and informs the discussion for the following two hours, being consistently referred to both positively and negatively by the attendees. Five men identify*

similarities in their own behaviour with the use of verbal abuse by the men in the clip, while another three argue that they are 'completely different': this prompts calm but firm disagreement from the rest of the group. One man ventures that it is challenging for men, in his opinion, to be always cast as 'the bad guy', and that he struggles to see himself as such, even though he then verbally acknowledges his abusive behaviour when prompted. Two men notably take a back seat in the discussion, and Carol and Mikey direct questions at them from time to time to ensure they are included and participating in the session.

After the session has concluded, an older man waits in the hallway for a younger man to pick up his things before driving him home. Carol informs me that the older man has taken on a 'father figure' role for the younger, and that it could be reassuring to see friendships form within the group. However, she also reports keeping a close eye on such relationships to reduce the risk of undermining the session's content through collusion. One man stays behind to question Carol about his mid-term report, which he is intending to show to his probation service. In response, she agrees to call him the next day once the report is complete.

4.3.2. ***Reflections***

The above vignette describes a typical day for Barnardo's in terms of the activities involved in managing perpetrators of domestic violence, as well as some of the experiences of service users who were participating in interventions during my observation period. In this description, technologies were roughly evenly split between use at a staff level (such as the collation of digital resources on USB sticks) and at the staff-service user level (where technology served as a core entity in the intervention sessions). Although, for this thesis, I am most interested in exploring the staff-service user level, I briefly wish to address two important concerns expressed by staff members regarding technologies in this space: the equation of digital systems with an increased workload, and the requirement for the technologies to be portable, adaptable, and flexible. During my time at Barnardo's, it became immediately clear that staff members were already mired in significant and lengthy engagements with large digital systems that were frequently too inflexible to match their rushed schedules or accommodate last-minute changes. Digital resources that were used as part of service delivery had to be easily transportable between support workers and physical locations due to the rapid changing of rooms at the hub for different services, such as Tracey and her use of USB sticks. However, technology also served as a flexible means of responding to a sudden change in service delivery, such as in the case of two men who did not show up to the

DAPP hosted by Carol and Mikey, causing a change in the lesson's content. In this way, technology in this space should be able to adapt to contextual changes quickly and flexibly to accommodate last-minute changes to delivery, such as a sudden drop in participant numbers.

Additionally, I recognised that technologies need to reduce the amount of – or, at the very least, not add to – the administrative work performed by the staff. Although this is a common recommendation for most research partners in HCI (Marshall *et al.*, 2018; Strohmayer *et al.*, 2018), in line with other studies, I found this was an especially acute concern within Barnardo's, where the workload can often already be barely manageable (Westmarland and Bows, 2018). I quickly realised that if I were to impose my perspective on how responsibilities for prevention should work in this space, I could run the risk of inadvertently creating more responsibilities for the staff members within it. Nevertheless, there are clear tensions between the ease of 'evidencing' an individual's journey through their services and the nature of implicit desistance from using abusive behaviours.

4.4. Grounded Theory Findings

Next, I detail the results of my constructivist variation of grounded theory analysis of the observational data, focusing on what *role* technology played within the delivery of perpetrator interventions to achieve the organisational goals of increasing victim-survivor safety and supporting perpetrators to reflect on their behaviour. I achieve this through the presentation of vignettes from my fieldnotes, in line with other ethnographies in the HCI context (Clarke, 2015; Marshall *et al.*, 2018). These reflect one of many representations of my identified categories. In the open-coding and axial coding stages, I established four primary categories representing important spaces of practice for how technology was used as part of work with perpetrators. During the selective coding stage, I identified an encompassing primary concept that tied all these categories and observed practices together: *responsibility*. I further observed through my focused ethnography that Barnardo's appeared to leverage technologies most frequently when engaging men in highlighting their duty to deal with something (such as communication skills or emotional regulation), creating new, positive roles for themselves (e.g., as a peer mentor) and acting independently of Barnardo's outside of and beyond the interventions themselves. I shall return to the concept of responsibility after looking at spaces of practice and demonstrate how these concepts fit together.

4.4.1. *Self-Awareness and Perspective-Taking*

Ensuring that a perpetrator of domestic violence takes responsibility (i.e., acknowledges their role in causing and accepting blame) for their abusive actions was an important first step towards change for the staff members across my study. In a meeting with Karen, she underlined the importance of getting men to acknowledge their part in causing their abuse to me in more detail:

> **Karen [SW]**: *"… until they [perpetrators] take responsibility for the harm they've caused by genuinely looking at who they are and what they've done, then they can't work towards real change. It has to start with you."*
>
> [Fieldwork Diary 1, Note #52]

Karen's comment informed me of two things. First, she perceives that any change in behaviour must be predicated on perpetrator self-awareness; second, she believes that without this process or outcome, a 'real' change in their behaviour cannot be achieved through the service delivery. As such, I saw Karen determining that the perpetrator must take responsibility, and that it is the service provider that then determines whether this has taken place, by identifying core differences between what is perceived to be genuine versus superficial change in a man's behaviour. I noticed that the most common way in which Barnardo's workers sought to encourage this to happen was through the creation of social and physical spaces of self-reflection in the context of group or individual therapy conducted in on-site sessions at the hub. In these spaces, men were guided through activities that were theorised as necessary steps in a change process, then questioned to assess changes in their awareness of and motivations for their violence towards others. A clear reflection on the self when dealing with abusive behaviours proved difficult for many of these individuals, and I witnessed both positive and negative responses from the men in their attempts to engage in self-awareness. I also observed the workers reflecting on moments where they believed technology had played a role in a perpetrator's self-realisation that they had been abusive to their partner:

> *During a review session for the DAAP, Anna* [JPLO]*, Karen* [SW]*, Janice* [GC] *and I were critically reflecting on the different activities used across the day. One activity involved exploring the different facets of domestic violence through the Power and Control wheel, which listed all the different tactics that abusers use to coerce and control their victims. This digital graphic was projected onto a whiteboard, and Janice reflected on the impact this had on a participant during a discussion. 'You could see it, the look on his face that the penny had dropped when*

he read some of those tactics. I bet he was thinking 'shit, I do some of those', because he started to quieten down from denying everything like he was at the start'.

[Fieldwork Diary 1, Note #6]

As this extract from my fieldnotes indicates, Barnardo's uses a bank of digital materials (similar to Jean's USB in *A Day in the life of Orchard/Mosaic*) to educate, engage and then challenge men around their understanding of domestic violence. Digital resources within this group session were used to promote self-awareness around identifying causation of abuse by comparing one's own behaviour with that described in the examples provided via digital projection. Janice here directly ascribes a man's moment of realisation and recognition of his abusive behaviours to the use of the digital projection of the *Power and Control* wheel (Pence and Paymar, 2003).

The 'time-out' technique is taught within domestic violence prevention programmes as a temporary interruption technique, which instructs a perpetrator to physically remove themselves from their victim-survivor(s) for a period to reduce the likelihood of abuse. It is a widely-used tool across many domestic violence organisations due to its emerging evidence base, along with its explicit rules on what is and what is not appropriate during their time away from situations where they may have chosen to use physical violence (Wistow, Kelly and Westmarland, 2017).

During a therapy session with the lead care worker Carol [H]*, Max, a man who had just started a 26-week course, was recounting his previous abusive behaviour. When prompted to explain how he responded in the immediate aftermath of abusive sessions with his partner, he gave an insight as to the ritual he performed:* ***Max, DAPP****: 'So after, something would happen, I'd go upstairs, out the way and sit on the end of my bed, do a 'time out' … and like, I'd scroll through my phone, scroll to look at something to … I dunno just get away from it. You're not meant to, avoidin' yerself and that, but I couldn't help it'*

[Fieldwork Diary 3, Note #108]

This vignette, taken directly from my fieldnotes, suggested to me that Max uses his personal device to actively avoid rather than enter the space of negotiation around his own responsibilities. Max avoids contemplating his behaviour by positioning his phone to escape responsibility for the situation and his abusive behaviour. Although he is aware of violating

the rules for time-out by '*avoidin' yerself*', it appeared clear to me that, if not carefully managed, technology can provide (and in this case already is providing) the means to circumnavigate enforcing positive behaviours.

4.4.2. *Acknowledging the Extent of Harms*

As well as having to accept and be aware of their behaviours toward themselves, within all interventions in Barnardo's, men are also required to consider the impact of their behaviour on others. Given that domestic violence frequently (although not always; (Hattery, 2009)) takes place in the home, 'others' typically includes the man's ex- or current partner, children and immediate family members. In meetings with Carol, I discussed with her how the men handle discussions regarding family members, particularly individuals whom they are forbidden by court order from contacting:

> ***Carol* [H]**: *'It's tough because the men frequently go from being undeniably abusive partners and fathers, but partners and fathers all the same, to being … well, cut off from those roles. No calling for a chat, texting a reminder to pick the kids up, messaging support, sharing a funny photo – absolutely nothing with technology.'*

[Fieldwork Diary 2, Note #63]

Carol lists several ways in which the relationships the men once had before the domestic abuse had been identified were 'cut off', with the intended purpose of providing the victim-survivors with further protection. While she made clear to me in discussion that followed that she was not criticising this approach, she seems to acknowledge in her account that digital communication is to be expected between partners, and that the everyday forms of contact afforded by technology are no longer accessible to the perpetrator under these circumstances. This frequently meant attempting not to re-traumatise their victim-survivor by reducing face-to-face and digital contact. In a later fieldwork session, one perpetrator, Sandeep, goes into more detail about this rejection of technology:

> ***Sandeep, DAPP:*** *'So she [victim-survivor] sent me a friend request on Facebook, wanting to reconnect like we always do on a Sunday afternoon after the separation … it would have been a good opportunity to talk things through with her, but it's not worth putting her through that again. It was painful, ignoring the person you've spent the last ten years of your life with, but I didn't want to hurt her again, so I ignored the request.'*

[Fieldwork Diary 3, Note #192]

This illustrates Sandeep's awareness of how his responsibilities to his ex-partner have changed through digital means: going from arranging a meeting ('*like we always do*') to acknowledging the potential of this process to now cause pain ('*I didn't want to hurt her*'). Technology here reinforces those duties that Sandeep now has not to cause harm, but also problematises this, as it seems to serve as a reminder of the duties, he once had towards her as her partner. In this way, despite using the same technologies, the change in context means that he now gleans different meanings from similar or identical interactions around responsibility.

To ensure that perpetrators take children and the impact of abuse on them into account, Barnardo's courses frequently used the method of *perspective-taking*, which involves viewing a situation from the perspective of another person affected by violence to encourage building empathy and emotional understanding. This technique was regarded by all staff members as a good way to remind the men of their past, as well as enabling them to consider their present and future responsibilities for their behaviour as a partner, a father, a family member, and a responsible person. Keith discussed how the activity of typing up a message intended for his daughter reminded him of how his abusive actions had an impact on her:

> ***Keith, LPS:*** *'When I was typing out that letter on the computer in the library, from what me daughter would want to send to me if she could, I just … lost it, it's truly the hardest thing I've done in my life … knowin' I've done that much damage. Typing that has really made me consider how many dads would be typing that…'*
>
> [Fieldwork Diary 3, Note #199]

Here, Keith imagines a normative responsibility or duty of what fathers should be to their children and uses this to draw a comparison with his own actions ('*I've done that much damage*'). From this, I observed how the use of a simple Word document and the basic task of letter-writing had a profound impact on Keith, prompting him to reconsider his role as a father in comparison to other fathers ('*how many dads would be typing that*').

4.4.3. ***Providing Support and Community***

Unless otherwise specified (for example, for reasons such as extreme anxiety or language barriers), men were encouraged to take part in weekly group therapy interventions consisting of around eight to ten men. As many of Barnardo's courses are discussion-based, this was intended to provide a space for men to disclose their experience of violence, as well as to form positive bonds of friendship with other service users within the charity (*A*

Day in the life of Orchard/Mosaic). In this section, I pay specific attention to how Barnardo's and the men they worked with used technology to invite adoption of a positive focus on responsibilities towards change and to challenge negative avoidances of responsibility through peer support and mentorship. Fostering this environment of experience-sharing and peer support required much encouragement and careful activity design by facilitators, as therapist Michael shares in the vignette below:

> *Following a very highly attended design workshop, I approached one of the co-facilitators to inquire about the reason for the high numbers. After thinking for a while, Michael* [T-SW] *responded: '… our role as therapists is, is to not only get them to be responsible and honest to us but to be responsible and honest to each other through sharing experiences … as we design activities for them that have meaning and use beyond the session. The shared playlist activity where they're each tasked with selecting a song that represents their journey is one of those, and the men can listen to it whenever, wherever they want for when they've slipped, or for when they want to remind themselves of how far they've all come together'.*

[Fieldwork Diary 3, Note #14]

Here, I want to draw attention to the fact that the facilitators have identified the importance of developing group activities – in this case, the curation of digital content that directly involves each member of the group ('*each … selecting a song*'). Within this task, not only is contributing to the activity regarded as important, but what the playlist comprises and signifies is also understood to be important after the programme is finished, as it is a marker of change experienced through Barnardo's. Michael underlines that the use of the shared playlist serves both to reinforce positive behaviours in cases '*when they've slipped*' and as a reminder of their responsibility to independently reflect on the reformation of abusive to non-abusive behaviours. At a later session, Gary confirmed this during a follow-up session:

> ***Gary, DAPP****: I'm on the road a lot so I stick it on when I'm feeling low about myself and my history. Since I got the others on Spotify it's a bit funny as I can see who's been listening to it recently, so I can see them taking what we've done together seriously.*

[Fieldwork Diary 3, Note #192]

Gary's actions illustrate how something as simple as a playlist can both combat his low mood and enable him to check the actions of the other attendees after the course is over (*'can see them taking [the programme] seriously'*). Whether the other men know this or not, Gary shared with me that he had placed himself in a position where he behaves responsibly in realising when he needs to listen to the playlist. This account further shows that he is also judging the other members of the groups' attitude to taking '*what we've done together seriously*' by assessing whether others are also behaving responsibly. This position of responsibility that men adopt concerning other men also takes on other forms, as perpetrator Dario illustrates when discussing the attendance of another man at the group:

> ***Dario, DAPP:*** *'I know [that] Ben struggles wit' gettin' up sometimes to come to group, so after our first meet he ask'd me to start Whatsapp'n him encouragement to attend. 'Course I'm happy to since he's not gonna change if he isn't here'.*

[Fieldwork Diary 2, Note #151]

This example illustrates how, for Ben, one motivation for change is channelled through entrusting Dario with the responsibility to instant message him for encouragement to attend (or to berate him for not attending) group therapy sessions. In this situation, Dario welcomes this new duty, expressing his understanding that without this digital practice, Ben is not '*gonna change*' his abusive behaviour because he will neglect to attend the group sessions. Through this description, I saw that Ben understands that his methods of ensuring responsibility to himself alone are not enough – indeed, these are something that he 'struggles' with managing. Instead, Ben has passed the responsibility and duty of ensuring his attendance to Dario, thus making himself responsible to another member of the group through instant messaging. From this account, I assumed that without communicative technologies to facilitate these exchanges between these two men, Ben's attendance may have been impacted due to the lack of this important duty and relationship.

4.4.4. *Being Accountable to Demonstrate Change*

Most men within this study were referred to Barnardo's social services through external organisations such as police and children's social care. As such, although some men had voluntarily enrolled in a course, many already had a negative predisposition towards being challenged on their behaviour. Facilitators at Barnardo's frequently alluded to what Anna described as the '*delicate balancing act*' of validating an external organisation's judgement

of identifying domestically violent behaviours while also making space for non-judgement within their own organisation.

During a group introduction with the DAAP team (Anna, Janice, Karen and Carol), the staff members elaborated on how relationships of trust and reliability were constructed throughout the course. This was done by setting the men tasks for self-reflection and encouraging them to contribute personal reflections to both the facilitators and other men participating in the group:

> *Janice* [GC] *explained that all perpetrator interventions within Barnardo's set individual work in the form of what the organisation termed 'homework'. 'It's videos and activities to reflect on themselves before the next session, and they deliberately get you to share something about yourself that you wouldn't normally do. That builds the bridge between them and us'. When I ask how the facilitators ensure the men complete their homework, Janice chuckled and responded 'We can tell when they haven't done it because when we ask them to share, they go all sheepish and quiet. [I] can tell you, they don't forget to do it next time!'*

[Fieldwork Diary 1, Note #18]

I observed that building responsibility and trust between a facilitator and a perpetrator takes place through the completion of 'homework', which consists of online activities and videos. Janice emphasised her belief that the men might develop a sense of responsibility to complete this homework, as they are then asked to share this completed work. While Janice stops short of shaming the men for not completing the work, she does state that they feel '*sheepish*', and that this is enough to encourage them to do it for next time.

Being concerned about upsetting or disappointing the facilitators with whom the perpetrators had built trust was a core concern for everyone involved in group work. Tommy, a man who had recently completed a perpetrator intervention, succinctly expressed this sentiment when I asked about his motivations for longitudinal change:

> ***Tommy:*** *''sal reet me sayin' that I'll change, but if Gina* [SW] *or Carol* [H] *get a phone call or an email from the police sayin' I've done something again … well they just won't trust me again, and I don't want that so I'm gonna ensure it doesn't happen'*

> ***Carol*** [H]*: 'it's not just about catching you doing it [violence], it's more than just an email or call though Tommy, as the police can't detect everything.'*

[Fieldwork Diary 2, Note #74]

Tommy's dedication to 'e*nsuring it [violence] doesn't happen again*' is directly supported by his concern about the loss of trust between himself and his care worker Carol. In this way, the role of a phone call or an email from an external organisation directly disrupts Tommy's reformation of his negative behaviours. Here, Tommy behaves in what he feels is a responsible manner to avoid external organisations (such as the police) from violating this relationship of trust that he has formed with Barnardo's. This concern for matching changes someone states that they are making or have made ('*sayin' I'll change*') and what they do ('*sayin' I've done something again*') is further explored by Carol's statement. In her response to Tommy's disclosure, she reminds him that this violation of trust can occur beyond a call or an email ('*it's not just about catching you*'), and that it is not enough to be responsible to external organisations.

4.5. Discussion

While prior studies have identified technology as a catalyst for further abuse (Freed *et al.*, 2017; Matthews *et al.*, 2017), I realised that a failure to scrutinise how technology was used *in everyday practice with perpetrators* represented a missed opportunity to support such organisations in the prevention of harm. It was only through close observation and analysis that I was able to record and report how Barnardo's were using technologies in their work practice with perpetrators: to help perpetrators reflect on their abusive past behaviour, provide the means to carve out new, positive identities in the present, and be accountable to evidence or account for change in the future. While I originally sought to gather a more operational description of what technologies specifically were being used with service users (e.g., desktops, emails), I quickly realised that this failed to get to the heart of why they were being used in the first place, or how they were being understood. Through my analysis, it became evident that each technology used within service delivery was being leveraged in relation to responsibility for understanding violent behaviours and applying an appropriate level of responsibility for changing them. From assigning homework to continuously working on self-reflection to creating activities that generate organic networks of support, there was a continuous return to a focus on the perpetrator and their behaviour. However, this form of responsibility in this context was less about describing what gaps exist, or assigning blame

(Lamb, 1999; Grimpe, Hartswood and Jirotka, 2014), and more about identifying further ways to navigate the complexities of these sometimes contradictory and unclear responsibilities to prevent violence.

4.5.1. *Technology as Surfacing Responsibilities*

Responsibility for the harms caused by perpetrators featured consistently across many aspects of my thick descriptions around technologies in this chapter; moreover, it is often the vehicle that enables moments of realisation around violence can take place. While there can be a desire to focus on understanding the '*consequences and reverberations*' of abuse (Grimpe, Hartswood and Jirotka, 2014), with or without digital means, I have been able to show that this is only one of four mechanisms I identified across my investigation. Abusive individuals demonstrate abusive behaviours that need to be challenged, reformed, and supported through a process that is identifiably difficult for the perpetrator, victim-survivor(s) and professionals involved. Through what Corbett et al. (2018) described as '*meeting people where they are*', I took this recommendation to mean that I was not only meeting civic actors physically in their workplace ('Orchard/Mosaic'), but also meeting the service users 'where they are' mentally on their journey for change. By this, I do not mean to excuse domestic violence as responsibility for the individual alone to resolve, but rather offer this as a motivator for us as designers to support attempts to challenge and change abusive behaviours as they occur.

Technologies present within my descriptions demonstrated themselves as processes of re-negotiation, self-realisation, and adoption of new duties over time, typically with professional intervention. Just as *responsible design* aims to design systems that cannot be easily misused or abused (DiSalvo *et al.*, 2011; Hoven, 2013), within this space, we also must come to view designing for responsibility as an independent aspect of system design in order to see how technology might be leveraged to encourage the development of non-abusive behaviours. These descriptions stand in stark contrast to conventional approaches in responsible design, where most discussions of responsibility are conducted from a top-down and criminal justice-focused perspective, one that is notably punitive and hierarchical (Dourish, 2010). Although rejecting a victim-survivor's request on Facebook could in some cases be abusive, for Sandeep it was a way of demonstrating responsible behaviour in acknowledging the harms he could cause his partner. Just as technology can be used as a channel of abuse, it can also be acknowledged as a key space in which to enact responsibilities ('*no calling for a chat … absolutely nothing with technology*'). As such, I suggest that designers and practitioners, in addition to designing

to mitigate potential misuse, consider what responsible behaviours they wish to encourage through their technical designs.

4.5.2. *Embracing and Accounting for the Mundane*

The accounts that I present here, along with my reading of them, demonstrate that Barnardo's is already making use of basic (and arguably even mundane; ((Dourish *et al.*, 2010) but still meaningful digital tools and systems with reference to their understanding of their values, work and responsibilities as an organisation and as individuals: namely, working to reduce and prevent harm to victim-survivors. This focused ethnography demonstrates how access to and use of basic technologies, such as word processors or WhatsApp groups, have the potential to generate important spaces for talk, reflection, and education for perpetrators of domestic violence. Although I have focused my attention on a detailed look into a single third sector organisation, delving into the corpus of other work on this topic (Marshall *et al.*, 2018; Clarke *et al.*, 2019) has led me to believe that this work does represent an accurate picture of the practices implemented in a resource-poor third sector context, where organisations continuously struggle under the weight of economic austerity. In reflecting on these accounts, while the lack of sophisticated technologies or technological processes did indeed represent a contrast to the technical environments to which I am traditionally accustomed as a computer scientist, I did not find this to be a deterrent to taking stock of what I had to work with and progressing from this point. Indeed, I was motivated by a comment made by Strohmayer et al. (2017) regarding their work with another third sector organisation: namely, that '*small changes to the materiality of mundane technologies*' can generate an enormously positive impact for those reliant on those technologies, particularly those groups typically excluded from mainstream design. For example, I foresaw that the small addition of a digital reminder encouraging Max to perform his time-out correctly (with instructions), or at least providing an appropriate nudge before a time-out was necessary, could have had a more constructive influence on his behaviour. Although I have discussed the potential challenge of 'noticing' such everyday technologies, which feel so familiar that they escape the attention of designers and participants, I believe the use of so-called mundane technology to be especially important in this environment to create and form a holistic impression of technical service delivery in this sector. It is important to note that such a longitudinal engagement with an area for design may not be necessary in all circumstances for violence prevention. However, the careful unfolding of challenges and opportunities that technologies may provide over a long period of time, with the aid of service professionals, can be a real asset to shaping safety-informed systems and tools.

4.5.3. *Designing for Responsibilities*

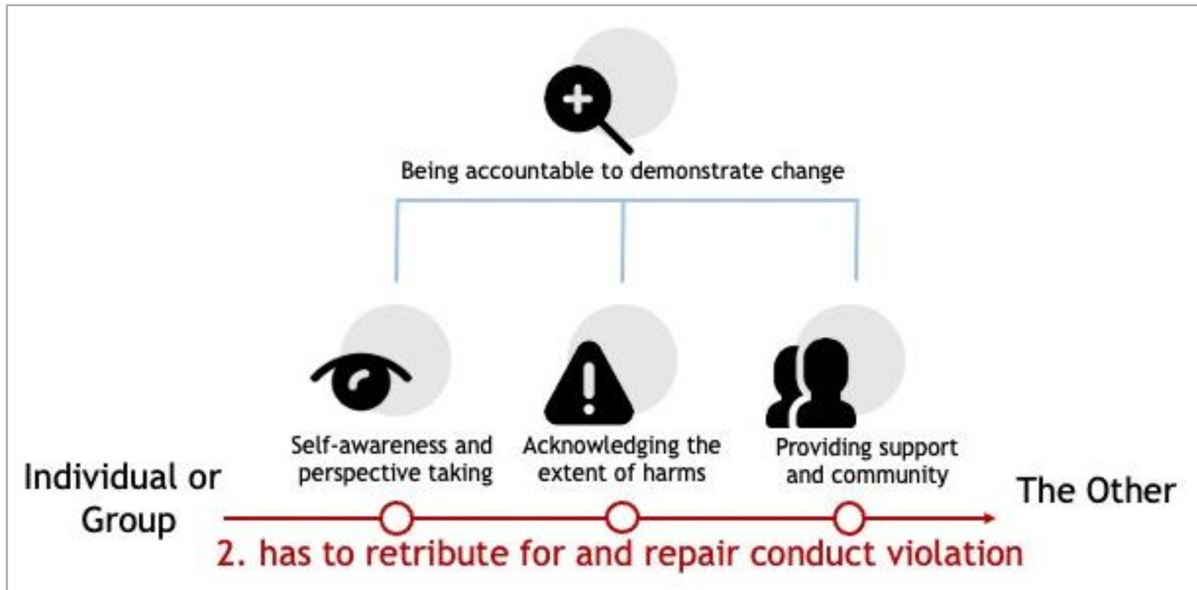


Figure 10: Process of Mechanisms of Moral Responsibilities for Violence Prevention

As previously highlighted in *Chapter 2* of this thesis, HCI has not yet come to view domestic violence as a problem rooted in behaviour rather than one to be framed more broadly as a problem with individuals who present a security risk to victim-survivors and their devices. It is at this personal level that I identified how this lacuna in understanding might be filled through the identification of important ways in which existing practice is already being used to try and reinforce positive change in behaviour and self-management. According to my observations, these spaces did not remain fixed for the same men that I interacted with across the year, as there was a notable shift in the way in which technologies were used in relation to what 'stage' of change they were at. For men who were at the initial stages of change, presenting the greatest amount of resistance (such as denying, minimising, and blaming others, as described in my account in *Fieldwork Diary 1, Note #6*), technical activities focused on self-awareness of abuse, perspective-taking and acknowledging previous inflictions of harm on others. Men who were at the later stages of interventions leveraged technologies in different ways, such as being responsible to a peer-support network or seeking to continue maintaining their change in behaviour to sustain their relationship of trust with support workers. I believe that this use of technology is intriguingly in accordance with how practice shifts from being retrospective (in scrutinising past patterns of abusive behaviours) towards supporting and facilitating present and future non-violent behaviour within intimate partnerships (Gondolf, 2004). Working with the four prominent categories derived from my grounded theory analysis, I illustrate here how this thesis intends to investigate these categories further as avenues offering new opportunities for violence prevention (Figure 10).

This approach involves identifying the connections between the mechanisms that surface within the analysis of my focused ethnography, ones that I identified as not manifesting simultaneously. As Figure 10 shows, one space for negotiation may be dependent on another being navigated, in a somewhat chronological fashion across the space of an intervention. For example, it would be questionable that a perpetrator could *acknowledge the extent of harms* without first developing a level of *self-awareness* of their own behaviour and its role in causing the harms. Additionally, to provide positive *peer support and community*, a perpetrator must (even if superficially) be able to share their reflections on their behaviours and the harms caused in the context of moderated interventions within Barnardo's. The mechanism that does not fit as neatly within this chronological process, however, is that of *being accountable to demonstrate change*, which was arguably manifest across all intervention stages. This is due to the fact that perpetrators of domestic violence bear the weight or the onus not only of answering for their behaviour, but also for seeking to repair, rectify or correct these behaviours in response (Smith, 2015). Thus, attending, participating and/or interacting in any way with Barnardo's necessitates that perpetrators be accountable or 'answer' to the individuals within that context (Shoemaker, 2011). There is accordingly an inherent tension within any tool introduced to support pathways to non-violence: namely, that this tool must work to support perpetrators both in changing abusive behaviours and in *demonstrating* this change to individuals within and outside Barnardo's. With this process in mind, my subsequent three data chapters seek to design, develop, and deploy technologies that address each of the three process mechanisms in turn, while also evaluating the extent to which such tools can be used to permit or actively encourage men to become able to demonstrate change in behaviour through their use.

4.6. Chapter Summary

This chapter lays out a detailed description of Barnardo's working practice by means of a focused ethnography of the role and use of technology in the delivery of interventions with perpetrators of domestic violence. Through this chapter, I contribute a descriptive and analytical account of the violence prevention work in action performed by Barnardo's in their work with perpetrators. This account has highlighted the critical points for how technologies can be responsive to support the responsibility work undertaken by the practitioners while also being mindful of their administrative practices. I have also provided a set of insights and spaces in which technology is already supporting efforts to re-educate and support perpetrators through the process of changing behaviours: forming

new responsibilities through self-awareness and perspective-taking; acknowledging the extent of harms; providing support and community; and continuously being accountable to demonstrate change. These spaces of practice highlighted by my focused ethnography have helped to guide a deeper process of inquiry conducted in the following investigations into technologies within this space.

Chapter 5. Choice-Point: Fostering Awareness and Choice

5.1. Introduction

In the previous three chapters, I have focused on situating my upcoming digital systems within the prior literature, in the context of related social practice and HCI work (Chapter 2), outlined the methods adopted in each case study (Chapter 3), and captured a holistic impression of perpetrator management in DVPPs (Chapter 4). Chapter 2 highlighted the range of different skills, content topics and formats of DVPPs, and went on to discuss how these are delivered through multimedia systems in domestic violence support services. The overarching aim of the upcoming three investigations is to build on this methodological and conceptual guideline to further investigate how such services, which aim to rebalance personal responsibility for violence, might be supported with digital technologies.

In this chapter, I focus on how the first mechanism for moral responsibility for a perpetrator to develop and utilise their skills for *self-awareness and perspective-taking* by examining how a digital technology could facilitate the presentation of DVPP content around choice, agency, and perspective-taking within the context of complex social situations. This chapter describes how, learning from the process analysed in Chapter 4, and in collaboration with the Barnardo's team, I designed, deployed, and evaluated a digital system – Choice-Point – designed for use within perpetrator interventions with three groups of stakeholders in Barnardo's. Choice-Point is a bespoke web and mobile-based system that is designed to engage perpetrators of domestic violence through non-linear, interactive storytelling. Through the adoption of fictitious roles in each scenario, participants in the game can choose actions that affect the way in which the story unfolds. As an activity, it aims to improve a perpetrator's ability to see violent behaviour from a perspective that enables them to address and reject it (perspective-taking). This chapter first contextualises the design work for the first iteration of the system, illustrated through an overview of how fictional media and gameful systems have been used within HCI around sensitive topics. I then present the final system design through describing its core functionality and behaviour (software mapping, story, user interface). This is followed by a description of the investigation design, which involved three participant stakeholder groups: perpetrators, victim-survivors, and the Barnardo's support worker team. I then present my analytical findings and discuss the insights these provide, with a

particular focus on my second research question: *How might digital systems be designed and deployed in such a way that they redistribute responsibilities for violence prevention with perpetrators of domestic violence?* The investigation in this chapter was published and presented at CHI'20[5].

5.2. Background Literature

This section assumes the foundations from literature in Chapter 2 and highlights what is required for the specific undertaking discussed in the chapter at hand. This section builds on how digital systems and mechanics might facilitate understanding the choices and consequences of using violent behaviours against others.

5.2.1. *Simulations and Domestic Violence*

Exploring the role of individual choice can be challenging: if this exploration is not performed carefully, it may be misapplied to retroactively assign blame (*negative responsibility*; (Gotterbarn, 2001) and thus reduce motivation for change. As such, it is beneficial to use learning material in DVPPs of fictional or speculative nature that does not place an immediate focus on the individual perpetrator and their behaviour. This is particularly important at the start of an intervention when their resistance to change may be higher. Highlighting a clear separation between virtual and real events is particularly important to reducing traumatising and negative impacts from engagements with potentially upsetting subject material, such as violence. Games and processes with 'gameful' elements can be such an approach as '*players can engage in an artificial conflict, defined by rules'*, even if this conflict is relevant and close to the lived reality of the person using the system (Salen and Zimmerman, 2003). Huizinga's (2016) concept of a '*magic circle*' – a series of events taking place in a separate time and space – is particularly critical here when engaging perpetrators in discussion about a topic that is extremely close to their lived experience (Stenros, 2014).

Indeed, this degree of separation is very familiar to HCI researchers, as simulations of sensitive subjects designed to induce affective or motor learning rather than being simply for user entertainment have been a familiar topic in the HCI context for many decades. Such material has included real-world violence (Rizzo *et al.*, 2010; Mayr and Petta, 2013; Scholes *et al.*, 2014; Seinfeld *et al.*, 2018), child sexual abuse prevention (Scholes *et al.*,

[5] Rosanna Bellini, Simon Forrest, Nicole Westmarland, Dan Jackson, and Jan David Smeddinck. 2020. Choice-Point: Fostering Awareness and Choice with Perpetrators in Domestic Violence Interventions. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20). Association for Computing Machinery, New York, NY, USA, 1–14. DOI:https://doi.org/10.1145/3313831.3376386

2014), childhood trauma (Mayr and Petta, 2013), post-traumatic stress disorder (Rizzo *et al.*, 2010) and sexual harassment (Lieberoth, Wellnitz and Aagaard, 2015). As it would be unethical and illegal to perform abuse, violence and trauma within reality for training, education and therapeutic purposes, digital tools are consistently identified by many as providing ways to simulate these experiences (Almeida *et al.*, 2018; Boduszek *et al.*, 2019). In Chapter 2, I mentioned that domestic violence-related simulations played a major role in Seinfeld et al.'s (2018) exploration; here, the researchers placed state-convicted perpetrators of domestic violence in the United States into a virtual reality environment, in which perpetrators virtually inhabited the life-sized body of a woman victim-survivor. Within this scenario, a virtual perpetrator entered the scene, spoke, and gestured abusively, and progressively invaded the participant's personal space. Simply changing the perspective of the perpetrator within this environment was associated with an improved ability to identify negative emotions in others. However, this approach was used to determine the different empathetic responses between perpetrators and a control group, without engaging how the perpetrators felt about the experience. I felt like this work was a missed opportunity as interactive storytelling may facilitate the ability to learn of '*ways of being in the world*' including from the experience of other players (Tekinbas *et al.*, 2008).

5.2.2. *Second-Person in Interactive Storytelling*

Interactive storytelling has been praised for its capacity to provide players with the ability to replay historical events and engage in 'what-if' analyses of major social decisions (Brandt, 2006; Tashiro and Dunlap, 2007; Rice *et al.*, 2012). As such, players are engaged in a future-orientated, imaginary act and "*see through and beyond the screen and into the future*" (Atkins, 2006). However some scholars have cautioned that because players choices appear through computer computer-generated sensory stimuli (Davis *et al.*, 2003), that they do not have a tangible benefit within reality. Research has determined that these concerns are rooted in the very quality that makes interactive storytelling appealing in the first place: the distance between the locus of control and the individual engaging in play (Davis *et al.*, 2003; Bradley and Froomkin, 2004). While it is important to separate unreal and real events within gameplay, the distance between these virtual and physical spaces could also be too far to bridge, such that the result would not be meaningful to the player. Accordingly, drawing on existing research on first- and third-person perspectives (Bradley and Froomkin, 2004; Bayliss, 2007), situating such a narrative in the second-person perspective (pronoun: 'you') might aid in alleviating some of these concerns.

The second-person perspective here explicitly involves placing the player or user as a protagonist who makes choices that determine the character's actions and the plot's outcomes. Edward Packard's *Choose Your Own Adventure* book series famously exemplified this whose format had recently entered the mainstream of visual media (e.g., Charlie Brooker's *Bandersnatch,* which launched on Netflix in 2018). Adopting this approach may help to quell concerns that perpetrators might feel like passive spectators in a story about violence, as it would instead help them to be active actors by providing them with the opportunity to make key choices at certain moments of the story. This, in turn, allows users to construct a story in their own minds with reference to their own experiences, which can in turn generate a sense of personal presence in virtual space (Manovich, 2001). I saw considerable potential in this duality: attempting to engage perpetrators to acknowledge their choices within their own stories of violence towards others, while also clearly positioning the scenarios as fictional (albeit inspired by reality).

5.3. Contextualising Choice-Point

The Choice-Point design was created in response to the findings from three design workshops conducted with Carol, Anna, Janice, and Karen towards the end of my focused ethnography within Orchard/Mosaic. These workshops explored how staff members could increase the levels of participation within a perpetrator intervention programme (*Domestic Abuse Awareness Project*) in which fictional, educational material was shown within the sessions. The first workshop used prompts to explore how Barnardo's staff members perceived how technologies were being used for self-awareness (i.e., in public campaigns, e-learning courses) and where these could cross over with domestic violence interventions. Following this, the staff members and I sketched out six rough design concepts of how a digital system could facilitate learning about choice, agency, and perspective-taking. Carol theorised that if perpetrators could see 'what happened next' after engaging in an abusive behaviour, they might reconsider their actions. Through deliberation, both Karen and Anna identified that the most important feature of this concept was its focus on the moment of choice between violence or non-violence itself: a *choice-point*. However, Carol expressed her concern that asking what a perpetrator could have done differently in their past could be triggering and could also potentially 'shut down' new participants. Conversely, moreover, simply providing perpetrators with a fictional narrative to listen to and comment on had been trialled in a previous service and had resulted in perpetrators losing interest due to a lack of ways to engage in the story. Janice raised the suggestion that a digital system could help to improve the

interactivity of this approach, proposing the idea of building some gameful elements into the story as a means of also permitting the men to think about choice and approach. This excited the group, particularly when I suggested how digital technology could be used to augment how perpetrators engaged with the story: specifically, through enabling the selection of different options that could progress the story in different ways. At the end of the discussion, the team agreed that non-linear interactive storytelling could be a useful vehicle for delivering conversations around perspective-taking and choice.

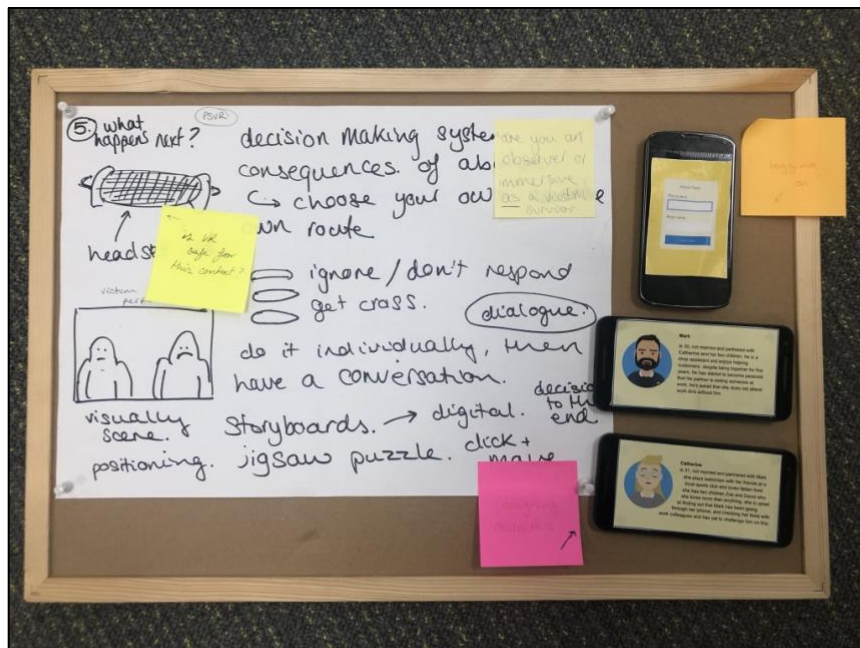


Figure 11: Sketch of initial system concept [Left] against paper prototypes that were used to facilitate discussion [Right]

The second design workshop was themed around an early version of the final prototype of Choice-Point (Figure 11), then called 'What Happens Next?' as this proved to be the most popular design idea. Paper prototypes were created that displayed its user interface and then attached to mobile phones. The prototypes were used by the facilitators to simulate specific scenarios, and the system was extended to include the display of the main system image via projector. The final stage involved the process of design critique, where staff members were asked to share their critical reflections on the user interface layout, choice of technology and use cases through the paper prototype. This design in progress was continuously discussed through wireframes and prototypes shared via email until I and the staff team were content to trial a pre-liminary design (Appendix B), where such changes were iteratively incorporated into the final prototype that is discussed in this chapter.

5.4. Trialling the Choice-Point System

The Choice-Point design process aimed to overcome some of the identified limitations of passively listening to a narrative story of 'what happens next', an approach that had been used in a prior Barnardo's service. The investigation had two main phases: an initial exploratory design and trial phase, followed by the launch of the final prototype, which would be evaluated by three service identities connected to the service that I discuss in this investigation. As mentioned previously (5.3 Contextualising Choice-Point), the exploratory design phase emerged as a result of two design workshops in which four Barnardo's staff members expressed interest in interactive storytelling centred around a fictional scenario involving domestic violence. In this original version, Carol was interested in the use of virtual reality (VR) as a means of simulating the experience; however, this was discouraged by the rest of the team due to the cost of the equipment and the possibility of inadvertently excluding participants if they were oversubscribed for the DAAP on the day. Instead, the projector, which Barnardo's already had available, was proposed as a means of visually presenting the progression of the story to all attendees.

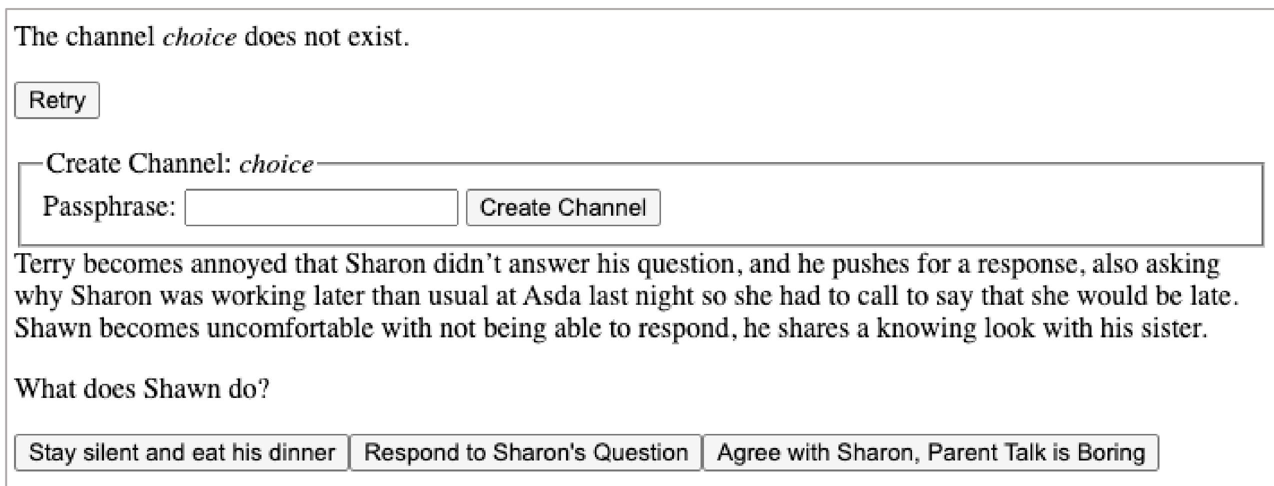


Figure 12: Screenshot of First Iteration of Choice-Point: A HTML-only Webpage

A trial version of *Choice-Point* was prototyped that leveraged HTML links to show the branching progression through the narrative. This version was tested with ten perpetrators in a related service (Figure 12). An analysis of the discussions and interactions with this early prototype highlighted various design features that needed to be improved or changed before the final prototype was implemented. One major concern raised by the facilitators and some of the perpetrators was the lack of actions for someone who had not been assigned a role to perform, as they would be relegated to the role of passive spectator. Moreover, once a choice had been selected, there was no time in which the facilitator could engage the wider group in a discussion before the story progressed, defeating the purpose of the activity. As such, a voting function (explained in more detail

in 5.5.2 Character Roles and Voting) and the ability for the facilitator to control the flow of the activity (5.5 The Choice-Point System) were included in future versions. A full description of this initial trial can be found in Appendix C. The following sections now detail the second part of the Choice-Point project, initially describing the design of the final Choice-Point prototype before moving on to describe the investigation design and how it was used to further elicit opinions from facilitators, victim-survivors and perpetrators on perspective-taking, choice, and agency.

5.5. The Choice-Point System

Building on these suggested changes, the final Choice-Point system functioned as follows: facilitators of the perpetrator intervention started a session on their work laptop, now identified as the *host*, and could control the flow of the narrative through pausing and progressing the story. Each perpetrator could either directly select (if playing a character) or vote (if engaging as an audience member) as to how they wished their character to respond; the facilitator then confirmed this choice and progressed the story via their host machine. The facilitator's ability to respond to the choices of the group was implemented to ensure that the activity remained collaborative, but that they still possessed the functionality to pause the activity if the material became too emotionally taxing for a participant. The system itself is built on Twine[6], an open-source tool for creating interactive fiction in which each story divides into multiple passages with conditional text, images, and links to other passages. However, Twine generates web pages that only work for a single user, and thus did not directly meet my requirements. In order to benefit from the existing Twine authoring tool, I chose to extend the syntax of the underlying .Twee (Twine's file type) files to allow individual passages to be associated with a character. I worked alongside Daniel Jackson to develop our own implementation of a Twine story player that would support this extension and multiple, simultaneous users. The Choice Point software is a website with a mobile-friendly interface and a server back-end that supports multiple concurrent groups and users. The site maintains an active real-time link between the participants within a group, allowing the state of the story to be shared.

5.5.1. *Story*

Barnardo's had already authored a story about 'what happens next' within the context of a domestic environment from the perspective of four family members. However, as this

[6] Twine, Open-Source Tool for Interactive, non-linear storytelling. https://twinery.org/

was a linear narrative where the story did not deviate dependent on choice, it was necessary to considerably extend this narrative for the final system. Additionally, a key detail – a scene in which one of the characters physically assaults another with a pan lid – was removed due to concerns about attempting to engage men in thinking about violence that did not need to have a physical element to it. I used the original story as a basis to author an extended non-linear version of the original 'what happens next', then responded to and incorporated feedback from the team around suggestions and alternations. Facilitators noted that their suggestions were inspired by many real (albeit anonymised) experiences of previous service users. As such, the final version of the story reflected a synthesis of essential concepts taught across the course; these included identifying trigger points, perspective-taking, and non-violently navigating complicated social situations. Initially, the team and I were interested in representing a more diverse range of relationship types, sexualities, and genders. However, a core constraint of the Barnardo's service contract was that the perpetrators enrolled in the course had to be men, have inflicted harm on victim-survivors who were women and either be currently or have been previously in a heterosexual relationship, to reflect the majority of cases in the UK (ONS, 2018). We agreed to ensure that while our narrative would present a man in a heterosexual relationship, we could adapt the system to fit other lived experiences of perpetrators in other groups. Facilitators were also keen to ensure that the story within Choice-Point contained repeated references to prior abuse; this was to acknowledge that patterns of domestic violence frequently formed a '*constellation of abuse*' (Dobash and Dobash, 2004), and should not be treated as a 'one-off', as the latter is a tactic used to minimise abusive behaviours (Romito, 2008).

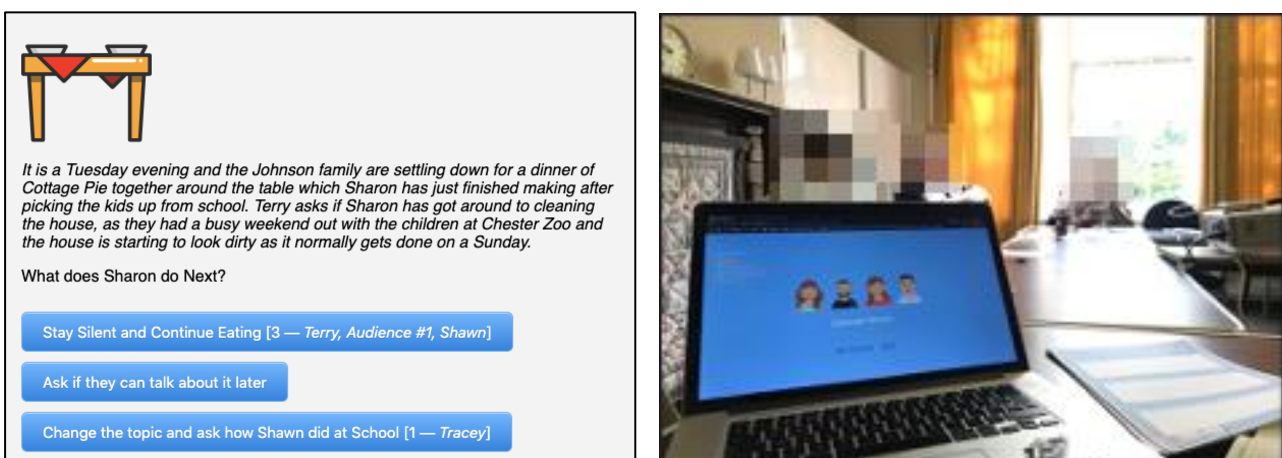


Figure 13: [Left] Mobile view of Choice-Point with one of Sharon's 'choices' displayed. [Right] Other characters and audience members have cast their votes for two of the three different options.

The final scenario follows the Johnsons – Terry (33, man), Sharon (31, woman), Tracey (12, young woman) and Shawn (8, young man) during a family mealtime together. Tensions have been rising due to economic and psychological pressures on both parents, and Terry begins to verbally degrade Sharon over domestic chores in front of their two children. Depending on the choices made by the participants throughout the story, this incident can eventually conclude in one of several different endings. A full transcript of the Johnson narrative can be found in Appendix C.

5.5.2. *Character Roles and Voting*

The Choice-Point system also facilitated the uploading of any non-linear stories that are stored in the .twee file format, where the names and number of active characters within the story are pre-assigned by the author. Within this deployment of Choice-Point, there were four roles within the story that enabled four participants to play the parts of Terry, Sharon, Tracey, and Shawn. These roles are selected at the start from a drop-down menu and remain fixed for the duration of the narrative. Passages in the story were designed to prompt players within the story to decide on their choice of action (e.g., 'What does Shawn do?'). To simulate the embodied, second-person nature of specific roles within the story, when verbally selecting an option in character, each participant had to begin with *'I am [Terry/Sharon/Tracey/Shawn] and I would…'*. Facilitators were also able to invite participants who had not selected a role to participate as anonymous audience members who could vote on their preferred mode of action through their mobile device. The distribution of votes is then revealed by the host machine once the participant responsible for that point in the story has selected an option. This flexibility was added since each intervention with perpetrators needed to account for a consistently varying number of attendees on the day; thus, I directly designed for this uncertainly in Choice-Point.

5.5.3. *Choices*

Each participant could be assigned a character role within the story as one of the family members (Terry, Sharon, Shawn, or Tracey), who have the option of choosing how the story develops. Changing the path of the story could be accomplished by selecting one out of three to five choices, which are revealed incrementally as the story progresses. A particular combination of choices would result in the selection of discrete pathways through the narrative, culminating in one out of seven unique endings that concluded the story. Each choice was allocated a hidden semantic rating: these ranged from 'very positive', including the most socially condoned responses (active listening, apologising), to the very negative, including abusive and other behaviours that were discouraged by

the intervention (intimidation, physical abuse). Neutral options that demonstrated neither considerate nor inconsiderate behaviour were also available.

The positive-negative nature of the choices had a direct impact on what choices the following character would have available to them in the remainder of the story. Positive choices permitted other players to have a wider variety of options, while negative options directly restricted these options. The reasoning behind this was to reflect the nature of coercive and controlling behaviours, which can be best identified through the associated loss of choice, rather than the experience of overt demonstrations of abuse (Hart, 2018). For example, if Terry intimidates and threatens Sharon, the choices his children had for the rest of the evening through the interface become greyed out and inaccessible. In this case, Shawn, because of being scared to leave his mother alone, no longer feels confident to leave the house and see his friends.

Within the system, we selected particularly critical choice points for the participant playing Terry at choices numbers 1 and 14 to demonstrate that the perpetrator could change the tone of the story (Table 3). Choice 1 (as shown in Figure 13) presented Terry with the option to either react to frustration about domestic chores or ask his children about school. Similarly, Choice 14 gave Terry the opportunity to motivate and support Sharon, apologise for prior behaviour, or continue to intimidate or abuse her and lash out at the children. After the Choice-Point activity was completed, the quantity of positive, neutral, and negative choices was totalled, and one of seven endings presented. The type of ending ranged from a rewarding one, in which all characters achieved a state of stability and proceeded to watch a film together (Very Positive), to one with significant unresolved conflict (Neutral 1–3; for example, where a teacher becomes concerned about Tracey's behaviour at school), to a sombre ending resulting in upset and further trauma to the family because of Terry's violence (Very Negative).

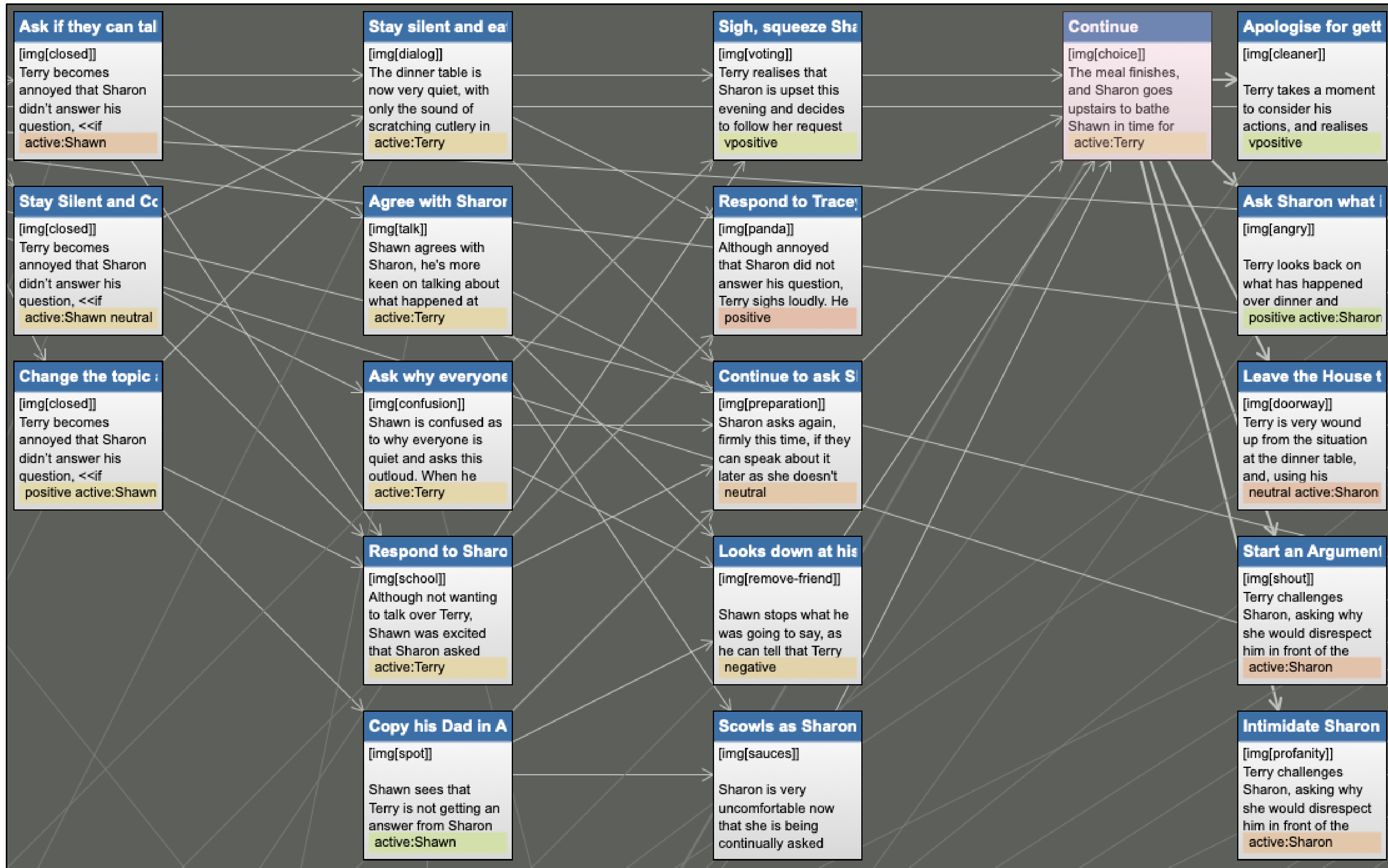


Figure 14: Screenshot of passages representing Choice-Points #1-#4 as presented within the Twine GUI

5.6. Study Design

For the Barnardo's team and I to comprehensively study the Choice-Point application's potential to support learning about perspective-taking, we suggested studying it in three distinct settings within their organisations. These were as follows: an expert critique by Carol, Anna, Karen, and Janice, who possessed a wealth of experience in facilitating perpetrator programmes; with perpetrators within a perpetrator intervention (the Domestic Abuse Awareness Project), wherein interactions with the system were recorded before, during and after the use of Choice-Point; finally, through a focused group discussion with victim-survivors within the Barnardo's service. The suggestion to include different social groups in the evaluation is also in line with general recommendations for designing within this space, where the ecosystem of service provision should be considered (Freed *et al.*, 2017). Importantly, this was also done with the goal of respecting, listening to, and incorporating the situated knowledges of the victim-survivors in their approaches to the tool; opting not to do so could inadvertently generate more harm through careless design. The following section describes each of these groups in more detail.

27 perpetrators of domestic violence (P1 – P27)	
Age (years)	21–58 Mean: 38
Gender	Men: 27 Women:0
Risk Level	Standard[7]: 19 Medium: 8
Course Number	Group A: P1–P8 Group B: P9–P19 Group C: P20–P27
6 victim-survivors of domestic violence (V1 – V6)	
Age (years)	26–48 Mean: 35
Gender	Men: 0 Women: 6

[7] Perpetrators are assessed using the DASH Risk Checklist, which evaluates potential risk factors of a perpetrator in a situation. Standard refers to a 'low' risk of immediate threat of harm or murder, while Medium can indicate other risk concerns such as history of violence, pregnancy of victim-survivor and so on.

4 facilitators (F1-F4)	
Age (years)	26–61 Mean: 48
Gender	Men: 0 Women: 4
Professional Roles	Social Worker: 1 (F1) Office administrator: 2 (F2, F3) Case Manager / Worker: 1 (F4)

Table 2: Participant demographic characteristics, including age, gender, job role, risk level and course number

5.6.1. *Expert Critique by Facilitators*

The first setting for evaluation was an expert critique from Carol, Janice, Anna and Karen (Figure 15). Critiques were facilitated through two in-depth design workshops that were designed to support the critique of Choice-Point by drawing on facilitators' experience of teaching perspective-taking to perpetrators (*Figure 15*). In these discussions, I presented Choice-Point to attendees by demonstrating the system to showcase the different paths and endings. The Barnardo's team were then invited to trial the story by simulating how it might be used with perpetrators within a group setting. Following these workshops, the facilitators recommended their *Domestic Abuse Awareness Project (DAAP)* as a suitable location for the deployment of Choice-Point. DAAP was selected due to the short-term nature of the project, which lasted two days with up to fifteen men; attendees also had first-hand experience running the intervention, which I shall briefly introduce below.

5.6.2. *Deployment with Perpetrators: Domestic Abuse Awareness Project*

The Domestic Abuse Awareness Project (DAAP) is an intervention that is designed to be the first point of contact for perpetrators to be directly challenged on their behaviour. This short yet intense intervention or 'course' (two six-hour days) is delivered as an educational course that includes group discussion-based activities for perpetrators to learn about the following: the impact of domestic violence in the UK; the health risks of using and experiencing violence; how to form and maintain healthy relationships; and practical strategies to encourage desisting from future patterns of violence. Janice and Karen ran this course in local community centres for up to 15 attendees. As real stories of domestic abuse were too emotive to use as

material within these sessions, many activities prioritised fictional stories and visual material to contextualise the attendees' learning, and thus drew from a bank of digital fictional material. This service was also one of the three services included in my focused ethnography in Chapter 4.

Figure 15: Carol, Karen, Anna, and Janice engaged in interactive design activities in the expert critique design workshop

Three groups of perpetrators that were enrolled in DAAP (Group A, B and C) were selected as being suitable participants for this study; these groups consisted of eight, eleven and eight men respectively. The two facilitators of each group used Choice-Point within the DAAP as part of the section addressing learning about the impact of domestic violence on partners, children, and family members. At the start of each deployment, the session facilitators described the following to participants: an outline of the branching storylines (excluding the specificities of each ending), the character roles and the format of choice points. After ensuring that each participant had self-selected a role, subsequent interaction with Choice-Point was unstructured to avoid influencing the men in each group. Facilitators intervened when a participant was unsure of their character's choices (at which point they would encourage the participant to think out loud to facilitate collaborative sense-making), as well as after the activity to promote discussion of the resulting ending.

Following the completion of the Choice-Point activity, I asked participants a series of evaluation questions over 15 minutes. These included asking about perceived engagement, any potential improvements, and what learning had taken place using

the tool. The perpetrators' interactions with Choice-Point were used to prompt and guide these independent reflections. Subsequently, each man was provided with a structured evaluation sheet of A4 paper printed with four open-ended questions, including '*how did your engagement within Choice-Point make you feel?*' and '*could you describe how what you have learned might influence your future behaviour?*'. I also held discussions with the facilitators at the end of each course to collect their reflections on using Choice-Point in the sessions.

5.7. Design Workshop with Victim-Survivors

Finally, Choice-Point was also evaluated within a support group setting for victim-survivors of domestic violence. The six participating women service users had experiences of one or multiple abusive relationships and were currently receiving therapy to recover and rebuild their lives after the violence had ended. I specifically sought out the opinions of victim-survivors to ensure that first-hand accounts of abuse were included within institutional strategies and settings. For safeguarding and personal safety purposes, none of the victim-survivors who participated in this workshop had ex-/current partners currently receiving an intervention through the DAAP.

In a design workshop that mirrored techniques for delivering a design critique, I presented a run-through of Choice-Point along with an explanation of the DAAP as being provided to men who were perpetrators within the region. For this group, I displayed a map of the branching narratives in Choice-Point, then invited participants to label different aspects of the story with emotive responses (ranging from 'Love this' to 'Hate this') and discuss their choices as a group. This was to ensure that our authored story reflected the real, lived experiences of victim-survivors and their families in being subjected to patterns of domestic violence.

5.8. Data Collection and Analysis

I collected audio recordings of two complete run-throughs with Groups A, B and C, with gameplay lasting around 30 minutes per group; this accordingly yielded six audio recordings (total: 216 minutes; average: 36 minutes) and six computerised logs

of the men's interactions with the system. I also collected three lots of post-deployment focused group discussions (total: 51 minutes; average: 17 minutes) and three lots of post-deployment facilitator reflections (total: 68 minutes; average: 23 minutes). Each perpetrator also filled in a reflective evaluation form (total: 27 forms).

My workshops with service facilitators lasted between 98 and 127 minutes, respectively (total: 225 minutes; average: 113 minutes). This was complemented with paper materials produced by our interaction design activities. Finally, my focused group discussion with victim-survivors lasted 83 minutes; this session was audio-recorded, and the illustrated map activity semantically analysed. For each evaluation I also took detailed, hand-written notes to record non-verbal, contextual information regarding my deployments and participants. These were typed up in a digital format at the end of each session.

Figure 16: [Left] Participant selecting from a number of choices at Choice-Point #3 [Right] Independent written evaluation of Choice-Point

My use of grounded theory analysis resulted in the generation of three categories within my data: *1) Raising Levels of Awareness*, *2) Creating a Lack of Control* and *3) Comfortable and Uncomfortable Realities*. My selected categories for my analysis were member-checked and clarified by the DAAP facilitators for clarity and accuracy. In this chapter, I have assigned numbers to my participants (*Table 2*), along with pseudonyms, to distinguish their contributions.

5.9. Findings

I shall first report on the quantitative logs, semantic ratings and resulting endings for my six run-throughs with Groups A, B and C (Table 3) to give greater context to my qualitative findings.

5.9.1. *Narrative Pathways*

Groups A and B notably selected very positive (semantic rating of 5), positive (4) or neutral (3) choices for all characters within the narrative in their first run-through (*Table 3*). These included choices supporting Sharon in domestic chores and demonstrating constructive fatherly affection for Shawn and Tracey. Moreover, while Group C attempted to contribute positive responses, a single participant chose negative (2) and very negative (1) responses to family member needs, resulting in a neutral ending. Notably, on the second run-through, all groups then expressed interest in learning what *could* have happened had they behaved abusively; as such, all groups received a neutral (3), negative (2) or very negative ending (1) on the second play-through. In short, each group of men first opted to demonstrate positive behaviour to the group on their first play-through; only once discovering the positive ending did, they seriously consider selecting negative or very negative choices on the second play-through.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Ending
A1	4	3	5	4	5	5	5	4	3	5	4	4	3	5	4	5	5	5	4	5	Positive
A2	1	2	2	2	2	2	2	3	2	2	1	1	1	3	1	1	2	2	3	2	Negative
B1	5	4	4	5	5	5	5	4	5	4	5	5	3	4	4	5	5	4	5	4	Very Positive
B2	3	3	3	2	3	3	3	3	4	4	2	2	3	4	3	2	4	2	3	2	Neutral 3
C1	4	3	3	1	2	3	3	3	3	2	3	1	2	2	3	3	3	2	3	2	Neutral 1
C2	1	1	1	1	2	1	2	1	1	2	1	1	1	1	2	1	2	1	1	1	Very Negative

Terry Sharon Shawn Tracey

Table 3: Data of the semantic rating (1: Very Negative to 5: Very Positive) of each choice-point (1–20) within the branching narrative and the resulting story ending for the six run-throughs within the Steps to Change groups A, B and C. Each choice within Choice-Point is

highlighted depending on the character role played by the participants, as shown in the legend at the bottom.

5.9.2. *Raising Levels of Awareness*

Victim-survivors and facilitators consistently underlined the importance of introducing techniques that supported a perpetrator in considering and being aware of the thoughts, feelings, and behaviours of the people around them. Participants discussed that the adoption of different character roles within Choice-Point could contribute to an increased capacity to see domestic violence from another person's perspective. This was discussed in more detail at the design workshop by an administrator, who identified that viewing something from another perspective might not be easy for some perpetrators:

> '*Most of the time, the men that we're seeing, that's not the way they're thinking, it's not the process. So, to make someone have an activity like that [Choice-Point] is kind of like making them think about somebody else*', Emma, F3.

Emma's reflection here conveys that many perpetrators' baselines level of awareness does not involve taking into consideration how someone else could perceive or interpret their actions or behaviours. Thus, she highlights that using Choice-Point as a way of making these men adopt a different perspective – one that they might not have thought of themselves, outside of '*the way they're thinking*' – could increase their consideration of others in the future. Indeed, this line of argument was reaffirmed by the perpetrators (Groups A, B and C) who engaged with Choice-Point, who exclaimed in surprise at how differently each character perceived the same event. Many men who acted as audience members would challenge the participants playing roles in the story regarding their choices. One example of this was an interaction between two perpetrators in Group B, Darren (P2) and Michael (P8). Darren was frustrated with Michael's choice to select a negative option as Terry, which negatively impacted on his character of Sharon, the mother:

> '*You might have thought like that was a good option for Terry but she [Sharon] clearly didn't think it was a good option for her, did she? I mean*

look at the way everyone voted [laughs] you're on your own for this one', Darren, P2

Men within the three groups frequently questioned other participants on the reasons for their actions to gain a better understanding of why one option had been chosen over another. In this example, Darren explicitly references Choice-Point's voting mechanism, which enables all attendees to vote on their preferred choice of action, to support his argument that Michael had made a poor selection for his character (Terry). In this way, Choice-Point was used to raise awareness not only of the characters' perspectives, but also the perspectives of real men outside of the story ('*look at the way everyone voted*').

On the other hand, Erica in the victim-survivor design workshop highlighted that she had mixed feelings about whether Choice-Point would truly raise awareness of others' perspectives in real as opposed to fictional scenarios. While she, alongside other victim-survivors, and facilitators, saw value in illustrating the impact of abuse on family members, she also expressed doubt that this awareness could or would be applied to non-fictional environments outside of the session:

> '*I think with the story's narrative, it's powerful to include us, as it shows them it's not all about them, we exist, we deal with it, we cope … what kind of story we have … but I'm concerned that because it's fictional do they transfer what they've learned to real life?*', Erica, V6

The fictional nature of the narrative within Choice-Point proved to be a difficult sticking point within this design workshop. On the one hand, victim-survivors expressed interest in contributing their stories as material to make the narratives more closely resemble 'real life'. However, facilitators expressed concern that including specific details of real stories to ensure an accurate representation of abuse could inadvertently make vulnerable individuals such as victim-survivors more identifiable.

5.9.3. *Creating a Lack of Control*

Despite the discomfort at being encouraged to state '*I am [character name]*' before making their choice, all perpetrators in Groups A, B and C gradually began to familiarise themselves with how to participate in their fictional Choice-Point role. During the expert critique sessions, many facilitators appreciated the constraints of the story and the allocation of pre-defined characters, actions, and scenarios within the system. The facilitators also praised many aspects of the exercise, most notably the non-linearity of the narrative. When questioned further, all participants in the expert critique sessions explained that the alternative (i.e., a free-form scenario) could drift off-topic and result in disinterest among perpetrators:

> '*With not that much choice of a role [in Choice-Point], even if only for a minute, the men can remove themselves from what stories they might spin about violence and how it happens … not being able to choose otherwise … it does take them outside of their world*'. Melissa, F2

This quality of Choice-Point – allowing participants to be '*outside*' of a particular worldview, without having a choice in the matter – was also praised by the victim-survivor focus group. Many victim-survivors stated, in agreement with the facilitators, that if left to construct a scenario related to their own abusive behaviour ('*what stories they might spin to themselves*'), perpetrators would inevitably exclude the perspectives of others and portray themselves as the victim:

> '*With this [Choice-Point], you can't play the victim because you've got other viewpoints to think about and the story is already written – you can't change it to suit you*', Julie, V4

While many aspects of the narrative were pre-determined, it was notable that the perpetrators in Groups A, B and C still had the opportunity to exert some control, choice, and influence over the course of the story. This was evidenced through the first run-through of Group C: one man found it amusing to choose the most detrimental actions for his character Terry and would continuously snigger as the story took a more sombre tone and progressed towards a more negative ending. Interestingly, the other perpetrators that participated in this run-through expressed an obvious dislike of this malicious behaviour and publicly sought to select the

neutral to positive options to improve the course and outcome of the story. In this way, although many perpetrators acknowledged the limited options for their characters, they still demonstrated agency in aspiring to change the course of events. In the post-deployment reflection following this incident, facilitators noted the visible and overt efforts by the others to improve the story's path: '*like they* [other group members] *were compensating for his behaviour*' (Barbara, F1).

Notably, this design choice of restricting user control had a positive impact on how the men understood their orientation towards violence. Rather than feeding into the narrative that there was no option available other than to use violence, many perpetrators identified their agency and capacity to control the course of the story. They also associated this agency with their violence in real life, as demonstrated by this discussion between two perpetrators from Group C:

> *Mark, P20: '… you could have gone ten or twenty different stories, but ultimately you have the choice to like you know, … in hindsight, you could think like I wish I'd done that.'*
> *Rashid, P27: 'I think that we really underestimate ourselves as to how much control we've got of our decisions because it's what we do that affects the outcome.'*
> *Mark, P27: 'Yeah, because it is your choice.'*

These findings highlight the paradoxical relationship that activities involving choice and agency have within technical exercises related to domestic violence. By removing the men's free choice to write the narrative of abuse, Choice-Point supported the men's ability to reconsider their violence as their own choice, as well as to recognise how much '*control*' (as Rashid identified) they had over their actions.

5.9.4. *Comfortable and Uncomfortable Realities*

Throughout the use of Choice-Point and subsequent discussions of the narrative within the exercise, many perpetrators discussed topics that were more personal and sensitive than in the other observed elements of the intervention. In all deployments, the research team and facilitators recognised Choice-Point as providing a protective cover for the men to share their experiences with violence

and how these had led them to attend the session, even though this was not a requirement for any discussion. Through participation in Choice-Point, perpetrators were required to offer their thoughts and feelings by adopting the role of a fictional character (*'I am [Terry/Sharon/Tracey/Shawn] and I would …'*). However, many men contributed highly specific details to the justification of their choices when asked, even breaking character on occasion to describe events that had not happened within the narrative. This can be seen in an example involving Lenny from Group C, who describes an act of physical violence that is not present within the story:

> '*I am Terry and I feel a terrible sense of guilt, remorse that I hadn't felt all the other times I hit her, now I've got the kids and police involved, and I feel like everyone's now gonna judge me, I mean Terry as a bad person …*', Lenny, P24

As Lenny breaks character from Terry to use a personal pronoun and describe his own violence, Choice-Point can be understood as providing an environment suitable for sharing uncomfortable disclosures and realities. The pseudo-anonymous capacity that permits perpetrators to vote using their devices was also acknowledged as a channel for communicating sensitive aspects of the men's reasons for being at the course. As all groups contained participants who staff deemed to possess assertive personalities, I found that the voting functionality potentially provided more hesitant speakers with the ability to participate as an audience member (a non-allocated role) and to relate to the story. As one perpetrator in Group B contributed:

> *'I didn't feel confident in contributing in front of the other guys, I liked being able to vote without the others knowing it was me and see other votes in the outcome of the story. This story could have been my story, and it's made me think differently about my actions, particularly to my children.'* Anonymous, Written Feedback

As such, the man who contributed this anonymous feedback seemed to appreciate being able to signal his involvement comfortably and covertly in the story without being put in a position where he was forced to participate. Facilitators and victim-

survivors both agreed that putting an individual 'on the spot' would directly violate the principles taught during the course, which emphasise respectful interaction and communication styles that do not involve power and risk the exercise or experience of control through peer pressure. One perpetrator, Ian (Group A), contributed some potential improvements to the story presented within Choice-Point as he directly compared the fictional event of Terry being arrested with his own experience:

> *'… plus, the police in the bad scenario we got, they'll go in and check and go and talk to all the kids, they have to find out how many children there is in the house, and then speak to them individually and explain why their da' has been arrested, which is upsetting for the kids …'* Ian, P8

Moreover, focusing only on providing an entirely comfortable space for discussion through Choice-Point was problematised by Emma within the structured critique:

> *'… even if they're not kind of owning up to it [violence] through Choice-Point, maybe it's still beneficial? You don't want them to feel too relaxed though as then that's not taking their abuse seriously and letting them off easy'* Emma, F3

This is an intriguing finding, as it is a direct parallel to the ongoing dilemma of sensationalising or minimising the impacts of violence in its representation.

5.10. Discussion

In this chapter, I have described the design, implementation and evaluation of a non-linear, interactive storytelling system, *Choice-Point*. The evaluation was conducted with perpetrators, victim-survivors, and support workers within the context of a perpetrator intervention. This system was designed in response to the desire to engage perpetrators in learning the skill of perspective-taking and understanding the options available to them for behaving non-violently in complex social situations using a fictional narrative. This investigation adds to the growing body of literature demonstrating that games – or playful and gameful applications – can be a suitable medium for facilitating learning about agency, responsibility and

empathy with respect to abuse, violence and perpetration (Koo and Seider, 2010; Saleem, Anderson and Gentile, 2012; Boduszek *et al.*, 2019).

In this section, I synthesise my findings and identify some design implications that provide additional context to my exploration of my second research question: *How might digital systems be designed and deployed in such a way that they redistribute responsibilities for violence prevention with perpetrators of domestic violence?* I do this by suggesting two important considerations for the use of interactive systems with perpetrators: (1) the challenges inherent in *restricting agency* in digital systems for perpetrators *to inspire discussions on agency* and (2) providing a protective cover for perpetrators to describe personal accounts of violence, thereby *piercing the magic circle* created within interactive storytelling.

5.10.1. ***Restricting Agency to Inspire Discussions on Agency***

Many studies in the HCI field have argued that increasing user agency is of value in and of itself for technical communication (Dourish, 2010; Dombrowski, Harmon and Fox, 2016). In the case of this investigation, during my deployment of Choice-Point with 27 identified perpetrators of domestic violence, my findings contribute to a distinctively different picture of technical considerations for this group. Understandably, I experienced a strong reluctance to permit this user group full capacity for the emancipatory visions inherent within interactive storytelling; that is, to be entirely free to choose and shape a story of their own design (Manovich, 2001). As already highlighted above, interactive storytelling prides itself on providing greater agency to its users by allowing them increased involvement in shaping the course of a narrative (Atkins, 2006; Hand and Varan, 2009; Ivars-Nicolas and Martinez-Cano, 2019). However, the only way in which the Barnardo's team could foresee mitigating the problem of the '*stories [the men] might spin about violence*' was to create pre-designed characters, choices, and plot points. Within my study, I discovered a design paradox inherent within designing digital activities: namely, to teach the men about their choice to use violence within the DAAP, the facilitators had to ***actively restrict the choices that perpetrators could make*** through and with Choice-Point. Indeed, in the case of the Barnardo's team, authoring the story and options for the perpetrators presents a somewhat unusual

and potentially problematic asymmetrical power relationship. However, the restriction of choice in this setting does still open interesting avenues for future work, in which perpetrators may gradually become able to exert more direct control as they continue working to improve their behaviours.

Technologies that may constrain a user's ability to choose can, and have been shown to, significant improve the user's belief in their broader agency over their own actions (Inman and Ribes, 2019; Lyngs *et al.*, 2019). In studies such as Lyngs et al.'s review of tools for digital self-control and resistance to harmful behaviours, the most common feature within technical systems was that of feature minimisation or blocking. By removing potentially harmful or distracting material that could lead to negative behaviours, the user believed that they had, in fact, more agency to perform other more positive tasks. I observed that an element of this manifested within this investigation, where certain negative behaviours (such as perpetrators '*play[ing] the victim*' by crafting their own narrative) were 'blocked' by Choice-Point. By removing the ability to avoid taking responsibilities for their choices in violence, many men had no option other than to admit that they did indeed '*have the choice [to do it differently]*'. I observed that, in terms of designing for the moral mechanism of *self-awareness and perspective-taking*, perpetrators assuming the perspective of another family member (even if fictional) did appear to produce new, pro-social behaviours within a group setting (Narvaez, 2019). However, simply taking those choices at face-value may lose the nuance inherent to why they were chosen. Consider that in all groups, perpetrators described their choice of negative to very negative options to experience what *could* have happened from deciding that their character behave abusively. Many perpetrators shared that understanding the negative consequences of their actions had reaffirmed their choice to behave positively, rather than justifying a deliberate choice to cause harm (5.9.1 Narrative Pathways). Such nuances will have to be carefully managed and accounted for with systems that encourage perpetrators to *be accountable for demonstrating change*.

How these narratives are authored and how we design systems to interact with these narratives are particularly important considerations within the context of domestic violence. Addressing these issues also provides agency to victim-survivors through

supporting alternative and accurate representations of their experiences of harm (Clarke *et al.*, 2013), while also disrupting tactics used by the perpetrator to avoid responsibility, such as permitting them to pose as the victim within the scenario (Hearn, 1998). As such, I contribute the following suggestion as a means of providing insight when answering my second research question: ***using only pre-written narratives of abuse and violence but allowing users to partake in the story through the provision of character roles***, may ensure that the tone and narrative are coherent within such a sensitive setting.

5.10.2. *Piercing the Magic Circle*

As I identified through my review of existing literature in this space, there is a delicate balance to be struck in ensuring that the topic of domestic violence in interactive storytelling, simulations and games is neither sanitised nor sensationalised (McMullan, 2018; Tieryas, 2019); to do so could either abstract the societal problem away from the genuine trauma it generates or transform it into a spectacle of amusement. However, I also believe that neither of these concerns should deter designers from engaging in a sensitive and respectful conversation about the possibilities of interactive storytelling as a medium for educational engagement on domestic violence (Boduszek *et al.*, 2019). There is a clear benefit in positioning hypotheticals within a '*magic circle*' (Huizinga, 2016) of possibilities within games that may not be ethical or legal to replicate in the real world. This is not to imply that these events should be discounted as unrelatable or meaningless simply because they do not exist in reality. In my use of the circle metaphor that helped shape the design of Choice-Point discussed within this chapter, I acknowledge that the concept does not denotate that the boundaries between reality and virtual space are fixed or even permanent. Within my investigation, I witnessed multiple occasions where the perceived distance between the virtual story and actual events of abuse was reduced. This even involved a participant describing aspects of his own history of abuse while playing the role of a fictional abuser, an action that was not required within the intervention (i.e., 'stepping in and out of the circle'). This is both in line with and extends existing HCI work that not only '*involves the receiver … in the universe of fiction*' (Ivars-Nicolas and Martinez-Cano, 2019), but also

involves the perpetrators in sharing their own story – arguably a critical way to bridge the distance between perpetrator and support workers. Indeed, there is a strong ethical incentive to take a perpetrators' '*abuse seriously*' (5.9.4 Comfortable and Uncomfortable Realities). As such, this section provides further context to my second research question by calling on researchers, designers, and policymakers to ***provide physical, virtual, and social spaces of negotiation in which perpetrators can realise the severity of abuse for themselves.***

I note here that a potential limitation of my approach to the intervention was highlighted through my design workshops with victim-survivors. This group was concerned about whether the men would transfer what has been learned within the virtual space or 'magic circle' in the session to external scenarios. My evaluation was not designed to measure changes in behaviour within the men, due to the complexities associated with recording these changes in the field (Hekler *et al.*, 2013) and the short-term nature of the DAAP. However, it was reassuring to see genuine engagement with Choice-Point used by men to both reflect on their behaviours and challenge other men on theirs. As such, I believe that my investigation contributes to the growing body of research aiming to support learning and understanding appropriate social behaviours within pro-social contexts (Pence and Paymar, 1993a; Bellini, Olivier and Comber, 2018). Due to the traumatising nature of domestic violence, along with the impact of learning of one's role in the causation of violence, it is recommended that the deployment of such digital interactions be performed under the supervision of trained professionals, in line with other sensitive work within HCI (Freed *et al.*, 2017; Bellini *et al.*, 2019).

5.11. Chapter Summary

In this chapter, I have described my first investigation using a bespoke digital system – Choice-Point – designed to facilitate learning about perspective-taking and agency within the context of Barnardo's Domestic Abuse Awareness Project. I have also described how I designed a study to explore perceptions regarding its use among three groups of stakeholders within the domestic violence ecosystem. I contribute my findings through a grounded theory analysis to identify two important

considerations for the design of digital tools with perpetrators in the context of formal interventions. Considering these considerations, I then contextualise answers to the overarching aim of this thesis and contribute suggestions for answering my second research question.

Chapter 6. Time Out: Supporting Reflection and Crisis Management

6.1. Introduction

In my previous chapter, I examined the design, deployment and evaluation of *Choice-Point*, a digital technology that employs interactive storytelling to facilitate discussion on perspective-taking, agency, and choice with respect to the use of abusive behaviours. This was undertaken in the context of a DVPP run by practitioners at Barnardo's. Alongside this project, I was approached by my second major research partner – the national peak body for perpetrator work, *Respect* – and asked to join their research team. Respect were interested in exploring how a digital tool could be used within their member organisations' DVPPs in between the weekly sessions. Such a suggestion was in line with my own observations (discussed in Chapter 4), as Barnardo's had stated that the time spent away from the programmes was an important but overlooked site for intervention. Respect had theorised that providing an intervention between weekly DVPP sessions could be useful, as it would equip perpetrators with risk management and self-management tools, they could then apply to their own situations with the aim of reducing harm.

In this chapter, I focus on how the second mechanism for positively exploring one's own moral responsibilities, namely *acknowledging the extent of harms*, could be investigated through the design stages of a *Guided Time Out*. In this way, this is a responsibility to perform cognitive and practical activities during the build-up to behaving abusively that act as a deterrence to such abuse when confronted with the potential outcomes. Taking a crisis management tool as a site for investigation, I describe the design phase of a smartphone application, *Time Out*, and the tensions observed among key stakeholders in the process. *Time Out* is a crisis management technique, wherein users are guided away from a physical place where they might otherwise be abusive towards a victim-survivor, implemented through a series of digital activities. The guided 'time out' visually enables users to identify their own psychological and biological cues that precede and build up to the use of abusive behaviour, then act upon this information to mitigate their harm to others. Timed

prompts signal the system user to change their thought processes and actions towards themselves and their partners and provide a means of reflecting on why, and in which situations, their behaviours are abusive. I then describe the two iterations of the design, constructed through involving three participant stakeholder groups in conversation around its potential use for supporting the self-monitoring of abusive behaviours. I subsequently present the resulting high-fidelity mock-up as the final deliverable for this work. I conclude this chapter with a discussion of my findings, providing insights related to my second and third research questions: *(2) How might digital systems be designed and deployed in such a way that they redistribute responsibilities for violence prevention with perpetrators of domestic violence?* And *(3) What are key methodological and ethical considerations for technology creation when collaborating with domestic violence support services and perpetrators?*

For this study, due to the ongoing restrictions imposed by COVID-19 from March 2020 onwards, the research team were unable to proceed with the development of the final tool design beyond the high-fidelity mock-up stage. This was due to all four domestic violence charities having to withdraw from the research project to focus on delivering frontline services (e.g. phone lines for perpetrators and men identifying as victim-survivors), as they experienced a significant increase in demand during this period (Respect, 2020a). As a result, in this chapter, I pay explicit attention to the '*design*' and '*creation'* angles of both research questions. I found that these restrictions in fact provided opportunities to respond to the gap, identified in previous research (Clarke, 2015; Strohmayer, 2019), in detailed descriptions of how we design with domestic violence organisations at each stage of the design process.

6.2. Background Literature

This section assumes the foundations from literature in Chapter 2 and highlights what is required for the specific undertaking discussed in the chapter at hand. This section describes how digital systems might be used to interrupt the onset of a user's

harmful behaviours and discusses the most frequently taught crisis management tool on DVPPs, the time out.

6.2.1. *Digital Interruptions for Harm Prevention*

Most domestic violence prevention programmes, irrespective of whether they focused on power and control or cognitive behavioural therapy models, teach that there is a 'build up' to the use of abusive patterns of behaviours. In brief, understanding that a build-up occurs before the use of abusive behaviours challenges the concepts that perpetrators may invoke when describing their anger, often characterising it as explosive, instantaneous and (importantly) uncontrollable (Hearn, 1998; Anderson and Umberson, 2001). By highlighting that there is a process and a period prior to engaging in abusive patterns of behaviour, there may be an appropriate transfer of onus back onto the perpetrator. In such a way, the goal is to ensure that the perpetrators can identify their physical, emotional, and mental signs, or the situations and contexts that may have resulted in their abuse of their current or former partner. However, such intense moods need to be managed very carefully, as it was important that the activities engaged in by that individual did not simply distract from the matter at hand. This is because the use of devices as a temporary relief from negative states can be unhelpful, or even exacerbate low-valence moods (Sarsenbayeva *et al.*, 2020). Researchers within the Human-Computer Interaction community have explored how intentionality in preventative measures such as smartphones or other digital devices can be used within what Honery et al. (2020) describe as a "*critical window*" for harm. Within the context of SelfHarmony, a hackathon for tools to support safe self-harm, Birbeck et al. (2017) describe a *Digital Distraction Box,* a physical, electronically locked box that holds self-harm tools that must be interacted with before the box unlocks. In doing so, such a design is built around being intentional towards accessing tools for harm may reduce the likelihood of acting rashly. As an alternative approach Thieme et al. (2016) describe *Worry Beads,* a digital bracelet that provides vulnerable women within a secure facility with something physical to actively hold onto in advance of the use of challenging behaviours.

6.2.2. *The Time Out Technique*

Techniques such as time outs have been identified as having the potential to be used in achieving the three main behavioural goals of a DVPP (Wistow, Kelly and Westmarland, 2017), and is as such frequently the very first technique taught to DVPP attendees (Sonkin and Durphy, 1997). These goals include the immediate (or gradual) cessation of harm towards their victim-survivor, the employment of self-controlling techniques to manage the use of future abuse, and ensuring that the victim-survivor has an expanded space for action that is free from coercion, threat and violence (Jennings, 1990; Kelly and Westmarland, 2015). The time out technique is a temporary interruption technique in which a perpetrator recognises when they are approaching a time in which they would otherwise be physically violent toward their partner, then physically removes themselves from the environment for a set period time. They then return once it is safe to do so. Importantly, a time out also comes with rules regarding what a perpetrator is prohibited from doing during this time, such as driving, drinking or taking drugs in order to provide an '*opportunity for reflection and analysis*' regarding their violent behaviours (Wistow, Kelly and Westmarland, 2017). Wistow et al. (2017) performed a study on the use of Time Out within the context of a DVPP and identified two beneficial applications of the time out technique: an instrumental approach, where a time out was performed in strict accordance with the rules, and a relational approach, characterised by a negotiation of respectful communication with victim-survivors over compromises. Importantly, this was also identified as a mitigation strategy that reduced the risk of such a tool being used for control (Rosen *et al.*, 2003; Wistow, Kelly and Westmarland, 2017)). There is space for further understanding on how digital technologies might play a role in the interests of supporting the legitimate use of the tool, and working towards the main goals of a DVPP

6.3. Contextualising the Guided Time Out

This investigation explores how a digital system can be used to reinforce changes in behaviour and crisis intervention techniques alongside DVPP sessions for perpetrators of domestic violence. *Respect* first approached me after I hosted a workshop at their annual *Working with Perpetrators National Event* in London, as they were interested in pursuing funding from a Comic Relief-funded project named

Tech vs Abuse 2.0. This grant initiative funded digital responses to five previously identified design challenges[8]. Their most recent report recognised that there could be value in technology designed for use with perpetrators to '*help [them] recognise the need to change their behaviour*' (Think Social Tech, SafeLives, and Snook, 2019). The core research team, consisting of Respect staff members Victoria and Sara, were interested in exploring how digital technologies could play a role in this realisation of abuse and support perpetrators' desire to change their behaviour. To prevent Respect from exerting undue influence over the design of the result, the team leader suggested that Respect's member organisations be included in the design process. Normally, member organisations need to have either acquired accreditation (following two years' evaluation) or be working towards it and to run interventions with perpetrators. The selection of member organisations ensured that research sites already had quality-assured procedures in place to respond to any escalation of risk, particularly around innovative practices. Moreover, as the funding call specified 'changing behaviours', domestic violence perpetrator programmes were explicitly sought after over other perpetrator interventions. Within this project I anticipated there could be greater tensions around the form that the technology could take as the research team shared that a technological deliverable or 'tool' was one of the approved project deliverables.

We crafted an expression of interest (EOI) and distributed it through the Respect members' mailing list. Three Respect members – TLC (Talk, Listen and Change), Glow and Hampton Trust – responded to indicate their interest in taking part and offered their organisation sites as potential sites for data collection with their service users. After a further discussion between Sara and Victoria, we suggested two rounds of Focused Group Discussions (FGDs) to first contextualise the spaces in which we were working before presenting any technology ideas that might have emerged through the collated data. These rounds are referred to as Stage One and Stage Two in this chapter. Ensuring a minimum two rounds of data collection was

[8] https://www.techvsabuse.info/ Tech vs Abuse 2.0 is a follow-on grant initiative to build on, explore and update the findings identified in 2016 regarding the use of digital tools for support of those affected by abuse. Challenges included the potential uses of technology around awareness, information, crisis, staying safe and support.

done to verify that any suggested technical concepts were fully approved by all of the research sites before any technical development commenced. In such a way, the design and investigation stages, as they were conducted remotely, were dependent on data provided through highly focused means of data collection that proved a contrast to how Choice-Point and Fragments of the Past were created.

6.4. Stage One: Exploratory Focus Group Discussions

In this stage, I worked in collaboration with two members of Respect staff to facilitate three FGDs with front-line staff and three with perpetrators of domestic violence, all of whom who were men receiving front-line services (Table 4). One session of each FGD type was conducted per research site. The questions set for these focus groups asked about perpetrator descriptors of motivators or hinderances for change (an area that has already been highlighted as having important implications for practice; (Downes, Kelly and Westmarland, 2019), along with ideas for technologies and perceived risks associated with their integration in perpetrator interventions. While I assisted in writing and finalising the question protocol for the FGDs, transcribed the FGDs and led the analysis on the collated data with Victoria, I was unable to assist Victoria and Sara in the in-person facilitation of these FGDs, which were held between November and December 2019; this was due to me being outside of the United Kingdom on placement at Cornell University, New York for work on Intimate Partner Surveillance. Nevertheless, the team ensured I was kept up to date through emails, Teams calls and shared documents, enabling me to contribute remotely.

17 Perpetrators of Domestic Violence (P1-P17)	
Location	Hampton Trust: 3 Glow: 8 TLC: 6
Gender	Men: 17 Women: 0
Age	*Not recorded.*
Risk Level	Standard-Medium: 17 High: 0
10 Facilitators of Domestic Violence Services (F1-F10)	
Location	Hampton Trust: 3 Glow: 3 TLC: 4

Gender	Men: 4 Women: 6
Age	*Not recorded.*
Professional Roles	Facilitator of DVPPs: 6 Women's Safety Officer: 2 Coordinator of DV Services: 2

Table 4: Participant Demographics of Gender, Risk Level (Perpetrator) or Professional Role (Research Sites)

In total, 17 perpetrators took part in this study, which spanned across three separate DVPPs (at locations such as displayed in Figure 17). There were also ten facilitators and coordinators of the perpetrator programme or integrated safety officers self-described as being very experienced in perpetrator programmes. Data for age and ethnicity was not collected for these FGDs; however, an equality and diversity questionnaire was designed by Victoria for use in later collection rounds to respond to this lack of information. The six FGDs lasted for 10 hours and 23 minutes in total, with the shortest taking 1 hour 15 minutes while the longest ran for 2 hours 14 minutes; the average was 1 hour 24 minutes.

Figure 17: Glow Community Centre, Stoke on Trent

6.5. Stage One: Findings

Our six FGDs provided an in-depth insight into participants' motivations for changing their behaviours and the concerns that introducing technology into a DVPP context could raise. I now present two analytical categories identified during conversations on the intersection of technology and digital support for changing behaviours: *taking change away* and *interrupting violence*.

6.5.1. ***Taking Change Away***

Across all staff FGDs, facilitators explained that a perpetrator's motivation for participating in a DVPP and changing their behaviour shifted significantly throughout the duration of the programme. They described perpetrators displaying superficial or minimal engagement in the initial stages, before becoming increasingly invested in engaging with more complex facets of violence in later weeks. Such a change in engagement would, staff argued, be evidenced through a slow initial uptake in self-management tools, as many perpetrators were described as using the process of engagement with a DVPP to '*prove to their partner that they are a changed person*' (F2, HT Staff) and thus rarely going beyond superficial reflection on their behaviour outside of sessions. Some perpetrators narrated this relationship between giving false impressions of change (mirroring prior findings described in my Chapter 4) and participation:

> *'I guess reality checked in that that this programme isn't a key to [child] contact … as soon as they [Glow staff] started providing us with tools I thought, … when I had the [work] sheets in my hand, ah yeah maybe there is something there in me that needs work, just maybe…'* (P17, TLC Men)

Nevertheless, both staff and perpetrator groups identified that exposure to and provision of self-management tools and topics, even if perpetrators were initially very reluctant to engage, gradually led them to develop increasingly positive motivators and attitudes towards participating and changing. Akin to P17's account, many perpetrators in the focus group identified that it was the provision of such tools that kick-started the process of '*making space for change*' (P2, Hampton Trust), whereby men identified 'something' that needed 'work'. Interviewee P10 expressed an interest in reaching for tools that could assist in '*taking control of [his]*

actions', and that the provision of such tools that could be used immediately and while away from the DVPP served to meet the '*buy-in for participation*' (F8, Hampton Trust) in a way that lesson content did not always manage to achieve:

> *'Providing them something digital … it's just so much more portable, accessible … going over what they've learned away from group each week, it's right there in their pocket and you take your phone with you everywhere don't you?' (F4, Glow)*

The specific self-management or crisis management tools that were most associated with kick-starting the realisation of abuse for all groups of perpetrators were reported as being time-out, positive self-talk, perspective-taking, and turn-taking approaches to respectful communication (e.g., one perpetrator holding a household object when it is his turn to speak and passing it to another attendee when finished). When questioned, some staff members said that the perpetrators' ability to tangibly '*take something away with them*' (F9, TLC) from the sessions, whether a physical worksheet or a conceptual tool to practice at home, encouraged the translation of lesson content to challenges they might experience in their own lives. As a result, staff stated that self-management tools would ideally be in a tangible format that needed to be worked on continuously:

> *'they're [self-management tools] tough to get right … to go away between the seven days, between the sessions, you're just left to your own devices really, it's good to have something to reflect on what you've done' (F1, Hampton Trust)*

Each group identified the space between sessions to be especially important to positive changes in behaviour and attitudes. It was thus concluded that a digital tool should support the ability to continuously reflect on and improve behaviour across a period by frequently prompting small check-ins.

6.5.2. *Interrupting Violence*

Across all FGDs, participants expressed different views within and between the groups during conversations about self-management and reflective tools, largely

dependent on whether the participant group was made up of facilitators or perpetrators. Nevertheless, a recurring theme across the suggested designs for technology was that of *interrupting* a situation and *prompting* a response from the user. Many staff members advocated for reflective tools that attempted to challenge deep-rooted values and belief systems that the facilitators associated with violence, ultimately aiming for a long-term reduction in the use of abusive behaviours. This could ideally be achieved through the careful design of questions and the assumed accessibility of phones:

> *'You can put quite a lot of things on there [smartphone] … prompts to make them open up a little bit more, people tend to struggle with speaking up if they find a technique challenging so if it's there on their phone, it might be a little easier to access, literally and figuratively!' (F6, Glow)*

This idea might be grounded in the staff's personal experiences of self-monitoring technologies such as healthy eating, fitness, or smoking cessation applications, each of which had smartphone reminders attached to the process. However, while some staff members offered that they found these applications useful, these participants also admitted that they used these approaches inconsistently:

> *'a reminder like four times day, I'd ignore it most of the time, but I get to tell it how many times I wanted it to tell me to do my pelvic floor muscles, like a reminder on your phone that is kind of like mindfulness that triggers 'do you want to take five minutes out today just to breathe?' (F2, Hampton Trust)*

An important similarity between facilitators and perpetrators was that both groups agreed that the interruption of violence onset was important, although the two groups differed on the appropriate preventative measures. Facilitators all suggested that prevention could be achieved through prompting reflective questions during times of non-violence, while perpetrators tended to focus on the self-identified 'incidents' of violence themselves. Despite the suggestion of the digitisation of existing self-management and reflective tools, in each perpetrator focus group, several participants suggested that a blood pressure or heart rate monitor was in

their view a more useful technology to develop. This was described frequently as *'a tool to measure stress levels … so if your heart rate is really high, it could warn you?'* (P14, Glow) in relation to oncoming abuse. This focus on autonomic responses to bodily signs of stress was a clear contrast to the biological-psychological response promoted by many of the staff members. Each perpetrator group appeared to gravitate towards a technology that could determine the beginning of the build-up that typically culminated in abusive behaviours, through a comparison to other self-tracking methods:

> *P2: 'I think should be flashing up to you at a certain point, your heart rate is going too high, if you're spiking, that's when you need it.'*
>
> *P3: '… that would be helpful. I think if I was at home and I was like 'ahhh' pressure gauge and all that stuff, that flashed red with Time Out of something I'd be like, right …' (P2 and P3, Hampton Trust)*

Across all three focus groups, when given the opportunity, many perpetrators voiced an incorrect interpretation of oncoming domestic violence as a form of building anger or stress that could be determined through biometric readings. While the research team saw such participant interest in seeking a means to 'interrupt' abuse as a positive sign, facilitators also pointed out that it was dangerous to equate this build-up to reliance on biometric markers: '*you might miss those who utilise coercive and controlling behaviours that look and are calm regardless of their readings*' (P4, Glow). However, some participants showed understanding that mapping physical changes could be unique to each perpetrator and serve as a useful means of learning more about changes within their body:

> *'So, in the middle of an argument if you were getting heated up … like we've got our own points, I start doing this with my finger [demonstrates], you might do stuff with your jaw and everyone's heart just … so like a message pops up on your phone and it side-tracks you from that. It calms it down that.' (P16, Glow)*

6.6. First Design Iteration of the Guided Time Out

In Stage One, the aim was to explore both the space for digital self-management tools and any potential risks or concerns that such a tool might have in this specific context, including deliberate misuse or being designed to make it ideologically incompatible with the DVPP. The next task for the research team was to identify what portable device could be used to 'take change away' in this critical window to interrupt violence. I discussed that across the space of the focused group discussions (FGDs) some staff members had suggested alternatives to devices that were portable, but not necessarily smartphone-based (*6.5.1 Taking Change Away*) such as a Walkman-style audio player or a tangible artifact that could communicate biometric feedback. Sara cautioned that we had to be careful in the final outcome of the technology, citing that Respect was always under socio-political pressures to present their work with perpetrators in a way that indicated they were taking the abuse seriously (an interesting affirmation of a finding in *5.9.2 Raising Levels of Awareness*). As such, the research team was concerned that some potential technologies, such as the biometric stress ball, ran the risk of being misinterpreted by other victim-survivor services as placating or minimising their experiences of harm as someone who was 'stressed out'. While I had become accustomed to saddling the tensions between academic and practical outcomes, this was the first where the 'success' of the project was directly dependent on the production of a technology. Specifically, this technology had to be compatible and directly further the goals for Respect in providing best practice guidance for the sector and maintain their image of being neither too lenient or too harsh on perpetrators (Morran, 2011a).

Following this first round of analysis and implicit design constraints that shaped the likelihood of selecting one technology over another, I identified 24 individual technology suggestions by going through each audio transcript of the groups and listing them in a document (Appendix C). These ideas were provided unprompted; the facilitator had only asked the participants to go into more detail as to how they imagined such a solution might work at what point/s in the DVPP it might be used and who the intended audience might be. In a virtual call between the research team members Victoria and Sara, we went through each idea in turn and evaluated

it via an informal judgement on its suitability. This involved thinking about its relationship to the Tech vs Abuse work, whether it existed already, whether developing the technology was feasible within the given timeframe, and whether such technologies would hypothetically be safe. We ruled out three technologies that existed already (e.g., a reminder to breathe) so as to avoid replicating existing systems; we determined that four of the proposed technologies should be 'Being Done by the DVPPs' already (e.g. uploading course material); five were interesting, but 'Out of Scope' (e.g. an online DVPP); moreover, four were to be actively avoided due to the 'Promotion of Unhelpful Messages' (e.g. a blood pressure monitor). This left eight technology concepts for discussion (Figure 18).

This could work (needs exploring)

AUTOMATED CHAT 'AUTO-BOT' (E)

- Explored in other services such as Women's Aid and Samaritans. It could mean that the organisation is 'keeping up with' organisations instead of leading the way. There is a love/hate relationship with these though.
    - Talking to an autonomous, conversational agent.

TOOL BOX

- Lots to explore on this one, consistently came from all the groups

EMOTION DECODER

- Original that no other technology seeks to identify what emotion you are feeling - just recording these emotions. Promotes taking the time to understand yourself.

IDENTIFYING TRIGGERS

- Can be useful to have something digital to identify triggers as and when they happen.

POSITIVE SELF-TALK

- Mentioned a few times, perhaps this is a way of incorporating a pseudo-live chat of some sort? Something to talk to to challenge your behaviours.

GUIDED TIME OUT

- Assists in ensuring TO is followed

JOURNEY DISPLAY

- Way in showing how others are progressing.

PROGRESS MONITOR

- Working towards behaviour change anyway so might be worth having some way of recording this to look back on?

Figure 18: Section of shared document with potential list of technologies that were safe and feasible within the context of the Tech vs Abuse Funding

It was at this stage that the research team identified a tension between the popularity of these ideas and the degree to which the research process was inclusive

and respected perpetrator's contributions. On the one hand, the team wished to validate the lived experience of those who use violence, but this came at the cost of validating an incorrect and dangerous interpretation of violence. In particular, the team determined how the blood pressure monitor should not be selected as this would violate the safety-focused principles that Respect set for best practice. Considering this, the team discussed at length the reasons why particular technologies were not selected and opted to be as transparent as possible about this decision through disclosing this information to the participants of Stage Two.

We continued to deliberate over the eight potential technology concepts. During this deliberation, we examined how distinctive each idea was, as well as whether several concepts could be consolidated under a single idea. Once more, the pressure to deliver a discrete piece of technology to our funders had a significant impact on how we could decide to proceed. The team discussed that if we did not select a technology to develop, we could potentially forfeit the budget allocated on the funding call for a designer and/or developer. However, if the technology was too complex or undermine the messages that Respect wished to promote, this would also render the technology unusable as the organisation would be reluctant to promote or incorporate it into its membership organisations. Balancing these tensions resulted in the selection of three major technology concepts (presented in red in Figure 18): a conversational agent with which perpetrators could interact and ask questions related to DVPPs, domestic abuse or their behaviour; a toolbox of self-management tools containing conceptual and practical skills taught in the DVPP; finally, a progress/journey monitor that visually showed a perpetrator's progression over the course of the DVPP (between weeks 1 and 24–40, depending on programme length). As the toolbox encompassed five distinctive tools, we suggested selecting a single tool on which to focus our attention, as well as choosing the most popular option: a guided time out. This idea, suggested by a perpetrator in one of the FGDs, involved providing a means of being guided both audibly and visually through the steps of reflection and de-escalation during a 'time out'. While the results of all three technical designs are reported on at length in *Appendix C*, staff and victim-survivors indicated a preference for the Guided Time Out to be developed;

therefore, I have opted to prioritise my analysis of the discussion surrounding this tool for the remainder of the chapter.

6.7. The Design Concept

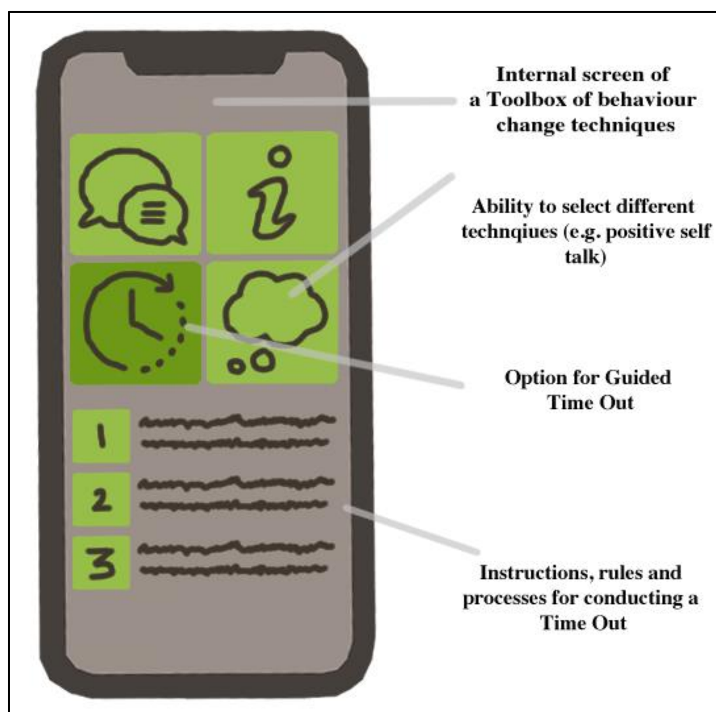


Figure 19: Design mockup of the Toolbox of behaviour change techniques, inclusive of the Guided Time Out.

Once we had clarified that we wanted to move forward with three ideas, we assigned each potential technology a title to facilitate ease of reference within the meetings and following sessions. I designed a mock-up for each technology using a Wacom Intuos graphics tablet in the digital animation and illustration environment of ClipStudioPaint Pro. For the Guided Time Out (Figure 19), I was guided by the first-iteration design requirements that it should be a smartphone application (iOS and Android) and the boilerplate computer image of a starting application in Android Studio. To narrow down the choice of framework, I suggested two cross-platform and open-source app building platforms, Xamarin or Native Scripts, which would also inform how the user interface would be displayed. After some deliberation, we

decided not to show the mock-ups to subsequent FGDs out of concern that this might influence their decision (for example, participants might preference the concept with the most visually appealing layout). As we were reluctant to share the mock-ups of the technologies, we instead attached a brief description of each of the technology tools that could be read out loud during the FGDs. One of these descriptions is provided below (Figure 20).

Digital Toolbox, Guided Time Out

'This idea is based on the tools that you learn in the course, such as the Time Out, and creating a digital version of the tool or tools, like a Guided Time Out that you can refer to either whilst you are taking a time out, or in other moments to refresh what you've learnt about these tools and how to use them.'

Figure 20: Description of the Guided Time Out used in the FGDs

6.8. Stage Two: Feedback on Technology Concepts

In this stage, the team hosted five focus groups with front-line staff, perpetrators and victim-survivors receiving front-line services (Table 5). Each focus group comprised two parts: a series of general questions focusing on broader questions about reflections on the use of violence, that were omitted from the first protocol, and a second part consisting of the presentation of the three technology ideas designed based on the core findings of Stage One. A total of 23 participants took part in this stage: nine perpetrators, four victim-survivors and ten staff members. While nearly all facilitators from Hampton Trust and Glow who participated in Stage One were able to reattend (along with additional colleagues), only one perpetrator attended Stage Two who had also been present in Stage One, who I refer to as P1. This was due to the length of time (four months) between commencing analysis in December 2019 and undertaking the second round of focus groups in March 2020; as a result, nearly all perpetrators from Stage One had completed the programme in the intervening period. While the same perpetrators did not have the chance to see their ideas brought back in the form of concepts, each set of facilitators promised to keep them informed of future developments during future interventions.

11 Perpetrators of Domestic Violence (P1-P11)	
Location	HT: 2 Glow: 9
Gender	Men: 11 Women: 0
Age (years)	18-24: 2 25-34: 4 35-49: 3 50-64: 2
Risk Level	Standard-Medium: 11 High: 0
10 Facilitators of Domestic Violence Services (F1-F10)	
Location	Hampton Trust: 6 Glow: 4
Gender	Men: 2 Women: 8
Age	18-24: 0 25-34: 2 35-49: 4 50-64: 4
Professional Roles	Facilitator of DVPPs: 6 Women's Safety Officer: 2 Coordinator of DV Services: 2
4 Victim-Survivors of Domestic Violence (V1 - V4)	
Location	HT: 0 Glow: 4
Gender	Men: 0 Women: 4
Age (years)	18-24: 0 25-34: 1 35-49: 2 50-64: 1
Risk Level	Standard-Medium: 4 High: 0

Table 5: Participant Demographics of Site Location, Gender, Age and Risk Level

The five focus groups lasted for a total of 8 hours 53 minutes, with the shortest lasting 1 hour 24 minutes and the longest for 2 hours 26 minutes (an average of 1 hour 46 minutes). The duration of these focus groups indicated to the research team that participants were discussing and engaging with the digital designs in significant depth.

6.9. Stage Two: Findings

All three groups had distinctively different responses to the first design iteration of the guided time out application; these ranged from staff excitement around its potential introduction into the DVPPs to active dismissal of the design or doubts regarding the effectiveness of the system from some early-stage perpetrators and,

surprisingly, some victim-survivors. I will now share two categories that emerged in the context of the grounded data analysis as tensions between opinions on the digital time out tool across these five FGD groups: *rigidity against flexibility* and *access and control*. I conclude this section with an overview of the common features that were incorporated into the low-fidelity prototype designed in the final stages of Stage Two.

6.9.1. ***Rigidity Against Flexibility***

Many staff were positive about towards the Time Out idea, as they saw it extending their capacity to teach perpetrators outside of their working hours without creating a direct line of communication between themselves and the perpetrator. As such, the tool led staff members to reflect on the different ways in which perpetrators used the time out tool. A clear distinction was drawn between a procedural time out, which followed the rules for what a time out involved (to the letter) without engaging with the reason why the time out was taken, and a more nuanced approach that may violate some of the rules but ultimately considered the concerns of a victim-survivor. This distinction is also mirrored in Wistow et al.'s (2017) findings:

> '*… This [guided time out] would provide those who need it with a very step by step– yeah prescriptive, very straightforward because I'm thinking it's those guys who go 'oh Pressure Gauge?' boom boom boom Time Out boom boom boom break it down, and they go 'oh if I just follow that and that''* (F2, Hampton Trust).

In a similar vein, some staff suggested this methodological process of following instructions on their personal device could be useful for perpetrators to '*keep them on the straight and narrow*' (V3, Glow). This also extended to staff who cautiously suggested that the guided aspect of the time out would be valuable for perpetrators with learning differences and differing levels of ability; for these cases, staff argued that some attendees had to '*learn [their] responses because they don't come naturally*'. (F3, Hampton Trust). However, the two groups of perpetrators expressed scepticism about following the guided time out instructions: some either dismissed the idea or questioned how realistic it would be to follow a strict process (involving

a pre-agreed set time and following instructions presented via the tool) when things were, in their words, '*getting heated*' (P2, Hampton Trust). These tensions around integrating the tool into a relationship and following the structured rules were made apparent in an exchange between two perpetrators:

> *P3: '… all arguments are different though you can't sit down and say, 'right listen if we're having an argument and we're starting to get pissed off with each other and I can pull out my phone and start messin' with this [application], it's just not what we're gonna do'. Life doesn't work like that, come on, we're human, aren't we?'*
>
> *P4: 'That's the problem of you implementing into your lifestyle or into your conflict. You've got to work out a way, then haven't you?' (P3 and P4, Glow)*

In this way, some perpetrators identified that the process of 'getting their phone out' could either escalate the situation or feel unnatural due to the act of the forward, intentional planning feeling contrary to how '*life … work(s)*'. Nevertheless, both staff groups and some perpetrators (e.g., P4) expressed interest in how the digital tool could balance the tension by being customisable, and thereby more flexibly moulding to the user's behaviour, to combat this feeling of unfamiliarity:

> *F7: '… So, you know, there's different options so that people can tailor it to work for whatever works for them'*
>
> *F9: 'Yeah because one size doesn't fit all. It could be kind of different options, breathing options, mindfulness options.'*
>
> *F7: "Provide that to the guys to identify their own best way of managing themselves." (F7 and F9, Glow)*

However, it was recommended that this flexibility through customisation also be bounded though clear limits and restrictions, so as not to create significant upfront data entry requirements or permit perpetrators to misuse the process and conduct a Time Out that was against the rules:

'Because their head is going to be all over the place you know, having that guide of 'okay this is what you're doing now'' (V2, Glow)

6.9.2. *Access and Control*

Both staff groups suggested that existing risks to victim-survivors or perpetrators were unlikely to significantly escalate through use of this tool when compared to use of the existing Time Out protocol. While all focus groups established that the tool might not be suitable for all perpetrators of domestic violence, it was understood as being, as one victim-survivor suggested, '*another tool in their armoury to use*' (V4, Glow). However, a recurring tension that emerged throughout the discussion of the tool concerned the extent to which the victim-survivor was actively designed for and included within the Time Out design process. One suggestion for promoting such inclusion was to have a corresponding 'partner application' that paired with the guided time out, as staff established that this was an activity they were '*supposed to [do] together*' (F5, Hampton Trust), while this approach might also mitigate the misuse of the tool:

'… he can't put his own twist on it 'I've been told I've got to leave now … for two days' and then he goes to the pub or something and it makes it more transparent … I've got the app that tells me 'No'' (V1, Glow)

However, some staff members countered that a separate app may not be necessary. Instead, they suggested that the information provided on the guided time out should be accessible and sent from '*an independent source in the form of an email*' (F3, HT). While victim-survivors, staff and some perpetrators positioned the app as something for which the perpetrator should take responsibility, others incorrectly speculated that its presence could be valuable in helping the victim-survivor to make informed decisions:

'The guided app would be very handy to use just to warn your close ones that you're going to have a meltdown … That would be a very handy thing to do. They could be prepared just so they could help you along with it and not make it worse … it's like a warning' (P1, Hampton Trust)

Here, P1 can be seen suggesting using the Time Out in a way that is threatening 'warning' or transferring the responsibility for 'helping' the perpetrator to perform self-management of abusive behaviours onto the victim-survivor. As evidenced, even when victim-survivors were not actively designed to be an assistive component of the tool, the perpetrators still understood them to be directly aware of and responding to its use. Another complication highlighted by some perpetrators regarding the use of the mobile application was the requirement to both leave their home and use their phone as a means of participating in the time out. In the focus groups, perpetrators directly identified that use of their personal devices influenced their bad behaviour, due to the physical distance these devices created between themselves and their ex-/current partner:

> *'I've always said the phone is the worst weapon you can have … it's there and you can use it … When you're in an argument you say things that you don't wanna say and then once you've sent something it's too late … you get a relief that you've done it but then you realise you shouldn't have done this. Obviously, it bites you back.'*

As such, while not immediately making the risk to a victim-survivor's safety apparent through the tool itself, the combination of being away from the victim-survivor and using a phone could inadvertently give rise to the conditions that might prompt a perpetrator to misuse their phone for abusive purposes. A means of combatting this was suggested, namely staff incorporating the tool into 'check-ins' that occurred at the start of each DVPP session and asking for examples of good practice.

6.10. Finalising the Design Concept

In the second, final stage, I draw explicit attention to how the design and functionality of the medium-fidelity mock-up version of the Time Out tool was shaped by both the design implications and my work to synthesise the tensions exposed in the second-round focus groups. As mentioned previously in this chapter, the final design for a self-reflective tool within the DVPP was unable to be transformed into a working system. Thus, the final deliverable of this work is the prototype that was subsequently passed on to Respect to be incorporated into

another perpetrator-focused intervention space. I designed the prototype within the mock-up tool Adobe Balsamiq and went through three stages of informal feedback with the project lead Victoria. As the space of the DVPP does not exist in the same physical location at time of writing, I here narrate this subsection by providing an outline of the design alongside a theoretical walkthrough of its use.

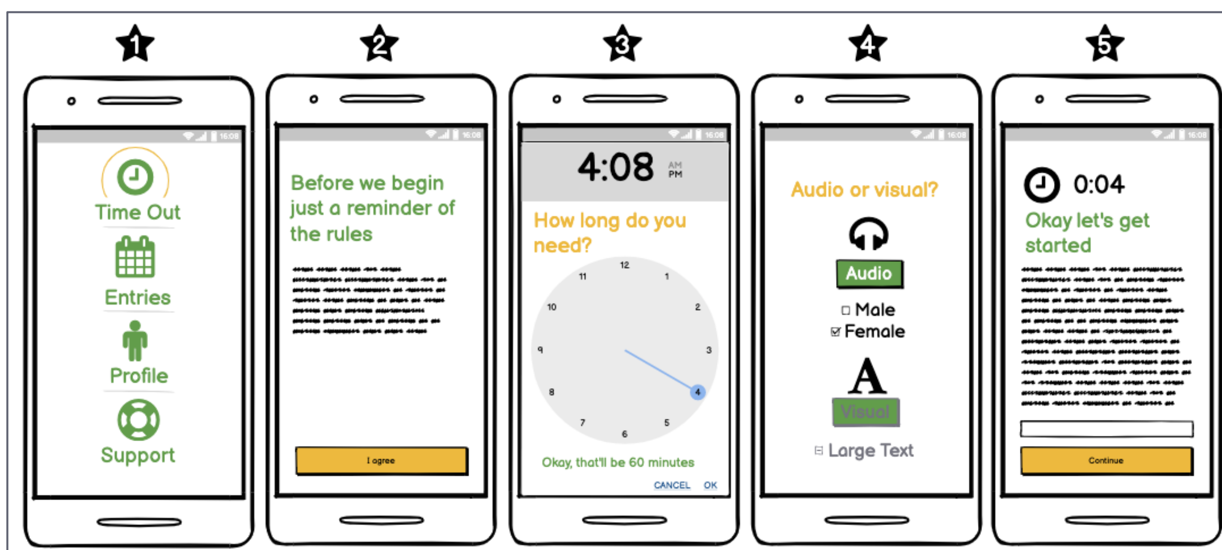


Figure 21: Screens 1-5 of the Guided Time Out

Perpetrators would be asked to download the Guided Time Out smartphone application within a DVPP and then be guided through an initial walkthrough with a facilitator within a group session. After Guided Time Out is selected on the home screen, a main menu (Figure 21, Screen 1) will be presented where a user can select from the following options: perform a time out; reflect on past uses of a time out; check their personal statistics; contact support to provide information on how to improve the tool. During the build-up to a period where a user believes they could be abusive, users can navigate to the main menu; from here, they can select the option to perform a Time Out and agree to the rules of the activity (Figure 21, Screen 2). To incorporate customisability, the user can select how long the time out session should last, although a lower limit of 60 minutes is imposed to prevent misuse of the tool (Figure 21, Screen 3). For accessibility purposes, the guided time out could be conducted via visual instructions and activities or by listening to a voice that guides them through the process (Figure 21, Screen 4).

When the guided time out begins, the user is taken through a series of described timebound activities (Figure 21, Screen 5) in three main stages across the 60-minute duration: spotting the warning signs (first 20 minutes), taking time out of the situation (between 20-40 minutes) and making a plan to return (final 20 minutes). The first stage asks that the perpetrator share information about themselves and their behaviour as a means of both relaxing the individual and helping them distance themselves from their immediate emotions. The first activity asks perpetrators to reflect on their *sore points*, which are typical situations where they have been violent in the past (Figure 22, Screen 6), while the second asks them to reflect on physical, emotional and mental warning signs before they become violent (Figure 22, Screen 7). Once these activities have been completed, between the 20- and 40-minute marks (Figure 22, Screen 8), the perpetrator is asked to draw on their perspective-taking skills and examine how they could and would behave differently in present or future circumstances. During the final 20 minutes, the system prompts the user to plan to return to the victim-survivor (Figure 22, Screen 9), equipped with suggestions for final tactics for active listening and expressing empathy. The final screen requests that the perpetrator reflect on their time out experience by answering a series of questions on how it felt to perform the time out; the session is then saved for later reflection (Figure 22, Screen 10).

Figure 22: Screens 6-10 of the Guided Time Out

After returning to the main menu, the user can opt to view their profile, containing a reduced amount of information on their usage of the tool (Figure 23, Screen 11), or reflect on their use of past Time Out sessions (Figure 23, Screen 12). Finally, if the user wishes to contribute any further suggestions, they are given the ability to contact technical support (Figure 23, Screen 13).

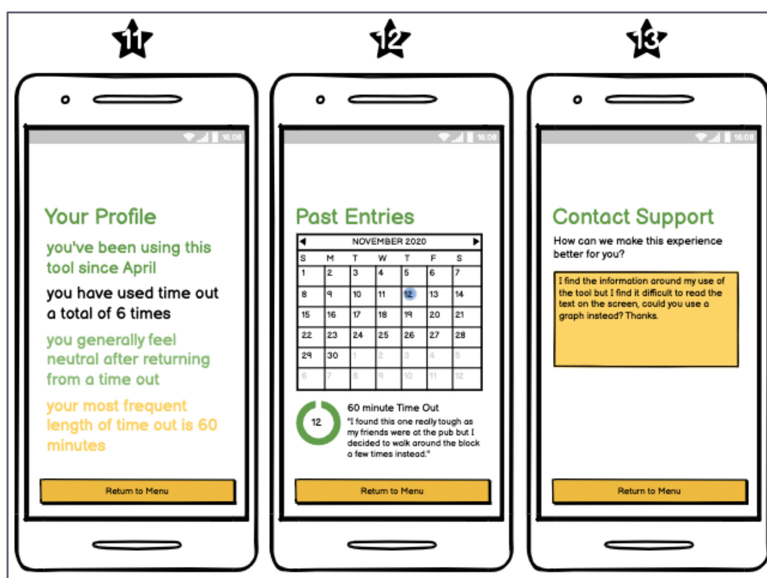


Figure 23: Screens 11-13 (Optional) of the Guided Time Out

6.11. Discussion

In this chapter, I have described the design process for our proposed solution to convey how interest in designing technology to work alongside a DVPP resulted in a medium-fidelity mock-up that can be used to inform the design of a future system. This investigation reveals how the tensions in the provision of digital tools can materialise, along with the complexities of participatory work in this space. In this section, I further synthesise my findings to draw attention to the unique facets of design for crisis management tools for perpetrators of domestic violence, specifically those that aim to raise their awareness of how their presence can elevate risk for victim-survivors and others. I do this through the introduction of two novel concepts: drawing a *parameter of participation* for individuals who might seek to use a novel tool to inflict more harm, and *externalising guidance*. Such pointers

contribute answers to my second and third research questions: *How might digital systems be designed and deployed in such a way that they redistribute responsibilities for violence prevention with perpetrators of domestic violence?* and *What are key methodological and ethical considerations for technology creation when collaborating with domestic violence support services and perpetrators?*

6.11.1. *Parameter of Participation*

In this work, the research team approached the problem of the uneven allocation of responsibility for violence (Lamb, 1999) by opting to design a system that requested perpetrators to pay specific personal attention to their behaviour. At first glance, it appeared as though the research team were creating the tools necessary to improve the *acknowledgement of the extent of harm* through exposure to self-management tools – valuable exposure that could lead to potentially positive outcomes, according to both staff and perpetrators. However, as I identified at each stage of the design process, despite being offered the ability to co-design tools that could equip them to behave non-violently, and irrespective of what stage in the course they had reached, there were strong attempts made by the perpetrators involved in this work to circumvent these spaces for negotiation. While it is to be expected that these participants might seek to mispurpose a technical process to further their own abuse of others (Freed *et al.*, 2018; Think Social Tech, SafeLives, and Snook, 2019), to my knowledge, this is the first instance where this has also been recorded in the very design process of the technology. For example, this could be evidenced through the suggestion of developing a blood pressure monitor to alert of upcoming violence, under the guise that such behaviours could be equated with and therefore use the same mechanisms as physical and mental health self-tracking (Sanders, 2017). The research team reflected on this tension: on the one hand, we wanted to respect the lived experience of perpetrators; on the other, we knew there were some experiences that could be counterintuitive to validate.

Staff suggested designing a partner app specifically for victim-survivors so that they might be better informed about their perpetrator's behaviours – conducting further 'safety work' and risk management (Kelly, 2014) - while a perpetrator admitted to leveraging his Time Out tool as a warning for his victim-survivor to '*be prepared …*

and not make it worse' (P1), akin to the misuse found in prior work (Rosen *et al.*, 2003; Wistow, Kelly and Westmarland, 2017). Such findings undoubtedly complicated the extent to which the designs carried forward by the research team were representative of the end-users' experience. Indeed, while prior work has been conducted on the use of technology to interrupt the onset of violence, the novelty that emerges here is that of a perpetrator seeking to use a personal interruption technique as a means of interrupting their victim-survivor's behaviour.

While participatory work generally aspires to permit those with lived experience to set the goals for design, this is a delicate tightrope to walk when these goals are so easily traduced. Indeed, Vines et al. (2013) have drawn prior attention to the challenges associated with including groups who express their ideas with the '*loudest voices in the room*', as they can drown out those who cannot express their ideas as clearly. Within this work, what I experienced was less the active 'drowning out' of experience and more the subtle manipulation of the process in an attempt to reduce the degree of responsibility attributed to perpetrators (Hart, 2018). As such, I contribute the following consideration for answering RQ3: **when including perpetrators as active stakeholders in digital design that researchers and practitioners create a *parameter of participation* which sets limits on the extent to which perpetrators' ideas can be moved to the next stage of development.** While this may seem antithetical to the goals of participatory practice, we identified that retaining certain aspects of experience and disregarding others was vital to maintaining the safety of victim-survivors and facilitators moving forward. In exposing the challenges of this design process, these challenges themselves might be a potential site of educational interventions with perpetrators, allowing them to observe how they were using the design process to deflect responsibility. Therefore, this raises new ethical difficulties associated with taking people's views seriously, to hear them uncensored, while also censoring their contributions in case harmful suggestions are proposed.

6.11.2. *Externalising Guidance*

Interrupting the onset of violent incidents has been identified as an important endeavour within the field of Human-Computer Interaction (Thieme *et al.*, 2016),

particularly when viewed through the lens of self-harm or emotional regulation (Birbeck *et al.*, 2017). In this chapter, I offer the first piece of design work that takes one significant step beyond such a focus on the self in explicitly designing for an individual to prevent harm and violence being inflicted on others – specifically, victim-survivors. While the balancing of the individual and the collective has been a frequent topic of discussion in the field of technologies for self-management (Pinder *et al.*, 2018a), this can often blur the focus on the immediate agents that are external but have an immediate impacting factor on the individual being designed for, such as family, friends, partners and educators (Schölmerich and Kawachi, 2016). One agent that the research team perhaps did not anticipate playing such a large role in this exploration was the (theorised role of a) personal device; this clearly manifested in the fact that all stakeholders identified the importance of the digital tool as tangible, separate to the perpetrator, and remaining in the perpetrator's possession outside of the DVPP environment (6.5.1 Taking Change Away). This combined tangibility and portability of a perpetrator's smartphone creates an intriguing unity: a device that serves as both a physical entity and a highly personal representation or repository of the self, due to its collation of intimate information (Marques *et al.*, 2019). However, when prompted to use the smartphone to interrupt violence, perpetrators were noticeably keen to characterise this process as 'unrealistic' or 'unnatural', even suggesting that it might create the conditions for further harm by increasing the physical distance from their victim-survivors and thereby making remote forms of harm more likely. It is thus perhaps worth questioning the extent to which other tangible technologies besides smartphones could be used to deliver the same level of guidance for support and interruption. Rather than acting on passive applications that activate only when interacted with, these results indicate that all groups were excited to see a system that worked in tandem to act autonomously and deliver instructions to keep a user '*on the straight and narrow*'. While some perpetrators had misconceptions regarding what this behavioural responsibility might look like with respect to external technology, as evidenced by the suggestion to create biometric readers, others highlighted that this information only served as a springboard for action, reflection, and self-learning. This interesting difference of views is seemingly mirrored in Wistow et al.'s (2017)

separation of instructional and relational uses of time out, whereby the value is within the interpretation of the self-management tool rather than the unreflective following of guidance. As such, it is worth offering the answer to ***RQ2: designing for the instructive potential of a self-management tool should be balanced with facilitating a relational negotiation about the interpretation of such tools.*** This process of coordinating a responsive system – which can be calibrated to prompt an individual to take moments for reflection, pause or follow instructions when in elevated states – is a valuable area to focus on in future work. Constructing a system of this kind could arguably be achieved through the careful tailoring of limited customisability options within the second design iteration. I would be interested to examine the extent to which such coordination could be achieved in test environments as part of my future work.

6.12. Chapter Summary

In this chapter, I have described my second investigation into how a digital system – Guided Time Out – can be designed in conjunction with multiple domestic violence organisations to facilitate the development of a crisis management tool designed to interrupt patterns of oncoming violence. I have described how four research partners directly shaped the idea, the design, and the visual layout of a smartphone application, along with how this process was used to probe further understanding around the use of self-management tools. While this work was impacted by COVID-19, I demonstrate above that the ideation phase was still able to reveal tensions inherent in the design and use of self-monitoring technologies, and to further suggest two ways in which such tensions could be better navigated in future research. These findings and considerations accordingly help to inform responses to my second and third research questions regarding design and participation in the design process.

Chapter 7. Fragments of the Past: Curating Peer Support Processes

7.1. Introduction

In the previous two chapters, I have explored the potential for digital technologies to provide perpetrators of domestic violence with the tools to choose to behave non-violently. In my second investigation (Chapter 5), I looked at how interactive storytelling could facilitate sessions on teaching perspective-taking, enabling participants to reflect on their prior uses of violent behaviour and begin to recognise the signs of their own abusive behaviours in future. Within my third investigation (Chapter 6), I focused on how a digital technology could be used in the moment of crisis management to provide guidance on performing a time out and thereby avert the threat of physical violence. While both technologies were designed to work with and alongside a perpetrator intervention, one aspect of responsibility that remained understudied was that of being responsible or acting independently in providing community and peer support to others in and beyond formal intervention sessions.

In this chapter, I focus on how the third mechanism for instilling moral responsibility, namely *providing peer support and community*, could be investigated through the design and deployment of *Fragments of the Past*, a socio-material system that connects audio messages with tangible artefacts. Specifically, this form of moral responsibility examines how an individual might be responsible for someone else, and in theory, act independently of Barnardo's interventions. In this chapter, I demonstrate how crafting digitally-augmented artefacts – 'fragments' – of experiences of desisting from violence can be translated into messages of motivation and build rapport between peers enrolled in DVPPs, without subjecting the process to the risks inherent in direct inter-personal communication. As *Fragments of the Past* draws on a pre-existing piece of technology, JigsAudio (Wilson and Tewdwr-Jones, 2019), which has been explicitly repurposed for this context, this chapter is structured in order to make this gradual process of adoption clearer. This chapter first contextualises Fragments of the Past by synthesising key pieces of literature surrounding digitally mediated support networks, asynchronous communication

pathways and the role of making in self-reflection on behaviours and identities. I then present my analytical findings, first describing each stage of my exploration into this space (e.g., 'Stage One') and then outlining the corresponding findings of that stage (e.g., Stage One: Findings). Subsequently, I reflect on the learning I attained through this work and its applications to promoting wider discussions of peer support network design and collective institutional approaches to individual responsibilities. The investigation in this chapter is to be published and presented at CHI'21[9].

7.2. Background Literature

This section assumes the foundations from my main synthesis of existing literature in Chapter 2 and illustrates what is required for the specific undertaking discussed in the chapter at hand. Specifically, this section builds on the area of work that scrutinises the period after a DVPP where perpetrators are expected to act non-violently independent of formal guidance from support services.

7.2.1. *Peer Support Technologies and Post-DVPPs*

Peer support can positively benefit both the person receiving support and can make the provider feel valued, needed and included (Satinsky *et al.*, 2020; Schildkraut, Sokolowski and Nicoletti, 2020). Frequently, interactions between perpetrators within groups have to be explicitly monitored, as they can potentially influence the behaviour of other group members in ways that can be either pro-social or harmful (Cohen, 2004; DeKeseredy and Schwartz, 2013). Often however, these interactions are more complicated, as the support offered by a particular peer group member may embody both harmful and pro-social elements (Strohmayer, Comber and Balaam, 2015). As such, there is notable caution about positioning perpetrators as peers and encouraging connections online. For example, when stigmatising behaviours are being disclosed, moderators or a collection of users in online support

[9] Rosanna Bellini, Alexander Wilson, and Jan David Smeddinck. 2021. Fragments of the Past: Curating Peer Support with Perpetrators of Domestic Violence. In CHI Conference on Human Factors in Computing Systems (CHI '21), May 08–13, 2021, Yokohama, Japan. ACM, New York, NY, USA, 15 pages. https://doi.org/10.1145/3411764.3445611

groups may further reinforce harmful behavioural, cultural and social norms for an individual user (Pater and Mynatt, 2017; Chancellor, Hu and De Choudhury, 2018; Tseng *et al.*, 2020). If this influence is extremely successful, a person's real-life relationships can decline in quality; at worst, this may subvert the positive social potential of support groups (Mo and Coulson, 2014). These risks would be heightened with perpetrators of domestic violence, as these perpetrators tend to be well-versed in the social manipulation of others (Hearn, 1998) and of the institutional systems that seek to hold them to account for their abusive actions (Morran, 2006; Hamilton, Koehler and Lösel, 2013).

David Morran (2006) has reported that there is a stark scarcity of post-programme interventions or resources for perpetrators to continue "*maintaining the momentum of change*" when dealing with wider challenges within their lives. Attendance in a DVPP can act as a protective factor against abusive behaviour (Westmarland and Kelly, 2013), through pro-social bonds between attendees and facilitators through mutual support and accountability (Mead, Hilton and Curtis, 2001). Inversely, the loss of social support is a strong risk factor for relapsing into the perpetration of domestic violence (Wilson, Cortoni and McWhinnie, 2009; Adhia *et al.*, 2020). While there are concerns for collusion (Scourfield and Dobash, 1999) and risk-escalation (Pearson and Ford, 2018) in re-grouping groups of perpetrators together without moderation, studies indicate the opposite for moderated spaces (Banyard, Rizzo and Edwards, 2020). However careful moderation has high time and cost investments, and there are still considerable challenges around sustained engagement with in-person and online communities.

7.2.2. *Asynchronous Communication and Making for Change*

Scholars have long praised the role of asynchronous communication in the facilitation of peer groups as these methods can provide flexibility to delivery and moderation (Pang *et al.*, 2013). By attempting to reduce the digital proficiency barrier that some participants face, some designers have begun to explore alternatives to screen-based, text-based communication (e.g., social media) to explore alternative yet meaningful design processes and practices of exchange. Studies as such have been conducted on collectives such as friends, couples or family

members in how they might share digitally mediated social objects (physical objects for which symbolic value lies in how they represent social relationships) as a means of communication (Kalanithi and Bove, 2008). Gift-giving and memorializing everyday memories are two ways that HCI has explored the exchange and reciprocity involved between peer relations (Mugellini *et al.*, 2007; Wei *et al.*, 2019). While asynchronous communication through artefacts is an established research space, this investigation is the first to my knowledge to focus on how such entities can be leveraged as motivation and communication for peer support in such interventions.

The process of making inherently stimulates memories of persons, relationships, activities and emotions (Goodman and Rosner, 2011), by enabling the maker to communicate something about themselves through the things they create (Zimmerman, Ozenc and Jeong, 2008). Importantly, making can serve to facilitate education on challenging topics by providing an abstract medium in which to focus attention while engaging in social conversation. Changing Relations' Men's Voices project is such an example, where crafting was used to gather testimonies of young men and boys' experiences of contemporary masculinity, and as a means to teaching healthy relationships for domestic violence prevention ('Stepping Out of The Box Art Exhibition', 2019). Making can also have a positive impact on participants by providing a space for reflexivity and positive enforcement through a sense of control over the artefact being created, while prompting a sense of competence and a social connection between persons. (Dalley, 1984; Schmid, 2005; Simonsen, 2013).

7.3. Contextualising Fragments of the Past

During my focused ethnography, Carol, the head of Barnardo's Newcastle, shared with me that she had been curious about exploring the design of a process or service centred around peer support between perpetrators. In particular, she expressed that she was interested in cultivating a support process for one specific group of perpetrators who had, across the space of their twenty weeks enrolled in their DVPP, displayed respect for each other's opinions, challenged each other when disagreements arose, and maintained a high level of attendance. Carol informed me that this group had, in her words, '*exemplified what a programme was supposed to*

achieve': forming a pro-social group through the exploration of antisocial behaviours. As peer support does not necessitate the use of digital technologies, I questioned how she foresaw technologies being used in this context; for example, whether this might be a case of exploring an existing platform (i.e., WhatsApp) in terms of its ability to facilitate the support group, or whether a new piece of technology would be required. It was at this stage that Carol excitedly suggested that it should be the perpetrators themselves who designed the process through which they shared their support. As this suggestion was in line with the final mechanism for responsibility, namely *providing peer support and community,* I agreed to explore this idea further with Carol and the DVPP staff members. At the end of the meeting, she suggested introducing me to the group within a regular DVPP session, such that the first half could cover session content while the second half could take the form of an unstructured discussion about their experiences of the DVPP. Depending on how successful the suggestion of peer support was, we could then determine whether design workshops could be a suitable approach for further investigating what this might look like within a design.

During this introduction, each of the men in the group shared that they felt like they had formed a 'bond' with each other and were as such somewhat reluctant to complete their DVPP, as this would put an end to the time, they regularly spent with each other. Crucially, a few men raised the issue that this was the '*complete polar opposite*' of what they had initially been concerned with when starting the DVPP. Some men shared that they had been both afraid and reluctant to attend the programme due to their own, self-described 'threatening' impressions of what other attendees would look like and how they would behave. In line with this, some attendees suggested that their peer support should also be extended to men who had just started a DVPP, as a means of reassuring them about the process of change. Carol validated this idea and we set about designing activities together that could explore how peer support might be exchanged in a moderated, safety-informed manner between two or more groups of perpetrators enrolled in a DVPP. Carol saw this process as resulting in two positive outcomes: early-programme service users would receive guidance (moderated by Barnardo's staff) from post-programme

service users to encourage engagement in the process of reflecting on behaviour, while post-programme service users could take on new roles that encouraged responsibility and helped to sustain healthier forms of communication. This was also in line with existing research suggesting that peer support can both positively benefit the person receiving support and make the provider feel valued, needed and included (Satinsky *et al.*, 2020; Schildkraut, Sokolowski and Nicoletti, 2020). A second group of programme participants located across Barnardo's' delivery groups were subsequently identified as being suitable for this investigation. For clarity, I shall refer to these two groups as the Newcastle Group (10 perpetrators) and the Gateshead Group (eight perpetrators). Each man would also be notified that participation in this investigation would have no impact on their progression through a DVPP, except for disclosures relating to safeguarding concerns that could threaten the integrity of the programme. We were also conscious that while we were exploring the positive formation of peer relationships, there was a risk that negative collusion could occur between perpetrators. The two facilitators of both groups, Carol, and Mikey reassured me that they would challenge such behaviour should it occur by intervening and offering one-on-one work after the research study had concluded.

7.3.1. *Ethics Approval*

Before beginning any design workshops, I submitted a detailed ethics application to Newcastle University's Science, Agriculture and Engineering (SAgE) Ethics Board that outlined my project aspirations: namely, to identify an existing or a bespoke piece of technology that would permit the Newcastle Group (Group N) to provide peer support, moderated by professional facilitators (F4, F5, F6; *Table 6*), to members of the Gateshead Group (Group G). Ethical approval was granted to carry out the research under the following condition: '*that participants should not have any opportunity to contact with one another*', referring specifically to communication between Group N and Group G (Appendix C). I was told that this condition was non-negotiable, as the ethics committee clarified that the SAgE board – and, by extension, Newcastle University – could be in no way legally responsible for any potential risks resulting from the project. I submitted a detailed appeal for this

decision, explaining that my activity was being performed with the aid of highly experienced Barnardo's professionals within a DVPP in which communication between facilitators and perpetrators was already informally mediated. The appeal's subsequent rejection was reflected on openly with DVPP staff members at a meeting after the fact; during this session, they expressed dismay at how this decision might impact on the perpetrators' ability to assume the responsibility to behave in a responsible manner. The staff identified an inherent assumption within the ethics board's verdict: namely, that both groups could not be trusted to behave responsibly. As a result, myself and the staff involved in this work collectively decided that a 'live' synchronous network was not an option moving forward. Built on the motivation to overcome these limitations, along with those related to the sustainability of traditional supportive group settings (Hicks *et al.*, 2016; Kushner and Sharma, 2020), the Barnardo's team and I came to understand the decision as posing the following design challenge: *How could digital peer support be facilitated without permitting direct communication between perpetrators of domestic violence?* To answer this question, we looked to existing literature that could help us in navigating this challenge.

7.3.2. ***Designing for Asynchronous Support***

Asynchronous communication is normally deemed to be suitable when an extended period and the co-location of individuals is required, which presents significant difficulties for persons affected by inflexible work schedules, lack of access to transport or other technological barriers to attending virtual sessions. These have all been identified as challenges faced by perpetrators of domestic violence enrolled in DVPPs (Jamieson and Mikko Vesala, 2008). However, our design challenge was unusual within this context: in this instance, despite being available to communicate, perpetrators in one group were not permitted to contact the other group. The staff members accordingly pointed out that while the perpetrators might express a preference for face-to-face, real-time communication with the other perpetrators, we needed to be mindful about designing a process that moved away from a solitary screen-based approach; this was to ensure that the peer support

process did not inadvertently disrupt the pro-social dynamic of the DVPPs themselves.

10 Perpetrators of Domestic Violence: Newcastle Group (N1-N10)	
Age (years)	20–65 Average: 41
Gender	Men: 10 Women: 0
Risk Level	Standard[10]: 7 Medium: 3
8 Perpetrators of Domestic Violence: Gateshead Group (G1-G8)	
Age (years)	24–59 Average: 38
Gender	Men: 8 Women: 0
Risk Level	Standard: 6 Medium: 2
6 Barnardo's Staff (F1-F6)	
Age (years)	27-61 Average: 43
Gender	Men: 1 Women: 5
Professional Roles	Head of Orchard/Mosaic: 1 (F1) Case Manager / Worker: 4 (F2, F3, F4, F5) Group Facilitator: 1 (F6)

Table 6: Participant Demographics of Age, Gender, Risk Level (Perpetrator) or Professional Role (Barnardo's)

7.4. Study Design and Participants

Conducted in line with the ethical dimensions described above, this investigation ran over ten months and was divided into the following four stages: 1) five design workshops with attendees in Group N to design an asynchronous support network activity; 2) the design of a digital system, *Fragments of the Past* (FoTP); 3) the deployment of FoTP with Group N; 4) a structured reflection with Group G to record their commentary on their use of FoTP (Table 6). My first study stage used five design workshops to gain an understanding of how men in Group N were providing peer

[10] Perpetrators are assessed using the DASH Risk Checklist, which evaluates the potential risk factors of a perpetrator in a given situation. Standard refers to a 'low' risk of immediate threat of harm or murder, while Medium can indicate other risk concerns (such as history of violence, pregnancy of victim-survivor and so on).

support to each other, along with the extent to which technology could play a role in facilitating this peer exchange through the creation of a novel, digital system. The second stage describes how the workshop findings were used to transform an existing piece of technology (JigsAudio; (Wilson and Tewdwr-Jones, 2019) into a socio-material peer support network activity for Group N by creating digital artefacts that represented important moments of change to non-violence, their so-called 'fragments of the past'. The third stage describes the deployment of FoTP with Group N and presents a representation of these created fragments. Finally, I conclude with the fourth stage, describing the results derived from a three-hour structured critical reflection with Group G on Group N's fragments to capture their thoughts on the process of receiving support via this mechanism. As the results of each stage directly informed the design of the next stage, the present chapter is thus structured accordingly.

7.5. Stage One: Design Workshops with Group N

Figure 24: Making Connections pack: [Left] Incomplete; [Right] complete

For this investigation, I worked with the ten perpetrators of domestic violence in Group N that were reaching the end of their DVPP together. This series of design workshops were therefore explicitly positioned to gradually build sensitisation not only to the practice of design in HCI, but also to the perpetrators' understanding of themselves as a peer network. These sessions used the materials from completed DVPP modules to prompt discussion of relevant supportive advice, including a review of the technologies suggested by the men, and the creation of a space for reflecting

on the group process together. In line with the standard DVPP format, design activities were set as 'homework' for the group to complete between sessions, facilitating further reflection on care and support outside of the workshops. I provide an example of a homework activity pack, *Making Connections* (Figure 24), and an interaction design activity in a workshop session, *Three's a Crowd* (Figure 25).

For *Making Connections*, each man was tasked with completing a pack that asked them to represent their personal support network, how strongly they connected with the persons within it, and the different role those persons played within the network using coloured stickers. Using the material from the completed homework packs, a second design activity was conducted to consolidate my understanding of the feasibility of establishing a digital asynchronous peer support network between the two groups of perpetrators.

Figure 25: [Left] *Three's a Crowd*; [Right] Four participants completing the activity

For *Three's a Crowd,* participants were asked to identify 'what' technology the network would use, 'why' it would be useful, and what five 'qualities' would be most important to the system. Each category was represented as a series of wooden tokens that could be placed within a Venn diagram to encourage reflection on the relations between the people, qualities, and objects for the final design (Table 7). The tokens provided to the men related to what the participants had contributed when describing their own peer support network (*Making Connections*), along with the technologies used in maintaining them. This activity comprised three rounds, entailing that a minimum of three peer support technologies would be created.

Category	Quantity	Values
What	11	Smartphone Application, Podcast/Radio, Website, Social Media, Playlist, Instant Messaging, Digital Art Installation, Blog, Photo Album, Email, Text Messaging Service
Why	9	Self-Reflection, Communication, Motivation, Education, Entertainment, Relaxation, Storytelling, Self-Care, Support
Qualities	14	Helpful, Informative, Creative, Inspirational, Mindful, Humorous, Tolerant/Non-Judgmental, Easy-to-Read/Listen To, Simple, Fun, Interesting, Realistic, Emotive, Genuine, Truthful

Table 7: Three's a Crowd token descriptors

7.6. Stage One: Findings

The initial discussion and the following five design workshops provided me with an in-depth insight into the ways that participants understood their desistance from abusive behaviours and their desire to support other perpetrators who are beginning a DVPP. I will now share two categories relating to peer support provision through digital technologies that I was able to identify from our five design workshops: *balancing parts with wholes* and *mixing the digital and non-digital*.

7.6.1. *Balancing Parts with Wholes*

Many participants disclosed that at the start of the DVPP, a significant barrier to their engagement in programme activities was related to anxieties regarding how they would be judged by facilitators and other perpetrators. N2 shared that it had been especially intimidating for him, in his words, to be seen as *only* the sum of his abusive behaviour, particularly through digital case files:

> '*… there's no way around excusing what I did, none whatsoever, I was a nasty piece of work like. Until I got to Orchard/Mosaic I felt like no one saw me as me and not my actions on my record … the facilitators here, they tried to work out what was going wrong somewhere.*' (N2, Perpetrator)

As a way of managing this discomfort, many participants were interested in representing a digital 'past self', an individual who used violent behaviours, and a 'present self' who was trying to or had stopped using abuse, through an avatar or a collection of digital possessions. This caused tension between some of the facilitators and participants, who argued that it could be unhelpful to compartmentalise abuse behaviour by constructing a '*bad version of themselves*' (F4, Facilitator) rather than owning up to their use of violence. One man agreed that this separation could minimise responsibility for violence by allowing perpetrators to claim that it '*wasn't really them*' (N8, Perpetrator). The group discussed this at length and concluded that the comparison to prior bad behaviour was an important motivator for them to continue to desist from abusive behaviours, as they saw it as evidence that change through a DVPP was possible. One way of addressing this tension between disowning and owning past behaviours was to have participants describe what *parts* of themselves (such as memories, represented via photos, or thought processes, represented via blog posts) they wished to work on, were proud of, or wanted to keep the same. This was demonstrated through the men repeatedly gravitating towards the *Blog*, *Photo Album* and *Playlist* tokens in *Three's a Crowd* (Table 7):

> '*… that's what the programme is meant to do, understand yous [yourself]… at the start you're not honest with yourself, but you gradually open yourself up to see what pieces you're made up of*' (N6, Perpetrator)

7.6.2. *Mixing the Digital and Non-Digital*

Many participants were curious and enthusiastic about describing their own ideas for speculative technologies that could potentially play a role in providing support to new starters, along with the scenarios in which these could be used. As some participants (NG3, NG9) did not own a smartphone, the group resisted advocating for screen-based technologies out of concern that these participants would be excluded. As a result, many participants first sketched out ideas about what kinds of support they wished to share (aided by the homework activity *Making Connections*) before adding additional layers of digital elements and double-checking that the group were familiar with these technologies. This permitted the participants to think

about an idea for support first without being confronted or frustrated by the technology to begin with, or for I to inadvertently imposing my desire for the process to be digital in nature (Baumer and Silberman, 2011):

> '*… if you introduce it as 'technology' the men can feel like they're on the back foot … but if it's technical but not 'scary', say combine it with things they are familiar with you'll get past that initial resistance*' (F1, Head of Orchard/Mosaic)

Many participants also expressed the enjoyment they derived from the tangible and creative nature of the activities (such as *Three's a Crowd*) within the design workshops. In this way, participants shared an appreciation for the opportunity to express themselves through craft that also extended the learning from the intervention sessions. Interestingly, some men were able to identify the parallels between the educative purpose of the programme, namely creating a new non-violent identity, and the creative processes of making something new:

> '*So, you learn problem solving skills in the group, thinking of another way to not be mean, nasty … you gotta get creative and I'd like that quality to be [at] the centre of whatever we make.*' (N5, Perpetrator)

Some participants identified that using familiar materials in their creative process – such as photographs and audio recordings, which are ubiquitous in everyday life – could ensure that a digital support system was both accessible (not putting someone '*on the backfoot*' (F1)) and creative. Barnardo's staff were especially interested in how the role of creative practice could also be used as a channel to engage the men in challenging conversations about violence in the future.

7.7. Stage Two: Fragments of the Past

At the conclusion of the design process, Group N had finalised their design, which involved creating and sharing digitally enabled artefacts as contributions to an asynchronous peer support endeavour that was in line with the ethical constraints of the work. This design involved a tangible, digital scrapbook, containing their so-called '*fragments of the past*' (N8, Perpetrator), which included their stories of

change, pieces of advice and supportive messages for Group G; these were presented using photography and pre-recorded audio recordings, activated by a button on each page. While facilitators agreed that the scrapbook was a positive means of providing peer support, they were concerned about Orchard/Mosaic's tightly restricted financial budget and the project timeline required to make the design a reality. Building on the findings related to *balancing parts with wholes* and *mixing the digital and non-digital*, I addressed this problem by introducing three mixed-media technologies that had previously been used in sensitive, civic settings and had potential to be repurposed by the group. These technologies, which were presented through structured focus groups comprising Group N and facilitators, included the following: *Gabber*, a platform for distributed audio capture and participatory sensemaking (Rainey *et al.*, 2019); *JigsAudio*, a tangible device that connects physical objects with an audio recording (Wilson and Tewdwr-Jones, 2019), and *Lifting the Lid,* a digital probe that played back a pre-recorded message when it was interacted with (Bellini, Olivier and Comber, 2018). Each technology was trialled via a run-through, before the lead author questioned how the group could see the aforementioned *fragments of the past* work with the designs. After careful deliberation, the group decided that JigsAudio would be a suitable technology for this task, as it could connect the digital media, they had been intending to put in the scrapbook with an audio reflection on their behaviour.

JigsAudio was developed to be a technology that supports people sharing their experiences of where they live and their aspirations in response to open questions. The device and method use a tangible hardware hub (Figure 26) to connect drawing with talking through an embedded radio-frequency identification (RFID) tag connected to a physical artefact. Once a physical artefact has had a recorded audio reflection attached to it, the artefact can be held over the physical system, which prompts the audio to be replayed (e.g., over headphones). The technology comprises a Raspberry Pi, a microphone, a portable battery, and an RFID reader within a customised enclosure.

To use JigsAudio for *Fragments of the Past*, members of Group N wanted to share their thoughts, feelings and experiences regarding themselves and their behaviour across key moments in the DVPP. To do this, men requested to make a tangible representation of these key moments using craft materials (including card, newspaper, pipe cleaners, nuts, and bolts) to create a 'fragment' of themselves from the past, then attach at least one audio reflection to each artefact using an RFID sticker. It was decided that each man should use the craft material to complete a collection of crafted fragments: a comic; an abstract model; three Polaroid photos (excluding names and faces); a letter to someone (including themselves) and a collage. This would result in a minimum of seven physical artefacts and audio recordings per person. Such a focus on making was also very valuable, as many scholars have already highlighted that the making process can have a positive impact on participants by providing a space for reflection and reinforcing positive behaviours through a sense of control over the artefact being created, while also prompting a sense of competence and a social connection between persons (Dalley, 1984; Schmid, 2005; Simonsen, 2013).

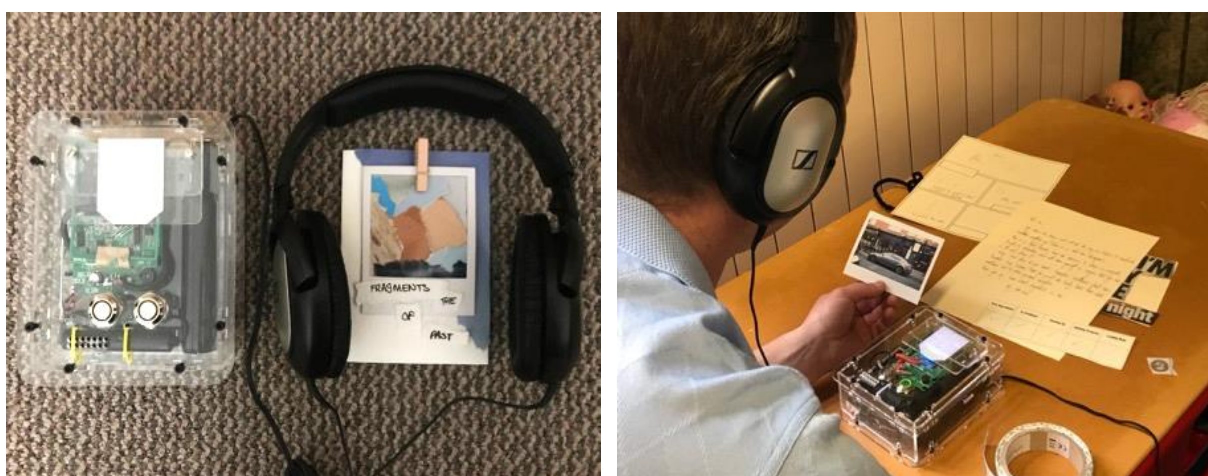


Figure 26: [Left] JigsAudio system with FoTP passport [closed]; [Right] A Group G participant listening to Group N fragments.

Following careful deliberation, five important moments along the members' journey towards non-violence were decided on by the group: *First Impressions, In Avoidance*, *Opening Up, Making Progress* and *Looking Back*. These moments were printed as destinations within a paper passport, which each participant had to stamp off once they had crafted a fragment corresponding with one of the five key stages. We

identified that defining the boundaries of the activity in this way appeared to reduce some participants' anxiety surrounding creativity, as it provided direction for the creation of their physical fragments while still being flexible enough to remain thematically open. Importantly, the activity was also structured in this way to ensure that the participant felt like they had '*done enough, that they have contributed something worthwhile*' through the completion of discrete steps within the activity (Wallace *et al.*, 2013).

7.8. Stage Three: Crafting the Fragments

A four-hour group workshop was organised to produce the fragments to be shared within the FoTP network. To reduce disruption to the participants' schedules, the workshop was scheduled to coincide with a voluntary post-programme social meet-up for Group N at Orchard/Mosaic. Two facilitators (F5, F6) also participated with Group N in the activity to make the participants feel more at ease, although their fragments were not included in the analysis of this work on their request.

7.8.1. *Stage Three: Findings, Artefacts*

Each group member completed at least seven fragments that represented key stages in their journey through the programme. Across the four-hour session, a total of 88 fragments were made by Group N, who also recorded 85 audio clips associated with the fragments (Table 8). One participant expressed anxiety about participating due to feeling intimidated by the variety of unfamiliar mediums to work with. In being responsive to his concerns, the facilitators suggested that he could participate in the process through channelling his skill for technical sketches and diagrams into fragments rather than the materials provided. I have included these fragments under the 'Misc.' category in Table 8.

Fragments of the Past							
	Polaroids	Comics	Letters	Collages	Models	Misc.	Total
Number of fragments	36	11	13	10	12	6	88

Number of audio clips	33	11	14	10	10	7	85
Average length of audio (mm:ss)	00:34	01:49	01:53	01:16	00:38	00:55	01:03
Total length of audio (mm:ss)	18:42	19:59	26:22	12:40	06:20	06:26	90:29

Table 8: Number of fragments and audio clips

Regarding the slight variations in the number of fragments per individual, some participants expressed that there was more advice that they wished to share about their journey, and therefore created more than one fragment for each moment. The slight discrepancy between the number of audio recordings and physical fragments arose due to the awkward physical shape of some fragments (such as the abstract models), which made the RFID stickers challenging to attach. Furthermore, we identified that the increased length of the audio recordings attached to the comics, letters, and collages in comparison to the photos or models was due to each man explaining the complex content of each drawing, or some men opting to read their letter out loud. Participants displayed particular interest in the Polaroid photos, due to their interest in representing important places or objects within their fragments; this is an interesting mirror of Clarke et al.'s (2013) findings that victim-survivors who engaged in photo-sharing also appreciated the use of *metaphor* for representing topics related to violence.

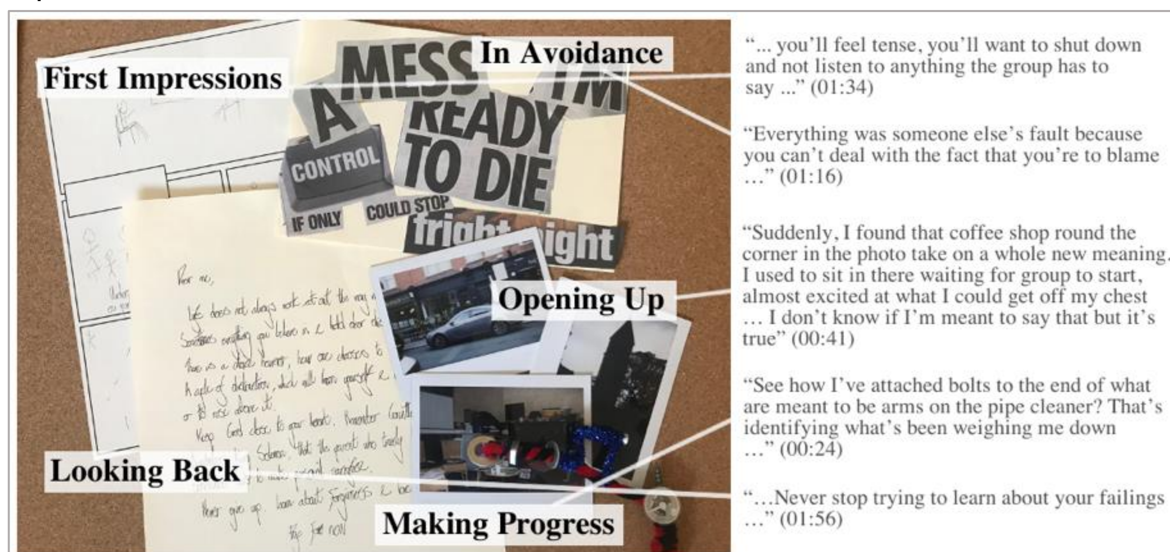


Figure 27: A participant's finished set of fragments

7.9. Stage Three: Findings, Themes

Throughout the fragment-crafting process, I was interested in exploring what kinds of support information were shared by Group N, how this information was visually and audibly represented using FoTP, and how Group N felt about the process of crafting the fragments. Through my use of grounded theory and visual grounded theory methodologies (Charmaz, 2014; Mey and Dietrich, 2016), I identified two key qualities of the fragment-crafting process: *Audibly Augmenting Reality* and *Curating Identities*.

7.9.1. *Audibly Augmenting Reality*

Each participant primarily chose to communicate emotionally engaged and encouraging guidance through their fragments (as demonstrated in Figure 27); however, this was done in distinctively different ways through the audio recordings. I was able to identify the following strategies used by participants to link their physical fragments with the connected supported messages recorded for others: that their fragments were *evidence* that changing abusive behaviours and attitudes was possible, that they could *challenge* false narratives about DVPPs, and that they could help to *explain* the complex thoughts and feelings at stages in the intervention. Many participants identified that another significant challenge for them at the start of the DVPP was a lack of 'proof' that desisting from violence was possible. As such, some men positioned the fragments as *evidence* that it was possible to move on from, and live a life desisting from, the use of violent behaviours. One participant wrote a letter to himself addressing how he remembered he had thought about his use of violence:

> '*Believe me man when I say that it is possible to do something about you and your behaviour … I genuinely used to think this way this letter talks about myself and [victim-survivor] but I don't any more …*' (N6, Perpetrator)

The most common approach was to use fragments and the associated audio to *explain* and describe their feelings or thought patterns at various stages of a DVPP, sometimes by describing what colours or drawings meant to a participant (Figure 28):

'*The brown for me represents how shut off I was, I wouldn't listen … I was inside my own head a lot, all … then I come here and I'm still feeling blue but starting to feel like I'm growing … soon I was able to accept and feel lots of different things hence the yellow, pink and stuff …*' (N10, Perpetrator)

Another common strategy was to use the fragments to *challenge* false narratives of what a DVPP was and what the programme aimed to achieve with the men. N1 (Figure 28) shared both his expected and subverted thought processes about the programme:

'*…I realised that this programme is about understanding, it's not about punishing you, telling you off or letting you off the hook … it's about Barnardo's understanding you to help you understand yourself … let them do that*' (N1, Perpetrator)

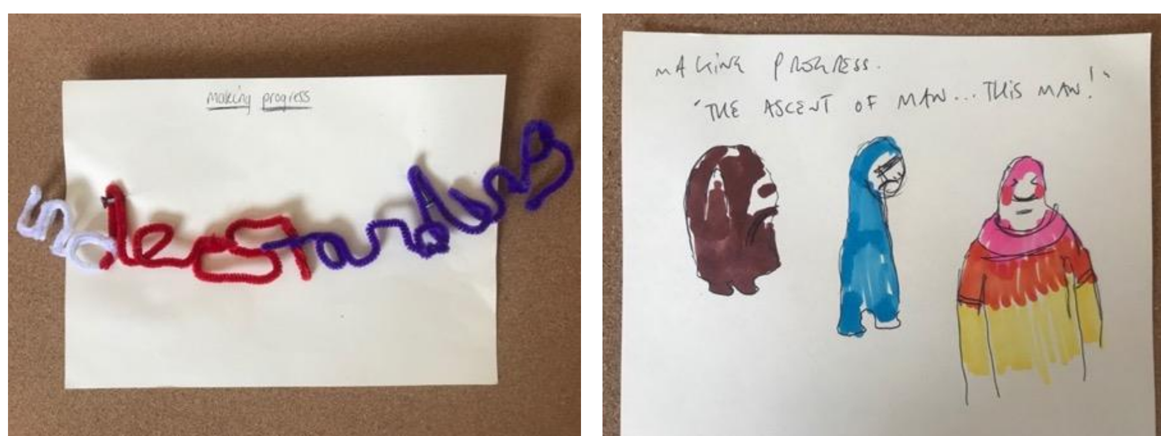


Figure 28: [Left] N1's fragment and [Right] N10's fragment for '*Making Progress*'

7.9.2. *Curating Identities*

For participants, the process of creating fragments of themselves, in conjunction with the ability to share them with others, introduced larger, existential questions regarding their connection to abuse and violence. Several participants disclosed reflective and frequently ambivalent expressions of emotion related to the activity, both during the creative process and after they had looked over their completed set of fragments:

'*We have to share ourselves with others because of our experiences … but am I always going to be known by that experience? … when representing*

> *ourselves, when do we stop being seen as 'perpetrators' or, I don't know … 'abusers'? Are we always going to be perpetrators? Is every piece of ourselves from now representative of that?*' (N2, Perpetrator)

I found this to be a compelling effect of the creative process for Group N: namely, that many of them interpreted the process as a form of identity work around the label of *perpetrator*, particularly what was captured about themselves through that label and (importantly) what was left out. This form of identity negotiation is most often discussed in relation to victim-survivors, regarding whether being subject to violence makes one a victim or establishes one's agency in being a survivor of abuse. N2 expresses dismay that all future fragments of himself may still be 'representative' of his past use of violence, although not all participants were reluctant to 'own' this identity:

> '*… we have to own up to our past, what we've done … if you record a mistake, you got one shot on your thoughts, we can wanna try to tape over what happened and start afresh but it don't work like that in real life*' (N9, Perpetrator)

The facilitators, while finding it encouraging that N9 took responsibility for his past behaviour, reminded him to be careful in his use of language around violence, suggesting that he should not be talking about his use of it as simply a 'mistake' to avoid minimising his actions towards his victim-survivor. While the Orchard/Mosaic team had initially shared anxiety around whether Group N would '*take the process seriously*' (F6, Facilitator) or '*share anything useful*' (F5, Facilitator), they both agreed that the process of running an allocated workshop in which the men could share their thoughts and feelings on their identity as expressed through the fragments to be invaluable. We noted that this appeared to tackle several of the challenges associated with unmoderated online peer support networks: a lack of initial content, sporadic engagement and offering unhelpful or dangerous advice.

7.10. Stage Four: Receiving Peer Support

For the final stage of my investigation, the facilitators and I presented the fragments from Group N to a set of new starters in a DVPP: the Gateshead Group (Group G), a group of eight men who were unknown to Group N. Each participant was within six weeks of beginning the programme and had reportedly found the content of the previous six sessions challenging according to a facilitator (F3), identifying them as a group that might potentially benefit from additional support. The three-hour activity was hosted within an existing DVPP session in their local Orchard/Mosaic hub. The final session was designed to generate progressive discourse between Group G members as they listened to the experiences of others and shared their own experiences of interacting with the fragments provided by Group N to foster the same mutually respectful practice for discussing violence. For the first half of the session, the men were split into groups of four: the first set listened to a collection of fragments one by one (Figure 26), while the second listened to the fragments as a group, after which the groups swapped over halfway through. This was intended to determine whether the men found the peer support process most useful as an individual or a group activity. For the second half of the session, facilitators asked evaluative questions regarding how Group G found the process. The men were also told that if the material seen or heard through FoTP proved to be too distressing or emotive for the session, one of the lead facilitators (F4) could provide one-on-one work outside of the group context to any individual who requested it. The participants were additionally notified that their attendance was not connected to their course evaluation, unless they were to disclose a safeguarding concern.

7.11. Stage Four: Findings

From our data analysis, I identified two prominent categories focusing on examining the role of receiving peer support from Group N, which I discuss further below: *Looking Back to Look Forward* and *Communicating Honesty*.

7.11.1. *Looking Back to Look Forward*

Each man in Group G was not permitted to have any communication with the participants of Group N due to the ethical constraints of the research project (see 7.3.1 Ethics Approval). Nevertheless, even though none of the participants knew

who had produced each set of fragments, many participants shared that they '*felt connected somehow*' (G2) to some of the accounts provided by Group N, despite the channel of communication being anonymous:

> '*Just knowing that other guys [are] in the same position as me, like, cared enough to give back to us … yeah that's cool man … I might not know them but in some ways it looked like I was lookin' into my future … with the letter to yourself, I'd like to get to a stage where you're asking me to do that for the next batch of guys*' (G4, Perpetrator)

We found it interesting that G4 perceived Group N to be 'giving back' through emotional support by physically providing them with their fragments. We further noticed that many participants reported finding the process of listening, replaying, and commenting on another participant's fragments to be motivational and encouraging for their own speculative process through the programme, with some even imagining themselves in peer support positions in the future ('*for the next batch of guys*'). Some members of Group G suggested ways in which FoTP could be extended to include solitary activity:

> '*I think askin' people to make fragments as they go along, rather than right at the end of the process, you know capture that rawness of how someone feels then, instead of how they remember feeling … then I don't know, getting them to check it over at the end? Let them see if they've actually changed in themselves …*' (G6, Perpetrator)

Many participants within Group G saw inherent value in using the fragment-crafting process at different stages of the intervention, suggesting that this might provide a 'rawer' view of a journey when compared to the more positive retrospective view at the end. The facilitators subsequently agreed that crafting fragments throughout the process of change could also act as a means of self-reflection and demonstrating change (or lack thereof) within a perpetrator.

7.11.2. ***Communicating Honesty***

The final stage elicited a range of responses around how the authenticity or honesty of the fragments was communicated through creative expression and judged by Group G. Potentially since Group G were only just beginning the DVPP process, most participants spent a lot of time discussing the First Impressions fragments with the group relative to fragments from other stages. During the playback of these fragments, participants shared with the facilitators their observation that many Group N members had relayed detailed descriptions of their general anxiety upon starting the DVPP:

> G7: '*Listening to them speak and seeing the comic they represented, yeah that stuff was super depressing … a lot more real than I was expecting yeah … because you can hear them sayin' it in their own words and what they've chosen to represent about themselves … even if it's not super crafty, I think that just helps you know it's real men like us …*'

> G3: '*But you gotta rely on the fact we have just been listening to men who have really had their experience! It could be just Barnardo's having a crafting session and then putting on funny voices to make those fragments [laughs]*'.

This exchange between G3 and G7 directly connected the value of the fragments to two important aspects of honesty: the honesty of Group N in sharing 'authentic' accounts, and honesty on the part of the facilitators and I in the process of presenting these accounts. The possibility that Barnardo's was presenting 'inauthentic' or 'faked' fragments was discussed in detail, although many participants agreed that the combination of both the audio-based and physical fragments could potentially mitigate this concern:

> '*I think having audio and the physical stuff both together to work as one, it helps to bring you closer to understanding that guy … but then each fragment is only connected by that little [RFID] sticker and you could lose that and lose their voice … or say that Orchard/Mosaic don't like the stick drawings on a comic with something more stylish … you'd never know there'd been a change.*' (G8, Perpetrator)

Many participants established that it was the combination of physical creative expression and the audio component that helped them in assessing the fragments as authentic, rather than being manipulated by Barnardo's out of a desire to present a 'stylish' version of their fragments for other reasons (such as an external intervention evaluation).

7.12. Discussion

While research into technologies designed to support desistance from harmful behaviours is beginning to develop, it is less common to design for individuals who subject others to domestic abuse, despite the longitudinal support that perpetrators frequently require. The *Fragments of the Past* investigation was conceived as a first step in identifying ways to sustain moderated, pro-social relations for changing abusive behaviours that go beyond the individual programme, while also seeking to overcome the ethical, practical, and pragmatic challenges that can arise in traditional and online peer group creation. The ethical component of this investigation gave this work a unique focus that required me to identify how the process of creating novel channels of anonymous, asynchronous communication could simulate peer support.

In the following, I synthesise my findings and identify some design implications that provide additional context to my exploration of my second and third research questions: *How might digital systems be designed and deployed in such a way that they redistribute responsibilities for violence prevention with perpetrators of domestic violence?* and *What are the key methodological and ethical considerations for technology creation when collaborating with domestic violence support services and perpetrators?* I do this through exploring three important considerations for the use of interactive systems that might facilitate perpetrators *providing peer support and community*: (1) consideration for how asynchronous support can cultivate *Responsible Channels for Passing Support*, (2) through considering the role of *Identity Work for Perpetrators* and finally (3) scrutinise our role, as researchers, to provide *Collective Responsibility for Individual Responsibility*.

7.12.1. *Responsible Channels for Passing Support*

Digitally mediated peer support networks for reducing harm are subject to a number of challenges in their creation, from sparse engagement to the lack of accountability for users who reinforce abusive behavioural and cultural norms (Kushner and Sharma, 2020; Tseng *et al.*, 2020). One such challenge concerns the potential for collusion and escalation of risk, which is of particular concern for perpetrators in unmoderated spaces in ways that are not common to all social groups. Owing to the lack of resources for studies focusing on post-programme desistance, the creation of such supportive processes between perpetrators can be even more challenging to carefully design; this is true despite the fact that the absence of such processes is clearly identified as a risk factor for re-uptake of violent behaviours (Morran, 2006; McNeill and Maruna, 2007). While I note that *Fragments of the Past* was able to simulate aspects of a peer support process, so that members of Group G reported feeling perceived support (a valuable indicator for improved health outcomes; (Kim, Ray and Veluscek, 2017), I further note that the interpersonal benefit for Group N (who provided peer support and thus felt valued or included) was potentially absent from the process (Satinsky *et al.*, 2020; Schildkraut, Sokolowski and Nicoletti, 2020). The lack of back-and-forth communication between the two groups is a direct result of the ethics considerations identified in how this research study was conducted; as a result, I was required to focus on designing for a meaningful one-way information transfer that went beyond the use of traditional digital input devices, an approach notably unpopular with our participants (*7.6.2 Mixing the Digital and Non-Digital*).

In this work, I was able to identify that the mixed-media 'fragments' or artefacts could provide an appropriate channel for *passing* supportive peer content to other persons encountering challenges while taking their first steps towards desistance. This was possible because the artefacts took on a kind of *temporal permanence*, in remaining fixed across time, and were thus able to capture, express and (importantly) make manifest insightful reflections on emotional support in a form that could be physically passed between groups. While I acknowledge that other studies included in this work draw attention to this 'fixedness' of artefacts and its role in remembrance (Goodman and Rosner, 2011; Wallace *et al.*, 2013) and gift-giving (Spence, 2019), I found that this permanence provided the means to both

capture a representation of change for the provider (e.g. N6 in *7.9.1 Audibly Augmenting Reality*) and provide the receiver with motivation for change (see e.g. *7.11.1 Looking Back to Look Forward*). To my knowledge, I am the first to explicitly highlight this powerful potential dual role for mixed-media artefacts within the creation of peer support activities. I as such offer an answer to my second research question: ***that we pay explicit attention to how relational and communicative dynamics can play out through digital artefacts in environments where synchronous communication is not possible***. One potential way that future research could seek to innovate further around this exchange is through exploring how artefacts can be continuously passed between groups to observe how fragment creators interpret how their artefacts are received. Indeed, this investigation ideally helps to expand the scope of *what can be considered as evidence of change*, and how a perpetrator might *demonstrate* this for moments of reflection and realisation on abusive behaviours.

7.12.2. *Identity Work Around Perpetration*

When observing the process of making, I noted that many of my participants engaged in work around their own identities with respect to the label 'perpetrator', whether they sought to reject it or accept it (7.6.1 Balancing Parts with Wholes; 7.9.2 Curating Identities). This grappling with such complex and challenging questions related to harm, memory, and identity adds to the ever-growing corpus of work within HCI that understands the value of further exploring the making process to communicate sensitive and challenging topics (Clarke *et al.*, 2013; Marshall *et al.*, 2014; 'Stepping Out of The Box Art Exhibition', 2019). Due to the flexibility inherent in the process of using JigsAudio as a medium for presenting the co-designed FoTP process, my participants were also able to share only what they felt comfortable sharing about their identities, their behaviours, and how these may have subsequently changed across the intervention. As such, I suggest in response to my third research question regarding methodological considerations that ***when creating both asynchronous and synchronous communicative groups, practitioners and researchers could investigate the incorporation of mechanisms for creative expression to assist people in communicating their closely held feelings and***

experiences. I make this suggestion to encourage the cultivation of approaches in HCI that seek to uncover greater emotional understandings of the growing participant base that the field works with, leading to improved health and wellbeing outcomes and promoting the protection of vulnerable groups.

I do however acknowledge that caution must be applied when repeating such a process: in short, participants who have used harm should not feel free to present themselves in a way that legitimises their abusive behaviours through e.g. minimisation, denial or blaming of others (Hearn, 1998). Providing these types of participants with the ability to craft an identity, particularly those who may have carefully curated an acceptable public-facing identity to hide their abuse of their partners, is a particular risk with this social group. However, inevitable complexities arise when condoning the permanent labelling of an individual as a 'perpetrator', irrespective of their present behaviour; this somewhat ignores the existential issue of how that label is negotiated by the men in question as they experience it in their everyday lives, as this study has demonstrated. Moreover, as each stage was carefully co-planned with Barnardo's, support processes that could potentially undermine the messages of a DVPP via negative feedback loops were carefully caught and challenged before material could be added to them. Considering this, I offer an ethical and methodological consideration for my third research question that there is an ***ethical tension between an authentic (yet unhelpful) representation of emotive support and a moderated (and thereby slightly inauthentic) yet useful representation***. Examining this tension gives rise to new foundational questions in relation to perpetrators: for example, how do you hold on to and acknowledge an abusive past while still being permitted to move on? In future work, I anticipate exploring how both reflective and evasive fragments can be used to engage perpetrators in independent, individual reflection on their prior thoughts and behaviours (as suggested by G6), as well as how these reflections might compare to existing in-person reflective evaluations such as mid-programme reports or post-programme risk assessments. An approach such as that described within this work presents a relatively low-cost (from an organisational perspective) means of revisiting these manifestations and providing these impressions to others.

7.12.3. *Collective Responsibility for Individual Responsibility*

It can be deeply uncomfortable to acknowledge that the process of sustainable change in behaviour is rarely a straightforward, unidirectional linear movement away from violence, but is rather a '*dynamic pathway*' characterised by moments of relapse, confusion and resistance to change (McNeill and Maruna, 2007). I acknowledge that the decision not to grant ethical approval to certain aspects of this research, which shaped the way this research was ultimately conducted, most likely stemmed from a concern for protecting vulnerable population groups from undue harm, a concern that I seek to continuously respond to and be informed by across my work with perpetrators. Nevertheless, a decision to prohibit communication, from the perspective of my support organisation, places undue focus on isolated, static and (arguably) speculative moments of my participants' journey to non-violence, during which they could conceivably behave irresponsibly. As has been suggested in earlier chapters of this thesis, this is more reason to better understand the use of violence as a behaviour subject to internal and external factors, rather than as permanently rooted in a normative impression of what a 'perpetrator' is and what actions such a person might perform.

While I am not advocating disregard for the possibility that some participants might behave in ways that undermine the messages of the programme, this is also part of the learning process inherent to DVPPs, and the associated group accountability is the very source of pro-social enforcement (Phillips, Kelly and Westmarland, 2013). My participants were not afforded the spaces in which to negotiate for taking responsibility for others or come to be held accountable in relation to those others, as fully as might have been possible an alternative version of *Fragments of the Past*. This denial of affordance notably took place even within a safety-focused and heavily moderated specialist environment such as Barnardo's, where collusion and risk are continuously and rigorously evaluated. My investigation into developing responsible interaction frameworks sought not only to strongly encourage perpetrators to *take* responsibility for their violence, but also to examine how Barnardo's could give the perpetrators responsibility to do so. Such an exchange often relies on significant bonds of trust and honesty being present between both

groups, a fact that my participants were highly aware of and openly discussed (by addressing e.g., the potential dishonesty of men providing a misleading representation of themselves through their fragments, or of the facilitators producing inauthentic fragments). As a result, when considering what ethical and methodological considerations we must take for our work with such groups for my third research question, ***is to carefully annotate the spaces between perceived risk and actualised risk of relapse to institutional bodies that fairly oversee ethical research.***

The perceived risk of entire groups going into relapse or partaking in the reinforcement of negative patterns due to inter-group communication appears to be out of step with the greater possibility for the collectives to self-regulate when outlier behaviour occurs (Maitland and Chalmers, 2011; Rubya and Yarosh, 2017), particularly since responsible behaviour is determined dynamically over time rather than through a single incident. In this way, such blanket verdicts can make ethical clearance and engagement with such groups even more challenging, and can further lead to a lack of evidence required to inform the safe practices that are necessary for reducing harm to vulnerable population groups (Newman, Walker and Gefland, 1999; Downes, Kelly and Westmarland, 2014). In such a way, despite the potential ethical quandaries surrounding work with complex groups, researchers should not be intimidated by the prospect of, in the words of Brown et al. (2016), "*ground[ing their] sensitivities of those being studied and based on everyday practice and judgement*", as researchers within HCI strive to behave ethically and do ethics within an ever-expanding field.

7.13. Chapter Summary

In this chapter, I have described my fourth investigation into how digital services can be designed and deployed to provide spaces for peer support among perpetrators of domestic violence enrolled in DAPPs. In so doing, I also describe working with challenges surrounding attitudes and ethical questions related to enabling direct interpersonal communication between two groups of current and former perpetrators of domestic violence. In recounting my investigation, I demonstrate

that Fragments of the Past was able to simulate specific aspects of translating peer support for the receivers, while still providing the givers with the ability to perform identity work in relation to the topic of their use of violence. As such, I contribute three further design considerations for work with perpetrators within and beyond the context of formal perpetrator interventions, while also highlighting several interesting challenges to my third research question.

Chapter 8. Discussion: A Journey Revisited

8.1. Introduction

In this chapter, I make the contributions of the present thesis explicit by drawing together and synthesising my key findings and discussion points from across my four different investigations. This in turn represents a consolidation of all the different insights obtained thus far concerning how digital technologies might be collaboratively designed, developed, and evaluated within domestic violence support services to assist their work with perpetrators. In the course of this work, I have focused on the extent to which such technologies can redistribute responsibilities for violence through challenging abusive behaviours, identifying alternatives to abuse and providing a surface for identity work surrounding harmful actions within a moderated context. I have performed a focused ethnographic study, as detailed in Chapter 4, with a local third sector organisation, which produced detailed descriptions of how different responsibilities surrounding violence and non-violence are explored through and with digital technologies with perpetrators. This investigation provided the conceptual groundwork for filling LeRose et al.'s (2008) 'responsibility gaps' where they appear in our understanding of domestic violence while also enabling me to overcome the hesitancy associated with assigning and speaking about individual responsibility for a socially complex problem (Lamb, 1999). Importantly, this framework has identified areas of concern for better assisting perpetrators to negotiate their own responsibilities, agency, choice and identity surrounding their use of violence and thereby 'answer for' moral wrongdoing (Shoemaker, 2011; Smith, 2015). I also included suggestions and recommendations for how this framework could be further investigated through digital systems and design. My following chapters built on these suggestions by outlining the design, deployment, and evaluation process for two socio-technical systems: Choice-Point in Chapter 5 and Fragments of the Past in Chapter 7. I also describe how the impact of COVID-19 hampered the deployment and evaluation of the Time Out tool; this permitted me to perform a deeper analysis of the tensions inherent to designing for

perpetrator inclusion throughout Chapter 6. In this chapter, taking a step back from my four investigations, I take the opportunity to reflect on how my methods, findings and contributions all aid in answering the question that underpins this thesis:

> *How might digital technologies be collaboratively designed and deployed with perpetrators of domestic violence to assist in their journey towards non-violence?*

As discussed in Chapter 3, I separated this overarching question into three discrete yet interrelated components: what digital technologies are being used in practice with perpetrators; how these technologies might be collaboratively designed within a professional, moderated context; and what methodological and ethical considerations we need to make to better support, rather than hinder, perpetrators' journeys towards non-violence. These components, which I present as sub-research questions, were inspired by my personal experience in engaging with feminist activism that I share in Chapter 1, as well as my identified spaces for opportunity that were found through searching the relevant literature and presented in Chapter 2. This chapter responds in three sections to each of the research questions in turn, where I describe the six contributions of this thesis (listed A. – E.) which are as follows:

Digital Preventative Responses to Domestic Violence

> RQ1. How are digital technologies used in domestic violence perpetrator interventions to challenge and support alternatives to abusive behaviours?

A. An ethnographic, narrative account of workplace practice that describes and interprets the relationships between technologies, support workers and perpetrators in violence prevention interventions.
B. The provision of two functional digital systems, and one detailed system image, to the wider domestic violence sector, aiming to better assist such organisations with the delivery of their work (including evaluation and assessment).

Responsibilities for Violence in HCI and Design

RQ2. How might digital systems be designed and deployed in such a way that they redistribute responsibilities for violence prevention with perpetrators of domestic violence?

C. A lightweight, flexible design framework for digital service delivery aimed at structuring reflective processes around perpetrators' responsibilities for violence.
D. A series of implications for design regarding how digital systems might use this framework to encourage the formation of pro-social behaviours more effectively within the context of domestic violence prevention interventions.

HCI and Supporting Responsibility Work in DVPPs

RQ3. What are key methodological and ethical considerations for technology creation when collaborating with domestic violence support services and perpetrators?

E. The analytical concept of 'un-safety work' to describe the efforts that are performed by researchers, perpetrators and support services that act (whether implicitly or explicitly) to undo the historic burden of safety-work that has unjustly fallen on victim-survivors to carry.
F. A series of suggestions for researchers and practitioners who may seek to engage perpetrators directly in the design of digital technologies, along with suggestions for how this might be done to mitigate the risks of collusion.

For each area of knowledge listed here, I present a summary of the work I have performed across my four investigations. Within this area, I then explicitly outline how my work builds on and uplifts existing work within the field of Human-Computer Interaction, as well as inter-related fields more broadly. My final section functions as a form of meta-summary that reflects on these contributions to assess how my thesis has worked towards satisfying my overarching aim by situating it within the

current social, political and economic context of working with perpetrators of domestic violence.

8.2. Digital Preventative Responses to Domestic Violence

This thesis both builds on and is indebted to decades of academic and practical work that seek to respond to the harm that has been and is still caused by perpetrators of domestic violence. I noted that while responses to domestic violence on the part of law enforcement and the criminal justice system may still be '*patchy and partial*' (Hoyle and Sanders, 2000; Barlow *et al.*, 2020), something that has remained constant is the tenacity of (frequently) community-based, third sector organisations who have risen to fill the 'unmet needs' of the populace (Frumkin, 2005), particularly in the aftermath of economic austerity (Towers and Walby, 2012). As I have discussed in Chapters 1 and 2, a significant number of perpetrators encounter the opportunity to engage in meaningful holistic and reformative work within the context of domestic violence support charities. However, I also noted that these contexts remain an under-researched area, despite HCI's move towards social justice goals (Dombrowski, Harmon and Fox, 2016; Bopp and Voida, 2020), the drive for inclusion in technology creation (Marshall *et al.*, 2018; Strohmayer, 2019) and their potential as sites for violence prevention. While a small number of works have explored how the content of such interventions might be digitally augmented, or have drawn attention to the positive potential of such spaces (Morris and Bans, 2018), I note that none of these works have yet provided grounded descriptions of how technologies are currently being used for rehabilitative purposes in everyday practice and in the third sector. This thesis therefore aimed to produce a better description and understanding of the practices implemented for managing perpetrators as they are experienced by those in that context, arguably an important design goal for any technology seeking adoption (Ackerman, 2000). Accordingly, my first research question was explicitly designed to capture a description of a context as it currently *is* (or is not) using technologies, along with details of where it *could* be using technologies to better further the goal of harm reduction: *RQ1. How are*

digital technologies used in domestic violence perpetrator interventions to challenge, and support alternatives to, abusive behaviours? I note that because of the dramatic shift in the landscape of preventative approaches caused by the global pandemic COVID-19, my contributions and answers provide a far more valuable impression of how such interventions were delivering services, rather than an accurate impression of how they are at the time of writing this work. In such a way this contribution may contribute towards a comparison for how we might translate practice in working with perpetrators remotely or through technologically mediated programmes.

The first phase of my work addressed this research question through a 12-month data collection period of focused ethnographic fieldwork at Barnardo's, as detailed within Chapter 4. A summary is provided in the form of *A Day in the Life of Orchard/Mosaic*, which presents a narrative composite of ethnographic accounts of interactions between digital technologies, support workers and perpetrators. Through my presentation of thick descriptions of mundane technologies (Dourish *et al.*, 2010), I show how personal and organisational uses of technologies were being used to extend and support work with perpetrators across the three services within the scope of the investigation. Digital systems at the site were explicitly leveraged as a means of supporting the practices of work in a variety of different ways: these included assisting perpetrators to reflect on their abusive past behaviour, providing them with the means to carve out new, positive identities in the present, and being accountable to demonstrate change in the future. In answering this question, I noted that the dependency on these mundane technologies, such as word processors and WhatsApp groups, was directly influenced by the external economic context of austerity rather than personal preference (Clayton, Donovan and Merchant, 2016; Clarke *et al.*, 2019). I shared accounts of how Barnardo's' access to digital devices, their capacity to commission the organisation to develop new ones, and the training required for them to comfortably deploy them was frequently out of scope within this context. The underlying inflexibility of the sector's drive for evidence-based approaches also shaped the role that technologies could play within this space (Morran, 2006). Any new technologies within this space therefore needed to be

introduced so that they were compatible with both the mode of intervention delivery and the ideology behind the programme material. Importantly, as I would then identify in my later chapters, this also meant such technologies frequently had to be compatible with working theory and its implementation around the causation and the prevention of violence.

Choice-Point, discussed in Chapter 5, also contributes findings towards this question, as the design, development and evaluation of a novel digital system acted as the primary means of delivery for learning about perspective-taking. This chapter demonstrates that the socio-material system of Choice-Point worked to communicate potentially triggering scenarios at a conceptual distance while permitting real-time engagement from its audience. Despite the conflict being artificial, as it was delivered in the form of a fictional narrative, the practice of decision-making in a participatory context prompted participants to contemplate their own use of behaviour. This technology also acted as the first indicator that digital technologies could provide support for perpetrators' pathways to non-violence through providing motivation for change.

Fragments of the Past, discussed in Chapter 7, continues to contribute to answering this question, being a socio-technical activity used to foster peer-support activities through the sharing of asynchronous messages between participants at differing stages of two DVPPs. This technology enabled more experienced perpetrators to reflect on prior significant moments throughout their journey toward change and share this asynchronously with more inexperienced perpetrators. The activity played a polysemous role, acting as a means of demonstrating that change was possible, challenging false narratives around representation of perpetrators and DVPPs, and helping to explain complex thoughts that perpetrators may grapple with during the programme.

8.2.1. *Narrative Vignettes of Digital Support Work with Perpetrators*

The first contribution of this thesis is its provision of detailed narrative vignettes of workplace practice, which describe and interpret the relationships between

technologies, support workers and perpetrators in violence prevention interventions.

Chapter 4 describes a context of support work that was performed with perpetrators and digital technologies to deliver interventions for domestic violence. I provided these descriptions, which first described and interpreted the social action of working with perpetrators using technologies within Orchard/Mosaic, to complement Morran's (2011b) appeal for greater attention to be paid to 'what matters?' to the individuals within the interventions themselves. Such social actions were first recorded through the use of thick descriptions before being reworked into meaningful and vivid narrative representations (Agar, 1996; Lincoln and Denzin, 2004; Baskerville and Myers, 2015). I next demonstrate how I conducted a grounded theory analysis informed by a constructivist approach (Charmaz, 2014) so as to better craft links between such vignettes and the theoretical concepts that guide this work (Jarzabkowski, Bednarek and Lê, 2014). This analysis uncovered the role of responsibilities in the following areas of violence prevention interventions: self-awareness and perspective-taking; acknowledging the extent of harms; providing support and community; and being continuously accountable to demonstrate change across the space of the interventions. For each of these areas, several illustrations are provided of the mundane technologies that are used to educate, challenge, problematise and provoke dialogue around a perpetrator's connection to their abusive behaviours. Unlike other studies that scrutinise the intersection between technology and perpetrators through the lens of understanding them as security threats or attempting to delineate their psychological make-up (Woodlock, 2017b; Seinfeld *et al.*, 2018), the accounts in this thesis seek to contribute to a greater understanding of their use in rehabilitation efforts (Nellis, 2006), outside of prison contexts (Morris and Bans, 2018).

My study provides detailed descriptions of how perpetrators leverage technology to pursue non-abusive goals *as perpetrators*. This occurs within the context of Barnardo's service delivery, such as in Chapter 5, and beyond it, as in the more experienced post-DVPP perpetrator participant set in Chapter 7. The provision of such accounts is inherently valuable, as they reveal the manner in which

technologies are leveraged outside of criminal justice settings (Verbaan *et al.*, 2018) or therapy settings, both of which are subject to different contextual constraints. Such provision also helps to build up a picture that illustrates the '*material and social circumstances*' in which the technologies exist (Suchman, 1987), along with how they are used in interactions with and between groups of individuals (Taylor *et al.*, 2013; Kuutti and Bannon, 2014) within third sector service delivery contexts (Marshall *et al.*, 2018; Strohmayer, 2019). These vignettes are presented with the goal of providing Human-Computer Interaction researchers and designers with greater insight into a field of work that demonstrates the messy and entangled relationships between how technology is used and how service users of domestic violence services are managed (Freed *et al.*, 2017, 2019; Parkin *et al.*, 2019). The aim of presenting this data is to contribute a sense of what it was like to be *there* in Barnardo's, both as a researcher and a person attempting to support them with their service delivery. I do this in acknowledgement that, in line with Moncur et al. (2013), not every space is suitable or available for every researcher – not because these spaces are unfairly exclusionary, but rather because such places do require an attention to detail, understanding and tacit responsiveness to sensitive topics that can be challenging at a distance. I therefore hope that these vignettes and the anonymised data set[11] that accompanies them might better guide and inform a contextual impression of how digital preventative methods used to engage with perpetrators under everyday circumstances are experienced.

Such thick descriptions and their analyses also seek to contribute to the wider literature on *Digital Preventative Responses to Domestic Violence* within the space of domestic violence perpetrator programmes evaluations. Narrative accounts of this kind add to the steadily growing body of work that seeks to expand focus away from purely 'what works' with perpetrators towards '*the more nuanced questions of program content and implementation*' (Wistow, Kelly and Westmarland, 2017). Importantly, such accounts demonstrate that interpretive descriptions of workplace practice, alongside perpetrator accounts (such as those of Hearn (1998) and Downes et al. (2019)), can provide viable and valuable insights into how perpetrators do or

[11] http://dx.doi.org/10.25405/data.ncl.11522472

do not orientate themselves towards pathways to non-violence. As discussed in Chapter 2, perpetrator interventions often struggle to establish their legitimacy with other professionals due to concerns over not treating the men harshly enough, or conversely treating them too harshly through shaming and humiliation (Pence and Paymar, 2003; Phillips, Kelly and Westmarland, 2013). My ethnographic accounts aim to offer a holistic account of a DVPP that strikes the balance between being non-judgemental and holding perpetrators to account for their behaviour. Such accounts attempt to jointly characterise (while not apologising for) perpetrators and their technology use, while also conveying a rich impression of what work with perpetrators involves in programmes that understand violence to be a learned behaviour.

8.2.2. *Provision of Digital Systems for Perpetrator Interventions*

The second contribution of this thesis is a joint contribution to *Digital Preventative Responses to Domestic Violence* and *Responsibilities for Violence in HCI and Design*: specifically, the provision of two functional digital systems to the wider domestic violence sector. This is accompanied by a detailed blueprint of the system architecture, mock-ups, and user scenarios of the Guided Time Out, which I discuss in greater detail below.

In my Literature Review (Chapter 2), I demonstrated that there is a significant lack of digital tools, resources and systems currently being leveraged to support perpetrators in rehabilitation efforts (Ward, Mann and Gannon, 2007; Morran, 2011b; Morrison *et al.*, 2018). My focused ethnography (Chapter 4) revealed spaces where certain technologies might represent a viable means of assisting in the delivery of interventions for perpetrators, as well as aiding in their negotiation of responsibilities to desist from the use of harmful behaviours. As I noted when outlining my motivation for working within this space in Chapter 1, I have been inspired by the guidance of the many scholars who have underlined that research within the violence against women sector should be mutually beneficial for both organisations and the research team (Downes, Kelly and Westmarland, 2014; Antle, 2017; Westmarland and Bows, 2018). This was also reflected in my discussion of Strohmayer's (2019) work, which advocates that the process of research, along with

its tangible outcomes, should seek to uphold the overarching values present within a political space, particularly within the third sector. In my work with domestic violence organisations, I understood myself to be what Asad et al. (2019) term an '*academic accomplice*', seeking to draw on my privileges of technical skills, funding and work capacity to provide something that was meaningful and useful to the sector I was exploring. However, there were times where being an accomplice to modes of design and development proved to be a challenge as the choice of digital intervention, such as the Guided Time Out, was influenced far more by the political and economic constraints of the environment than my ability to collect data first-hand with my charitable partners. In such a way, these technologies are offered to the sector as they are directly informed by and shaped by the influencing factors of such an environment that they are not simply technologies for perpetrators, but rather technologies for perpetrators as shaped by the contexts in how they were produced.

As my doctoral research would come to an end far sooner than the services for perpetrators, I was thus highly conscious of the risks of complicating partner expectations, funding arrangements and handover processes (Taylor *et al.*, 2013). This is of acute concern when such technologies are understood as 'successful' in making a change or improving an end user's condition through their use, as my quotes in Chapters 5 and 7 demonstrate (Balaam *et al.*, 2019; Hodge *et al.*, 2020). In the interests of sharing what Taylor et al. (2013) describe as the '*final fates of [research] prototypes*', this contribution communicates how *Choice-Point*, the *Guided Time Out* and *Fragments of the Past came to be* contributions to the domestic violence sector more broadly.

Due to managerial decisions and changes in services delivered, the team I had previously worked with within Barnardo's in Chapter 4 was disbanded after the conclusion of my investigation described in Chapter 7. Initially, this gave me considerable anxiety that all my engagements had produced were prototypes that would sit on a shelf without achieving sustained social impact (Balestrini, Rogers and Marshall, 2015). Nevertheless, both the *Choice-Point* and *Fragments of the Past* systems (described in more detail in Chapters 5 and 7 respectively) were fortunately

able to exist as a means of digital service delivery in contexts extending beyond my investigations with Barnardo's. Both my systems were openly advertised at practitioner-focused venues, such as Respect's *Working with Perpetrators National Event*[12], while information about their availability was made known through various academic, practitioner and activist mailing lists. Among other things, these communications presented the key findings of my research, my method, descriptions of the systems and suggestions for how the tools could work alongside existing DVPP content. Shortly after these systems were advertised, three interested third sector organisations contacted me to share that they were interested in adopting Choice-Point in their own service delivery, while two expressed their interest in using Fragments of the Past; these were organisations who were not included as research partners in these investigations and were otherwise unknown to me. Instructions, guidance for use and my contact details were provided to each interested organisation, and I further facilitated a 'setting up session' a few hours in length that was conducted over Zoom. This resulted in two organisations who engaged in DVPP delivery using Choice-Point within their own programme and providing feedback via email on the performance of the system and ways in which it could be improved. As I noted in Chapter 5, the Choice-Point system was built using the open-source software Twine, meaning that these organisations could independently author, implement and trial their own non-linear narratives separate from 'The Johnsons'. While the story I authored together with Barnardo's as a means of deploying Choice-Point centred around a heterosexual family, I was enthused to see this narrative rewritten by an organisation to work with an LGBT group. As of time of this writing, Choice-Point is still hosted through Newcastle University via a Docker container, and I am in discussions with the Information Technology department as to how this might be transferred to Barnardo's.

For *Fragments of the Past*, this socio-technical process was delivered with another two DVPP groups within a local organisation in the North East. The first additional deployment had something of a shaky start, as one of the JigsAudio systems was reportedly non-operational; upon further investigation, however, this was because

[12] https://ukafn.org/event/respect-working-with-perpetrators-national-event/

of some confusion surrounding how to access the battery through the fabrication casing. This system was tangible, which required me to meet up with the local organisation to demonstrate its functionality. After clarifying my instructions further, the activity was then implemented between two groups of perpetrators who, instead of crafting fragments of their past experiences, were asked to choose an object of significance within the centre at which the DVPP was run to attach an RFID (and therefore audio message) to. However, this exciting new deployment was cut short by the impact of COVID-19, which made the exchange of physical objects unsafe. As the core code for JigsAudio is currently being maintained by Alexander Wilson through Newcastle University systems, this reaffirms the longevity of its codebase well beyond the Fragments of the Past project. As for communicating the process of reflection and artifact construction I have passed on a 'training pack' to Barnardo's and the two other organisations who got in touch.

As my Chapter 6 shows, I completed the process with a low-fidelity prototype of a Guided Time Out, designed to provide activities, encouragement, and instructions on how to use the self-management tool appropriately. As I noted above, the global pandemic had a significant impact on how the *Guided Time Out* could be developed within the timelines of this work. However, and fortunately, my research partners were subsequently able to reappropriate and work to establish the design as a working system. Utilising a different source of funding, the *Guided Time Out*, now being understood within the COVID-19 era of social distancing, was thus adapted to be used remotely and outside of a formal intervention context. This was done because DVPPs were no longer running in-person, although many current and some new service users were still being managed or 'held' through crisis management tools to curtail an immediate threat of harm. The Guided Time Out was thus adapted to be used in a crisis management capacity, and was deployed on the website of the national phoneline for perpetrators of domestic abuse (Respect, 2020b). Respect both own and provide the maintenance for the codebase, server, and service design.

8.3. Responsibilities for Violence in HCI

My contributions to the spaces of designing for *Responsibilities for Violence in HCI* come as a response to my second research question: *RQ2. How might digital systems be designed and deployed in such a way that they redistribute responsibilities for violence prevention towards perpetrators of domestic violence?* This thesis' contribution in the area of designing for responsibilities is motivated by the disconnect between the growing body of work focused on *responsible design* and wider calls for researchers to '*take responsibility*' for their practice and outcomes (Suchman, 2002; Dombrowski, Harmon and Fox, 2016), as well as the ways in which responsibilities for users are understood, negotiated and strived towards in practice (Fox, Silva and Rosner, 2018). This question was driven by the '*symbolically important*' stance of ensuring that perpetrators assume accountability for abusive behaviour (Kelly and Westmarland, 2015) while also believing in their capacity to be transformed (hooks, 2016). In particular, I was motivated by the disconnect between the growing number of victim-centric technologies (Arief *et al.*, 2014; Dieterle, 2015) and the distinctive lack of work that addresses perpetrators as persons to be designed for directly. Along with an understanding of domestic violence as a practice of perpetrating abusive *behaviour* (Dobash and Dobash, 1981), this question was also motivated by questions of how digital self-management tools and cooperative technologies could be adapted to meet the goals of perpetrator interventions. This approach works directly to help support researchers striving to uphold the social justice commitment of '*hold[ing] responsible those who foster or unduly benefit from the oppression of others*' (Dombrowski, Harmon and Fox, 2016), yet who find themselves without a guide to doing so.

Chapter 4 begins to contextualise the location in which such technologies might be deployed, and further hints at the types of technologies that could be appropriate for these purposes by highlighting the roles of mundane technologies and symbolic interactionism. In doing so, I analysed thick descriptions of workplace practice to construct a theoretical framework of change through restoration, which I trial across the space of my thesis. As each key stage of change is related to a different responsibility that the perpetrators were required to consider and work towards, I coined a framework named *Mechanisms of Moral Responsibilities* to represent their

interdependent and intersecting nature. I also draw attention to the moral and individual nature of responsibilities for violence, as this can provide the foundation for starting small and then building up to wider approaches for the collective to challenge domestic violence.

However, it is through the design work presented across the following three data chapters – including Choice-Point, Guided Time Out and Fragments of the Past – that this question is answered; in fact, each work answers this question in different ways by practically demonstrating ways of actively designing for and with these mechanisms. In Chapter 5, I document how the mechanisms of self-awareness and perspective-taking could be leveraged through interactive, fictional storytelling to remind perpetrators of their agency and choice in performing abusive actions. Chapter 6 demonstrates how a smartphone application could be designed to interrupt or prevent the immediate threat of violence, reminding perpetrators of their role in the extent of harms caused. Finally, Chapter 7 shows how, in line with the ruling of the ethics approval committee, the provision of peer support and community between perpetrators could be made possible through asynchronous peer support networks. Each of these chapters further detail the design requirements and considerations regarding how such technologies might be designed for such mechanisms in the future. In such a way, the answers I provide in this thesis prompt consideration of this redistribution of responsibility to be highly dependent on the context that shaped them.

8.3.1. *A Conceptual Framework for Designing for Responsibilities*

The development of the *Mechanisms of Moral Responsibilities* framework in Chapter 4 represents the first contribution of the present thesis within the space of Designing for Responsibilities. This is a lightweight, flexible framework that describes of the spaces for the negotiation of responsibilities for violence within the third sector as they are created with perpetrators through interactions with technologies. It emerged as a direct result of working with both support workers and perpetrators to design a roadmap capable of representing the key features of their work practice and their values in working towards preventing violence as they themselves understood them. In being so constructed, this conceptual framework aims to guide

the ways in which we can shift the conversation surrounding retrospective blame (Lamb, 1999; Grimpe, Hartswood and Jirotka, 2014) towards assisting perpetrators with navigating their sometimes contradictory and unclear responsibilities towards current and future violence prevention (Adam and Groves, 2011). The framework seeks to channel the understanding that responsibilities should be '*grounded in social relations*', as each duty within the framework points to an action that perpetrators should perform in relation to other people (Young, 2011). The design framework also permits the identification of how motivations for changing attitudes and behaviour shift over time across the space of the same intervention, something that has also been scrutinised across single behaviours in other studies (Marteau, Hollands and Fletcher, 2012; Pinder *et al.*, 2018b). Importantly, this framework represents a contribution independent of theorising how and why people change (Ploderer *et al.*, 2014); instead, it focuses specifically on what it is that they are changing about themselves and the holistic spaces where it would be most beneficial to target such behaviours for intervention.

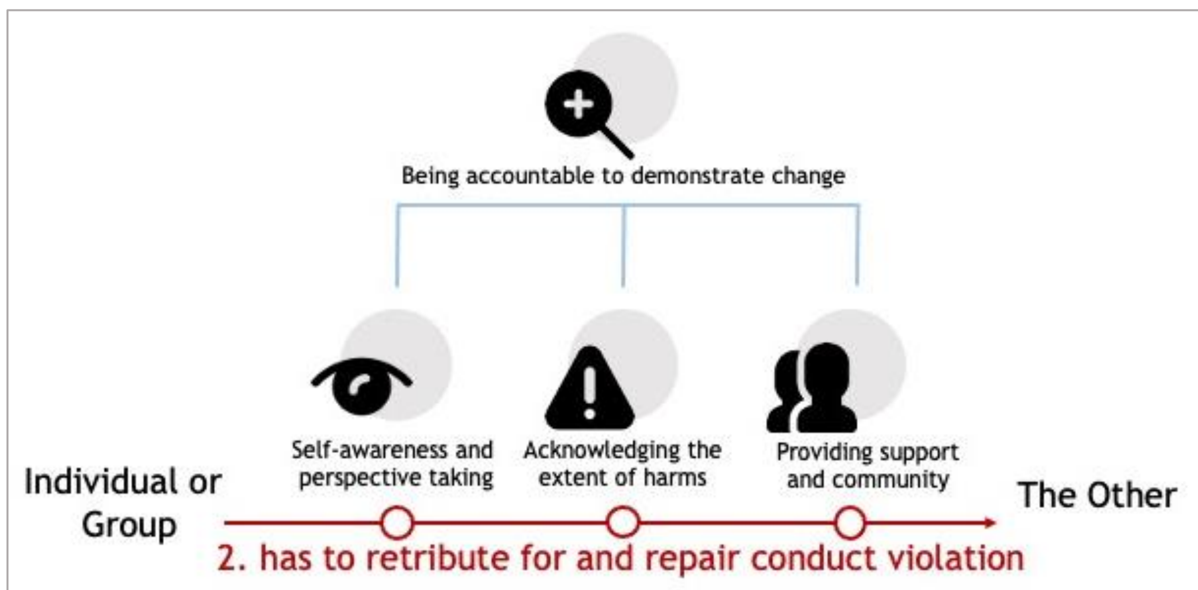


Figure 29: Process of Mechanisms of Moral Responsibilities for Violence Prevention

As Chapter 4 discusses in more detail, the model (Figure 29) begins by identifying a starting space of self-awareness of one's presence and behaviours towards others, while concluding at an understanding of one's belonging to a social group of reforming or reformed individuals. I further contribute that as the process of change is placed within the context of programme provision, a key mechanism that should

be continuously strived for in design is permitting perpetrators to be continuously accountable for *demonstrating change* in some way. Chapters 5, 6 and 7 seek to evaluate the validity of such a model through designing technologies that can be implemented in these spaces. Based on the positive feedback from perpetrators, particularly in Chapters 5 and 7, it appears that these spaces were appropriate and somewhat successful in helping both support workers and perpetrators to orientate around discussions of responsibilities for violence. However, as Chapter 6 demonstrates, designing technologies for acknowledging the extent of harms was a considerably trickier proposition, with perpetrators tending to minimise their role in the uses of violent patterns of behaviour and therefore being unwilling to adopt a tool that provoked this discussion. It is worth mentioning that different results could have been recorded if the technology was developed and used; however, I discuss this in more detail in Chapter 9 when addressing avenues for future work.

I also provide guidance as to how this contribution of a design framework might be leveraged by HCI researchers so that they might better understand its application to their own field of study and the related potential for digital design. While this framework was generated specifically with perpetrator interventions in mind, I note that there is potential for it to be applied to other spaces in which individuals harm others within a professional treatment or re-education model. There is a great deal of potential in the application of the framework towards anti-social and stigmatised behaviours, where an overwhelming amount of stigma and judgement is focused on the actions on individuals causing harm, and where the role of choice, agency and capacity to change are subject to scrutiny.

Drawing from the work of Albert Bandura, who has driven my approach to understanding domestic violence as learned behaviour, it seeks to make transparent the process through which people come to live in accordance with higher moral standards of desisting from violence (Bandura, 1971, 1999). However, as environments where behaviour is learned is influenced by social and societal factors beyond a person's control, this does problematise to what extent it solely someone's moral responsibility to choose to do otherwise without reinforcing the same structures of oppression. Novel programmes that take into consideration the impact

of trauma and cycles of abuse could produce different variations on, or novel mechanisms for change that could be worth investigating further (Aaron and Beaulaurier, 2017). In so much, the highlighted spaces of negotiation must not be used in isolation of other interventions that seek to further challenge these wider societal factors out of concern that this would result in the same *responsibilisation* of violence akin to victim-blaming (Lamb, 1999). Nevertheless, it is worth considering that not all learned behaviour is put into practice and providing an explanation for why someone may use violence should not be conflated with justification for its use. As such, there is clearly scope to explore this framework within contexts that take the impact of learned behaviours into account, and for such technologies, such as Fragments of the Past, to be (carefully) used outside of interventions to support these intersectional influences on violence. This is done so that such spaces can be better supported in adopting both reactive and preventative approaches as part of their future work with perpetrators.

After examining the model from a distance, I now understand it to be most valuable due to its combining the content areas of a perpetrator invention alongside the important spaces in which perpetrators continuously perform identity work, reflection and renegotiation of agency and choice (Pence, 1983; Pence and Paymar, 1993b; Lamb, 1999). In many ways, it imposes a level of structure for the responsible design of technologies, albeit technologies that are intended to be flexible enough for the designing for responsibilities to take place within. Upon reflection, I consider how, for several reasons related to the length of time required for technological development, it was not possible to trial the suitability of the model with the same group of perpetrators in the same intervention. The model was accordingly applied to different perpetrators across different stages of their journey; thus, more design work is required to better understand whether the same groups would have had the same responses to the three chronological and one consistent duty across the programme. Nevertheless, the design framework still makes contributions regarding how digital interventions with technologies in DVPPs can be shaped within the context of changing harmful attitudes, violence prevention and charitable organisations.

Understanding Moral Responsibility for Violence

In the following section I intend to outline how designers, researchers and practitioners may better design technologies and systems that directly utilise the mechanisms for moral responsibilities for perpetrators to reflect on abusive behaviours. However, it is also worth considering what my projects aimed to contribute toward the wider theories of moral responsibility that I engaged with in my *Literature Review*. In this section, I consider how the findings of this work correspond to *responsible design* and *designing for responsibility*. In doing so, I then relate how digital technologies can or cannot be used to '*answer for*' moral wrongdoing that has helped to drive this thesis.

In my discussion around responsible design within the design of the Guided Time Out, the *positive responsibility* enacted by the design to cause no harm (Gotterbarn's (2001) *positive responsibility*) by putting potential victim-survivors at risk and impacting on Respect's professional reputation took an interesting priority in this work. I also witnessed the expression of this through the ethical approval conditions that I received with regard to *Fragments of the Past* where speculative moments of risk were prioritised over present risk (*7.3.1 Ethics Approval*). While I cannot fault that scholars are incorporating the reflexive consideration of the impact that their actions could have on others, such as outlined by Bardzell (2010) and Dombrowski (2016), these findings provide an interesting nuance to this request. In so much, when we consider actions towards working with violence and harm that our *interpretation* of potential harms or benefits do not outstretch the real harms and benefits of such systems.

Conversely, when we work with matters of *negative responsibility*, it may be easy to mispurpose my technologies in such a way that they may be used to blame an individual for their behaviour, irrespective of how they were designed for. I reflect on the fact that how I deployed such technologies in the context of domestic violence perpetrator programmes whereby such contexts must strike a delicate balance between holding someone to account while also providing them meaningful ways to explore their behaviours and attitudes. *Choice-Point* for example, while co-written for an audience where the narrative for violence was co-written with

professionals and victim-survivors could easily have turned into continuous scrutiny of an individual's behaviour. Consider how one perpetrator chose to continuously select negative responses for amusement (*5.9.3 Creating a Lack of Control*), such an action could have led concerned professionals to demonstrate that bad choices were indicative of no change in behaviour. In such a way, while we might seek to avoid such tools being used to directly blame and shame someone's actions, there is a risk that such tools can be transformed from explorative to punitive.

Finally, I leveraged Angela Smith's argument that we should understand *moral responsibility as answerability*; that only if someone was in a position to reasonably 'answer for' their behaviour could they be deemed as both responsible for the behaviour, and thus responsible to retribute for it (Smith, 2015). Under the guidance of Lamb (1999) and Tavris (1989) I initially leveraged this approach as it holds people responsible for attitudes (understanding the use of violence to be appropriate, say) which may have been formed beyond their control. While I did so as to ensure that the responsibilities for the cause by such violence were not merely excused through focusing on matters beyond the patterns of violence (Romito, 2008), positioning technology in such a functional way ran the risk of losing the nuance of what I was trying to uncover. Specifically, the use of technologies to what Smith calls as '*answer for*' the retribution of the use of violence by their very use alone do take the '*symbolically important*' stance to challenge perpetrators (Kelly and Westmarland, 2015). However, this is not enough from a theoretical or a practical standpoint for the correct people (perpetrators) to be *seen* to be held responsible by others through and with digital tools. In particular, I identified that Angela Smith's *responsibility as answerability* (2015) neither takes into consideration the complexities of how difficult it is to communicate said attitudes, particularly around violence responsible nor how irrational belief systems may manifest in violence to determine the degree to which an individual is morally. In such a way, perhaps this suggests that actions that result in violence may have to be considered from a different theoretical standpoint from Smith's yet one that is also sensitive of the contexts that seek to instil *under-responsibility* for perpetrators in society.

Gotternbarn's *negative* responsibility	*Choice-Point* and *Fragments of the Past* demonstrate that directly avoiding discussing blame can still evoke positive discussions around causality, agency, and choice in relation to abusive consequences. However, such tools if mispurposed through design or implementation can still be used to focus on blame, shame and other counterintuitive approaches to violence prevention.
Gotternbarn's *positive* responsibility	Within the design of the Guided Time Out, the positive responsibility of the design team ended up taking priority over the final design of the work (*6.6 First Design Iteration of the Guided Time Out*). This was also mirrored in the ethical approval for the work to take place on *Fragments of the Past* where speculative moments of risk were prioritised over present risk (*7.3.1 Ethics Approval*).
Smith's *responsibility as answerability*	Providing digital tools as a functional means to 'answer for' the wrongdoing of behaviour can miss important nuances and complexities in navigating responsibilities for violence. In particular measuring changes in attitudes proved to be a difficult challenge due to the timescales and the provision of ways for perpetrators to communicate these appropriately (*7.7 Stage Two: Fragments of the Past*)

Table 9: Findings and Theoretical Considerations for Moral Responsibilities through and with Technologies

8.3.2. *Suggestions for Digital System Design for Perpetrators*

After having discussed my conceptual offering of Mechanisms of Moral Responsibilities, I now turn my discussion to implications for how digital systems might be designed for perpetrators by breaking down my specific suggestions for each moral mechanism.

Self-awareness and Perspective Taking

After conducting observations within the context of domestic violence service delivery, I crafted a conceptual framework that aspired to guide designers towards areas where the redistribution of responsibility could take place. The following chapters explored how this framework could be designed for in practice by eliciting

understanding from Choice-Point in Chapter 5, Guided Time Out in Chapter 6, and Fragments of the Past in Chapter 7. It is in Chapter 5 where I present a curious and almost paradoxical design recommendation that seeks to promote (as I demonstrate through one of my quotes) perpetrators '*tak[ing] abuse seriously*' by recommending systems that permit the use of narrative fiction. Despite the fact that second-person fiction is often used within the context of entertainment (subverting the calls for 'taking something seriously'), I argue that such an environment could potentially engage perpetrators in acknowledging that using violence is their choice within the hypothetical boundary of a '*magic circle*' (Huizinga, 2016). In doing so, I recommended that (1) **fictional accounts, particularly those that require interaction from the user, can provide a protective 'cover' under which perpetrators can meaningfully relate to fictional representations of violence while also articulating their own attitudes and awareness towards their own behaviours**. However, this chapter also draws attention to another important design factor, which must be balanced carefully against the emancipatory power of placing the end user in the driver's seat of an activity: that of designing such a situation so that it provides the perpetrator with a restricted set of options, approaches, or messages. Such a design suggestion for systems involving a narrative fiction was developed after Barnardo's and several victim-survivors expressed reluctance to allow perpetrators to take full control of the narrative (*'spin [a story] about themselves'*), as this would open up possibilities of them avoiding their own responsibilities for violence. I do however note that restricting the roles accessible to perpetrators is not as inherently restrictive as it first appeared; accordingly, I recommend that designers confine such a system to **(2) leverage pre-written narratives of abuse and violence but permit perpetrators to partake in the story through the provision of character roles**, as this will help to ensure that the tone and narrative are coherent within such a sensitive setting.

Acknowledging the Extent of Harms

I start this section with the caveat that the design implications for these mechanisms are based on theorised rather than actualised use of a crisis management tool for responding to the extent of harms.

Chapter 6 makes a design recommendation in the form of highlighting a specific space for intervention. Specifically, I argue that tools for domestic violence perpetrators need not always be used within the interventions themselves and can also run alongside or in between the sessions. Quotes within this work demonstrate that a significant amount of reflection and change happens outside of the programme sessions by '*going over what [they have] learned*', thus constructing a tangible, external representation of 'taking change away' from the sessions. Providing tools that might be used outside of a DVPP but under moderated supervision may also respond to the tension identified by a perpetrator in this chapter of '*the implementation of 'behaviour change' tools into [a perpetrator's] lifestyle or conflict*'. In such a way technology might consider positioning digital technologies act as an **(3) external source of information and thereby authority that may be able to support perpetrators in changing abusive behaviours in their own lives**. While the Guided Time Out responds to the need for one important crisis management tool, I note in Chapter 6 that many quotes highlighted that there can be a lot of content to cover, practice and report on from the perspective of both the support workers and the perpetrators. As such, while there may be tensions surrounding the flexibility of the rules, having an external source of enforcement and advice outside of the sessions was identified as important across perpetrators, victim-survivors, and staff members. While tools need to be in line with the programme integrity, such as providing the correct self-management tools, designers should consider that the **(4) instructive potential of a self-management tool should be balanced with facilitating a relational negotiation about the interpretation of such tools.** This suggestion is gleaned from the research site's interest in providing instructions to help a perpetrator follow guidance by '[keeping] them on the straight and narrow', but that this should not come at the expense of relating to and negotiating with their victim-survivor. Additionally, this relationality is crucial to ensure that perpetrators do not attempt to control their victim-survivors behaviour or responses to their use of the tool.

Providing Peer Support and Community

In Chapter 7, I suggest that designers should **(5) pay explicit attention to how relational and communicative dynamics can play out through digital artefacts in**

environments where synchronous communication is not possible. As I explored within this chapter, although synchronous communication was deemed unsafe from my ethics board, it was possible to simulate aspects of peer support process through making and sharing physical representations of changes in attitude and behaviour. Based on how institutional contexts perceive perpetrators to behave in groups (Appendix C), I believe that this ethical verdict is likely to be reproduced in the future. In such a way, this suggestion be better in line with ensuring peer support activities remain in a moderated environment, such as a DVPP, and not introduce unwieldy, complex instant messaging systems that may be understood as '*technical and scary*' and thus may detract from the pro-social discursive context of the programme. As quotes evidenced from this work, the communicative dynamics of digital artefacts can also facilitate a discussion between a perpetrator and themselves, such as self-reflection and retrospective evaluation of their behaviours. In such a way, participants were able to both challenge the false narratives of who a 'perpetrator' was, and how they orientated themselves towards being labelled. I suggest that **(6) tools for self-management can also be leveraged as a means of exploring identity work surrounding the label of 'perpetrator' and how this connects them to a wider community of other service users.** This was a result of the flexibility of the JigsAudio system, which permitted the participants to share only what they felt comfortable sharing through creative expression. Once again, this chapter reports on the benefits of the flexibility of representation found through both the moments of changing behaviour and the materials used to represent them, encompassing a collection of digital and non-digital materials.

To be Accountable to Demonstrate Change

My digital technologies were designed and deployed in a context where changes in attitudes and behaviour are expected to be demonstrated in some way by perpetrators and evaluated by domestic violence support organisations. In Chapter 2, I drew attention to the tension between 'evidencing success' for support services against paying attention to how the complexities of personal change among perpetrators should be understood (Morran, 2011b). I identified that this tension can also manifest in the gap between actualised changes a perpetrator makes towards their behaviour and attitudes, and the ways that this can be demonstrated across

formal interventions with support services. In Chapter 5, I highlighted that a perpetrator's negative choices as selected using Choice-Point did not demonstrate a misunderstanding or an expressed desire to cause harm. Rather, perpetrators discursively agreed that they wished to understand the consequences of choosing to use harm that reaffirmed their choice of positive options. Conversely, in Chapter 6, quotes demonstrate that a perpetrator share a speculative intention to use a time out 'correctly' but then use the tool as a warning to their partner. In both these investigations, digital tools for self-management and reflection must **(7) request additional information for why a perpetrator is using a tool to evaluate whether a system is being used as a tool for control or responsibility**. However, as Chapter 7 argues, perpetrators may be able to express the complexities of change through more than the uptake of digital self-management tools alone. In this work, I suggested that perpetrators might be offered a wide variety of different mediums to craft digital representations of change, such as 'fragments', to evidence that change is possible to other perpetrators. In this way, **(8) the quality of temporal permeance (physical objects that remain fixed across time) might be leveraged to capture, express, and make manifest insightful reflections on change for both the perpetrator and others** that may otherwise be inaccessible through non-creative interactions with technologies.

8.4. HCI and Supporting Responsibility Work in DVPPs

Environments related to the management and discussion of violence cause specific risks to researcher safety and wellbeing, at the ethical approval stage (Kabanoff *et al.*, 2017), during the data collection periods (Cowburn, 2013), during the data analysis or transcription stages (Etherington, 2007), and after the research has concluded. In Chapter 2, I drew attention to the fact that third sector organisations remain highly important political spaces that have long had an influence on the identification of and calls to challenge the perpetration of violence against victim-survivors (Pizzey, 1974; Freeman, 1979). This is made especially poignant in light of the understanding that such organisations are '*powerful engines for wider societal transformations*' (Crivellaro *et al.*, 2019), whereby small transformations within an organisation's service delivery can have a significant impact on the quality of life of

the most marginalised and stigmatised populations (Bopp and Voida, 2020). This necessitates that additional care should be taken when considering methods and ethics to ensure that such work generates no further harm or risk to those involved. There are several ethical considerations that are particularly acute within studies on violence and abuse, which drove me to continuously reflect on how my third research question could be answered: *RQ3. What are key methodological and ethical considerations for technology creation when collaborating with domestic violence support services and perpetrators?* I share the contributions this thesis makes that informed my safe and ethical practice in working both with perpetrators as research participants and as participants to design technologies for and with. I do so in order to assist others in navigating the complicated space of working with those who do harm in a way that '*does justice*' to both the research participants and the other parties involved (Ross, 2005).

I first attempted to address this research question through a careful and cautious first step into Barnardo's Orchard/Mosaic in Chapter 4, whereby I immersed myself in the practice of perpetrators by means of a focused ethnography. Due to Barnardo's busy schedule of providing front-line work for young people, victim-survivors, and perpetrators around a variety of different harms, I identified the 'focused' aspect of focused ethnography to be the most methodologically compatible with data collection in this area. As I shared through my ethnographic accounts, my ability to observe and engage was highly dependent on whether a worker's time permitted flexibility and whether they were called to respond to a safeguarding call (as featured in *A Day in the Life*). Importantly, I also demonstrate in Chapter 6 how this can result in withdrawing from research altogether; this occurred with the Hampton Trust, Find the Glow and Splitz, who needed to immediately prioritise staff time spent delivering front-line services due to the severe conditions produced by the global pandemic.

As I drew attention to in Chapter 2, third sector organisations can encompass a wide range of non-profit organisations (NGOs), voluntary organisations and community organisations, including registered charities (Local Government Authority, 2008). However, as many of these organisations deploy their content in line with either

cognitive-behavioural, psychodynamic or pro-feminist paradigms in a group format, many of these reflections could arguably be used in any context that attempts to engage perpetrators in changing abusive behaviours and attitudes (Barnish, 2004; Phillips, Kelly and Westmarland, 2013).

8.4.1. *Un-Safety Work: The Purpose of Working with Perpetrators*

Throughout this thesis, I have indicated that I had to grapple with several practical and conceptual considerations to ensure that the design work I performed within this space was ethical, meaningful and above all safe for those involved. Regarding this contribution, I wish to offer the ways in which I orientated myself around the *ethical quandary* of working with those who harm in order to prevent harm from being done to others (Blagden and Pemberton, 2010; Crewe and Ievins, 2015), along with a discussion of how other researchers might do the same. Importantly, this contribution may aid HCI researchers on how to position and legitimise their practice of design for perpetrators that occupy a dominant standpoint from a feminist perspective. I introduce the term **'un-safety work'** to ***describe the efforts that are performed by researchers, perpetrators and support services that act (whether implicitly or explicitly) to undo the historic burden of safety-work that has unjustly fallen on victim-survivors to carry***. Such a term can also be understood as an aspiration to facilitate change in how digital and non-digital approaches are developed to respond to domestic violence prevention. As this novel term was developed across my four investigations and orientations to ethical practice, I now highlight the important locations across this thesis that acted as important components to the nomenclature.

I introduced Liz Kelly's (2014) concept of 'safety work' in Chapter 2 which refers to how women have to expend effort on thinking about and acting in ways that '*keep [them] safe*' from the threat of men's violence. Most of this safety work was invisible, internalised, habitual, and often went unmentioned. I noted that in Chapter 2 this invisibility has a direct impact on how technologies are designed in the domestic violence space. As safety work goes so often undefined, there can be an application of additional safety work for victim-survivors through digital design (often intended for their protection (Westmarland *et al.*, 2013)), instead of critically

questioning whether it is sustainable or just to expect a victim-survivor to perform it. While I argued for the re-balancing of over-responsibility applied to victim-survivors and under-responsibility applied to perpetrators (Lamb, 1999) I realised that this has to be done while being aware of, and being directly responsive to the environment that created this inequality. This was to ensure that I did not inadvertently exacerbate this injustice for either the victim-survivor or the perpetrator.

In each investigation, as following the advice of critical men and masculinities scholars (Hearn, 1998; Burrell, 2014), I and my research partners positioned the design, deployment and evaluation of digital systems for perpetrators in a critical manner that was continuously reflected upon by multiple stakeholders. By this, I mean that we worked to not only acknowledge that these tools were taking place within contexts of structural injustices toward victim-survivors (akin to Sultana et. al's (2018) '*design within the patriarchy*'), but that they were also actively and explicitly designed so that they were symbolically holding the right people – perpetrators - responsible. This meant deploying our digital systems in contexts, such as DVPPs, where we could guarantee that victim-survivors would not be coerced to do the work that Choice-Point, the Guided Time Out or Fragments of the Past required. In Chapter 5, I deployed Choice-Point where the expert facilitators identified that it was the perpetrator who 'h*ad to take themselves out of [own] their world*', rather than '*spin a narrative*' where they could avoid the work that self-awareness and perspective-taking required. As visually displayed in Chapter 6, the Guided Time Out application was for use on a perpetrator's own device for them to take ownership of managing their own build-up to a time where they might be violent. Finally in Chapter 7, Fragments of the Past requested that perpetrators reflect and '*give back*' to the process of self-management through providing peer support and community. For each of these systems, an underlying motive for design was that it is the perpetrators who are the individuals expending the effort to make themselves safe for other people; or encourage other perpetrators to expend this effort. Un-safety work - as this thesis strives to facilitate - aspires that produce a direct counterbalance to, and the minimisation of, safety work. By this I mean that

its name both acknowledges the injustice of safety work in design, and then acts to critically combat it (Strohmayer, Laing and Comber, 2017). In such a way, these technologies may work to contribute implications for how victim-survivors' '*space for action*' (Lupton and Gillespie, 1994) might be expanded, a goal that DVPPs notably attempt to strive towards (Phillips, Kelly and Westmarland, 2013; Kelly and Westmarland, 2015). Such a concept helps to provide an answer to Dombrowski et al.'s (2016) poignant statement; to '*hold [those] responsible who foster or unduly benefit from the oppression of others*', we must promote as un-safety work as a motive for digital design.

Encouraging such efforts from people who harm others must be done with caution, however, as I identified even technologies explicitly designed for perpetrators could be misused to further increase the work expected from victim-survivors (Rosen *et al.*, 2003; Wistow, Kelly and Westmarland, 2017). For example, I draw attention to how the research team in Chapter 6 challenged a dangerous interpretation of a guided time out tool that a perpetrator shared he would use as a 'warning' to shape the behaviour of his victim-survivor. In such a way, additional energy must be expended be researchers and practitioners to anticipate how well-meaning technologies may simply reinforce the status quo. Conversely, in Chapter 7 I described the additional labour performed by the team to work around an institutional verdict (Appendix A) that imposed restrictions on how these spaces for navigating safe behaviours could be delivered. All these efforts are also underpinned by the extensive emotional work that must be invested by researchers in working with those who harm. In offering *un-safety work* as a contribution, I make no attempt to discourage or put off interested developers and designers who wish to provide services for victim-survivors in violence prevention efforts. Rather, I offer the word as a linguistic tool to challenge the complex interplay of efforts and motivators around violence prevention that a researcher has to consider in their efforts to work with perpetrators in a way that '*does justice*' (Ross, 2005) to their participants – an interplay that I would have found beneficial to have known about before entering the space.

8.4.2. *Parameters of Participation: Methodological Approaches in Including Perpetrators*

In Chapter 3, I shared some methodological considerations for how we might design with and for people who have used or currently use violence and abuse against their current and former intimate partners. My performance of this work detailed how such investigations might respect and humanise the perpetrators who use these types of behaviours, while also helping to navigate ways of holding them responsible to promote their agency and their ability to change. As other researchers seek to leverage participatory and inclusive practices as a means of social action, further shifting the power dynamics between researcher and participant (Halskov and Hansen, 2015), I wish to provide some lessons that may aid in performing this effectively in this space. I do this in order to further understanding that both assists researchers in navigating difficult situations (such as e.g. vocal participants; Vines et al. (2013)) and helps researchers to work with participants that, by their very nature, can be difficult to work with (Laura Ramí-rez Galleguillos and Coşkun, 2020). I do this by drawing together two practical strategies I introduce in the present research: (1) providing suggestions for how we might include perpetrator accounts in our work and (2) revisiting the discussion of the ethical complexities in drawing a parameter of participation around perpetrator engagement.

Perpetrator Accounts

In Chapter 2, I presented a summary of studies demonstrating that when perpetrators discuss their use of violence, they frequently use linguistic strategies that minimise, deny or excuse their actions against victim-survivors (Hearn, 1998; Dobash *et al.*, 2000; Lau and Stevens, 2012). This can be evidenced through several of the quotes that I collected throughout my focused ethnography in Chapter 4, as well as in all three technical investigations; perpetrators regularly dismissed the harm they had caused, only to be gently challenged by facilitators with an alternative pattern of events, sourced from police, social care services or the victim-survivors. This creates a slight contradiction in the way in which participants' accounts are understood and analysed within this thesis, as the accounts of one participant type (perpetrator) frequently need to be treated with a '*healthy degree of scepticism*' (Hearn, 1998) that represents a different approach to that engaged

in with other participants (victim-survivors, support workers, research partners). I note that while feminist standpoint theory helped to conceptualise these power imbalances that I describe in Chapter 3, this proved to be challenging to know how to apply this theory in practice due to my consistent exposure to testing situations. I further note that this situation is only made more complex through the fact that many perpetrators gradually began to change the ways in which they spoke about these events. Chapter 5, for example, demonstrates how some men identified their agency in choosing to use violence during interactions with Choice-Point. A similar shift was also identified in Chapter 7, where Fragments of the Past flexibly encouraged men to actively consider how they were constructing their identities and presenting events. While many works within the HCI field discuss the challenges of working with participants in the disclosure of accounts of violence (Matthews *et al.*, 2017; Freed *et al.*, 2018), no works have yet described the challenges associated with analysing or scrutinising them. This work accordingly suggests that **perpetrator descriptions of violence, rather than being 'believed' in the same way as those of victim-survivors, are best understood as a construction of events subject to temporal change.** This is not to suggest that perpetrators' accounts are inherently untrue; within Chapter 7, for example, men at the conclusion of a DVPP did believe themselves to be presenting an honest account of their attitudes towards themselves and their behaviours. Rather, it indicates that researchers should seek out approaches to understanding, and therefore analysing, data that respects the intersection of different paradigms through which social phenomena are analysed. I accordingly make clear here that researchers should consider adopting a constructivist or a constructivist-relativist approach to perpetrator accounts; while a constructivist account of events is respected, it may be subject to change or challenge after being evaluated against a relative reality that is '*probabilistically apprehendable'* through the collation of multiple accounts (Charmaz, 2014).

Perpetrator Involvement

As I have covered in Chapter 2, participatory design and participatory practices have long been considered suitable approaches to driving innovation in the design process by shifting the power dynamics between researcher and participant. I noted that this was especially important within the context of violence and abuse research,

where good ethical and moral practice is focused on ensuring that participants are empowered to make their own decisions, have a stake in the research outcome, and have a positive experience throughout the research process (Downes, Kelly and Westmarland, 2014). Indeed, when presenting my practices and reflections in Chapter 3, I share that I was primarily motivated to work in-person with domestic violence charities, located within a research lab that promoted participatory practices, active engagement with stakeholders and the importance of citizens' experiences. I accordingly felt pulled towards participatory processes exemplified by scholarship in which HCI and design can seek to amplify voices and empower underserved or marginalised populations within sensitive spaces. Works of this kind emphasise that understanding the individual as a co-creator or collaborator permits individuals who are directly impacted by a phenomenon or a technological intervention to play an active role in determining the way in which problems are defined. This also included studies that highlight the challenges in implementing equitable design visions (Clarke *et al.*, 2013) and suggest alternative means of approaching these (Harrington, Erete and Piper, 2019; Heitlinger *et al.*, 2019). However, while some of my research outcomes may be like others in terms of characteristics, I encountered some unique methodological and ethical challenges in identifying how participatory approaches could be misused that I now wish to revisit and make explicit.

In Chapter 6, I outlined my experience of how some perpetrators, when given the chance to have full control of the direction for development of technologies for self-management, sought to promote a design that undermined the process of restorative retribution. I explicitly draw attention to this by noting some perpetrators' suggestions of creating a blood pressure monitor that would warn them, and in one case their victim-survivor, of upcoming abuse. Such a suggestion at best represents a fundamental misunderstanding of what domestic violence is, and therefore an attempt at suggesting (in their view) a reasonable solution to an ill-defined problem. At worst, however, some of the included quotes represent deliberate attempts to deflect or avoid responsibilities for engaging in behaviours that make the mitigation of abuse into their responsibility. I reflect here that this behaviour went beyond

including groups who express their ideas with the '*loudest voices in the room*' (Vines *et al.*, 2013), and rather represents an attempt to subtly manipulate the process itself as a means of harm (Hart, 2018). I such suggested that researchers and practitioners consider how their participation can be contained and evaluated within a *parameter of participation*, which sets limits on the extent to which perpetrators' ideas can be moved to the next stage of development. This can be performed through formally or informally agreeing to ethical thresholds between collaborators. For example, such thresholds for this work could be (1) Their contribution would reinforce the minimisation, denial or blame of others for their behaviour, thereby undermining the programme content. (2) Their contribution could determine tools or approaches that would increase the risk of harm to themselves, their victim-survivors, or staff.

While participatory and inclusive practice such as the actions promoted by AR used in this thesis does not equate to accepting all contributions to the process uncritically, it is rare within HCI to explain how and why participants contributions are rejected or critiqued. This is because such an approach can feel inherently paternalizing and seemingly work counter to the emancipatory visions of embedded practical work that seeks to be respectful and inclusive of a person's unique worldview. However, identifying the uneven power dynamics, and therefore seeking to rebalance this through a parameter of participation, can be the best means of including individuals in the process while mitigating the potential exclusion of others. This parameter of participation, as I introduce in Chapter 6, was also notably manifested in a direct format in Chapter 5 where perpetrators were restricted from having the full control that most interactive storytelling systems permit. In these cases, this contribution recommends that **arguably, such HCI work can only be performed with the collaboration with domestic violence organisations, but also with HCI researchers who are well-versed and experienced in how the process of design itself can create the risk of colluding with violence.** Such a contribution also seeks to offer further insight into the complexities inherent to design workshops and methods when used uncritically by designers and researchers.

8.5. Overview and Consideration of Contributions

My contributions in the areas of understanding *Digital Service Delivery for Perpetrators* consists of a raw dataset of thick descriptions of workplace practice for the everyday management of perpetrators, and how digital tools intersect with this. I further explain how such work offers the functional designs and deployable technologies of Choice-Point, Fragments of the Past and (as of now) Guided Time Out back to the sector, while also providing a description of how this was accomplished and the status of such systems in the COVID-19 context. In contributing further understanding to this area I consider that these considerations provide a partial picture of how digital technologies are used with and for perpetrators. This is because the services I worked with were practicing violence as a form of *social learning* (rather than therapeutic or health-driven explanations), thus such observations and systems are directly shaped and inform to support the delivery of such approaches (Gondolf, 2002). In collaboration with this, the impact of economic austerity, as I outline in Chapter 4, had an overwhelming influence as to how experimental such technologies could be, resisting the allure of Cutting's (2020) *justification practices* that seek to continuously justify technologies not only to the funders of such services, but to the very sector itself.

The second area of contributions towards *Responsibilities for Violence in HCI* is made through the provision of a design process framework and associated suggestions for how to design technologies in this space. I first provide a design framework, termed *Mechanisms of Moral Responsibilities*, which illustrates the spaces for negotiation around personal responsibilities for the use of violence against others, further describing the continuous tension around changing and demonstrating those changes. I then reflect on the technologies that I sought to use in further investigating these spaces through offering implications for how digital technologies might be designed to support perpetrator interventions using this framework. Suggestions include encouraging designers to explore the role of choice through non-linear fictional narratives, as well as exploring how different types of socio-digital materials can be used to represent and share change and support strategies between support groups. In such a way, I consider whether the moral dimension to these mechanisms and suggestions may have been different when placed in a social

context that may not be so heavily politicised. Such mechanisms for change necessitate the move toward goals of self-improvement in a manner that may be received more critically by other spaces, such as the strive for increased productivity or better mental health. Nevertheless, this is perhaps a somewhat natural side effect of a context that does not adequately provide for such services, and a lack of encouragement to improve one's behaviour has a direct harmful impact on those subject to it.

Finally, I contribute two conceptual and practical considerations for HCI and Supporting Responsibility Work in DVPPs. I coin the descriptive term *un-safety work*, used to describe the efforts performed by researchers, perpetrators, and support services to undo the expectation and the practice of safety work. This included describing the facets of digital technologies I designed to ensure that perpetrators worked to ensure that they were actively ensuring they were safe for other people. Finally, I conclude this section with two recommendations for what participatory work with those who harm should include, which I describe as entailing drawing a parameter of participatory capacities around perpetrators and leveraging a constructivist approach to data analysis underpinned by feminist standpoint theory. Unsafety-work here directly responds to the socio-political context in which it emerges from, identifying work of any kind with perpetrators is essential to shift the constraints that victim-survivors find themselves under. This contribution is perhaps the most abstract in answering the research question posed on how we assist perpetrators on their journey to non-violence, particularly since we run risk of not working with perpetrators at all. Nevertheless, this directly captures how and why this question was considered in the first place; why such individuals need to be '*designed for*' and why is '*a journey toward non-violence*' an important goal to pursue.

8.6. Chapter Summary

In this chapter, I have clarified the main contributions of my thesis and identified where they address my three research questions (see Chapter 3). In situating this understanding within the context of prior knowledge, I demonstrate specifically

which areas of study my work has contributed to: Digital Preventative Responses to Domestic Violence, Responsibilities for Violence in HCI and Design and HCI and Supporting Responsibility Work in DVPPs. In doing so, I aspire to have contributed further knowledge and understanding in support of the main aim of this thesis, which has sought to go beyond providing design instructions and process suggestions for digital devices. I have argued that in the interests of long-term violence prevention for current and future victim-survivors, perpetrators need to be actively designed for in specific ways, which I have made clear in this chapter. These approaches are informed by safety-focused practices that respect a perpetrator's personhood and believe in their ability to change while also being mindful that such individuals can manipulate social processes to inflict further abuse.

However, while a discussion of my existing contributions can give rise to a feeling of finitude, I nevertheless feel as though my work in this space is far from over. In line with Hilary Mantel, who argues that '*there are no endings … they are all beginnings. Here is one*' (Mantel, 2015), I now go on to present how my work represents the beginning of future contributions and design activities in the conclusion of this thesis.

Chapter 9. Endings and Beginnings

9.1. Introduction

This chapter aspires to conclude the description of the work I have performed throughout the present thesis. First, this chapter presents a summary of the work described in Chapter 8, along with a reminder of the six contributions that this thesis aims to present to the field of Human-Computer Interaction and related disciplines. In summarising this one final time, I would also like to present a reflective process whereby I evaluate the performance of my research approach and findings from the perspective of the more experienced, independent, and confident researcher that I have felt myself grow to become. However, irrespective of experience, there remain areas of research where, looking back at my earlier investigations, I feel I could have considered a slightly different approach. By engaging in these reflections, I build upon these critical speculations through highlighting potential avenues of future research – both for myself, as I continue to strive to contribute further work to the space, and for other researchers to follow.

9.2. Work and Contributions

In this thesis, I have presented a body of research efforts intending to explore the design and deployment of digital technologies for perpetrators of domestic violence around responsibilities for violence prevention. In Chapter 2, I contextualised how I approached domestic violence as the perpetration of abusive behaviours, thereby highlighting why perpetrator interventions that challenged these behaviours were an important avenue for conducting this work. I also discussed ways in which responsible design and designing for responsibility have been manifested within approaches to domestic violence so far, how HCI researchers have provided practical and meaningful guidance on working within the third sector, and the opportunities for digital technologies moving forward. Subsequently, I introduced my orientation to research in Chapter 3 by describing my feminist-orientated action research with participatory principles, the user-centred design of my digital technologies and my

preference for a constructivist take on grounded theory for my data analysis. Chapter 4 presents my first investigation into this context, which took the form of a focused ethnography that elicited and presented descriptions for how digital technologies were being used in practice. This was presented through identifying the areas in which perpetrators and support workers engaged in negotiations around responsibilities for violence; furthermore, it provided the conceptual basis for the three investigations that followed. In Chapter 5, I presented Choice-Point, which further explores how non-linear narrative storytelling can be used to help stimulate important conversations with perpetrators around perspective-taking, agency, and choice. This work is followed by Chapter 6, which details the design stages of the Guided Time Out tool that was designed to act as a digital disruption to the onset of abuse. This chapter also highlights how particular approaches to design, such as participatory approaches, can be complicated by the presence of those who seek to avoid responsibilities for their actions in the earlier stages of the DVPP interventions. My final investigation, presented in Chapter 7, illustrates how a socio-digital activity – Fragments of the Past – was used to facilitate asynchronous message exchange between peer groups to encourage reflection and motivation for forming pro-social behaviours. I then draw all these investigations together to present a cohesive set of contributions to the areas of Digital Preventative Approaches to Domestic Violence, Responsibilities for Violence in HCI and Ethical and Methodological Considerations for Perpetrators.

Once more, I outline the research questions that guided the direction of the present thesis, alongside my six contributions to the field of knowledge of Human-Computer Interaction:

Digital Preventative Responses to Domestic Violence

> *RQ1. How are digital technologies used in domestic violence perpetrator interventions to challenge, and support alternatives to, abusive behaviours?*

A. Narrative Vignettes of Digital Support Work with Perpetrators
B. Provision of Digital Systems for Perpetrator Interventions

Responsibilities for Violence in HCI and Design

RQ2. How might digital systems be designed and deployed in such a way that they redistribute responsibilities for violence prevention towards perpetrators of domestic violence?

C. A Conceptual Framework for Designing for Responsibilities
D. Implications for Digital System Design for Perpetrators

HCI and Supporting Responsibility Work in DVPPs

RQ3. What are key methodological and ethical considerations for technology creation when collaborating with domestic violence support services and perpetrators?

E. Un-safety Work: The Purpose of Working with Perpetrators
F. Parameters of Participation: Methodological Approaches for Safety

I now move on to reflecting on how I performed my research throughout the last three years, highlighting points at which I found it challenging to proceed and my suggestions for ways this might be rectified.

9.3. Reflections on Research Practice

My ethical practice for this thesis was informed by grassroots feminist advocacy, which centres the importance of working with perpetrators in order to work towards a world in which current and future victim-survivors are not subjected to violence (Dobash *et al.*, 1999; Ali and Naylor, 2013). This is in line with several approaches to interventions for domestic violence that have aspired to use a 'survivor-led' approach; such an approach recognises that attitudes of victim-blaming, paternalism and the oversurveillance of women may be reduced if research is 'led' by victim-survivors' lived experiences of violence (Campbell, 1998). Such approaches aspire to promote a way of working that uses a 'power-with' capacity and avoids replicating

the 'power-over' dynamic that exists within relationships with perpetrators (Bardzell, 2010a). As identified in my previous chapters, making decisions regarding who should be designed for and by what means this is performed is inherently a highly political act laden with value judgements (DiSalvo *et al.*, 2011; Dombrowski, Harmon and Fox, 2016). However, as I identify, the problem of domestic violence is frequently misinterpreted as a matter of ensuring safety for victim-survivors (Phillips, Kelly and Westmarland, 2013) rather than changing abusive behaviours; this has had the side effect of producing research that has fallen short of survivor-led objectives. Upon reflection, I find myself experiencing a strange feeling: after all, victim-survivors were (and still are) the core motivation for my research into digital technologies in the first place, and yet there were only limited opportunities for victim-survivors to participate in my research process beyond providing their ideas for digital technology design and evaluation. Choice-Point and the Guided Time Out were directly shaped by victim-survivor input, while hearing their stories of abuse and recovery only sought to further contextualise and motivate my actions. However, I was also conscious that a feminist perspective might wish to counter the suggestion that it is the responsibility of victim-survivors, or women in general, to respond to male violence (Orme, Dominelli and Mullender, 2000). Considering this, while I would not have wanted to exhaust victim-survivors by inflicting the additional trauma of making them responsible for changing perpetrator behaviour, I also do not wish my work to set a precedent in which decisions are made on behalf of victim-survivors ('power-over') within Human-Computer Interaction. I am accordingly still open to unpacking my process further to identify areas in which I could be more mindful of the effort victim-survivors would need to expend to participate more in these processes (if they so wish to), whether this be through research commissioning or using existing victim-survivor accounts to lead the design of digital interventions for perpetrators.

As I describe in Chapter 8, I found several of my data collection sessions within Barnardo's and Respect to be 'heavy' to process emotionally. These frequently resulted in feelings of guilt, guilt for feeling guilt when the trauma of domestic violence was not my own, and helplessness against a system that continued to fail

both perpetrators and victim-survivors (Blakely, 2016; Balaam *et al.*, 2019). I came to equate some of my negative experiences (which I describe in more detail in Chapter 8, and which I now understand to be symptoms of vicarious trauma (Campbell, 2013)), as indicators that I was inadequately prepared, underequipped and unsuited to pursue this topic in research within my first year. While I arguably followed sound advice to establish a peer-support network before my data collection commenced, I did not anticipate that so many of the symptoms I would experience because of my research would inadvertently be misunderstood as caused by the more general stressors of being a PhD student. Indeed, the potential impact of current academic work patterns on mental health, particularly among PhD students, has been increasingly noted by research policy observers, funders and charities (Levecque *et al.*, 2017). However, this focus has frequently manifested as an approach to managing stress associated with the role (e.g., publication deadlines, relationships with supervisors) rather than harm caused by the research environment itself. This unfortunate side effect was seemingly exacerbated when a member of senior management connected with my faculty shared apologetically that the university did not have anyone on staff that I could speak to about these issues outside of my supervisory team. While I cannot praise my supervisory team enough for continuously checking in on my wellbeing and listening to my concerns, they still unavoidably have a personal stake in the performance of my research, bringing with it unique complications related to how I spoke about these experiences. In retrospect, I believe I could have been far more proactive in encouraging the university to consider cases like mine as a justification to deliver trauma-focused interventions for researchers.

9.4. Future Directions

As I highlight in my Discussion in Chapter 8, I was unable to examine how *mechanisms of moral responsibilities* might have been performed across a consistent group of perpetrators enrolled in a single intervention, such as a DVPP. In aspiring to prioritise working with as large a cross-section of perpetrators as was reasonable within the constraints of my thesis, I acknowledge that this approach may have caused me to inadvertently overlook some nuances of how individuals made sense of and

understood their own highly personal and individual responsibilities towards violence prevention. Indeed, I was particularly inspired by the anecdotes provided by support workers, who shared stories of men that had originally been described as 'monstrous' and 'unchangeable' by other statutory agencies but were now living their lives (relatively) free of the dependency on violence. While I was able to witness some of these significant changes in behaviour during the time I spent with the men throughout the deployment of Fragments of the Past, I was left reflecting that it would have been valuable to have seen how Choice-Point and the Guided Time Out were received – or even if such technologies would manage to make their way into the fragments they shared with others. Nevertheless, I acknowledge that following the same perpetrators through a single process has been fraught with challenges, as reported by other researchers. These challenges include how to accommodate for drop-outs, perpetrators' reluctance to participate in research efforts following the conclusion of an intervention, and the anxiety of having an additional authority (i.e. an academic) to be answerable to alongside other statutory or voluntary organisations (Hearn, 1998; Stanley *et al.*, 2012; Alderson, Westmarland and Kelly, 2013; Kelly and Westmarland, 2015). However, while remaining aware of these potential setbacks, I acknowledge that I could have been more pro-active in continuing relationships with the Barnardo's group following the disbandment of the research team disbandment to determine whether this aspiration was feasible. Specifically, I could have openly questioned to what extent DVPPs could be considered '*behaviour change*' in the commonly used sense, or whether my technologies would have benefited from being understood as exploring community-driven attempts to attain justice in the face of abusive behaviours. Indeed, I am now in a better position to explore how the trio of technologies functioned within the same groups, given that Choice-Point, Fragments of the Past and the Guided Time Out[13] are all functional and deployable as of now.

Second, I acknowledge that the work I have described within this thesis was predominantly designed, collected, and analysed in conjunction with collaborators within the third sector domestic violence sector in England, UK. While I resist the

[13] https://respectphoneline.org.uk/guided-timeout/

notion that this necessitates that my work is not generalisable to a broader context of domestic violence service provision (Yin, 2003) – although I also make no claims that it is – this does mean that my findings evoke specific '*contextual resonances*' within the United Kingdom. This is because the ways in which domestic violence is understood and responded to are directly informed the by legal, economic, and social frameworks that define it. Therefore, while there are several countries where violent and abusive behaviours are still under-acknowledged or considered lawful behaviour (WHO, 2005), other countries have sought to promote differing preventative approaches. As such, I would be interested in exploring how my advocacy for responsibilities for violence through digital tools is experienced when these tools are introduced to different cultural and social contexts, where persons who perpetrate violence and abuse may not yet be understood as perpetrators. Rabaan et al. (2021), for example, highlighted the nuances in technology's ability to promote or hinder women's agency (as informed by Islamic feminist theory), along with how this is expressed within cultural, religious, and political contexts. In a move towards examining the wider ecological influence of domestic violence, I must also acknowledge that there is a great deal of potential in examining how these mechanisms for encouraging taking responsibility for violence are negotiated beyond the formal boundaries of perpetrator interventions; for example, at a community level through bystanders and first responders (Banyard, Rizzo and Edwards, 2020). I am interested in further exploring how community participation and mobilisation might be leveraged as channels to distribute responsibilities for challenging abusive behaviours once they are identified. This is because I would prefer that a sole focus on unidirectional educational approaches towards perpetrators not come at the cost of critical consciousness and increasing communities' sense of ownership over violence prevention efforts (Minckas, Shannon and Mannell, 2020). In doing so, such attempts may incorporate approaches that understand how wider societal factors such as exposure to trauma, lack of support for mental health and state-sanctioned harms can manifest in the use of violence. Rather, I wish to explore how digital technologies could play a role in fostering the links between these two spaces, while remaining mindful of how such *parameters of participation* could work to prevent co-optation of the approach to excuse responsibility for domestic violence.

Third, I reflect on how fortunate I am to be working within a domestic violence context in which there are strong grassroots efforts to continuously innovate in order to better meet the needs of those subject to, and subjecting others to, domestic violence (Phillips, Kelly and Westmarland, 2013; McEldowney, 2016; McGlynn, Johnson and Westmarland, 2017; Respect UK, 2020). This is made most apparent through the presence of a well-established coordination body (Respect) and the promotion of close working arrangements with groups in the women's sector who work with victim-survivors. In the future, I would like to assist Respect in researching ways to include guidance for how digital technologies might be incorporated into their accreditation of safety-focused work with perpetrators for other services (Respect, 2021). Doing so would necessitate an in-depth look at what technologies are viable for use within these contexts, as well as how their use should prevent rather than exacerbate the risks of working with perpetrators. This is of particular importance within the COVID-19 context, whereby many services are leveraging digital technologies (such as video-conferencing software and telephone calls) as the primary means to continue their work with perpetrators and victim-survivors (Women's Aid, 2020). However, the introduction of a larger number of stakeholders also introduces a greater degree of complexity (Bellini and Westmarland, 2020). Under these circumstances, I can anticipate the suitability of Dow et al.'s (2018) approach of characterising this design space of service accreditations sitting at the intersection of governing bodies and the community organisations as a space that is viable to 'middle out' (Dow, Comber and Vines, 2018). Additionally, as the sector continues to face an increasing number of financial stressors, Clarke et al.'s (2019) identification of how trust (or indeed distrust) can manifest in the socio-materiality of digital and physical artefacts (such as the accreditation document) will also be a viable guide forward.

9.5. Final Thoughts: A Call to Action

This work commenced during a time where aspirations were tentatively high around the possibilities for change for the landmark Domestic Abuse Bill (then originally scheduled for 2016). Specifically, these included addressing the consequences for perpetrators who use harmful and abusive behaviours, alongside additional

protections for victim-survivors seeking to flee from their abusive perpetrators. Five years later, as this bill has progressed to its second reading in the House of Lords (January 2021), it has taken small steps towards justice: these include the addition of economic abuse to a statutory definition, children being identified as victims of domestic violence (as opposed to mere witnesses), and the prohibition of victim-survivors being cross-examined by their own perpetrators in court. Once more, however, perpetrators were notably excluded, with only two notable and controversial exceptions that curiously also intersect with the use of digital technologies: (1) the introduction of Domestic Abuse Protection Orders (DAPOs), enforced through electronic tagging, and (2) the use of a polygraph with perpetrators to determine the validity of their responses to questioning by statutory organisations (HM Government, 2020). While DAPOs do provide police with greater authority to instruct a perpetrator to remove themselves from a domestic environment and to avoid contact with their victim-survivor(s), they once again also do little to aid in identifying pathways for the perpetrator to address their abusive behaviours. Additionally, the inclusion of polygraph tests – processes that have long been treated with scientific scepticism (Heil, Simons and Burton, 2010; Wilson, Batye and Riveros, 2010; Rosky, 2013) – creates the risk of producing inaccurate information and potentially undermining the aspirational relationships of trust between support workers and perpetrators (Kotsoglou and Oswald, 2020). After all, it is difficult to ask someone to engage in difficult and meaningful responsibility work around violent behaviours if you also subject them to a technical procedure specifically designed to cast doubt on their responses. Once again, these findings represent evidence that if responsibility is left out of focus for the design and deployment of digital technologies, this impairs or precludes the discussion of responsibilities for violence in ways that are constructive and ultimately preventative (Lamb, 1991, 1999; Smith, 2015).

As time has progressed, it has been reassuring to witness (and personally participate in) the application of a greater amount of pressure to government in calling for a long-term strategy focused on perpetrator interventions. The *Domestic Abuse*

Perpetrator Strategy for England and Wales: Call for Action[14] was signed and co-authored by over eighty groups of campaigners, third sector organisations, statutory organisations, police and crime commissioners (PCCs) and academics (Respect UK, 2020). This call represented decades of research, work and activism by a sector that had long called on the government to empower public and voluntary sectors to hold perpetrators responsible for their behaviour and to provide them with reliable sources of funding. While public policy and law does not yet treat domestic violence as the problem that it is – namely, the use of abusive behaviours by perpetrators – I remain hopeful that such a dynamic sector will continue to apply pressure until a whole-systems approach is developed that holds the right people responsible for abuse.

As designers, developers and researchers within the HCI space, we continuously influence how and what technologies are designed for whom, and how (or if) we define something as a problem (Kolko, 2010; DiSalvo *et al.*, 2011). We can become '*academic accomplices*' through our skills, knowledge and understanding that can seek to try and correct the damage that domestic violence leaves in its wake (Asad *et al.*, 2019). Throughout my time working in close collaboration with Barnardo's, Respect, and the other research partners in this thesis, I observed them tirelessly continue to work with perpetrators in the face of adversity, whether this was a result of budget cuts or a socio-economic climate that contributes to condone and excuse the violence inflicted on victim-survivors (as well as some perpetrators). Moreover, the global pandemic has created a multitude of further risks that shine a spotlight on the complex social dynamics inherent to many households – a situation that for many does not cohere with the message of 'stay safe, stay home' (Westmarland and Bellini, 2020). The closure of many physical spaces that made the group work of perpetrator interventions possible has necessarily forced the sector to rethink what services can possibly be delivered for perpetrators, and through what means. Many organisations have accordingly identified that providing the right digital tools at the right time, thereby enabling perpetrators to reflect, manage, provide peer support,

[14] http://driveproject.org.uk/wp-content/uploads/2020/01/Call-to-Action-Final.pdf

and demonstrate changes in behaviour under moderated yet remote supervision, will only become more important.

I therefore wish for this PhD to be judged not only on the quality of its findings or the content of its contributions, but also on its attempts to shift the perspective within digital design and deployment in the field of Human-Computer Interaction (and beyond) with respect to domestic violence. My final words on this fortunately do not equate with me leaving this space for investigation behind, as I remain as dedicated as I did at the start of this PhD to continue working at the intersection of digital technologies, responses to domestic violence and those who harm others.

Domestic violence must ultimately never be treated as inevitable. We must always be mindful of whom we are holding responsible for the violence of others, as well as how we permit responsibilities around retribution and prevention for current and future generations. Existing work has shown positive indications that the right interventions at the right time may be able to stop abuse from escalating or reoccurring. Ultimately, we must not only believe in an individual's capacity to change while being mindful of the harms they have chosen to inflict on others, but also provide them with the means and the tools to do so. After all, if we do not, we only kick the can further down the road to the next person who will be unfairly charged with picking it up.

Bibliography

Aaron, S. M. and Beaulaurier, R. L. (2017) 'The Need for New Emphasis on Batterers Intervention Programs', *Trauma Violence & Abuse*, 18(4), pp. 425–432. doi: 10.1177/1524838015622440.

Ackerman, M. S. (2000) 'The intellectual challenge of CSCW: the gap between social requirements and technical feasibility', *Human-Computer Interaction*, 15(2), pp. 179–203. doi: 10.1207/S15327051HCI1523_5.

Adam, B. and Groves, C. (2011) 'Futures Tended: Care and Future-Oriented Responsibility':, *Bulletin of Science, Technology & Society*. doi: 10.1177/0270467610391237.

Adhia, A. *et al.* (2020) 'Life experiences associated with change in perpetration of domestic violence', *Injury Epidemiology*, 7(1), p. 37. doi: 10.1186/s40621-020-00264-z.

Agar, M. H. (1996) *The Professional Stranger: An Informal Introduction to Ethnography*. 2 edition. San Diego: Academic Press.

Ahmed, A. A. (2018) 'Trans Competent Interaction Design: A Qualitative Study on Voice, Identity, and Technology', *Interacting with Computers*, 30(1), pp. 53–71. doi: 10.1093/iwc/iwx018.

Albin, R. (2018) 'Two Forms of Responsibility – Organizational and Societal', *Philosophy of Management*, 17(2), pp. 187–201. doi: 10.1007/s40926-017-0071-0.

Alderson, S., Westmarland, N. and Kelly, L. (2013) 'The Need for Accountability to, and Support for, Children of Men on Domestic Violence Perpetrator Programmes', *Child Abuse Review*, 22(3), pp. 182–193. doi: 10.1002/car.2223.

Alechina, N., Halpern, J. Y. and Logan, B. (2017) 'Causality, Responsibility and Blame in Team Plans', in *Proceedings of the 16th Conference on Autonomous Agents and MultiAgent Systems*. Richland, SC: International Foundation for Autonomous Agents and Multiagent Systems (AAMAS '17), pp. 1091–1099. Available at: http://dl.acm.org/citation.cfm?id=3091125.3091279 (Accessed: 31 July 2019).

Ali, P. A. and Naylor, P. B. (2013) 'Intimate partner violence: A narrative review of the feminist, social and ecological explanations for its causation', *Aggression and Violent Behavior*, 18(6), pp. 611–619. doi: 10.1016/j.avb.2013.07.009.

Almeida, L. R. *et al.* (2018) 'The Caixa De Pandora Game: Changing Behaviors and Attitudes Toward Violence Against Women', *Comput. Entertain.*, 16(3), p. 2:1-2:13. doi: 10.1145/3236493.

Almeida, T. *et al.* (2016) 'On Looking at the Vagina Through Labella', in *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI '16), pp. 1810–1821. doi: 10.1145/2858036.2858119.

Anderson, K. L. and Umberson, D. (2001) ‘Gendering Violence: Masculinity and Power in Men’s Accounts of Domestic Violence’, *Gender and Society*, 15(3), pp. 358–380.

Antle, A. N. (2017) ‘The Ethics of Doing Research with Vulnerable Populations’, *interactions*, 24(6), pp. 74–77. doi: 10.1145/3137107.

Archer, J. (2000) ‘Sex differences in aggression between heterosexual partners: a meta-analytic review.’, *Psychological bulletin*, 126(5), pp. 651–680.

Arief, B. *et al.* (2014) ‘Sensible Privacy: How We Can Protect Domestic Violence Survivors Without Facilitating Misuse’, in *Proceedings of the 13th Workshop on Privacy in the Electronic Society*. New York, NY, USA: ACM (WPES ’14), pp. 201–204. doi: 10.1145/2665943.2665965.

Asad, M. *et al.* (2019) ‘Academic Accomplices: Practical Strategies for Research Justice’, in *Companion Publication of the 2019 on Designing Interactive Systems Conference 2019 Companion*. New York, NY, USA: Association for Computing Machinery (DIS ’19 Companion), pp. 353–356. doi: 10.1145/3301019.3320001.

Asad, M. (2019) ‘Prefigurative Design as a Method for Research Justice’, *Proceedings of the ACM on Human-Computer Interaction*, 3(CSCW), p. 200:1-200:18. doi: 10.1145/3359302.

Atkins, B. (2006) ‘What Are We Really Looking at?: The Future-Orientation of Video Game Play’, *Games and Culture*, 1(2), pp. 127–140. doi: 10.1177/1555412006286687.

Balaam, M. *et al.* (2019) ‘Emotion Work in Experience-Centered Design’, in *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI ’19), p. 602:1-602:12. doi: 10.1145/3290605.3300832.

Balestrini, M., Rogers, Y. and Marshall, P. (2015) ‘Civically engaged HCI: tensions between novelty and social impact’, in *Proceedings of the 2015 British HCI Conference*. New York, NY, USA: Association for Computing Machinery (British HCI ’15), pp. 35–36. doi: 10.1145/2783446.2783590.

Bandura, A. (1971) *Social Learning Theory*. New York: General Learning Corporation. Available at: http://www.asecib.ase.ro/mps/Bandura_SocialLearningTheory.pdf (Accessed: 29 July 2019).

Bandura, A. (1999) ‘Moral Disengagement in the Perpetration of Inhumanities’, *Personality and Social Psychology Review*, 3(3), pp. 193–209. doi: 10.1207/s15327957pspr0303_3.

Banyard, V. L., Rizzo, A. J. and Edwards, K. M. (2020) ‘Community actionists: Understanding adult bystanders to sexual and domestic violence prevention in communities’, *Psychology of Violence*, 10(5), pp. 531–541. doi: 10.1037/vio0000281.

Barata, P. C. (2007) ‘Abused Women’s Perspectives on the Criminal Justice System’s Response to Domestic Violence’, *Psychology of Women Quarterly*, 31(2), pp. 202–215. doi: 10.1111/j.1471-6402.2007.00353.x.

Bardzell, S. (2010a) ‘Feminist HCI: Taking Stock and Outlining an Agenda for Design’, in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI ’10), pp. 1301–1310. doi: 10.1145/1753326.1753521.

Bardzell, S. (2010b) ‘Feminist HCI: Taking Stock and Outlining an Agenda for Design’, in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI ’10), pp. 1301–1310. doi: 10.1145/1753326.1753521.

Barlow, C. *et al.* (2020) ‘Putting Coercive Control into Practice: Problems and Possibilities’, *The British Journal of Criminology*, 60(1), pp. 160–179. doi: 10.1093/bjc/azz041.

Barnardo’s (2016) *Barnardo’s Orchard Mosaic Project - Domestic abuse, Sexual Abuse, and Offending, Newcastle Support Directory*. Available at: https://www.newcastlesupportdirectory.org.uk/kb5/newcastle/fsd/service.page?id=LW1b6nAb1hM (Accessed: 11 May 2020).

Barnardo’s (2020) *What we do, Barnardo’s*. Available at: https://www.barnardos.org.uk/what-we-do (Accessed: 16 April 2020).

Barnish, M. (2004) *Domestic violence: A literature review*. London, England: HM Inspectorate of Probation.

Baskerville, R. L. and Myers, M. D. (2015) ‘Design ethnography in information systems’, *Information Systems Journal*, 25(1), pp. 23–46. doi: 10.1111/isj.12055.

Bates, E. (2017) ‘Review of domestic violence perpetrator programmes within the UK’. *Integrating research and practice to combat violence and interpersonal aggression*, Coventry University, UK, 8 June. Available at: http://www.coventry.ac.uk/research/research-directories/research-events/2016/integrating-research-and-practice-to-combat-violence-and-interpersonal-aggression/speakers/ (Accessed: 31 July 2019).

Baumer, E. P. S. and Silberman, M. S. (2011) ‘When the Implication is Not to Design (Technology)’, in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI ’11), pp. 2271–2274. doi: 10.1145/1978942.1979275.

Bayliss, P. (2007) ‘Beings in the Game-world: Characters, Avatars, and Players’, in *Proceedings of the 4th Australasian Conference on Interactive Entertainment*. Melbourne, Australia, Australia: RMIT University (IE ’07), p. 4:1-4:6. Available at: http://dl.acm.org/citation.cfm?id=1367956.1367960 (Accessed: 11 July 2019).

Beller, L. F. (2014) ‘When in Doubt, Take Them out: Removal of Children from Victims of Domestic Violence Ten Years after Nicholson v. Williams’, *Duke Journal of Gender Law & Policy*, 22(2), pp. 205–240.

Bellini, R. *et al.* (2018) ‘Feminist HCI: Taking Stock, Moving Forward, and Engaging Community’, in *Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI EA ’18), p. SIG02:1-SIG02:4. doi: 10.1145/3170427.3185370.

Bellini, R. *et al.* (2019) ‘Mapping the Margins: Navigating the Ecologies of Domestic Violence Service Provision’, in *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI ’19), p. 122:1-122:13. doi: 10.1145/3290605.3300352.

Bellini, R. *et al.* (2021) ‘“So-called privacy breeds evil”: Narrative Justifications for Intimate Partner Surveillance in Online Forums’, *Proceedings of the ACM on Human-Computer Interaction*, 4(CSCW3), p. 210:1-210:27. doi: 10.1145/3432909.

Bellini, R., Olivier, P. and Comber, R. (2018) ‘“That Really Pushes My Buttons”: Designing Bullying and Harassment Training for the Workplace’, in *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI ’18), p. 235:1-235:14. doi: 10.1145/3173574.3173809.

Bellini, R. and Westmarland, N. (2020) *Initial Lessons Learned from using Video Conferencing Software to deliver Interventions for Men using Violence in Intimate Relationships*. 1. Newcastle, UK: Newcastle University, pp. 1–3.

Bennett, C. L. and Rosner, D. K. (2019) ‘The Promise of Empathy: Design, Disability, and Knowing the “Other”’, in *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI ’19), p. 298:1-298:13. doi: 10.1145/3290605.3300528.

Berk, R. A. *et al.* (1992) ‘The Deterrent Effect of Arrest in Incidents of Domestic Violence: A Bayesian Analysis of Four Field Experiments’, *American Sociological Review*, 57(5), pp. 698–708. doi: 10.2307/2095923.

Bilby, C. and Hatcher, R. (2004) ‘Early Stages in the Development of the Integrated Domestic Abuse Programme (IDAP): Implementing the Duluth Domestic Violence Pathfinder’.

Birbeck, N. *et al.* (2017) ‘Self Harmony: Rethinking Hackathons to Design and Critique Digital Technologies for Those Affected by Self-Harm’, in *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*. Denver, Colorado, USA: Association for Computing Machinery (CHI ’17), pp. 146–157. doi: 10.1145/3025453.3025931.

Blagden, N. and Pemberton, S. (2010) *The Challenge in Conducting Qualitative Research with Convicted Sex Offenders*. SSRN Scholarly Paper ID 1619548.

Rochester, NY: Social Science Research Network. doi: 10.1111/j.1468-2311.2010.00615.x.

Blakely, K. (2016) ‘Reflections on the Role of Emotion in Feminist Research’:, *International Journal of Qualitative Methods*. doi: 10.1177/160940690700600206.

Boduszek, D. *et al.* (2019) ‘Prosocial video game as an intimate partner violence prevention tool among youth: A randomised controlled trial’, *Computers in Human Behavior*, 93, pp. 260–266. doi: 10.1016/j.chb.2018.12.028.

Bopp, C. and Voida, A. (2020) ‘Voices of the Social Sector: A Systematic Review of Stakeholder Voice in HCI Research with Nonprofit Organizations’, *ACM Transactions on Computer-Human Interaction*, 27(2), p. 9:1-9:26. doi: 10.1145/3368368.

Bowlby, J. (1960) ‘Grief and Mourning in Infancy and Early Childhood’, *The Psychoanalytic Study of the Child*, 15(1), pp. 9–52. doi: 10.1080/00797308.1960.11822566.

Bradbury, H. and Reason, P. (2006) ‘Conclusion: Broadening the bandwidth of validity: Issues and choice-points for improving the quality of action research’, *Handbook of Action Research*, pp. 343–351.

Bradley, C. and Froomkin, A. M. (2004) ‘Virtual Worlds, Real Rules Institute for Information Law and Policy Symposium: State of Play: II. Article’, *New York Law School Law Review*, (1), pp. 103–146.

Brandt, E. (2006) ‘Designing Exploratory Design Games: A Framework for Participation in Participatory Design?’, in *Proceedings of the Ninth Conference on Participatory Design: Expanding Boundaries in Design - Volume 1*. New York, NY, USA: ACM (PDC ’06), pp. 57–66. doi: 10.1145/1147261.1147271.

Brown, B. *et al.* (2016) ‘Five Provocations for Ethical HCI Research’, in *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI ’16), pp. 852–863. doi: 10.1145/2858036.2858313.

Brown, L. *et al.* (2009) ‘Manufacturing ghost fathers: the paradox of father presence and absence in child welfare’, *Child & Family Social Work*, 14(1), pp. 25–34. doi: 10.1111/j.1365-2206.2008.00578.x.

Brown, T., Hampson, R., and Family Violence Prevention Foundation of Australia (2009) *An evaluation of interventions with domestic violence perpetrators*. Caulfield, Vic.: Dept. of Social Work, Monash University.

Bruce Dalton (2007) ‘What’s Going on Out There?’, *Journal of Aggression, Maltreatment & Trauma*, 15(1), pp. 59–74. doi: 10.1300/J146v15n01_04.

Brulé, E. and Spiel, K. (2019) ‘Negotiating Gender and Disability Identities in Participatory Design’, in *Proceedings of the 9th International Conference on*

Communities & Technologies - Transforming Communities. New York, NY, USA: ACM (C&T '19), pp. 218–227. doi: 10.1145/3328320.3328369.

Burman, M. *et al.* (2010) *Responding to Gender-based Violence in Scotland: The Scope of the Gender Equality Duty to Drive Cultural and Practical Change*. Edinburgh, UK: Equality and Human Rights Commission, p. 6. Available at: http://eprints.gla.ac.uk/49382/1/id49382.pdf (Accessed: 14 February 2019).

Burrell, S. (2014) 'The invisibility of men's practices: A discourse analysis of gender in domestic violence policy'. Available at: http://tampub.uta.fi/handle/10024/95889 (Accessed: 23 January 2019).

Butler, B. (2009) '"Othering" the archive—from exile to inclusion and heritage dignity: the case of Palestinian archival memory', *Archival Science*, 9(1), p. 57. doi: 10.1007/s10502-009-9095-0.

Caine, K. J., Davison, C. M. and Stewart, E. J. (2009) 'Preliminary field-work: methodological reflections from northern Canadian research':, *Qualitative Research*. doi: 10.1177/1468794109337880.

Campbell, J. C. (1998) *Empowering Survivors of Abuse: Health Care for Battered Women and Their Children*. 1 edition. Thousand Oaks, Calif: SAGE Publications, Inc.

Campbell, R. (2013) *Emotionally Involved: The Impact of Researching Rape*. Routledge.

Chancellor, S., Hu, A. and De Choudhury, M. (2018) 'Norms Matter: Contrasting Social Support Around Behavior Change in Online Weight Loss Communities', in *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. Montreal QC, Canada: Association for Computing Machinery (CHI '18), pp. 1–14. doi: 10.1145/3173574.3174240.

Charmaz, K. (2014) *Constructing Grounded Theory*. Second edition. London ; Thousand Oaks, Calif: SAGE Publications Ltd.

Chockler, H. *et al.* (2015) 'Causal Analysis for Attributing Responsibility in Legal Cases', in *Proceedings of the 15th International Conference on Artificial Intelligence and Law*. New York, NY, USA: ACM (ICAIL '15), pp. 33–42. doi: 10.1145/2746090.2746102.

Clarke, R. *et al.* (2013) 'Digital Portraits: Photo-sharing After Domestic Violence', in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI '13), pp. 2517–2526. doi: 10.1145/2470654.2481348.

Clarke, R. (2015) *Artful Social Engagement: Long-term Interaction Design within an International Women's Community*. Newcastle University.

Clarke, R. E. *et al.* (2019) ‘Socio-materiality of trust: co-design with a resource limited community organisation’, *CoDesign*, 0(0), pp. 1–20. doi: 10.1080/15710882.2019.1631349.

Clayton, J., Donovan, C. and Merchant, J. (2016) ‘Distancing and limited resourcefulness: Third sector service provision under austerity localism in the north east of England’, *Urban Studies*, 53(4), pp. 723–740. doi: 10.1177/0042098014566369.

Cohen, S. (2004) ‘Social Relationships and Health’, *American Psychologist*, 59(8), pp. 676–684.

Coles-Kemp, L. (2020) *Digital Responsibility | RISCS*. Available at: https://www.riscs.org.uk/project_category/digital-responsibility/ (Accessed: 6 January 2021).

Cook, M. E. and Helbig, N. (2008) ‘Making Mobility Work in Child Protective Services: Lessons from the Field’, in *Proceedings of the 2008 International Conference on Digital Government Research*. Digital Government Society of North America (dg.o ’08), pp. 325–333. Available at: http://dl.acm.org/citation.cfm?id=1367832.1367886 (Accessed: 12 June 2019).

Corbett, E. and Le Dantec, C. A. (2018) ‘Exploring Trust in Digital Civics’, in *Proceedings of the 2018 Designing Interactive Systems Conference*. New York, NY, USA: ACM (DIS ’18), pp. 9–20. doi: 10.1145/3196709.3196715.

Corbett, E. and Loukissas, Y. (2019) ‘Engaging Gentrification as a Social Justice Issue in HCI’, in *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: Association for Computing Machinery (CHI ’19), pp. 1-16. doi: 10.1145/3290605.3300510.

Corbett-Davies, S. *et al.* (2017) ‘Algorithmic Decision Making and the Cost of Fairness’, in *Proceedings of the 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*. New York, NY, USA: Association for Computing Machinery (KDD ’17), pp. 797–806. doi: 10.1145/3097983.3098095.

Cornwall, A. and Jewkes, R. (1995) ‘What is participatory research?’, *Social Science & Medicine*, 41(12), pp. 1667–1676. doi: 10.1016/0277-9536(95)00127-S.

Cowburn, M. (2013) ‘Men Researching Violent Men: Epistemologies, Ethics and Emotions in Qualitative Research’, in Pini, B. and Pease, B. (eds) *Men, Masculinities and Methodologies*. London: Palgrave Macmillan UK (Genders and Sexualities in the Social Sciences), pp. 183–196. doi: 10.1057/9781137005731_14.

Coy, M., Kelly, L. and Foord, J. (2009) *Map of Gaps 2: The postcode lottery of Violence Against Women support services in Britain*. End Violence Against Women. Available at: http://www.refuge.org.uk/files/Map-of-Gapsreport-2009.pdf (Accessed: 16 April 2020).

Crane, C. A., Rice, S. L. and Schlauch, R. C. (2018) 'Development and psychometric evaluation of a rapid intimate partner violence perpetration screening tool', *Aggressive Behavior*, 44(2), pp. 199–208. doi: 10.1002/ab.21743.

Creswell, J. W. (2012) *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. Third edition. Los Angeles: SAGE Publications, Inc.

Crewe, B. and Ievins, A. (2015) 'Closeness, Distance and Honesty in Prison Ethnography', in Drake, D. H., Earle, R., and Sloan, J. (eds) *The Palgrave Handbook of Prison Ethnography*. London: Palgrave Macmillan UK (Palgrave Studies in Prisons and Penology), pp. 124–142. doi: 10.1057/9781137403889_7.

Crivellaro, C. *et al*. (2019) 'Infrastructuring Public Service Transformation: Creating Collaborative Spaces between Communities and Institutions through HCI Research', *ACM Transactions on Computer-Human Interaction*, 26(3), p. 15:1-15:29. doi: 10.1145/3310284.

Cunningham, J. B. (1993) *Action Research and Organizational Development*. Praeger.

Cutting, K. (2020) '"Bruises or scars? Justification practices and the legacies of austerity".', *@kierancutting*, 21 April. Available at: https://twitter.com/kierancutting/status/1252553043347980288 (Accessed: 27 January 2021).

Cutting, K. and Hedenborg, E. (2019) 'Can Personas Speak? Biopolitics in Design Processes', in *Companion Publication of the 2019 on Designing Interactive Systems Conference 2019 Companion*. New York, NY, USA: Association for Computing Machinery (DIS '19 Companion), pp. 153–157. doi: 10.1145/3301019.3323911.

Dalley, T. (1984) *Art as Therapy: An Introduction to the Use of Art as a Therapeutic Technique*. Routledge.

Davis, H. *et al*. (2017) 'Designing Participation for the Digital Fringe', in *Proceedings of the 8th International Conference on Communities and Technologies*. New York, NY, USA: ACM (C&T '17), pp. 321–324. doi: 10.1145/3083671.3083714.

Davis, L. *et al*. (2003) 'Enabling a continuum of virtual environment experiences', *IEEE Computer Graphics and Applications*, 23(2), pp. 10–12. doi: 10.1109/MCG.2003.1185574.

Defourny, J. (2013) 'Third Sector', in *Handbook on the Economics of Reciprocity and Social Enterprise*. Edward Ekgar, pp. 400–410. Available at: https://www.elgaronline.com/view/edcoll/9781849804639/9781849804639.00047.xml (Accessed: 14 December 2020).

DeKeseredy, W. S. and Schwartz, M. D. (2013) *Male Peer Support and Violence Against Women: The History and Verification of a Theory*. Northeastern University Press.

Devaney, J. (2009) ‘Children’s Exposure to Domestic Violence: Holding Men to Account’, *The Political Quarterly*, 80(4), pp. 569–574. doi: 10.1111/j.1467-923X.2009.02050.x.

Dickens, L. and Watkins, K. (1999) ‘Action Research: Rethinking Lewin’, *Management Learning*, 30(2), pp. 127–140. doi: 10.1177/1350507699302002.

Dieterle, B. (2015) ‘Designing Smartphone Apps for at Risk Populations: Domestic Violence Survivors and User Experience’, in *Proceedings of the 33rd Annual International Conference on the Design of Communication*. New York, NY, USA: ACM (SIGDOC ’15), p. 14:1-14:2. doi: 10.1145/2775441.2775451.

Dimond, J. P., Fiesler, C. and Bruckman, A. S. (2011) ‘Domestic violence and information communication technologies’, *Interacting with Computers*, 23(5), pp. 413–421. doi: 10.1016/j.intcom.2011.04.006.

DiSalvo, C. (2009) ‘Design and the Construction of Publics’, *Design Issues*, 25(1), pp. 48–63. doi: 10.1162/desi.2009.25.1.48.

DiSalvo, C. *et al.* (2011) ‘The collective articulation of issues as design practice’, *CoDesign*, 7(3–4), pp. 185–197. doi: 10.1080/15710882.2011.630475.

Dobash, R. *et al.* (2000) ‘Confronting Violent Men’, in *Home Truths About Domestic Violence: Feminist Influences on Policy and Practice*. London ; Concord, MA (1), pp. 289–309.

Dobash, R. E. *et al.* (1999) *Changing Violent Men*. London, UK: SAGE Publications (Violence against Women).

Dobash, R. E. (2003) ‘Domestic Violence: Arrest, Prosecution, and Reducing Violence’, *Criminology & Public Policy*, 2(2), pp. 313–318. doi: https://doi.org/10.1111/j.1745-9133.2003.tb00127.x.

Dobash, R. E. and Dobash, R. P. (1981) ‘Social Science and Social Action: The Case of Wife Beating’, *Journal of Family Issues*, 2(4), pp. 439–470. doi: 10.1177/0192513X8100200404.

Dobash, R. E. and Dobash, R. P. (2015) *Women, Violence and Social Change*. 1 edition. Place of publication not identified: Routledge.

Dobash, R. P. and Dobash, R. E. (2004) ‘Women’s Violence to Men in Intimate RelationshipsWorking on a Puzzle’, *The British Journal of Criminology*, 44(3), pp. 324–349. doi: 10.1093/bjc/azh026.

Dombrowski, L., Alvarado Garcia, A. and Despard, J. (2017) ‘Low-Wage Precarious Workers’ Sociotechnical Practices Working Towards Addressing Wage Theft’, in *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI ’17), pp. 4585–4598. doi: 10.1145/3025453.3025633.

Dombrowski, L., Harmon, E. and Fox, S. (2016) ‘Social Justice-Oriented Interaction Design: Outlining Key Design Strategies and Commitments’, in *Proceedings of the 2016 ACM Conference on Designing Interactive Systems*. New York, NY, USA: ACM (DIS ’16), pp. 656–671. doi: 10.1145/2901790.2901861.

Donovan, C. and Griffiths, S. (2015) ‘Domestic Violence and Voluntary Perpetrator Programmes: Engaging Men in the Pre-Commencement Phase’, *The British Journal of Social Work*, 45(4), pp. 1155–1171. doi: 10.1093/bjsw/bct182.

Douglas, H. and Walsh, T. (2010) ‘Mothers, Domestic Violence, and Child Protection’, *Violence Against Women*, 16(5), pp. 489–508. doi: 10.1177/1077801210365887.

Dourish, P. (2010) ‘HCI and Environmental Sustainability: The Politics of Design and the Design of Politics’, in *Proceedings of the 8th ACM Conference on Designing Interactive Systems*. New York, NY, USA: ACM (DIS ’10), pp. 1–10. doi: 10.1145/1858171.1858173.

Dourish, P. *et al.* (2010) ‘Theme Issue on Social Interaction and Mundane Technologies’, *Personal Ubiquitous Comput.*, 14(3), pp. 171–180. doi: 10.1007/s00779-010-0281-0.

Dow, A., Comber, R. and Vines, J. (2018) ‘Between Grassroots and the Hierarchy: Lessons Learned from the Design of a Public Services Directory’, in *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI ’18), p. 442:1-442:13. doi: 10.1145/3173574.3174016.

Dow, A., Comber, R. and Vines, J. (2019) ‘Communities to the left of me, bureaucrats to the right…here I am, stuck in the middle’, *Interactions*, 26(5), pp. 26–33. doi: 10.1145/3351735.

Downes, J., Kelly, L. and Westmarland, N. (2014) ‘Ethics in Violence and Abuse Research - a Positive Empowerment Approach’:, *Sociological Research Online*. doi: 10.5153/sro.3140.

Downes, J., Kelly, L. and Westmarland, N. (2019) ‘“It’s a work in progress”: men’s accounts of gender and change in their use of coercive control’, *Journal of Gender-Based Violence*, 3(3), pp. 267-282(16). doi: https://doi.org/10.1332/239868019X15627570242850.

Durrant, A. C., Kirk, D. S. and Reeves, S. (2014) ‘Human values in curating a human rights media archive’, in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. New York, NY, USA: Association for Computing Machinery (CHI ’14), pp. 2685–2694. doi: 10.1145/2556288.2557196.

Etherington, K. (2007) ‘Working with Traumatic Stories: From Transcriber to Witness’, *International Journal of Social Research Methodology*, 10(2), pp. 85–97. doi: 10.1080/13645570701334001.

Farmer, E. and Owen, M. (1995) *Child protection practice: Private risk and public remedies—Decision making, intervention and outcomes.* London: Protection Work HMSO.

Fincham, F. D. and Jaspars, J. M. (1980) ‘Attribution of Responsibility: From Man the Scientist to Man As Lawyer’, in Berkowitz, L. (ed.) *Advances in Experimental Social Psychology*. Academic Press, pp. 81–138. doi: 10.1016/S0065-2601(08)60131-8.

Fox, S. *et al.* (2016) ‘Exploring Social Justice, Design, and HCI’, in *Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI EA ’16), pp. 3293–3300. doi: 10.1145/2851581.2856465.

Fox, S. *et al.* (2017) ‘Imagining Intersectional Futures: Feminist Approaches in CSCW’, in *Companion of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing*. New York, NY, USA: ACM (CSCW ’17 Companion), pp. 387–393. doi: 10.1145/3022198.3022665.

Fox, S. E., Silva, R. M. L. and Rosner, D. K. (2018) ‘Beyond the Prototype: Maintenance, Collective Responsibility, and Public IoT’, in *Proceedings of the 2018 Designing Interactive Systems Conference*. New York, NY, USA: Association for Computing Machinery (DIS ’18), pp. 21–32. doi: 10.1145/3196709.3196710.

Fox, S. and Le Dantec, C. (2014) ‘Community historians: scaffolding community engagement through culture and heritage’, in *Proceedings of the 2014 conference on Designing interactive systems*. New York, NY, USA: Association for Computing Machinery (DIS ’14), pp. 785–794. doi: 10.1145/2598510.2598563.

Freed, D. *et al.* (2017) ‘Digital Technologies and Intimate Partner Violence: A Qualitative Analysis with Multiple Stakeholders’, *Proc. ACM Hum.-Comput. Interact.*, 1(CSCW), p. 46:1-46:22. doi: 10.1145/3134681.

Freed, D. *et al.* (2018) ‘“A Stalker’s Paradise”: How Intimate Partner Abusers Exploit Technology’, in *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI ’18), p. 667:1-667:13. doi: 10.1145/3173574.3174241.

Freed, D. *et al.* (2019) ‘“Is my phone hacked?”Analyzing Clinical Computer Security Interventions withSurvivors of Intimate Partner Violence’, *Proc. ACM Hum.-Comput. Interact.3, CSCW,* (3). Available at: http://nixdell.com/papers/Freed-CSCW-2019.pdf (Accessed: 1 October 2019).

Freeman, M. D. A. (1979) *Violence in the Home*. Saxon House.

Frumkin, P. (2005) *On Being Nonprofit: A Conceptual and Policy Primer*. New Ed edition. Cambridge, Mass.: Harvard University Press.

Garcia-Moreno, C. (2013) *Global and regional estimates of violence against women: Prevalence and health effects of intimate partner violence and non-partner sexual*

violence. Department of Reproductive Health and Research: World Health Organization, p. 51. Available at: https://www.who.int/reproductivehealth/publications/violence/9789241564625/en/ (Accessed: 12 December 2018).

García-Moreno, C. and World Health Organization (2005) *WHO multi-country study on women's health and domestic violence against women: initial results on prevalence, health outcomes and women's responses*. Geneva: WHO.

Glaser, B. and Strauss, A. (1999) *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New Brunswick: Routledge.

Gondolf, E. (2002) *Batterer Intervention Systems: Issues, Outcomes, and Recommendations*. Thousand Oaks, California. doi: 10.4135/9781452229263.

Gondolf, E. W. (2004) 'Evaluating batterer counseling programs: A difficult task showing some effects and implications', *Aggression and Violent Behavior*, 9(6), pp. 605–631. doi: 10.1016/j.avb.2003.06.001.

Goodman, E. and Rosner, D. (2011) 'From garments to gardens: negotiating material relationships online and "by hand"', in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. New York, NY, USA: Association for Computing Machinery (CHI '11), pp. 2257–2266. doi: 10.1145/1978942.1979273.

Gotterbarn, D. (2001) 'Informatics and professional responsibility', *Science and Engineering Ethics*, 7(2), pp. 221–230. doi: 10.1007/s11948-001-0043-5.

Greenwood, D. J. and Levin, M. (2006) *Introduction to Action Research: Social Research for Social Change; Second Edition*. 2 edition. Thousand Oaks, Calif: Sage Publications, Inc.

Greenwood, D. and Levin, M. (2007) *Introduction to Action Research*. 2455 Teller Road, Thousand Oaks California 91320 United States of America: SAGE Publications, Inc. doi: 10.4135/9781412984614.

Grimani, A., Gavine, A. and Moncur, W. (2020) 'An Evidence Synthesis of Covert Online Strategies Regarding Intimate Partner Violence', *Trauma, Violence, & Abuse*, p. 1524838020957985. doi: 10.1177/1524838020957985.

Grimpe, B., Hartswood, M. and Jirotka, M. (2014) 'Towards a Closer Dialogue Between Policy and Practice: Responsible Design in HCI', in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI '14), pp. 2965–2974. doi: 10.1145/2556288.2557364.

Groundwater-Smith, S. and Irwin, J. (2011) 'Action Researchaction researchin Educationeducationand Social Worksocial work', in Markauskaite, L., Freebody, P., and Irwin, J. (eds) *Methodological Choice and Design: Scholarship, Policy and Practice in Social and Educational Research*. Dordrecht: Springer Netherlands (Methodos Series), pp. 57–69. doi: 10.1007/978-90-481-8933-5_5.

Halskov, K. and Hansen, N. B. (2015) 'The diversity of participatory design research practice at PDC 2002–2012', *International Journal of Human-Computer Studies*, 74, pp. 81–92. doi: 10.1016/j.ijhcs.2014.09.003.

Hamilton, L., Koehler, J. A. and Lösel, F. A. (2013) 'Domestic Violence Perpetrator Programs in Europe, Part I: A survey of Current Practice', *International Journal of Offender Therapy and Comparative Criminology*, 57(10), pp. 1189–1205. doi: 10.1177/0306624X12469506.

Hand, S. and Varan, D. (2009) 'Interactive Stories and the Audience: Why Empathy is Important', *Comput. Entertain.*, 7(3), p. 39:1-39:14. doi: 10.1145/1594943.1594951.

Hanmer, J. (1990) 'Men, power, and the exploitation of women', *Women's Studies International Forum*, 13(5), pp. 443–456. doi: 10.1016/0277-5395(90)90096-G.

Haraway, D. (1988) 'Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective', *Feminist Studies*, 14(3), pp. 575–599. doi: 10.2307/3178066.

Harding, S. (2004) 'Introduction: Standpoint Theory as a Site of Political, Philosophic, and Scientific Debate', in Harding, S. G. (ed.) *The Feminist Standpoint Theory Reader: Intellectual and Political Controversies*. Routledge, pp. 1–15.

Harrington, C., Erete, S. and Piper, A. M. (2019) 'Deconstructing Community-Based Collaborative Design: Towards More Equitable Participatory Design Engagements', *Proceedings of the ACM on Human-Computer Interaction*, 3(CSCW), p. 216:1-216:25. doi: 10.1145/3359318.

Harris, B. A. (2020) 'Technology and Violence Against Women', in Walklate, S. et al. (eds) *The Emerald Handbook of Feminism, Criminology and Social Change*. Emerald Publishing Limited (Emerald Studies in Criminology, Feminism and Social Change), pp. 317–336. doi: 10.1108/978-1-78769-955-720201026.

Hart, L. and R. (2018) *Operation Lighthouse: Reflections on our Family's Devastating Story of Coercive Control and Domestic Homicide*. Independently published.

Hattery, A. (2009) *Intimate Partner Violence*. Rowman & Littlefield.

Havron, S. *et al.* (2019) 'Clinical Computer Security for Victims of Intimate Partner Violence', in. *28th {USENIX} Security Symposium ({USENIX} Security 19)*, San Diego, CA, USA: ACM, pp. 105–122. Available at: https://www.usenix.org/conference/usenixsecurity19/presentation/havron (Accessed: 29 July 2019).

Hayes, G. R. (2011) 'The Relationship of Action Research to Human-computer Interaction', *ACM Trans. Comput.-Hum. Interact.*, 18(3), p. 15:1-15:20. doi: 10.1145/1993060.1993065.

Hayes, G. R. (2014) ‘Knowing by Doing: Action Research as an Approach to HCI’, in Olson, J. S. and Kellogg, W. A. (eds) *Ways of Knowing in HCI*. New York, NY: Springer, pp. 49–68. doi: 10.1007/978-1-4939-0378-8_3.

Healey, K., Smith, C. and O’Sullivan, C. (2009) ‘Batterer intervention: Program approaches and criminal justice strategies’, *Batterer Intervention: Program Approaches and Criminal Justice Strategies*, pp. 1–253.

Hearn, J. and McKie, L. (2010) ‘Gendered and Social Hierarchies in Problem Representation and Policy Processes: “Domestic Violence” in Finland and Scotland’, *Violence Against Women*, 16(2), pp. 136–158. doi: 10.1177/1077801209355185.

Hearn, J. R. (1998) *The Violences of Men: How Men Talk about and How Agencies Respond to Men’s Violence to Women*. 1 edition. London: Sage Publications.

Hegarty, K. *et al.* (2016) ‘Interventions to support recovery after domestic and sexual violence in primary care’, *International Review of Psychiatry*, 28(5), pp. 519–532. doi: 10.1080/09540261.2016.1210103.

Heil, P., Simons, D. and Burton, D. (2010) ‘Using the Polygraph with Female Sexual Offenders’, in *Female Sexual Offenders*. John Wiley & Sons, Ltd, pp. 143–160. doi: 10.1002/9780470666715.ch9.

Heitlinger, S. *et al.* (2019) ‘Co-Creating “Smart” Sustainable Food Futures with Urban Food Growers’, in *Proceedings of the 9th International Conference on Communities & Technologies - Transforming Communities*. New York, NY, USA: Association for Computing Machinery (C&T ’19), pp. 114–120. doi: 10.1145/3328320.3328399.

Hekler, E. B. *et al.* (2013) ‘Mind the Theoretical Gap: Interpreting, Using, and Developing Behavioral Theory in HCI Research’, in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI ’13), pp. 3307–3316. doi: 10.1145/2470654.2466452.

Herron, D. *et al.* (2016) ‘HCI and Sensitive Life Experiences’, in *Proceedings of the 9th Nordic Conference on Human-Computer Interaction*. New York, NY, USA: ACM (NordiCHI ’16), p. 134:1-134:3. doi: 10.1145/2971485.2987673.

Hester, M. *et al.* (2006) ‘Domestic Violence Perpetrators: Identifying Needs to Inform Early Intervention’. Available at: https://research-information.bristol.ac.uk/en/publications/domestic-violence-perpetrators-identifying-needs-to-inform-early-intervention(6b02b0b5-e6a9-41e1-9cfd-fc8ab92b1b9f)/export.html (Accessed: 22 May 2018).

Hester, M. (2006) ‘Making it through the Criminal Justice System: Attrition and Domestic Violence’, *Social Policy and Society*, 5(1), pp. 79–90. doi: 10.1017/S1474746405002769.

Hester, M. (2007) *Making an Impact: Children and Domestic Violence : a Reader*. Jessica Kingsley Publishers.

Hester, M. and Westmarland, N. (2005) 'Tackling Domestic Violence: Effective Interventions and Approaches'.

Hicks, C. M. *et al.* (2016) 'Framing Feedback : Choosing Review Environment Features that Support High Quality Peer Assessment'.

HM Government (2020) *Domestic Abuse Bill*. Available at: https://publications.parliament.uk/pa/bills/lbill/58-01/124/5801124.pdf (Accessed: 19 November 2020).

Hodge, J. *et al.* (2020) 'Relational, Flexible, Everyday: Learning from Ethics in Dementia Research', in *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: Association for Computing Machinery, pp. 1–16. Available at: https://doi.org/10.1145/3313831.3376627 (Accessed: 12 January 2021).

Honary, M. *et al.* (2020) 'Shaping the Design of Smartphone-Based Interventions for Self-Harm', in *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: Association for Computing Machinery (CHI '20), pp. 1–14. doi: 10.1145/3313831.3376370.

hooks, bell (2016) *All About Love: New Visions*. New York: William Morrow Paperbacks.

Hope, A. *et al.* (2019) 'Hackathons as Participatory Design: Iterating Feminist Utopias', in *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: Association for Computing Machinery (CHI '19), pp. 1–14. doi: 10.1145/3290605.3300291.

Hoven, J. van den (2013) 'Value Sensitive Design and Responsible Innovation', in *Responsible Innovation*. John Wiley & Sons, Ltd, pp. 75–83. doi: 10.1002/9781118551424.ch4.

Hoyle, C. and Sanders, A. (2000) 'Police Response to Domestic Violence', *The British Journal of Criminology*, 40(1), pp. 14–36. doi: 10.1093/bjc/40.1.14.

Hudson, K. (2005) *Offending Identities: Sex Offenders' Perspectives on Their Treatment and Management*. 1 edition. Uffculme ; Portland, Ore: Willan.

Huizinga, J. (2016) *Homo Ludens: A Study of the Play-Element in Culture*. Angelico Press.

Inman, S. and Ribes, D. (2019) '"Beautiful Seams": Strategic Revelations and Concealments', in *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI '19), p. 278:1-278:14. doi: 10.1145/3290605.3300508.

Ivars-Nicolas, B. and Martinez-Cano, F. J. (2019) 'Interactivity in Fiction Series as Part of Its Transmedia Universe: The Case of Black Mirror: Bandersnatch', *Narrative Transmedia*. doi: 10.5772/intechopen.86881.

J. Ptacek (1988) 'Why do men batter their wives?', in *Feminist Perspectives on Wife Abuse*. Sage, pp. 133–157.

James, R. and David, M. (2016) *The third sector delivering public services: Developments, innovations and challenges*. Policy Press.

Jamieson, S. and Mikko Vesala, K. (2008) 'Exploring Men's Perpetrator Programs In Small Rural Communities', *Rural Society*, 18(1), pp. 39–50. doi: 10.5172/rsj.351.18.1.39.

Jansen, J.-M. *et al.* (2020) 'Design for Co-responsibility: Connecting Patients, Partners, and Professionals in Bariatric Lifestyle Changes', in *Proceedings of the 2020 ACM Designing Interactive Systems Conference*. New York, NY, USA: Association for Computing Machinery (DIS '20), pp. 1537–1549. doi: 10.1145/3357236.3395469.

Jarzabkowski, P., Bednarek, R. and Lê, J. K. (2014) 'Producing persuasive findings: Demystifying ethnographic textwork in strategy and organization research', *Strategic Organization*, 12(4), pp. 274–287. doi: 10.1177/1476127014554575.

Jennings, J. L. (1990) 'Preventing relapse versus "stopping" domestic violence: Do we expect too much too soon from battering men?', *Journal of Family Violence*, 5(1), pp. 43–60. doi: 10.1007/BF00979138.

Kabanoff, S. *et al.* (2017) 'How Processes of University Ethics Approval for Research in Domestic Violence Can Mirror Strategies of Abuse That Perpetrators Use to Silence and Control Their Partners', *International Journal of Qualitative Methods*, 16(1).

Kalanithi, J. J. and Bove, V. M. (2008) 'Connectibles: tangible social networks', in *Proceedings of the 2nd international conference on Tangible and embedded interaction*. New York, NY, USA: Association for Computing Machinery (TEI '08), pp. 199–206. doi: 10.1145/1347390.1347434.

Karusala, N. and Kumar, N. (2017) 'Women's Safety in Public Spaces: Examining the Efficacy of Panic Buttons in New Delhi', in *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI '17), pp. 3340–3351. doi: 10.1145/3025453.3025532.

Kekulluoglu, D., Kokciyan, N. and Yolum, P. (2018) 'Preserving Privacy as Social Responsibility in Online Social Networks', *ACM Transactions on Internet Technology*, 18(4), p. 42:1-42:22. doi: 10.1145/3158373.

Kelly, L. (2014) 'Every woman does safety work every day #yesallwomen and far too many of us also have to do violence work - undoing the harms of abuse', *@proflizkelly*, 4 May. Available at:

https://twitter.com/proflizkelly/status/470338526098513920 (Accessed: 31 January 2018).

Kelly, L. and Westmarland, N. (2015) *Domestic Violence Perpetrator Programmes: Steps Towards Change. Project Mirabal Final Report*. Project Mirabel Final Report. Durham University, pp. 1–52. Available at: https://www.dur.ac.uk/resources/criva/ProjectMirabalfinalreport.pdf (Accessed: 6 April 2018).

Kelly, L. and Westmarland, N. (2016) 'Naming and Defining "Domestic Violence": Lessons from Research with Violent Men', *Feminist Review*, 112(1), pp. 113–127. doi: 10.1057/fr.2015.52.

Kemp, N. and Felton, D. (2017) *Safe Newcastle Plan 2017-2020: Tackling Crime, Protecting Communities*, pp. 3–14. Available at: https://www.newcastle.gov.uk/sites/default/files/wwwfileroot/communities-and-neighbourhoods/crime-prevention-and-safety/safe_newcastle_plan_2017-20.pdf (Accessed: 30 July 2018).

Kim, H., Ray, C. D. and Veluscek, A. M. (2017) 'Complementary Support from Facilitators and Peers for Promoting mHealth Engagement and Weight Loss', *Journal of Health Communication*, 22(11), pp. 905–912. doi: 10.1080/10810730.2017.1373876.

Kiran, A. H. (2012) 'Responsible Design. A Conceptual Look at Interdependent Design–Use Dynamics', *Philosophy & Technology*, 25(2), pp. 179–198. doi: 10.1007/s13347-011-0052-5.

Kirkwood, C. (1993) *Leaving abusive partners: from the scars of survival to the wisdom for change*. London: Sage Publications. Available at: http://catalogue.sunderland.ac.uk/items/186853 (Accessed: 5 February 2019).

Knoblauch, H. (2005) 'Focused Ethnography', *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 6(3). doi: 10.17169/fqs-6.3.20.

Kolko, J. (2010) 'Sensemaking and Framing: A Theoretical Reflection on Perspective in Design Synthesis', *Proceedings of Design Research Society*.

Koo, G. and Seider, S. (2010) 'Video Games for Prosocial Learning', *Ethics and Game Design: Teaching Values through Play*, pp. 16–33. doi: 10.4018/978-1-61520-845-6.ch002.

Kotsoglou, K. N. and Oswald, M. (2020) 'Not "Very English" - on the Use of the Polygraph by the Penal System in England and Wales', *The Journal of Criminal Law*, p. 0022018320976284. doi: 10.1177/0022018320976284.

Krueger, R. A. (2014) *Focus Groups: A Practical Guide for Applied Research*. SAGE Publications.

Kushner, T. and Sharma, A. (2020) 'Bursts of Activity: Temporal Patterns of Help-Seeking and Support in Online Mental Health Forums', in *Proceedings of The Web Conference 2020*. New York, NY, USA: Association for Computing Machinery (WWW '20), pp. 2906–2912. doi: 10.1145/3366423.3380056.

Kuutti, K. and Bannon, L. J. (2014) 'The Turn to Practice in HCI: Towards a Research Agenda', in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI '14), pp. 3543–3552. doi: 10.1145/2556288.2557111.

Laing, L. (2002) *The challenge of implementing and evaluating programs for perpetrators of domestic violence*. 1. Sydney: Australian Institute of Criminology and the Crime Prevention Branch, pp. 1–12. Available at: https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.546.7145&rep=rep1&type=pdf (Accessed: 2 July 2021).

Lamb, S. (1991) 'Acts Without Agents: An Analysis of Linguistic Avoidance in Journal Articles on Men Who Batter Women', *American Journal of Orthopsychiatry*, 61(2), pp. 250–257. doi: 10.1037/h0079243.

Lamb, S. (1999) *The Trouble with Blame: Victims, Perpetrators, and Responsibility*. Harvard University Press.

Landau, D. H. (2020) *Becoming Other; Virtual Embodiment – Blurring the Self-Other Binary*. Aalto University. Available at: https://aaltodoc.aalto.fi:443/handle/123456789/64151 (Accessed: 15 December 2020).

Lang, C. *et al.* (2018) 'The complexities of developing a personal code of ethics for learning analytics practitioners: implications for institutions and the field', in *Proceedings of the 8th International Conference on Learning Analytics and Knowledge*. New York, NY, USA: Association for Computing Machinery (LAK '18), pp. 436–440. doi: 10.1145/3170358.3170396.

LaRose, R., Rifon, N. J. and Enbody, R. (2008) 'Promoting Personal Responsibility for Internet Safety', *Commun. ACM*, 51(3), pp. 71–76. doi: 10.1145/1325555.1325569.

Lau, U. and Stevens, G. (2012) 'Textual transformations of subjectivity in men's talk of gender-based violence:', *Feminism & Psychology*. doi: 10.1177/0959353511434416.

Launuis, M. and Lindquist, C. (1988) 'Learned Helplessness, External Locus of Control, and Passivity in Battered Women', *Journal of Interpersonal Violence - J INTERPERS VIOLENCE*, 3, pp. 307–318. doi: 10.1177/088626088003003004.

Laura Ramí-rez Galleguillos, M. and Coşkun, A. (2020) 'How Do I matter? A Review of the Participatory Design Practice with Less Privileged Participants', in *Proceedings of the 16th Participatory Design Conference 2020 - Participation(s)*

Otherwise - Volume 1. New York, NY, USA: Association for Computing Machinery (PDC ’20), pp. 137–147. doi: 10.1145/3385010.3385018.

Leitão, R. (2019a) ‘Anticipating Smart Home Security and Privacy Threats with Survivors of Intimate Partner Abuse’, in *Proceedings of the 2019 on Designing Interactive Systems Conference*. New York, NY, USA: ACM (DIS ’19), pp. 527–539. doi: 10.1145/3322276.3322366.

Leitão, R. (2019b) ‘Technology-Facilitated Intimate Partner Abuse: a qualitative analysis of data from online domestic abuse forums’, *Human–Computer Interaction*, 0(0), pp. 1–40. doi: 10.1080/07370024.2019.1685883.

Levecque, K. *et al.* (2017) ‘Work organization and mental health problems in PhD students’, *Research Policy*, 46(4), pp. 868–879. doi: 10.1016/j.respol.2017.02.008.

Lewin, K. (1946) ‘Action Research and Minority Problems’, *Journal of Social Issues*, 2(4), pp. 34–46. doi: https://doi.org/10.1111/j.1540-4560.1946.tb02295.x.

Lieberoth, A., Wellnitz, K. B. and Aagaard, J. (2015) ‘Game Research Methods’, in Lankoski, P. and Björk, S. (eds). Pittsburgh, PA, USA: ETC Press, pp. 175–192. Available at: http://dl.acm.org/citation.cfm?id=2812774.2812789 (Accessed: 19 July 2019).

Light, A. and Akama, Y. (2014) ‘Structuring Future Social Relations: The Politics of Care in Participatory Practice’, in *Proceedings of the 13th Participatory Design Conference: Research Papers - Volume 1*. New York, NY, USA: ACM (PDC ’14), pp. 151–160. doi: 10.1145/2661435.2661438.

Light, A., Powell, A. and Shklovski, I. (2017) ‘Design for Existential Crisis in the Anthropocene Age’, in *Proceedings of the 8th International Conference on Communities and Technologies*. New York, NY, USA: Association for Computing Machinery (C&T ’17), pp. 270–279. doi: 10.1145/3083671.3083688.

Lila, M. *et al.* (2013) ‘Predicting success indicators of an intervention programme for convicted intimate-partner violence offenders: The Contexto Programme’, *The European Journal of Psychology Applied to Legal Context*, 5(1), pp. 73–95.

Lincoln and Denzin (2004) *Turning Points In Qualitative Research: Tying Knots in a Handkerchief*. AltaMira Press.

Lindsay, S. *et al.* (2012) ‘Empathy, participatory design and people with dementia’, in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. Austin, Texas, USA: Association for Computing Machinery (CHI ’12), pp. 521–530. doi: 10.1145/2207676.2207749.

Local Government Authority (2008) *Working with the Third Sector*. Front Office Shared Services, pp. 1–10. Available at: https://www.local.gov.uk/sites/default/files/documents/working-third-sector-pdf--1ab.pdf (Accessed: 14 December 2020).

Luger, E. and Rodden, T. (2014) 'Sustaining Consent Through Agency: A Framework for Future Development', in *Proceedings of the 2014 ACM International Joint Conference on Pervasive and Ubiquitous Computing: Adjunct Publication*. New York, NY, USA: ACM (UbiComp '14 Adjunct), pp. 659–664. doi: 10.1145/2638728.2641680.

Lupton, C. and Gillespie, T. (1994) *Working with Violence*. Macmillan International Higher Education.

Lyngs, U. *et al.* (2019) 'Self-Control in Cyberspace: Applying Dual Systems Theory to a Review of Digital Self-Control Tools', in *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI '19), p. 131:1-131:18. doi: 10.1145/3290605.3300361.

Lynne, H. and Jill, R. (2008) *Tackling Domestic Violence: Theories, Policies And Practice: Theories, Policies and Practice*. McGraw-Hill Education (UK).

Machado, C. M. (2020) *In the Dream House: A Memoir*. Main edition. Serpent's Tail.

Macnamara, C. (2011) 'Holding others responsible', *Philosophical Studies*, 152(1), pp. 81–102. doi: 10.1007/s11098-009-9464-9.

Maitland, J. and Chalmers, M. (2011) 'Designing for peer involvement in weight management', in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. New York, NY, USA: Association for Computing Machinery (CHI '11), pp. 315–324. doi: 10.1145/1978942.1978988.

Manchikanti Gómez, A. (2011) 'Testing the Cycle of Violence Hypothesis: Child Abuse and Adolescent Dating Violence as Predictors of Intimate Partner Violence in Young Adulthood', *Youth & Society*, 43(1), pp. 171–192. doi: 10.1177/0044118X09358313.

Manovich, L. (2001) *The Language of New Media*. MIT Press.

Mantel, H. (2015) *Bring Up the Bodies*. TV tie-in edition. Fourth Estate.

Marques, D. *et al.* (2019) 'Vulnerability & Blame: Making Sense of Unauthorized Access to Smartphones', in *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI '19), p. 589:1-589:13. doi: 10.1145/3290605.3300819.

Marshall, K. *et al.* (2014) 'Making wellbeing: a process of user-centered design', in *Proceedings of the 2014 conference on Designing interactive systems*. New York, NY, USA: Association for Computing Machinery (DIS '14), pp. 755–764. doi: 10.1145/2598510.2600888.

Marshall, M. *et al.* (2018) 'Accountability Work: Examining the Values, Technologies and Work Practices That Facilitate Transparency in Charities', in *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI '18), p. 275:1-275:12. doi: 10.1145/3173574.3173849.

Marteau, T. M., Hollands, G. J. and Fletcher, P. C. (2012) 'Changing Human Behavior to Prevent Disease: The Importance of Targeting Automatic Processes', *Science*, 337(6101), pp. 1492–1495. doi: 10.1126/science.1226918.

Matthews, T. *et al.* (2017) 'Stories from Survivors: Privacy & Security Practices when Coping with Intimate Partner Abuse', in *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI '17), pp. 2189–2201. doi: 10.1145/3025453.3025875.

Mayr, S. and Petta, P. (2013) 'Towards a Serious Game for Trauma Treatment', in Ma, M. et al. (eds) *Serious Games Development and Applications*. Springer Berlin Heidelberg (Lecture Notes in Computer Science), pp. 64–69.

McBride, E. (2018) 'The multi-agency response to children living with domestic abuse', *Probation Journal*, 65(1), pp. 99–100. doi: 10.1177/0264550517752751a.

McDonald, N. *et al.* (2020) 'Privacy and Power: Acknowledging the Importance of Privacy Research and Design for Vulnerable Populations', in *Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: Association for Computing Machinery (CHI EA '20), pp. 1–8. doi: 10.1145/3334480.3375174.

McEldowney, J. (2016) 'Delivering Public Services in the United Kingdom in a Period of Austerity', in Wollmann, H., Koprić, I., and Marcou, G. (eds) *Public and Social Services in Europe: From Public and Municipal to Private Sector Provision*. London: Palgrave Macmillan UK (Governance and Public Management), pp. 41–54. doi: 10.1057/978-1-137-57499-2_4.

McGlynn, C., Johnson, K. and Westmarland, N. (2017) *Under the Radar: The Widespread Use of 'Out of Court Resolutions' in Policing Domestic Violence and Abuse in the United Kingdom (2017) British Journal of Criminology*. SSRN Scholarly Paper ID 2925792. Rochester, NY: Social Science Research Network. Available at: https://papers.ssrn.com/abstract=2925792 (Accessed: 7 February 2019).

McMullan, T. (2018) 'The problem with Detroit: Become Human's handling of domestic abuse', *Alphr*, 23 April. Available at: https://www.alphr.com/go/1009162 (Accessed: 2 August 2019).

McNeill, F. and Maruna, S. (2007) 'Giving up and giving back: desistance, generativity and social work with offenders', in *Developments in Social Work with Offenders*. Gill McIvor and Peter Raynor. London: Jessica Kingsley Publishers (Research Highlights in Social Work), p. 226.

McTaggart, R. (1999) 'Reflection on the Purposes of Research, Action, and Scholarship: A Case of Cross-Cultural Participatory Action Research', *Systemic Practice and Action Research*, 12(5), pp. 493–511. doi: 10.1023/A:1022417623393.

Mead, S., Hilton, D. and Curtis, L. (2001) 'Peer support: a theoretical perspective', *Psychiatric Rehabilitation Journal*, 25(2), pp. 134–141. doi: 10.1037/h0095032.

Melia, K. M. (1996) ‘Rediscovering Glaser’, *Qualitative Health Research*, 6(3), pp. 368–378. doi: 10.1177/104973239600600305.

Mey, G. and Dietrich, M. (2016) ‘From Text to Image—Shaping a Visual Grounded Theory Methodology’, *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 17(2). doi: 10.17169/fqs-17.2.2535.

Mills, J., Bonner, A. and Francis, K. (2006) ‘The Development of Constructivist Grounded Theory’, *International Journal of Qualitative Methods*, 5(1), pp. 25–35. doi: 10.1177/160940690600500103.

Minckas, N., Shannon, G. and Mannell, J. (2020) ‘The role of participation and community mobilisation in preventing violence against women and girls: a programme review and critique’, *Global Health Action*, 13(1), p. 1775061. doi: 10.1080/16549716.2020.1775061.

Mitcham, C. (2020) ‘Technology and the Burden of Responsibility’, *OpenMind*. Available at: https://www.bbvaopenmind.com/en/articles/technology-and-the-burden-of-responsibility/ (Accessed: 14 December 2020).

Mo, P. K. H. and Coulson, N. S. (2014) ‘Are online support groups always beneficial? A qualitative exploration of the empowering and disempowering processes of participation within HIV/AIDS-related online support groups’, *International Journal of Nursing Studies*, 51(7), pp. 983–993. doi: 10.1016/j.ijnurstu.2013.11.006.

Mohan, M., Sra, M. and Schmandt, C. (2017) ‘Technological Interventions to Detect, Communicate and Deter Sexual Assault’, in *Proceedings of the 2017 ACM International Symposium on Wearable Computers*. New York, NY, USA: ACM (ISWC ’17), pp. 126–129. doi: 10.1145/3123021.3123031.

Moncur, W. (2013) ‘The Emotional Wellbeing of Researchers: Considerations for Practice’, in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI ’13), pp. 1883–1890. doi: 10.1145/2470654.2466248.

Morran, D. (2006) ‘Thinking Outside the Box: Looking Beyond Programme Integrity: The Experience of a Domestic Violence Offenders Programme’, *British Journal of Community Justice*, 4(1), pp. 7–18.

Morran, D. (2011a) ‘Re-education or recovery? Re-thinking some aspects of domestic violence perpetrator programmes’, *Probation Journal*, 58(1), pp. 23–36. doi: 10.1177/0264550510388968.

Morran, D. (2011b) ‘Re-education or recovery? Re-thinking some aspects of domestic violence perpetrator programmes’, *Probation Journal*, 58(1), pp. 23–36. doi: 10.1177/0264550510388968.

Morran, D. (2019) *An exploration of neglected themes in the development of domestic violence perpetrator programmes in the UK*. University of Stirling.

Available at: https://www.storre.stir.ac.uk/bitstream/1893/30160/1/DM%20Complete%20Thesis2.pdf.

Morris, J. *et al.* (2019) ‘Developing content to promote desistance in men who have committed intimate partner violence in same-sex relationships’, *European Journal of Probation*, 11(2), pp. 96–113. doi: 10.1177/2066220319871454.

Morris, J. and Bans, M. K. (2018) ‘Developing digitally enabled interventions for prison and probation settings: a review’, *The Journal of Forensic Practice*, 20(2), pp. 134–140. doi: 10.1108/JFP-08-2017-0030.

Morris, J. and Knight, V. (2018) ‘Co-producing digitally-enabled courses that promote desistance in prison and probation settings’, *Journal of Criminological Research, Policy and Practice*, 4(4), pp. 269–279. doi: 10.1108/JCRPP-07-2018-0023.

Morrison, P. K. *et al.* (2018) ‘The influence of batterer intervention programs on male perpetrators of intimate partner violence: Reports of change in beliefs and behaviors’, *Journal of Offender Rehabilitation*, 57(5), pp. 311–329. doi: 10.1080/10509674.2018.1487900.

Muecke, M. A. (1994) ‘On the evaluation of ethnographies’, in *Critical issues in qualitative research methods*. Thousand Oaks, pp. 187–209. Available at: https://books.google.co.uk/books?hl=en&lr=&id=3ZlrPlpU1oAC&oi=fnd&pg=PP12&ots=yPWrOC4PcS&sig=xQeFRweRgmkWSG85t6AgySSO1vM&redir_esc=y#v=onepage&q&f=false (Accessed: 30 April 2020).

Mugellini, E. *et al.* (2007) ‘Using personal objects as tangible interfaces for memory recollection and sharing’, in *Proceedings of the 1st international conference on Tangible and embedded interaction*. New York, NY, USA: Association for Computing Machinery (TEI ’07), pp. 231–238. doi: 10.1145/1226969.1227016.

Muller, M. (2011) ‘Feminism asks the “Who” questions in HCI’, *Interacting with Computers*, 23(5), pp. 447–449. doi: 10.1016/j.intcom.2011.02.001.

Myhill, A. (2017) ‘Measuring domestic violence: context is everything’, *Journal of Gender-Based Violence*, 1(1), pp. 33–44. doi: 10.1332/239868017X14896674831496.

Nardi, B. A. (2000) *Information Ecologies: Using Technology with Heart*. Reprint edition. Cambridge, Mass.: MIT Press.

Narvaez, D. (2019) ‘Prosocial Video Game Effects’, *Media Psychology Review*. Available at: http://mprcenter.org/review/narvaez-prosocial-video-game/ (Accessed: 20 August 2019).

Natarajan, M. (2016) ‘Police Response to Domestic Violence: A Case Study of TecSOS Mobile Phone Use in the London Metropolitan Police Service’, *Policing*, 10, p. paw022. doi: 10.1093/police/paw022.

Ndjibu, R. *et al*. (2017) ‘Gender-based Violence Campaign in Namibia: Traditional Meets Technology for Societal Change’, in *Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI EA ’17), pp. 1024–1029. doi: 10.1145/3027063.3053686.

Nellis, M. (2006) ‘Surveillance, Rehabilitation, And Electronic Monitoring: Getting The Issues Clear’, *Criminology & Public Policy*, 5, pp. 103–108. doi: 10.1111/j.1745-9133.2006.00104.x.

Newman, E., Walker, E. A. and Gefland, A. (1999) ‘Assessing the ethical costs and benefits of trauma-focused research’, *General Hospital Psychiatry*, 21(3), pp. 187–196. doi: 10.1016/s0163-8343(99)00011-0.

Norman, T. J. and Reed, C. (2002) ‘Group Delegation and Responsibility’, in *Proceedings of the First International Joint Conference on Autonomous Agents and Multiagent Systems: Part 1*. New York, NY, USA: ACM (AAMAS ’02), pp. 491–498. doi: 10.1145/544741.544856.

Office for National Statistics (2018) ‘Domestic abuse in England and Wales: year ending March 2018’. Home Office. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/bulletins/domesticabuseinenglandandwales/yearendingmarch2018 (Accessed: 13 February 2019).

Office for National Statistics (2019) ‘Domestic abuse: findings from the Crime Survey for England and Wales - Office for National Statistics’. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/articles/domesticabusefindingsfromthecrimesurveyforenglandandwales/yearendingmarch2018 (Accessed: 13 February 2019).

Office of National Statistics (2020) *Domestic abuse and the criminal justice system, England and Wales - Office for National Statistics*. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/articles/domesticabuseandthecriminaljusticesystemenglandandwales/november2020#prosecution-and-conviction-outcomes (Accessed: 15 December 2020).

Orme, J., Dominelli, L. and Mullender, A. (2000) ‘Working with violent men from a feminist social work perspective’, *International Social Work*, 43(1), pp. 89–106. doi: 10.1177/a010523.

Pal, J. (2017) ‘CHI4Good or Good4CHI’, in *Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems*. New York, NY, USA: Association for Computing Machinery (CHI EA ’17), pp. 709–721. doi: 10.1145/3027063.3052766.

Pang, C. E. *et al*. (2013) ‘Technology preferences and routines for sharing health information during the treatment of a chronic illness’, in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. New York, NY, USA:

Association for Computing Machinery (CHI ’13), pp. 1759–1768. doi: 10.1145/2470654.2466232.

Parkin, S. *et al.* (2019) ‘Usability analysis of shared device ecosystem security: informing support for survivors of IoT-facilitated tech-abuse’, in *Proceedings of the New Security Paradigms Workshop*. San Carlos, Costa Rica: Association for Computing Machinery (NSPW ’19), pp. 1–15. doi: 10.1145/3368860.3368861.

Pater, J. and Mynatt, E. (2017) ‘Defining Digital Self-Harm’, in *Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing*. Portland, Oregon, USA: Association for Computing Machinery (CSCW ’17), pp. 1501–1513. doi: 10.1145/2998181.2998224.

Pawson, R. and Tilley, N. (1997) *Realistic Evaluation*. 1st edition. London ; Thousand Oaks, Calif: SAGE Publications Ltd.

Paymar, M. and Barnes, G. (2007) *Countering Confusion About the Duluth Model*.

Pearson, D. A. S. and Ford, A. (2018) ‘Design of the “Up2U” domestic abuse perpetrator programme’, *Journal of Aggression, Conflict and Peace Research*, 10(3), pp. 189–201. doi: 10.1108/JACPR-04-2017-0280.

Pence, E. (1983) ‘The Duluth Domestic Abuse Intervention Project’, *Hamline Law Review*, 6, p. 247.

Pence, E. and Paymar, M. (1993a) *Education Groups for Men Who Batter: The Duluth Model*. New York: Springer Publishing Company.

Pence, E. and Paymar, M. (1993b) *Education Groups for Men Who Batter: The Duluth Model*. New York: Springer Publishing Company.

Pence, E. and Paymar, M. (2003) *Creating a Process of Change for Men Who Batter Curriculum Package*. 1 1. Minnesota: Program Development Duluth. Available at: https://www.theduluthmodel.org/product/creating-process-change-men-batter-curriculum-package/ (Accessed: 5 June 2020).

Phillips, R., Kelly, L. and Westmarland, N. (2013) *Domestic violence perpetrator programmes:an historical overview., Discussion Paper. London Metropolitan University and Durham University, London and Durham*. Available at: https://www.dur.ac.uk/resources/criva/anhistoricaloverviewbriefingnote.pdf (Accessed: 25 May 2018).

Pinder, C. *et al.* (2018a) ‘Digital Behaviour Change Interventions to Break and Form Habits’, *ACM Transactions on Computer-Human Interaction*, 25(3), p. 15:1-15:66. doi: 10.1145/3196830.

Pinder, C. *et al.* (2018b) ‘Digital Behaviour Change Interventions to Break and Form Habits’, *ACM Trans. Comput.-Hum. Interact.*, 25(3), p. 15:1-15:66. doi: 10.1145/3196830.

Pizzey, E. (1974) *Scream Quietly or the Neighbours Will Hear*. 1st Edition. Harmondsworth ; Baltimore etc.: Penguin.

Platonova, A., Kokarevich, M. and Shapovalova, T. (2016) 'The issue of a responsible agent in technological civilization', *SHS Web of Conferences*, 28, p. 01136. doi: 10.1051/shsconf/20162801136.

Ploderer, B. *et al*. (2014) 'Social Interaction and Reflection for Behaviour Change', *Personal Ubiquitous Comput.*, 18(7), pp. 1667–1676. doi: 10.1007/s00779-014-0779-y.

Procter & Gamble (2019) *We Believe: The Best Men Can Be | Gillette (Short Film)*. Available at: https://www.youtube.com/watch?v=koPmuEyP3a0 (Accessed: 14 May 2020).

Quéma, A. (2015) *Power and Legitimacy: Law, Culture, and Literature*. University of Toronto Press.

Rabaan, H., Young, A. L. and Dombrowski, L. (2021) 'Daughters of Men: Saudi Women's Sociotechnical Agency Practices in Addressing Domestic Abuse', *Proceedings of the ACM on Human-Computer Interaction*, 4(CSCW3), p. 224:1-224:31. doi: 10.1145/3432923.

Rainey, J. *et al*. (2019) 'Gabber: Supporting Voice in Participatory Qualitative Practices', *CHI Conference on Human Factors in Computing Systems Proceedings (CHI 2019)*. doi: https: //doi.org/10.1145/3290605.3300607.

Ramsey, C. B. (2015) 'The Stereotyped Offender: Domestic Violence and the Failure of Intervention', *Penn State Law Review*, 120, pp. 337–420.

Rashid, M., Hodgson, C. S. and Luig, T. (2019) 'Ten tips for conducting focused ethnography in medical education research', *Medical Education Online*, 24(1). doi: 10.1080/10872981.2019.1624133.

Reason, P. and Bradbury, H. (2013) *The Sage Handbook of Action Research: Participative Inquiry And Practice*. Second edition. Edited by H. Bradbury-Huang. London: SAGE Publications Ltd.

Rehman, K., Stajano, F. and Coulouris, G. (2002) 'Interfacing with the invisible computer', in *Proceedings of the second Nordic conference on Human-computer interaction*. Aarhus, Denmark: Association for Computing Machinery (NordiCHI '02), pp. 213–216. doi: 10.1145/572020.572048.

Respect (2019) *Respect Project 'Respect' Report and Financial Statements*. London, UK: Respect. Available at: http://apps.charitycommission.gov.uk/Accounts/Ends36/0001141636_AC_20190331_E_C.PDF (Accessed: 16 April 2020).

Respect (2020a) *581% more website visitors due to Respect Phoneline Covid-19 campaign, Respect*. Available at: /posts/11-581-more-website-visitors-due-to-respect-phoneline-covid-19-campaign (Accessed: 6 November 2020).

Respect (2020b) *Responding to the Challenges of COVID-19: Safeguarding and Practice Guidance for Practitioners working with Domestic Abuse Perpetrators.* London: Respect, pp. 1–9. Available at: http://respect.uk.net/wp-content/uploads/2020/03/Respect-Covid19-Guidance-for-Practitioners-March-2020.pdf (Accessed: 1 April 2020).

Respect (2021) 'Respect Standard Accreditation for work with perpetrators of domestic abuse'. Available at: https://www.respect.uk.net/pages/64-respect-standard (Accessed: 21 January 2021).

Respect UK (2020) *A Domestic Abuse Perpetrator Strategy for England And Wales*. London: Respect, pp. 1–16. Available at: http://driveproject.org.uk/wp-content/uploads/2020/01/Call-to-Action-Final.pdf (Accessed: 30 June 2020).

Rhode, D. L. (1990) 'Feminist Critical Theories', *Stanford Law Review*, 42(3), pp. 617–638. doi: 10.2307/1228887.

Rice, M. *et al*. (2012) 'Co-creating Games Through Intergenerational Design Workshops', in *Proceedings of the Designing Interactive Systems Conference*. New York, NY, USA: ACM (DIS '12), pp. 368–377. doi: 10.1145/2317956.2318012.

Rizzo, A. S. *et al*. (2010) 'Development and early evaluation of the Virtual Iraq/Afghanistan exposure therapy system for combat-related PTSD', *Annals of the New York Academy of Sciences*, 1208, pp. 114–125. doi: 10.1111/j.1749-6632.2010.05755.x.

Romito, P. (2008) *A deafening silence: Hidden Violence Against Women and Children*. 1 edition. Bristol: Policy Press.

Rosen, K. H. *et al*. (2003) 'Negotiated time-out: a de-escalation tool for couples', *Journal of Marital and Family Therapy*, 29(3), pp. 291–298. doi: 10.1111/j.1752-0606.2003.tb01207.x.

Rosky, J. W. (2013) 'The (F)utility of Post-Conviction Polygraph Testing', *Sexual Abuse*, 25(3), pp. 259–281. doi: 10.1177/1079063212455668.

Rosner, D. K. *et al*. (2016) 'Out of Time, Out of Place: Reflections on Design Workshops As a Research Method', in *Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing*. New York, NY, USA: ACM (CSCW '16), pp. 1131–1141. doi: 10.1145/2818048.2820021.

Ross, F. C. (2005) 'Introduction to the Special Number on Ethics', *Anthropology Southern Africa*, 28(3–4), pp. 57–61. doi: 10.1080/23323256.2005.11499914.

Rubya, S. and Yarosh, S. (2017) 'Video-Mediated Peer Support in an Online Community for Recovery from Substance Use Disorders', in *Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing*. New York, NY, USA: Association for Computing Machinery (CSCW '17), pp. 1454–1469. doi: 10.1145/2998181.2998246.

Saleem, M., Anderson, C. A. and Gentile, D. A. (2012) 'Effects of Prosocial, Neutral, and Violent Video Games on Children's Helpful and Hurtful Behaviors', *Aggressive Behavior*, 38(4), pp. 281–287. doi: 10.1002/ab.21428.

Salen, K. and Zimmerman, E. (2003) *Rules of Play: Game Design Fundamentals*. Cambridge, Mass: MIT Press.

Sanders, R. (2017) 'Self-tracking in the Digital Era: Biopower, Patriarchy, and the New Biometric Body Projects', *Body & Society*, 23(1), pp. 36–63. doi: 10.1177/1357034X16660366.

Sarsenbayeva, Z. *et al.* (2020) 'Does Smartphone Use Drive our Emotions or vice versa? A Causal Analysis', in *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: Association for Computing Machinery (CHI '20), pp. 1–15. doi: 10.1145/3313831.3376163.

Satinsky, E. N. *et al.* (2020) 'Adapting a peer recovery coach-delivered behavioral activation intervention for problematic substance use in a medically underserved community in Baltimore City', *PLOS ONE*, 15(1), p. e0228084. doi: 10.1371/journal.pone.0228084.

Schildkraut, J., Sokolowski, E. S. and Nicoletti, J. (2020) 'The Survivor Network: The Role of Shared Experiences in Mass Shootings Recovery', *Victims & Offenders*, 0(0), pp. 1–30. doi: 10.1080/15564886.2020.1764426.

Schlesinger, A., Edwards, W. K. and Grinter, R. E. (2017) 'Intersectional HCI: Engaging Identity Through Gender, Race, and Class', in *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI '17), pp. 5412–5427. doi: 10.1145/3025453.3025766.

Schmid, T. (2005) *Promoting Health Through Creativity: For professionals in health, arts and education*. London: John Wiley & Sons.

Schneider, R. *et al.* (2009) 'Prevalence and correlates of intimate partner violence victimization among men and women entering substance use disorder treatment.', *Violence and victims*, 24(6), pp. 744–756. doi: 10.1891/0886-6708.24.6.744.

Scholes, L. *et al.* (2014) 'Serious games for learning: Games-based child sexual abuse prevention in schools', *International Journal of Inclusive Education*, 18, pp. 934–956.

Schölmerich, V. L. N. and Kawachi, I. (2016) ‘Translating the Socio-Ecological Perspective Into Multilevel Interventions: Gaps Between Theory and Practice’, *Health Education & Behavior*, 43(1), pp. 17–20. doi: 10.1177/1090198115605309.

Scott, K. L. and Wolfe, D. A. (2003) ‘Readiness to change as a predictor of outcome in batterer treatment’, *Journal of Consulting and Clinical Psychology*, 71(5), pp. 879–889. doi: 10.1037/0022-006X.71.5.879.

Scourfield, J. B. and Dobash, R. P. (1999) ‘Programmes for Violent Men: Recent Developments in the UK’, *The Howard Journal of Criminal Justice*, 38(2), pp. 128–143. doi: 10.1111/1468-2311.00122.

Scully, D. (1990) *Understanding Sexual Violence: A Study of Convicted Rapists (Perspectives on Gender): 3*. 1st edition. Routledge.

Seinfeld, S. *et al.* (2018) ‘Offenders become the victim in virtual reality: impact of changing perspective in domestic violence’, *Scientific Reports*, 8(1), p. 2692. doi: 10.1038/s41598-018-19987-7.

Seinfeld, S. *et al.* (2020) ‘Being the victim of virtual abuse changes default mode network responses to emotional expressions’, *Cortex*. doi: 10.1016/j.cortex.2020.11.018.

Shaver, K. (1985) *The Attribution of Blame: Causality, Responsibility, and Blameworthiness*. New York: Springer-Verlag (Springer Series in Social Psychology). Available at: https://www.springer.com/gp/book/9781461295617 (Accessed: 9 July 2019).

Sherman, L. and Harris, H. (2014) ‘Increased death rates of domestic violence victims from arresting vs. warning suspects in the Milwaukee Domestic Violence Experiment (MilDVE)’, *Journal of Experimental Criminology*, 11. doi: 10.1007/s11292-014-9203-x.

Shoemaker, D. (2011) ‘Attributability, Answerability, and Accountability: Toward a Wider Theory of Moral Responsibility’, *Ethics*, 121(3), pp. 602–632. doi: 10.1086/659003.

Simonsen, J. (ed.) (2013) *Routledge International Handbook of Participatory Design*. London: Routledge.

Skinner, T., Hester, M. and Malos, E. (2013) *Researching Gender Violence*. Routledge.

Slovák, P., Frauenberger, C. and Fitzpatrick, G. (2017) ‘Reflective Practicum: A Framework of Sensitising Concepts to Design for Transformative Reflection’, in *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI ’17), pp. 2696–2707. doi: 10.1145/3025453.3025516.

Smith, A. M. (2015) ‘Responsibility as Answerability’, *Inquiry*, 58(2), pp. 99–126. doi: 10.1080/0020174X.2015.986851.

Smith, D. E. (1997) ‘Comment on Hekman’s “Truth and Method: Feminist Standpoint Theory Revisited”’, *Signs: Journal of Women in Culture and Society*, 22(2), pp. 392–398. doi: 10.1086/495164.

Sonkin, D. and Durphy, M. (1997) *Learning to Live without Violence: A Handbook for Men*. Updated Edition. Volcano, CA: Volcano Press.

Spence, J. (2019) ‘Inalienability: Understanding Digital Gifts’, in *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems - CHI ’19. the 2019 CHI Conference*, Glasgow, Scotland Uk: ACM Press, pp. 1–12. doi: 10.1145/3290605.3300887.

Stanko, E. (1995) *Everyday Violence: How Women and Men Experience Sexual and Physical Danger*. London: Pandora.

Stanley, N. *et al.* (2011) ‘Children’s Experiences of Domestic Violence: Developing an Integrated Response From Police and Child Protection Services’, *Journal of Interpersonal Violence*, 26(12), pp. 2372–2391. doi: 10.1177/0886260510383030.

Stanley, N. *et al.* (2012) ‘Men’s Talk: Men’s Understandings of Violence Against Women and Motivations for Change’, *Violence Against Women*, 18(11), pp. 1300–1318. doi: 10.1177/1077801212470547.

Stark, E. (2004) ‘Insults, Injury, and Injustice: Rethinking State Intervention in Domestic Violence Cases’, *Violence Against Women*, 10(11), pp. 1302–1330. doi: 10.1177/1077801204269348.

Stark, E. (2009a) *Coercive Control: How Men Entrap Women in Personal Life*. 1 edition. Oxford; New York: Oxford University Press, U.S.A.

Stark, E. (2009b) *Coercive Control: The Entrapment of Women in Personal Life*. Second Edition. Oxford ; New York: Oxford University Press.

Stenros, J. (2014) ‘In Defence of a Magic Circle: The Social, Mental and Cultural Boundaries of Play’, *Transactions of the Digital Games Research Association*, 1(2). doi: 10.26503/todigra.v1i2.10.

‘Stepping Out of The Box Art Exhibition’ (2019) *Changing Relations*, June. Available at: http://www.changingrelations.co.uk/event/mens-voices-stepping-out-of-the-box/ (Accessed: 8 September 2020).

Stilgoe, J., Owen, R. and Macnaghten, P. (2013) ‘Developing a framework for responsible innovation’, *Research Policy*, 42(9), pp. 1568–1580. doi: 10.1016/j.respol.2013.05.008.

Stöckl, H. *et al*. (2013) ‘The global prevalence of intimate partner homicide: a systematic review’, *The Lancet*, 382(9895), pp. 859–865. doi: 10.1016/S0140-6736(13)61030-2.

Stratton, G., Powell, A. and Cameron, R. (2017) ‘Crime and Justice in Digital Society: Towards a “Digital Criminology”?’, *International Journal for Crime, Justice and Social Democracy*, 6, p. 17. doi: 10.5204/ijcjsd.v6i2.355.

Strawson, P. (1962) ‘Freedom and Resentment’, in *Proceedings of the British Academy, Volume 48: 1962*, pp. 1–25.

Strohmayer, A. *et al*. (2018) ‘Untold Stories: Working with Third Sector Organisations’, in *Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI EA ’18), p. W37:1-W37:8. doi: 10.1145/3170427.3170608.

Strohmayer, A. (2019) *Justice-Oriented Ecologies: Working to Design Digital Technologies With Sex Work Support Services*. Newcastle University.

Strohmayer, A., Clamen, J. and Laing, M. (2019) ‘Technologies for Social Justice: Lessons from Sex Workers on the Front Lines’, in *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI ’19), p. 652:1-652:14. doi: 10.1145/3290605.3300882.

Strohmayer, A., Comber, R. and Balaam, M. (2015) ‘Exploring Learning Ecologies among People Experiencing Homelessness’, in *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*. New York, NY, USA: Association for Computing Machinery (CHI ’15), pp. 2275–2284. doi: 10.1145/2702123.2702157.

Strohmayer, A., Laing, M. and Comber, R. (2017) ‘Technologies and Social Justice Outcomes in Sex Work Charities: Fighting Stigma, Saving Lives’, in *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI ’17), pp. 3352–3364. doi: 10.1145/3025453.3025615.

Suchman, L. (2002) ‘Located accountabilities in technology production’, *Scandinavian Journal of Information Systems*, 14(2). Available at: https://aisel.aisnet.org/sjis/vol14/iss2/7.

Suchman, L. A. (1987) *Plans and Situated Actions: The Problem of Human-Machine Communication*. 2nd edition. Cambridge: Cambridge University Press.

Sultana, S. *et al*. (2018) ‘Design Within a Patriarchal Society: Opportunities and Challenges in Designing for Rural Women in Bangladesh’, in *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI ’18), p. 536:1-536:13. doi: 10.1145/3173574.3174110.

Susman, G. I. and Evered, R. D. (1978) ‘An Assessment of the Scientific Merits of Action Research’, *Administrative Science Quarterly*, 23(4), pp. 582–603. doi: 10.2307/2392581.

Tanczer, L. M. *et al*. (2018) ‘Emerging risks in the IoT ecosystem: Who’s afraid of the big bad smart fridge?’, in *Living in the Internet of Things: Cybersecurity of the IoT - 2018. Living in the Internet of Things: Cybersecurity of the IoT - 2018*, pp. 1–9. doi: 10.1049/cp.2018.0033.

Tashiro, J. S. and Dunlap, D. (2007) ‘The Impact of Realism on Learning Engagement in Educational Games’, in *Proceedings of the 2007 Conference on Future Play*. New York, NY, USA: ACM (Future Play ’07), pp. 113–120. doi: 10.1145/1328202.1328223.

Tavris, C. (1989) *Anger: The Misunderstood Emotion*. Revised edition. New York: Touchstone / Simon & Schuster.

Taylor, N. *et al*. (2013) ‘Leaving the Wild: Lessons from Community Technology Handovers’, in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI ’13), pp. 1549–1558. doi: 10.1145/2470654.2466206.

TecSOS (2011) *Providing Support for Victims of Domestic Violence*. Available at: http://www.vodafone.com/content/foundation/tecsos.html (Accessed: 30 November 2017).

Tekinbas, K. S. *et al*. (2008) *The Ecology of Games: Connecting Youth, Games, and Learning*. Cambridge, Mass: MIT Press.

Teng, M. Q., Hodge, J. and Gordon, E. (2019) ‘Participatory Design of a Virtual Reality-Based Reentry Training with a Women’s Prison’, in *Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: Association for Computing Machinery (CHI EA ’19), pp. 1–8. doi: 10.1145/3290607.3299050.

Thieme, A. *et al*. (2016) ‘Challenges for Designing new Technology for Health and Wellbeing in a Complex Mental Healthcare Context’, in *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: Association for Computing Machinery (CHI ’16), pp. 2136–2149. doi: 10.1145/2858036.2858182.

Think Social Tech, SafeLives, and Snook (2019) *Tech vs Abuse 2.0: Research Findings*. 2. London: Comic Relief, pp. 1–38. Available at: https://d1c4e1f2-14ed-423b-8bab-01c0ad397d8f.filesusr.com/ugd/464d6d_b465be597dee4e04b8fac09363e4ef62.pdf (Accessed: 6 November 2020).

Tieryas, P. (2019) ‘I Still Think About Detroit: Become Human’s Tales Of Abuse’, *Kotaku*, 2 September. Available at: https://kotaku.com/i-still-think-about-detroit-become-human-s-tales-of-ab-1832445931 (Accessed: 2 August 2019).

Tolman, D. L. and Brydon-Miller, M. (2001) *From Subjects to Subjectivities: A Handbook of Interpretive and Participatory Methods*. NYU Press.

Towers, J. and Walby, S. (2012) *Measuring the impact of cuts in public expenditure on the provision of services to prevent violence against women and girls*. UNESCO Chair in Gender Research Group Lancaster University, pp. 1–35. Available at: https://www.trustforlondon.org.uk/publications/measuring-impact-cuts-public-expenditure-provision-services-prevent-violence-against-women-and-girls/ (Accessed: 7 June 2018).

Tseng, E. *et al*. (2020) 'The Tools and Tactics Used in Intimate Partner Surveillance: An Analysis of Online Infidelity Forums', *arXiv:2005.14341 [cs]*. Available at: http://arxiv.org/abs/2005.14341 (Accessed: 28 August 2020).

Tuerkheimer, D. (2004) 'Recognizing and remedying the harm of battering: A call to criminalize domestic violence', *Journal of Criminal Law and Criminology*, 94(4), pp. 959–1031. doi: 10.2307/3491414.

Verbaan, S. *et al*. (2018) 'Potentials of HCI for Prisons and Incarcerated Individuals', in *Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI EA '18), p. SIG17:1-SIG17:4. doi: 10.1145/3170427.3185367.

Vines, J. *et al*. (2013) 'Configuring Participation: On How We Involve People in Design', in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. New York, NY, USA: ACM (CHI '13), pp. 429–438. doi: 10.1145/2470654.2470716.

Wallace, J. *et al*. (2013) 'Making design probes work', in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. New York, NY, USA: Association for Computing Machinery (CHI '13), pp. 3441–3450. doi: 10.1145/2470654.2466473.

Walter, T. *et al*. (2012) 'Does the Internet Change How We Die and Mourn? Overview and Analysis', *OMEGA - Journal of Death and Dying*, 64(4), pp. 275–302. doi: 10.2190/OM.64.4.a.

Ward, T., Mann, R. E. and Gannon, T. A. (2007) 'The good lives model of offender rehabilitation: Clinical implications', *Aggression and Violent Behavior*, 12(1), pp. 87–107. doi: 10.1016/j.avb.2006.03.004.

Watson, G. (1996) 'Two Faces of Responsibility', *Philosophical Topics*, 24(2), pp. 227–248.

Wei, H. *et al*. (2019) 'MemoryReel: A Purpose-designed Device for Recording Digitally Connected Special Moments for Later Recall and Reminiscence', in *Proceedings of the Thirteenth International Conference on Tangible, Embedded, and Embodied Interaction*. New York, NY, USA: Association for Computing Machinery (TEI '19), pp. 135–144. doi: 10.1145/3294109.3295649.

Westmarland, N. *et al*. (2013) *Protecting Women's Safety? The use of smartphone 'apps' in relation to domestic and sexual violence*. SASS Research Briefing no. 12. University of Durham: School of Social Sciences, pp. 1–6. Available at: https://www.dur.ac.uk/resources/sass/research/briefings/ResearchBriefing12-ProtectingWomensSafety.pdf (Accessed: 7 September 2018).

Westmarland, N. and Bellini, R. (2020) 'Coronavirus lockdown is a dangerous time for victims of domestic abuse – here's what you need to know', *The Conversation*, 19 March. Available at: http://theconversation.com/coronavirus-lockdown-is-a-dangerous-time-for-victims-of-domestic-abuse-heres-what-you-need-to-know-134072 (Accessed: 20 January 2021).

Westmarland, N. and Bows, H. (2018) *Researching Gender, Violence and Abuse: Theory, Methods, Action*. 1 edition. Abingdon, Oxon ; New York, NY: Routledge.

Westmarland, N. and Kelly, L. (2013) 'Why Extending Measurements of "Success" in Domestic Violence Perpetrator Programmes Matters for Social Work', *The British Journal of Social Work*, 43(6), pp. 1092–1110. doi: 10.1093/bjsw/bcs049.

Widom, C. S. and Wilson, H. W. (2015) 'Intergenerational Transmission of Violence', in Lindert, J. and Levav, I. (eds) *Violence and Mental Health: Its Manifold Faces*. Dordrecht: Springer Netherlands, pp. 27–45. doi: 10.1007/978-94-017-8999-8_2.

Wigginton, B. and Lafrance, M. N. (2019) 'Learning critical feminist research: A brief introduction to feminist epistemologies and methodologies', *Feminism & Psychology*, p. 0959353519866058. doi: 10.1177/0959353519866058.

Wilson, A. and Tewdwr-Jones, M. (2019) 'Let's draw and talk about urban change: Deploying digital technology to encourage citizen participation in urban planning', *Environment and Planning B: Urban Analytics and City Science*, p. 2399808319831290. doi: 10.1177/2399808319831290.

Wilson, D. B., Batye, K. and Riveros, R. (2010) 'Testing and Evaluation of the Use of Polygraphs to Combat Violence Against Women', *Polygraph*, 39(3), pp. 155–187.

Wilson, R. J., Cortoni, F. and McWhinnie, A. J. (2009) 'Circles of Support & Accountability: a Canadian national replication of outcome findings', *Sexual Abuse: A Journal of Research and Treatment*, 21(4), pp. 412–430. doi: 10.1177/1079063209347724.

Wistow, R., Kelly, L. and Westmarland, N. (2017) '"Time Out": A Strategy for Reducing Men's Violence Against Women in Relationships?', *Violence Against Women*, 23(6), pp. 730–748. doi: 10.1177/1077801216647944.

Women's Aid (2020) *A Perfect Storm: The Impact of the Covid-19 Pandemic on Domestic Abuse Survivors and the Services Supporting Them*. Bristol: Women's Aid, pp. 1–50. Available at: https://www.womensaid.org.uk/wp-content/uploads/2020/08/A-Perfect-Storm-August-2020-1.pdf.

Woodlock, D. (2017a) 'The Abuse of Technology in Domestic Violence and Stalking', *Violence Against Women*, 23(5), pp. 584–602. doi: 10.1177/1077801216646277.

Woodlock, D. (2017b) 'The Abuse of Technology in Domestic Violence and Stalking', *Violence Against Women*, 23(5), pp. 584–602. doi: 10.1177/1077801216646277.

Yin, R. K. (2003) *Case Study Research: Design and Methods: (Applied Social Research Methods, Volume 5): 005*. Third edition. Thousand Oaks, Calif: SAGE Publications, Inc.

Young, I. M. (2011) *Responsibility for Justice*. Oxford University Press. Available at: https://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780195392388.001.0001/acprof-9780195392388 (Accessed: 26 June 2019).

Zimmerman, J., Ozenc, K. and Jeong, B. (2008) 'New Methods for the Design of Products That Support Social Role Transitions', *Artifact*, 2(3–4), pp. 190–206. doi: 10.1080/17493460802527113.

Appendix

Guide to Appendixes.

Appendix A illustrates the ethical approval and ethical practice that were performed within each of my four investigations. The first documents show the overarching structure of my data management plan for storing sensitive data, and a sample of question protocols for focus groups and design workshops. My ethical approval attained by the SAgE (Science of Agriculture and Engineering) is also included, illustrating the agreed upon conditions of approval. Negotiations surrounding these conditions of approval were performed primarily in-person and via email correspondence and thus were not recorded. This Appendix also includes descriptions of the emotion work I performed in relation to all my investigations that lays out the personal safety practices, and justification of working with perpetrators. These are personal narrative accounts from a collation of my own experiences that have been selected based on their emotional intensity and impact on the performance of my work.

Appendix B shares examples of my collated qualitative data and my data analysis performed across my four investigations with specific reference to how field notes were transformed into rich narrative thick descriptions. Within this section I share my reasoning for using a macro plug in DocTools on Microsoft Word to structure the open coding process of GT over the use of other qualitative analytical software such as NVivo.

Appendix C contains additional material that help to inform understanding about my investigations such as photographs of the settings in which my investigations took place and additional pieces of data.

Appendix A

Ethical Approval for Focused Ethnography and Choice-Point

18-BEL-004

SAgE Faculty Ethics Committee
Ethics Application Pro-forma

Applicant Name:	Rosanna Bellini
Applicant email:	r.f.bellini@ncl.ac.uk
Academic Unit	School of Computing
Supervisor email (if available)	patrick.olivier@ncl.ac.uk
Category	Postgraduate Researcher (PGR)
Project Title:	Implications for Inclusive Digital Design in Domestic Violence Awareness Interventions
Start / End Date	17/01/2018 to 23/12/2018
MyProjects Reference (if available)	
Reviewer 1 Name: Date sent: Date comments received:	 Charles Morissett 18/01/2018 09/02/2018
Reviewer 2 Name: Date sent: Date comments received:	 Roy Sanderson 21/03/2018 22/03/2018
Date comments provided to researcher:	23/03/2018
Date researcher confirmed amendments made:	23/03/2018
Faculty final approval date:	29/03/2018
Notes	
Follow-up queries	
Later amendments requested from applicant: Details: Date requested: Approved? Date approved:	 Yes 29/03/2018

Approved / ~~Not Approved~~ by the SAgE Faculty Ethics Committee

Signed by Dr Patrick Degenaar (Chair)

....

Date: 29/03/18

1

Ethical Approval for Guided Time Out

CERTIFICATE OF ETHICAL APPROVAL

Project #: 19-BEL-019

Project Title: Technical Desistance

This certificate confirms that the application made by **Rosanna Bellini (PGR project in Computing)** was **APPROVED** on 01/05/2019.

Conditions of approval (If applicable):

i. Ensure that you follow the safety protocols outlined in your application

It is the responsibility of the applicant to ensure that any conditions of approval are fully met before proceeding with the research. Applicants are also required to notify the Faculty Ethics Committee (sage.ethics@ncl.ac.uk) if they wish to make any changes to the design/methods/participants of the study ***before*** *commencing with any changes.*

Signed: [signature] 1st May 2019

Ethical Approval for Fragments of the Past

CERTIFICATE OF ETHICAL APPROVAL

Project #: 19-BEL-005

Project Title: Leveraging peer support for perpetrators of domestic violence

This certificate confirms that the application made by **Rosie Bellini (PGR project in Computing)** was ~~**APPROVED/**~~**APPROVED SUBJECT TO CONDITIONS** on 25/02/2019

Conditions of approval (If applicable):

i. The protocol outlined in the ethics application must be adhered to at all times
ii. Participants should not have any opportunity to have contact with one another
iii.

It is the responsibility of the applicant to ensure that any conditions of approval are fully met before proceeding with the research. Applicants are also required to notify the Faculty Ethics Committee (sage.ethics@ncl.ac.uk) if they wish to make any changes to the design/methods/participants of the study ***before*** *commencing with any changes.*

Signed:

Sample Reviewer Correspondence with Ethical Approval

18-BEL-004

FACULTY OF SCIENCE, AGRICULTURE AND ENGINEERING

Ethical Review of a Research Project: Comments from the Reviewers

Researcher Name: Rosanna Bellini

Academic Unit: Computing

Project: Implications for Inclusive Digital Design in Domestic Violence Awareness Interventions

Faculty Ethics Committee reviewers have considered your application. The following issues need to be addressed in this study:

Issue/Comment raised by reviewer	Researcher's Response
Please make clear in the consent form that this study is completely independent from any legal process (there is a mention "that I will not be penalising for withdrawing", but a clear mention in the description would be good as well).	My description on my consent form has been altered to include a sentence about its independence to existing legal processes. I've also made clear that the participant will not be penalised in any way if they do not agree to take part.
Please clarify how the researcher will be able to best protect herself from the offenders within this study should they choose to become violent. No doubt that these offenders represent a more risky group by being identified through community services. For this reason, and the one I share below I am hesitant to permit this researcher to work with this group in this setting.	I appreciate the concern that this reviewer shows towards my wellbeing in working with perpetrators of domestic violence. Perpetrators, as a participant group have been very rarely identified as being physically threatening or hostile towards researchers in violence and abuse (Hester et al., 2006); in fact, most of the time the opposite is true whereby charming a person in authority intensifies their harm of their victims (Westmarland and Kelly, 2015). Nevertheless, Barnardo's have clear mitigation strategies in place should an event occur and I am trained in managing difficult and abusive behaviours within an intervention context (Collingwood and Legal, 2018)
The perpetrators of domestic violence will be in a small group with a facilitator to discuss how DV impacts on victims. Concerned about bringing together a group of DV offenders, even when told 'not to talk about themselves', compared to one-to-one discussions with a facilitator. Strongly reminded of the abject failure of some programmes for sex-offenders, who were in groups, discussing the issue with trained facilitator(s), compared to one-on-one meetings. Recent studies have indicated that often these group sessions made re-offending rates _worse_, because the sex-offenders learnt criminal behaviours off each other. Might there be the same risk with perpetrators of domestic violence.	As specified in the original ethics submission, this programme is part of a project funded by the Home Office's Violence Against Women and Girls fund with external collaborators participating in the review, design and delivery of the course. The proposition of group work was implemented by Barnardo's whom are experienced in running similar domestic violence perpetrator programmes in this region. This design was overseen by both practise and academic experts whom have worked in the field for over ten years and would thereby intervene if risk of harm was expected to increase between low to medium risk perpetrators through group work.

many of whom are devious, and manipulative both of their victims and other people, and might learn from each other, or find it easier to deceive a facilitator in a group compared to one-on-one? Serious concerns about the group work, rather than one-on-one meetings of a facilitator with one DV offender.	Specific comparisons to sex-offender programmes in this case are ungrounded – despite occupying areas of men's violence against women – due to the starkly different approaches and holistic delivery of such courses. Recent academic work (Westmarland et al. 2012; Alderson et al. 2012; Hughes et al. 2017), as evidenced by Project Mirabel underlines the importance and positive results of these courses but do not disregard the known risks and importance of facilitators understanding of group dynamics and behaviour. This literature is familiar to Barnardo's and strategies for risk mitigations are deployed within each programme ran within the organisation.

I would be grateful if you could make a response to the comments above in the right hand column, indicating your response or a response such as 'changed accordingly' or 'this section has now been deleted' etc. Documents should be resubmitted once revised, using track changes to highlight any amendments or additions.

DECISION:

Ethical approval is pending subject to a satisfactory response to the comments above.

Shared Data Management Plan Structure

// Data Management Plan

WHAT DATA WILL BE PRODUCED?

For the addition of the Futures Workshop, data will be produced through observatory notes, audio recordings of the days' session, production of tactile/digital materials from the day's events and non-identifiable photography such as participants hands engaged in design activities. The bulk of the data shall be audio recordings where participants are encouraged to negotiate, communicate and respond to focus group style questions, and asked for their response on the researcher's existing findings of the course's layout. Any hand-written notes that are jotted down for prompts or encouraged elaboration on anything vocalised will be translated into text files (.doc) to be stored on the lead researcher's personal drive. Due to the tight time restriction on the completion of this material, the lead researcher shall use Descript, an automatic audio-text transcription service as she has obtained permission from her participants for its use. Finally, any produced physical materials shall be used for qualitative analysis to identify themes within their completion, these physical materials consisting primary of pen, paper, and craft resources, produced are as follows:

1. model mapping exercise of existing processes within Barnardo's by paper labels and coloured string
2. drawings/physical representations of speculative, future practices
3. paper materials listing actionable 'next step' to potentially achieve (2)
4. any paper-pen based information that might evoke participant preference

For the workshop session (taking place 28/11):

1. handwritten, observational notes (4 pages)
2. field texts, reflections post-event (6 pages)
3. audio recording of session (2 x 3 hr sessions, allowing overlap: 7 hrs)
4. transcribed audio data (60 pages)
5. still images (20 images)
6. the four physical artefacts listed above (small folders' worth of materials)

WHAT METADATA STANDARDS WILL YOU USE?

The data will be documented to record the procedure in a spreadsheet (.csv) file. This will include the guiding questions and anonymised location of data collection and dates. Metadata will be used to differentiate between the type of activity and that the data was collected and will include the description and keywords of the data. It will also contain the date the data was collected to maintain a chronological narrative.

HOW WILL YOUR DATA BE STRUCTURED AND STORED?

STRUCTURED:

Digital data will be structured in project specific folders on Newcastle University storage (see below for further information). The digital data will also be created in 'open' file formats including pdf/a and tif. Additionally, the files will be separated according the data collection method (audio, images).

STORED:

All observational notes will be transferred to a protected computer and deleted off the recording device before being backed up on Newcastle University filestore. While in use all digital copies of files will be encrypted, password protected and stored securely on Newcastle University's filestore, accessible only to the researchers involved in the project.

Newcastle's filestore service is hosted across two data centres, equipped with fire detection, suppression equipment, and secure audited access procedures. In addition, it operates 'Shadow Copies', which are taken four times daily. An incremental copy to backup tape is taken nightly, and a full copy monthly. Backups are kept for ninety days. Inactive tapes are stored on-campus fireproof sales. The Summary of Technical Information Security for Information Systems and Services provides more detail.

All physical materials produced (ie. sketches) will be stored in a secure location at the CRPH and Open Lab. Still images collected from the workshop will be digitally stored in the aforementioned manner however faces will be blurred before storage and the original images will be completely deleted off of the image taking device and the computer used to blur the faces.

HOW WILL THE DATA BE SHARED DURING AND AFTER THE PROJECT?

During the project data will be shared among the research team (Rosanna Bellini, Prof. Simon Forrest, Prof. Nicole Westmarland and Dr. Jan Smeddinck) but will primarily be managed by Rosanna Bellini. If this data is used in publication purposes, it will be subsequently uploaded onto the Research Data Service archive with identifying information removed in the appropriate fashion.

Sample Consent Form and Information Sheet

// Leveraging Peer Support: Information Sheet

This information sheet tells you about participating in a research study ran by Newcastle University

Why are you doing this?

The lead researcher has embarked on a 12-month in-depth, ethnographic engagement with the team within Barnardo's who you have worked with on your behaviour change course over the space of 6 months. Noticing tour community, care and support, the care worker team supervising you was interested in seeing whether it would be possible to design content and processes for a peer-support network so that knowledge and experience might be shared among other men who may have been in a similar place to your own. This project aims to improve this understanding for the lead researcher, service providers and software designers that can improve their services to reflect the needs of the people they work with.

What would you like from me?

If you are happy to participate in this study, you will take part in a design workshop at the in ideation sessions to explore;

- what data and technologies can we use to provide support
- what is important to take into consideration with these technologies
- how a further digital innovation within this project could benefit yourself, your group and other men who may need support

The design workshop will take about two hours with a coffee break in between. A design workshop is a creative, collaborative way to share knowledge about an existing problem and see a way forwards, and how digital technology might intersect with this. The session will be audio recorded and you will be encouraged to take part in tactile design activities that might require you to draw or make something. Non-identifying photographs and observatory notes may be taken within the session, but no material will require you to disclose any sensitive information about yourself or your service users, and the recording will be carefully transcribed by the lead reader through use of the transcription service Descript, with your name and any identifying details being removed. The audio recording will be subsequently deleted. The research team are very happy to share the results of their research with you, if you are interested, once the research is finished.

Who are the research team?

// Leveraging Peer Support: Consent Form

I agree to participate in the "Leveraging Peer Support" research study being carried out by Rosie, Open Lab, Newcastle University. Please be aware that you are able to withdraw at any point throughout the duration of the study, up until the submission or publication of such research.

☐ I have read and understood the information slip provided to me about the project

☐ I have had chance to ask any questions that I would like to ask about the study and what my participation means

☐ I understand that I can withdraw at any time without giving reasons and that I will not be penalising for withdrawing nor will be I be questioned on why I have withdrawn

☐ The lead researcher has explained how my data will be confidential (eg. Anonymization of data, use of psuedonyms)

☐ I agree to have my voice recorded during my participation within this focus group

☐ I agree to have non-identifying photos taken of me during this session

☐ I agree to have any of the tactile materials produced by the session analysed by the researcher and her team

☐ I agree to have any materials that are produced during the focus session photographed

☐ The use of my data in research, publications, sharing and storing has been explained to me

☐ I understand that other researchers will have access to this data only if they agree to preserve the confidentiality of the data and if they agree to the terms specified in this form

☐ To reduce the speed of audio transcription, I am happy for the lead researcher to use Descript software which may mean this data is sent and stored outside of the EU area.

☐ I along with Rosie, agree to sign and date this informed consent form

Participant Name: ______________________ Signature: ______________________

Date: _ _ / _ _ / _ _ _ _

Researcher Name: ______________________ Signature: ______________________

Date: _ _ / _ _ / _ _ _ _

Sample Debrief Sheet, Anonymised

// Leveraging Peer Support: Debrief Sheet

Thanks for taking part in today's session of leveraging peer support. If there is anything about the research that you are unsure of or would like to discuss further at any time between workshops or after we have completed the workshops together you can get in touch with [redacted] *at Barnardo's.* [redacted] *will act as a liaison between us to best provide an answer to your concerns. Her details are as follows:*

[redacted]

Work phone: 07809 10XXXX [anonymised for review]

Email: [redacted]

Accounts of Emotion Work

First Impressions, March 2018
I'm stood in front of the wardrobe at six thirty in the morning as Carol is due to pick me up from my house in Heaton to take me to the local community centre for some observatory data collection on the Domestic Abuse Awareness Project. I've been stood here for several minutes debating what to wear. I think to myself what a stereotypical representation of the tension between femininity and feminism is unfolding before me but I'm really at a loss as to how I should present myself in a context with perpetrators. Nice clothes or plain clothes? Makeup or no makeup? Hair up or down? Does it even matter? Why am I suddenly asking so many questions when these questions are so frequently in the background? I curse myself for even fixating on matters so solipsistic when I'm about to enter an environment where violence and abuse are going to be discussed, but I am at a loss as to what to do. Would I be considered a bad feminist if I made an effort in my appearance for Carol and Janice? Or is changing my appearance for men in anyway irrespective of who they are a bad feminist action? I opt for a mid-way point; minimal makeup and nice weekend wear.

Carol pulls up outside and I hobble outside on my crutches having just inflicted a pilon fracture on myself after falling off a climbing wall in Byker. Carol mentions the fact I look nice and I immediately believe I've made the wrong decision about the way I am dressed. We've been through the structure of the awareness programme many times over the past three months at the Barnardo's office, but I still cannot help but feel intensely nervous about what is going to happen. When we arrive, Janice is already by the door with the sandwiches and she mentions that the caretaker is about the building. As we just get settled and set up the projector and the tables a man walks through the door and I immediately presume he is the caretaker for the community centre. He asks if we are the 'Barnardo's anger awareness' course. Janice confirms his identity and clarifies he is after the domestic abuse awareness project upon which he shrugs and shares he doesn't see much of a difference but that he got the early bus and he's ready to get started. Carol clarifies that the course isn't set to start for another forty-five minutes so he is welcome to

have a walk around Durham until we start. He nods and then leaves again. Carol turns to me and asks how my first encounter with a known perpetrator was as if she could sense my mood within the car journey over here. I clarify just like encountering anyone else; which both relaxes me, that I will be indeed dealing with normal 'men' instead of stereotypical monsters across the next six hours of the course. Yet his normality unsettles me, he did just look like a normal man – and in many ways, he was always going to; there was nothing unique about the appearance of people who use violence, as much as media would like us to believe so. I sit on the uncomfortable interplay of relaxation and disquiet for the rest of the day.

Uncomfortable Encounters with Colleagues, May 2018

I was in a bar during the conclusion of the first day at my first professional academic conference in America. I hadn't passed my Master of Research in Digital Civics just yet, but I had submitted my proposal for where I wanted to investigate further within Human-Computer Interaction. This felt in many ways being thrown into the deep end to see if I'd sink or swim while being surrounded by far more established researchers and practitioners than what I was used to. I felt very out of place with my chosen topic, particularly with my shift in focus to perpetrators; at that time, I was grateful that one paper did present the topic from a privacy and security perspective, and I thoroughly enjoyed the Social Justice paper session where one of my colleagues was presenting at. I was in a circle talking to other colleagues from the research lab and we went around describing what we wanted to do for the next four years – in theory.

I shared that I noticed perpetrators were being excluded from the conversation quite a lot when it came to discussing domestic violence, and I'd set up plans to work with local organisations in their work alongside perpetrator programmes. A colleague who had until that point been curiously asking others about collaborators as a means of sharing connections perhaps, suddenly changed tone and stated after I had finished my 'pitch' that women could be abusive as well. I was a little taken aback as nothing that I had shared indicated that this wasn't true. It was also the first time in the circle that someone had received a statement rather than a

question. He continued by stating that men could be victims too and that not enough attention was being paid to their experiences. I attempted to agree with him, but he spoke over me to share he thought that my aspirations were a little narrow in only wanting to focus on men and demonise them when they themselves were often victimised by women. By only focusing on men who harmed their partners within the local charity, I was making their experiences worse. I didn't quite feel anything but slight anxiety that I'd said the wrong thing or used exclusionary language while he continued to express his view and I presumed he didn't want me to respond, only listen so I obliged. He moved onto another one of my colleagues before leaving the circle to get a drink. My expression must have conveyed some of my inner confusion as another colleague holds the top of my arm to ask if I'm okay. I respond in the stereotypical way that I am fine, and I should be used to these kinds of responses with the type of work in which I do. Yet I cannot help but reflect on the fact that someone has already made me, and my approaches feel misguided before I'd had chance for the work itself to commence. I shook the feeling off and continued with the rest of the conference.

Tensions During Choice-Point Deployment, June 2019

I had now performed two 'successful' deployments of Choice-Point with Barnardo's, where positive discussions around awareness, agency and perspective-taking had been shared with the group. For the final group however, there was a highly disruptive participant who clearly wanted to be anywhere else but in a community centre with several other men taking about domestic violence. I had become accustomed to how perpetrators vocally and sometimes viciously spoke about their victim-survivors within perpetrator interventions, particularly towards the start of the process for change and reflection on abusive behaviours. Although I could never entirely stop my knee jerk response that desperately wanted to retort back to him that his views and language were unacceptable for the setting, I had become far more accustomed to managing the inner turmoil of whether speaking up or not. It wasn't my role within this setting to share my opinion, and so I often transformed my discomfort at their views into encouraging them to use perspective-taking or

question whether that was a reasonable response to their victim-survivor. I did this so as to not antagonise them, but rather to subtly indicate that I didn't want to shut them down, but rather than I didn't tacitly agree with their opinions either through my silence. As an approach this generally worked, and while the men would often tone down their negative tone towards their partner, this was an instance where it backfired quite significantly. He had played (ironically) the role of Terry within the story and had deliberately choosing the most hostile opinions, to the discomfort of the other players, that resulted in the worst outcome for the story. I asked for clarification around why he had chosen that particular option of physical violence, whereby he responded that women couldn't admit that they found violence arousing, and that I myself probably liked to be 'slapped about a bit'. The room fell silent and at this disclosure Karen immediately told him to wait outside of the room where I soon heard her quickly and in firm tones telling him off and questioning his motivations for being here. The man soon returned, didn't look at me to get his coat and then left the intervention. Within five minutes we had continued the conversation around violence, and I noticed that the other men had relaxed considerably now that the man causing disruption had left. While I my rational brain knew that nothing could have happened to me in a public setting, I still felt a little threatened by the direction of his hostility. Following the intervention both Janice and Karen spoke to me about how I was feeling, sensing I needed to sound something out after the intervention.

Positionality and Age, August 2019

We were in the middle of the fourth design workshop for the leveraging peer support network project when the topic of age and experience came up. These two qualities were bound to come up, after all we were making a socio-digital process that looked back on the past and progress. When the men recounted their life experience, I felt that these moments in particular that my age as a researcher really counted against me – although I was far from a child, I was made acutely aware that I was a young woman of twenty-five. This I felt was in contrast to the average age of the perpetrators I worked with which was closer to forty who shared

stories of jobs, relationships and children across several decades. One of Group N would continuously ask why I was wanting to spend time with 'horrible men' like himself on a weekend, when I could be enjoying myself. I'd often shrug and disclose that I cared a great deal for this work, so I didn't really mind when I performed the work. This man in particular had shared a lot of information about his older daughter with me, and in many ways, I felt he was trying to use this as a means of fostering a positive connection. I was always hesitant to feel like I was fully engaged in the connection – this was after all how many of them caused abuse to their partners, through being charming to professionals and friends to further socially isolate their victim-survivors. Nevertheless, I felt a sense of paternalism that this man expressed towards me which could occasionally border on patronising where he would hesitate to 'expose' me to descriptions of violence that he thought I would find upsetting. It would be moments like these where I'd be concerned that the perpetrators were self-censoring themselves on my behalf within the workshops. I found myself getting mentally frustrated at him as he had clearly not minded 'exposing' his victim-survivors in his house to his behaviour. However, I rationalised to myself that he could also not wish to continuously share vivid accounts of his activity either.

Gallows Humour, March 2020

I, Sara and Victoria were in the middle of a focus group with a group of especially loud and vocal perpetrators who were towards the start of the process – which normally equated to being reluctant to take responsibility for their behaviour and not take the session content seriously. This group of perpetrators roughly met this description as many had extensively described how they were the true victims of the situation, that their partner was equally if not more abusive to them and being reluctant to identify their own behaviours as abusive. Sara was part way through asking the group to compare how they felt about using technology-facilitated abuse against their partners, and how it might have compared to their self-identified use of other abusive behaviours; better, worse, different, or similar. One perpetrator begins a sentence where it sounds like he is about to share a nuanced perspective

on how he finds sending abusive messages to his partner easier than saying it to her face, only to be cut off by group laugher at a man messing around with a folder. Sara quietens the group and asks him to continue. The perpetrator doubles down on sharing his perspective that the content of the abusive text which included a graphic description of a threat to life was not as bad as saying it in real life as he didn't intend to go through with it. The absurdity of the statement made it very difficult to hold a straight face and at this assertion the whole group of men burst out laughing and couldn't be silenced for several minutes. I and my co-worker Victoria have to avert our faces from the table so the participants cannot see the impact that this line had on us. Laughing in this circumstance I felt would equate to condoning the justification and I definitely didn't want to give that man the satisfaction, so I got on top of my urge to respond through reminding myself of how his victim-survivor must have felt receiving such a message.

When the focus group was over, Sara, Victoria and I left the room to head back to the AirBnB we were staying at and the incident came up in conversation. Sara shared that I had to give myself permission in my own time to laugh at the absurdity of what accounts men will share, regardless of how horrifying what they were describing – otherwise I would get depressed, or in her words, 'go batty'. While receiving validation from someone who had been in the practitioner space for longer than I had been alive still took a while to sink in, it was infinitely valuable that it was acceptable and, in some ways, appropriate to process a variety of different responses to violence. She argued that so long as I paid attention to what I was responding to, and who I was responding with, I had to give myself permission to process accounts of violence on my own terms. The only thing I had to watch out for was that I should never laugh with perpetrators at the expense of victim-survivors, that any humour must punch up instead of down, and not be translated into a formal format where such responses would be condoned. I appreciated these kinds of chats with practitioners as they helped make sense of how to apply wider concepts such as gallows humour as an effective means of abstracting from the severity of the uncomfortable topic at hand. I myself found this to be the case

during my Master of Research in collating accounts of bullying and harassment whereby interviewees would attempt to 'make light' of a situation.

Self-Care Assessment Worksheet

This assessment tool provides an overview of effective strategies to maintain self-care. After completing the full assessment, choose one item from each area that you will actively work to improve.

Using the scale below, rate the following areas in terms of frequency:

5 = Frequently
4 = Occasionally
3 = Rarely
2 = Never
1 = It never occurred to me

Physical Self-Care

5 Eat regularly (e.g. breakfast, lunch and dinner)
4 Eat healthy
4 Exercise passive vs. active
3 Get regular medical care for prevention *
5 Get medical care when needed
4 Take time off when needed
1 Get massages
4 Dance, swim, walk, run, play sports, sing, or do some other physical activity that is fun
4 Get enough sleep *
5 Wear clothes you like
5 Take vacations
3 Take day trips or mini-vacations
3 Make time away from telephones
___ Other:

Psychological Self-Care

3 Make time for self-reflection
1 Have your own personal psychotherapy
3 Write in a journal
5 Read literature that is unrelated to work
4 Do something at which you are not expert or in charge
2 Decrease stress in your life

Source: Transforming the Pain: A Workbook on Vicarious Traumatization. Saakvitne, Pearlman & Staff of TSI/CAAP (Norton, 1996)

SKILL BUILDING
EXCERCISES FOR PRACTICE

GROUNDING

- Run cool or warm water over your hands
- Grab tightly onto your chair as hard as you can
- Touch various objects around you
- Dig your heels into the floor
- Carry a grounding object in your pocket
- Jump up and down
- Notice your body
- Stretch
- Clench and release your fists
- Walk slowly, noticing each footstep
- Eat something, describing the flavors
- Focus on your breathing
- Silly putty

**Sometimes grounding can be triggering; if this happens, just change course.*

LAUGHTER

- Keep a folder on your computer / desktop / thumb drive of the things that make you laugh
- Access frequently
- Make space for joy

GRATITUDE

- Start a daily gratitude practice
- Set random alarms by smartphone to pause, appreciate and feel gratitude
- Gratitude practice has been shown to increase physical and emotional health, improve sleep, and ameliorate stress

BREATHING

- Ground before breathing
- Focus on the breath
- Use imagery to move thoughts
- Count while breathing
- Find a pace that works for you

PEACEFUL PLACE

- Ground before starting
- Visualize a peaceful place
- Add sight, sound, touch, feel, smells
- Add person or pet *(optional)
- Create a barrier or shield around this place

- Create a physical reminder of the place (painting, picture)
- Remind yourself that you can return to this place as you need to
- Be aware of limits or triggers

MEDITATION

- Induction: feet on the ground, close eyes/soft focus, noticing the breath
- With practice, becomes easier
- No wrong or right way to do this
- What you get, you get
- Start in small increments
- When you notice a thought or feeling coming up, just be aware of it and name it. Do not try to change it.
- Be aware of the thought, feeling and imagine it passing through your consciousness (cloud, leaf in a stream)
- Picture events as a movie that can be paused, stopped, minimized, slowed down, or turned off
- Use the breath: be conscious of breathing in the thought and then breathing it out. Picture the thought as a color
- Replace: breathe in calm, breathe out anxiety

CONTAINER EXERCISE

- Visualize a container
- Describe in detail – choose your container
- Container can be stored somewhere secure, secured with a lock, etc.
- Does not bury memories, but allows the control over when they are accessed and processed

CREATIVITY

- Explore artwork
- Have "toys" available: crayons, playdough
- Explore music that is soothing / energizing (playlists)
- Imbue objects with comfort (stone, shell and positive emotions)
- Create a treasure box
- Discover favorite smells (oils)
- Think about favorite clothing, blanket
- Have tea and water available

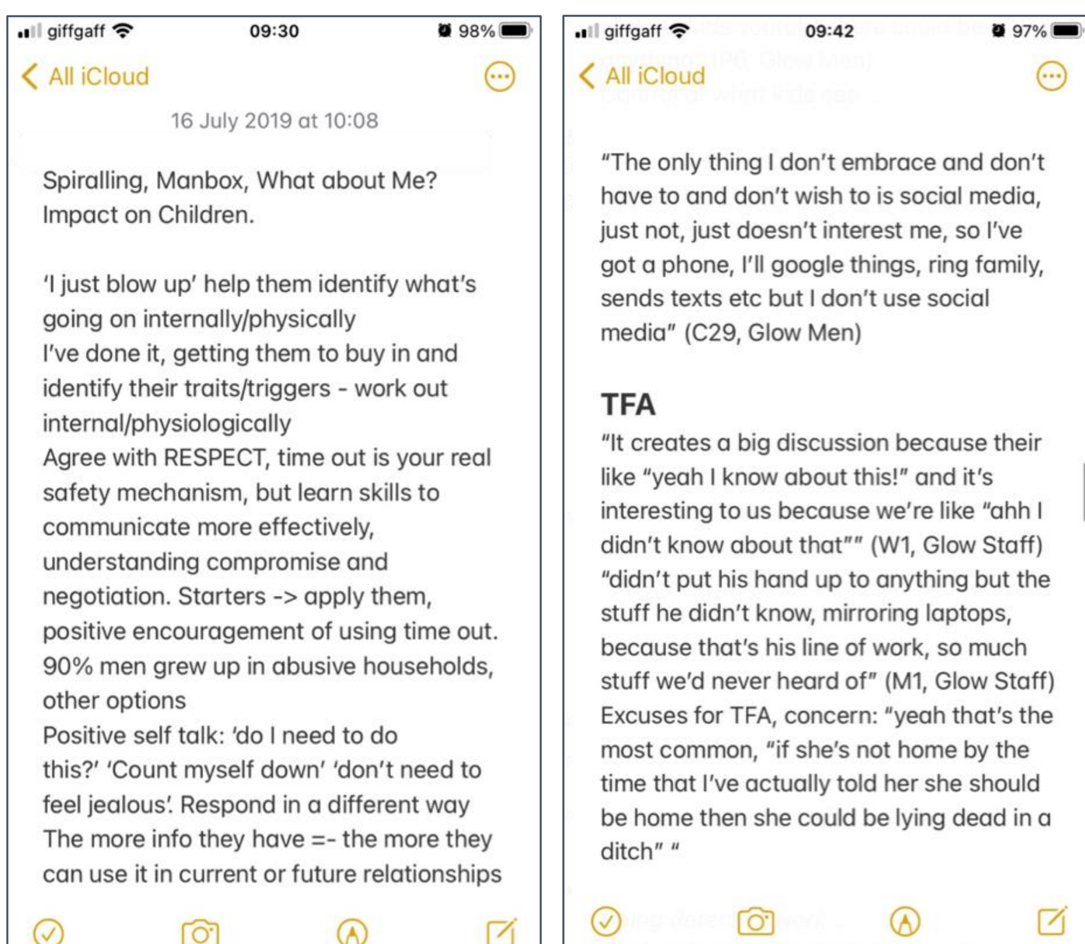
COMPASSION MEDITATION

- This is a moment of suffering (mindfulness)
- We all struggle with our lives (common humanity)
- May I be kind to myself (compassion)
- May I give myself the compassion I need

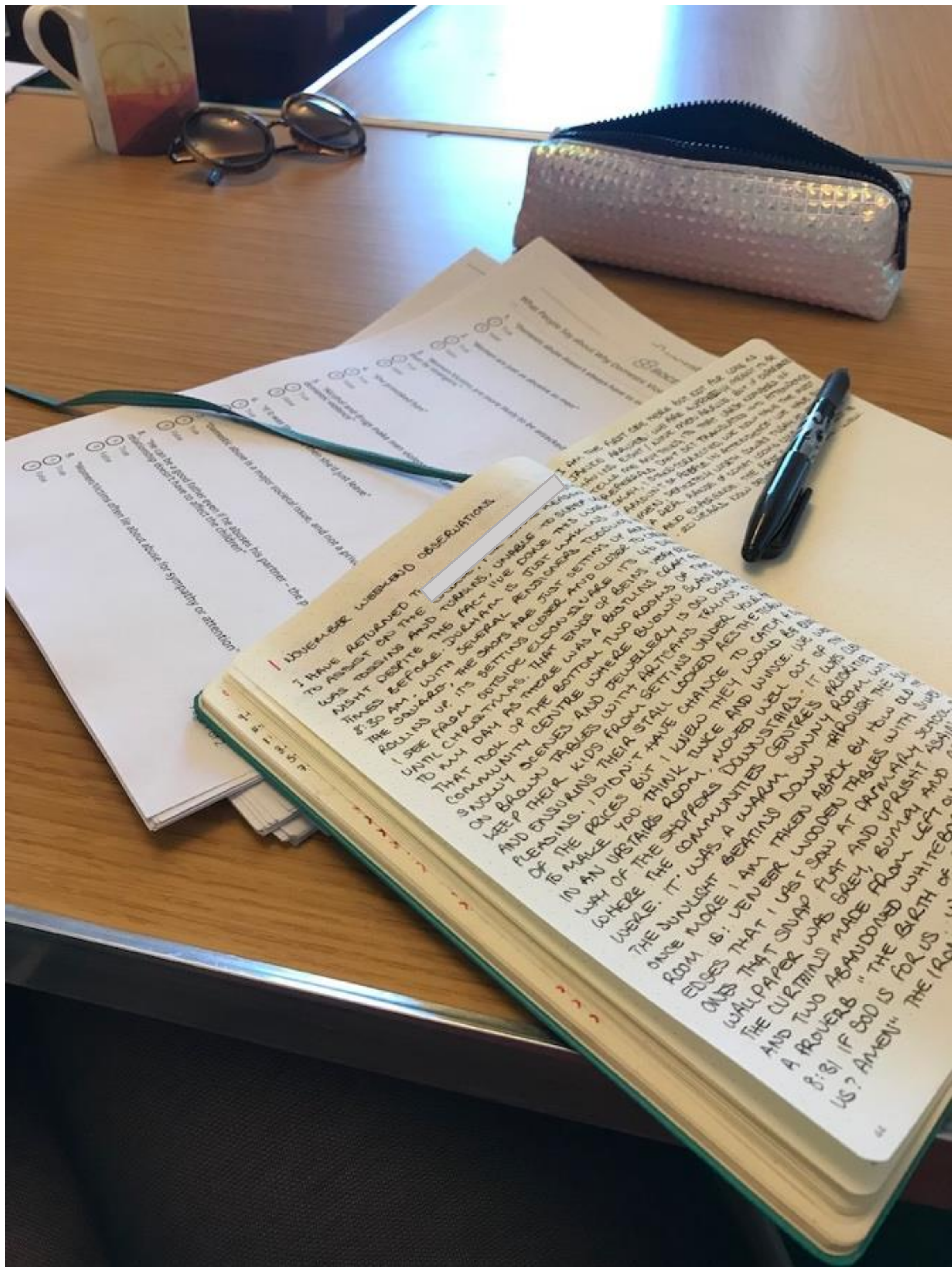
Appendix B

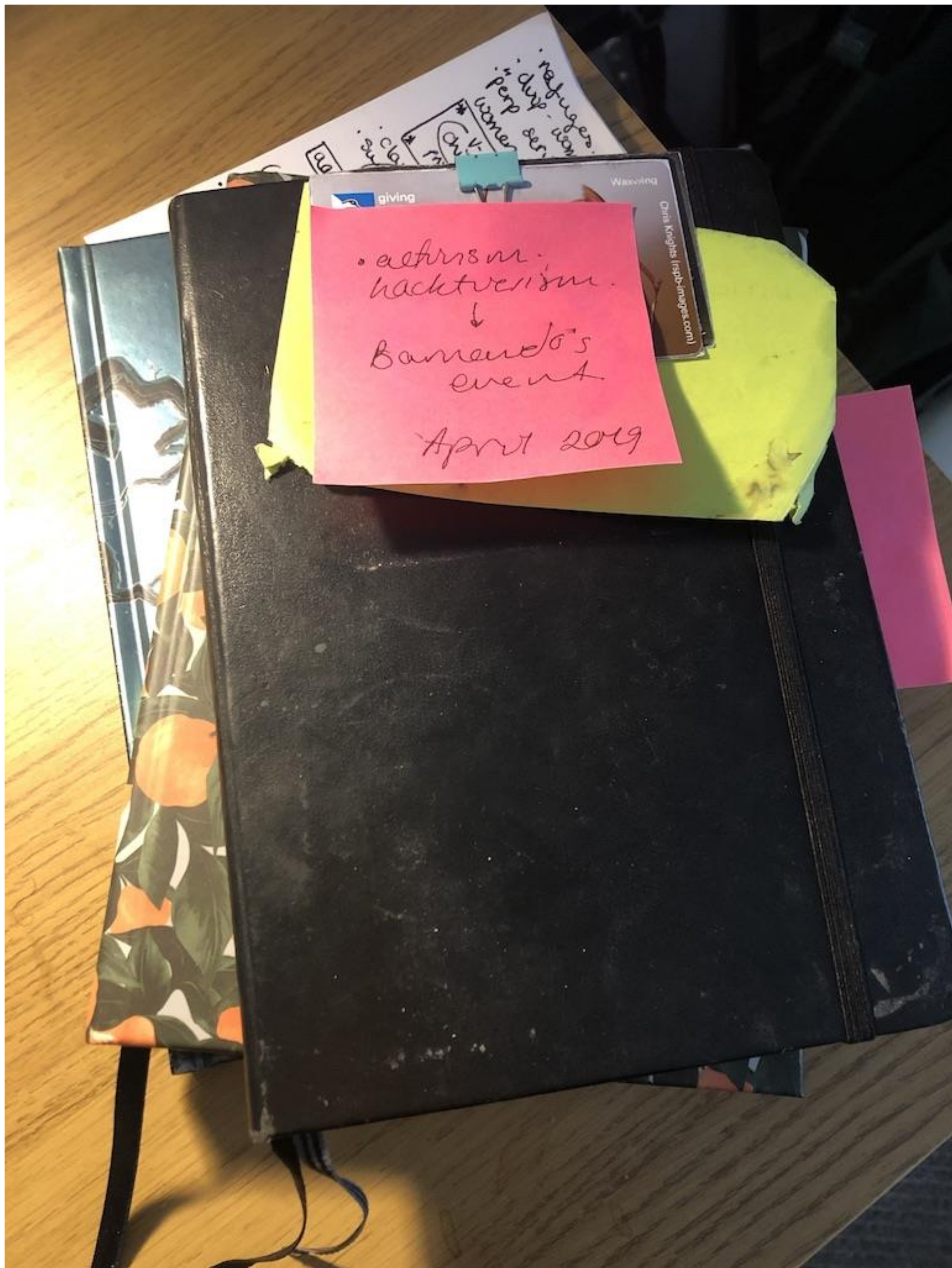
Example of Field Notes (Written)

My in-person field notes were captured in-situ of the time of data collection, or just after I had left the data collection site in a variety of LEUCHTTURM1917 notebooks which could hold around 249 pages each. Sometimes if I needed to quickly write something down but I didn't have access to my notebook, I sometimes used my Notes section on my iPhone to collect non-identifiable descriptions of what was happening. These were a lot briefer and a person looking at them would have been none the wiser until they were properly written up. These notes were always subsequently deleted. I also didn't like using my phone to capture data as it often disrupted the atmosphere where people assumed, I was messaging a friend/family member or disengaged from the service. Out of concern for appearing rude, I think I only used this method of data capture two or three times.

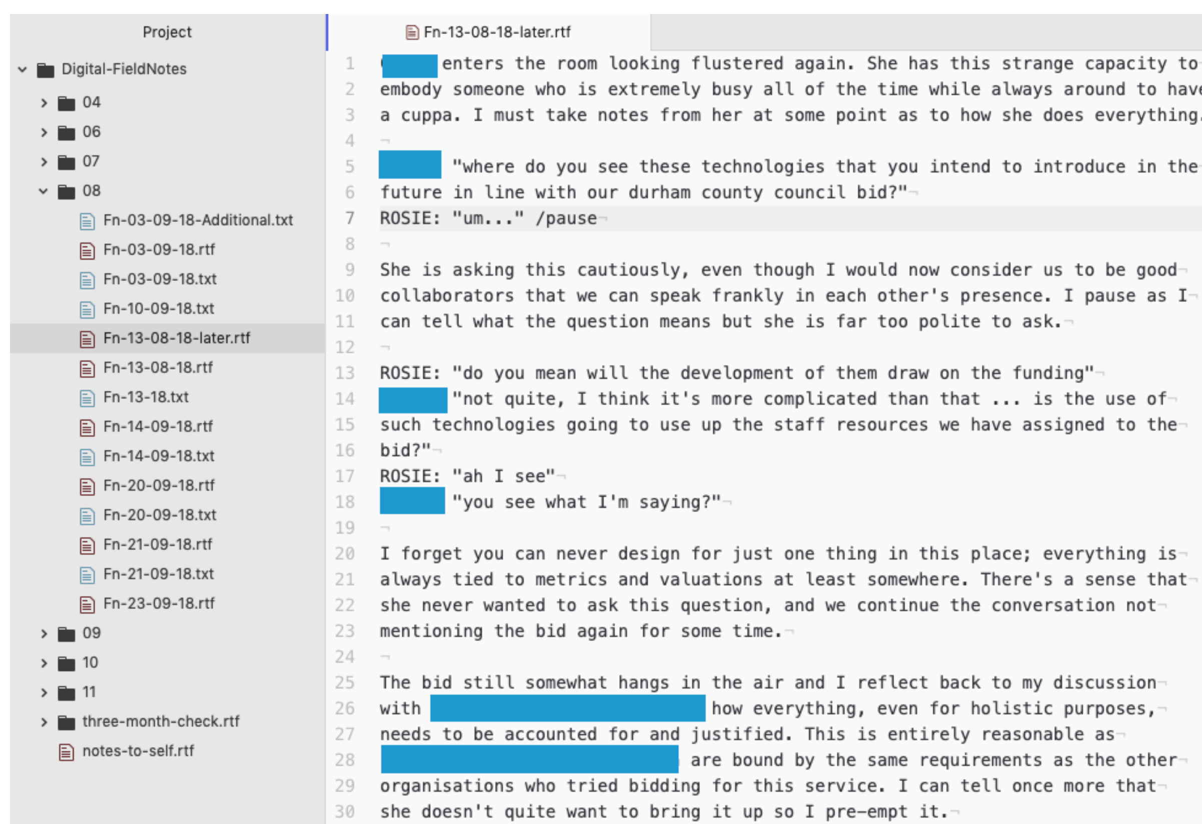


In the early days of Barnardo's, I remember flying through my first notebook, wanting to distil everything about the environment in my notes. As I was learning how to take poignant observations rather than reporting my environments, my notes started to become more specific and my writing rate slowed down considerably.


NOVEMBER WEEKEND OBSERVATIONS


• activism.
hacktivism.
↓
Barnardo's
event
April 2019
giving
Waxwing
Chris Knights (rspb-images.com)

Example of Field Notes (Digitised)



For my digital fieldnotes diary I used the free open-source text and source code editor Atom. My preference for this platform happened purely by accident when I opened a .txt file with Atom instead of Microsoft Word and I found it an easy and simplistic way to distil specifically what I was looking at. As it didn't have comments, emboldening or italicising due to the formatting restrictions, I found I was able to look at the interactions between Barnardo's staff members, the technologies and the perpetrator programmes with more clarity before jumping into the analysis. If I was interested in those features, I found it was as simple as changing the file from a .txt or .rtf file to a .html piece that could be formatted and shared easily with Barnardo's remotely. For data write up, rather than analysis, I still prefer to use Atom for its simplistic yet 'hackable' design that can manage multiple file types and scripts.

Example of Design Workshop Transcript

175 really pleased and proud of all hear men say, there's not one thing I would change about this.
176 Other than don't have [redacted] and I have been one group where the majority of it has said
177 anything differently. So this to me, are we pitching it right in terms of the delivery in the
178 content? Absolutely could develop different bits and change different bits like [redacted] just said,
179 but I'm pleased to say that what I feel we deliver really fits the awareness element of it from it
180 as well. Yeah.

181 [01:13:38] **Rosie:** Okay. Yeah. No.

182 [01:13:40] [redacted] [01:13:40] I think what did you so I thought you were saying three things you
183 did right into things. You did wrong. Yeah, so right I tell you what, I really appreciated is the the
184 breadth of your knowledge? So, you know, although you're bringing and coming with the digital
185 Technologies, which been really helpful you have a breath and different disciplines that have
186 meant that working with you has been sort of much easier. You wouldn't get many researchers
187 on I guess digital technologies that would come with your scope and breadth and knowledge
188 and background. So that's been great. I think the creativity and innovation has really helped us
189 and you've really motivate ... Well, if I'm telling you about a lightning adapter, I know that has
190 been something really that you've done right because that is absolutely brilliant, absolutely
191 brilliant. I think what you said about the well and I you know, I think you were saying about the
192 whole sort of direction and leadership and the repeating you know that whole anxiety of keep
193 on doing something without changing it without even considering changing it was right. I think
194 the engagement I think I would like to, I think you're right about fact we need to look at that
195 because it's different to what we intended and the post engagement.

196 [01:15:03] [redacted] [01:15:03] Yeah thing. I think that's right. I think it's a lots of lots of things
197 right? The only thing that for me that. That was wrong. I don't like the word wrong or that I
198 would change is and it's just a bugbear of mine is that I don't ... Think is talking about
199 perpetrator working talking about perpetrators as helpful because you define the person my
200 behavior and I think so what we know now from the evidence base and assistance theory is, you
201 know, you're really really not to be doing it which is probably why we permanently refer to guys
202 so and it's came out in [redacted], doesn't it? It's like what you call the people who attend this
203 Workshop in her quiz, do you remember? And the very proudly would say we call them guys
204 because I think that's an Evidence base in terms of change, you know and desistance. If you just
205 going to define people by their their what they've done then why they're going to engage with
206 you and how they can be motivated to change?

207 [01:15:58] [redacted] [01:15:58] Yeah, we've changed a lot of all material at Barnardo's actually all
208 of it, maybe cooperate still but the prevention programs has a huge shift from the historical
209 perpetrator programs is prevent domestic was prevention program and it just give it a different
210 feel not taking anything away from your victim because some people say 'well they are
211 perpetrators, why are you saying that?'. It's not because it's getting rid of that label and stigma
212 and it's actually the person and the behavior.

5

This is a segment from the Expert Critique of the Choice-Point where audio recordings were transcribed and then transferred to a word doc with transcript markers included for later reference.

Example of Open Coding, Word

144 really pleased and proud of all hear men say, there's not one thing I would change about this.
145 Other than don't have 15 men and I have been one group where the majority of it has said
146 anything differently. So this to me, are we pitching choice-point right in terms of the delivery in
147 the content? Absolutely could develop different bits and change different bits like Carol's just
148 said, but I'm pleased to say that what I feel we deliver really fits the awareness element of it
149 from it as well. Yeah. It's a very good system and I didn't think I'd say that.

150 [01:13:38] **Rosie:** Okay. Yeah. No.

151 [01:13:40] [01:13:40] I think what you did so I thought you were saying three things
152 Choice-Point got right and ... things .... You did wrong. Yeah, so right I tell you what, I really
153 appreciated is the breadth of our knowledge you put in the tool? So, you know, although you're
154 bringing and coming with the digital technologies like point choice oh no sorry choice point!
155 Which been really helpful you have a breath and different disciplines that have meant that
156 working with you has been sort of much easier. You wouldn't get many researchers on I guess
157 digital technologies that would come with your scope and breadth and knowledge and
158 background. So that's been great. I think the creativity and innovation has really helped us and
159 you've really motivate ... **Well, if I'm telling you about a lightning adapter, I know that has been**
160 **something really that you've done right because that is absolutely brilliant, absolutely**
161 **brilliant.** I think what you said about the well and I you know, I think you were saying about the
162 whole sort of direction and leadership and the repeating you know that whole anxiety of keep
163 on doing something without changing it without even considering changing it was right. I think
164 the engagement I think I would like to, I think you're right about fact we need to look at that
165 because it's different to what we intended and the post engagement.

166 [01:15:03] [01:15:03] Yeah thing. I think that's right. I think it's a lots of lots of things
167 right? The only thing that for me that. That was wrong. I don't like the word wrong or that I
168 would change is and it's just a bugbear of mine is that I don't ... **Think is talking about**
169 **perpetrator the wording perpetrators as helpful because you define the person my behavior**
170 and I think so what we know now from the evidence base and assistance theory is, you know,
171 you're really really not to be doing it which is probably why we permanently refer to guys so and
172 it's came out in Nicole's stuff, doesn't it? It's like what you call the people who attend this
173 Workshop in her quiz, do you remember? And the very proudly would say we call them guys
174 because I think that's an Evidence base in terms of change, you know and desistance. **If you just**
175 **going to define people by their their what they've done then why they're going to engage with**
176 **you and how they can be motivated to change? Can that be reflected in the system?**

177 [01:15:58] [01:15:58] Yeah, we've changed a lot of all material at Barnardo's actually all
178 of it, maybe cooperate still but the prevention programs has a huge shift from the historical
179 perpetrator programs is prevent domestic was prevention program and it just give it a different
180 feel not taking anything away from your victim **because some people say 'well they are**
181 **perpetrators, why are you saying that?'. It's not because it's getting rid of that label and**
182 **stigma and it's actually the person and the behavior.**

5

Comments:

Rosanna Bellini
Social anxiety amongst men

Rosanna Bellini
Selling/promoting course and C-P

Rosanna Bellini
Surprised praise at C-P

Rosanna Bellini
Bringing technologies in

Rosanna Bellini
Underlines niche area

Rosanna Bellini
Presence of HCI researcher ...

Rosanna Bellini
Adapting the system 'on the fly'

Rosanna Bellini
Apologetic and personalised

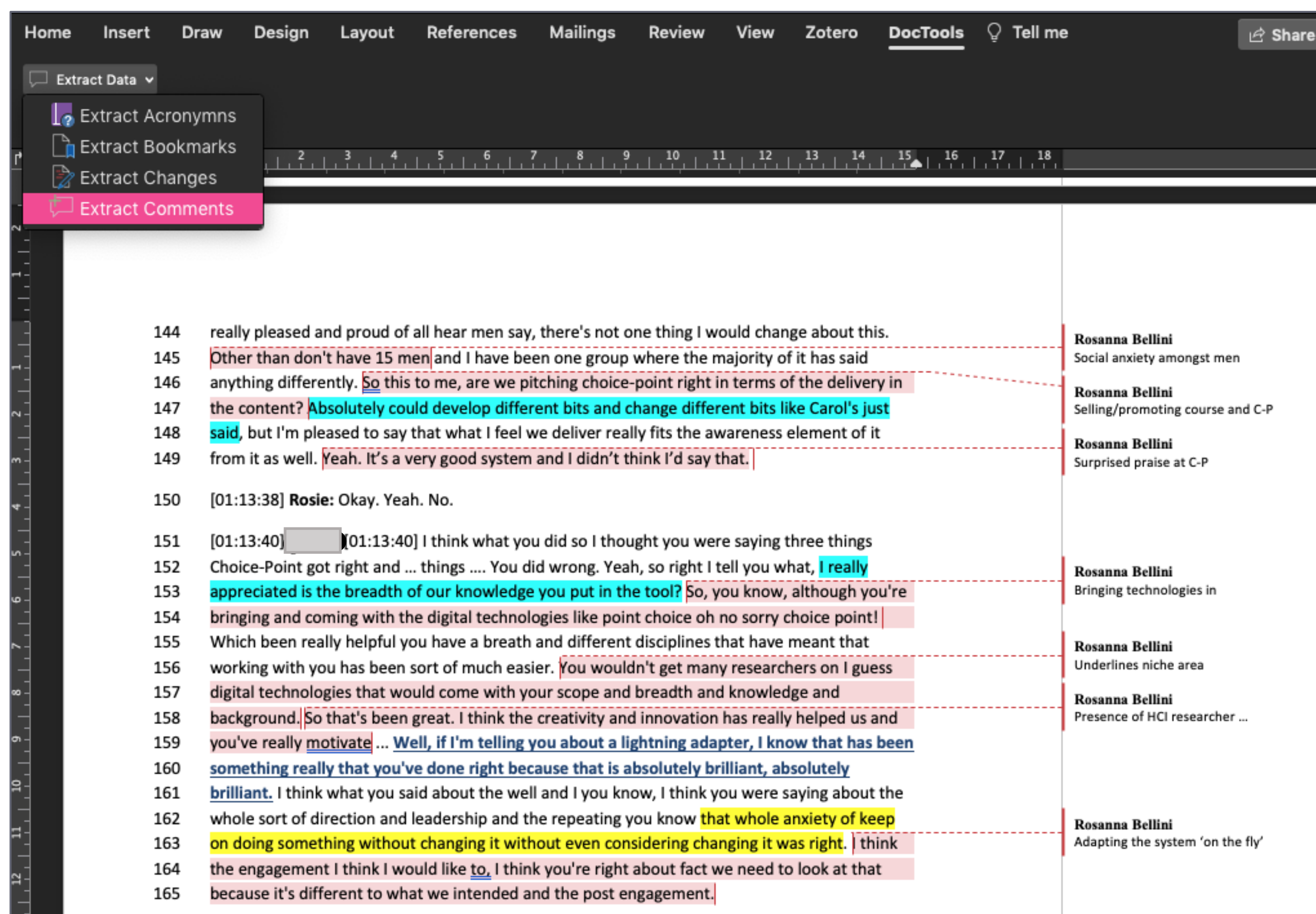
Rosanna Bellini
Tensions around naming

Rosanna Bellini
Perpetrator to prevention

Rosanna Bellini
Avoiding loss of agency

Here is the same segment of transcript post-open coding. The comments here are used as initial rounds of coding that can be extracted using the DocTools while highlighted and **embolden and underlined words** indicate important identified themes or quotes to be used for reporting.

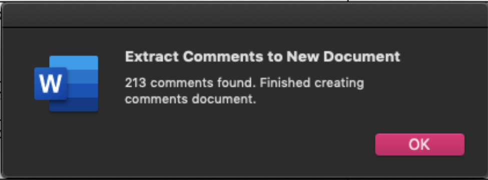
Code Extraction and Condensed Coding Development



The Microsoft Word Macro DocTools once installed adds an option to the banner at the top of the documents. Here once I finished my round of initial coding I would go to the DocTools banner and click the option to extract data that permitted me to easily extract acronyms, bookmarks, recorded changes and comments from the active document to a new document. This also included the comment metadata such as who made the comment, how frequently it occurred, where it occurred (page number) and the date it was made. For this work, I made ready use of the Extract Comment feature as so.

Comments extracted from: /Users/b2026015/Documents/PhD/DAAP/Barnardos/Futures_Workshop/Part1.docx
Created by: Rosanna Bellini
Creation date: February 23, 2021

Page	Comment scope	Comment text	Author	Date
1	I realize I'm in kind of a weird position	Positionality	Rosanna Bellini	27-Mar-2019
1	and what I'm doing now because most people don't sit and work with someone for a year and then present back	Irregularity in Behaviour	Rosanna Bellini	27-Mar-2019
1	It's bloody great for us to have that sort of somebody talking to us about what we do.	Expressing Ap		27-Mar-2019
1	I'm absolutely welcome it	Welcoming Cr		27-Mar-2019
1	that was very clear to us from the beginning	Clarity of Perf		27-Mar-2019
2	we were almost reaching too high for something which it was never really designed for Behavior change of the space of a very short period of time.	Mismatch of Purpose	Rosanna Bellini	27-Mar-2019
2	aftereffect of awareness raising	BC as After-Affect	Rosanna Bellini	27-Mar-2019
2	but it was never really designed for that.	Designing for Purpose	Rosanna Bellini	27-Mar-2019
2	give us an opportunity for us to do that and then test it out	Tendering Providing New Opportunities	Rosanna Bellini	27-Mar-2019



A new word document is created; with all the initial codes organised in a table. Sometimes if I was interested in how frequently a specific code would occur I would paste this table into excel.

Comments extracted from: /Users/b2026015/Documents/PhD/DAAP/Barnardos/Futures_Workshop/Part1.docx
Created by: Rosanna Bellini
Creation date: February 23, 2021

Page	Comment scope	Comment text	Author	Date
	choice" "This just happened, I had no choice"			
32	You could have some really like subtly different things	Subtle Differences in Stories	Rosanna Bellini	28-Mar-2019
32	one extreme where you slap her across the face	Extreme Choices	Rosanna Bellini	28-Mar-2019
32	one extreme where you slap her across the face	Physical Violence	Rosanna Bellini	28-Mar-2019
32	that actually know you turn around and walk away and take yourself away,	Walking Away from the Scenario	Rosanna Bellini	28-Mar-2019
32	that actually know you turn around and walk away and take yourself away,		Rosanna Bellini	28-Mar-2019
33	, some might say I argue back or storm out and why did you pick to storm out	Multiple Choices	Rosanna Bellini	28-Mar-2019
33	or why did you pick to argue back?	Questioning Choices	Rosanna Bellini	28-Mar-2019
33	It's really good dialogue as well.	Generating Dialogue	Rosanna Bellini	28-Mar-2019
33	Hopefully people are, they stay yet engaged rather than being bored half way through.	Engagement in the Process	Rosanna Bellini	28-Mar-2019

These initial comments would then be grouped before a light round of Focused Coding to ensure that the same semantic codes weren't occurring twice. This was the main downside to not using qualitative coding software that could automate how many times a code had occurred, and also provide a folder or tree structure to a coding framework.

Comments extracted from: /Users/b2026015/Documents/PhD/DAAP/Barnardos/Futures_Workshop/Part1.docx
Created by: Rosanna Bellini
Creation date: February 23, 2021

	with headsets and there will be something VR or yeah		
31	*you know could become abusive and you could pause it and stop it and all you know, what would you do if you know come up and I don't know.*	*Multiple Choices in Situations*	
31	*What's the consequences of this option*	*Consequences of Options*	***Visibility of consequences***
31	*you can kind of play out the different scenarios*	*Playing out Scenarios*	
31	*you put it visually and people could do it individually and then you could come back as a group and have a conversation about so which option did you fix?*	*Solo Work – Group Discussions*	
31	*choose this path this route this than this is what ends up this one*	*Choosing this Route*	***Multi-branching narrative*** ***Rationality in choosing***
32	*Some sort of conversation about why would different people chose the different options and the thinking behind it?*	*Conversations on Choices*	
32	*It's really powerful and everyone will just normally say "I had no choice" "This just happened, I had no choice"*	*Excuse as "Having no Choice"*	***Choosing to choose ...*** ***Agency through choice***
32	*It's really powerful and everyone will just normally say "I had no choice" "This just happened, I had no choice"*	*Power in Choosing*	

These condensed coding soon built up over time, yet I was careful to ensure that I didn't end up with the same number of open codes as my initial rounds; that would of course, defeat the purpose. In line with many guides that assisted me in Grounded Theory, I often came up with between four and eight categories, most frequently six. I found this process of moving one file over to be the strongest and yet the riskiest way to get towards my final categories; each file was dependent on the previous, so I found myself adopting a highly strict organised file structure. The risk of course with all of these files, was having too many to manage. While I appreciated how structured and rigorous the Grounded Theory process is, sometimes I found myself bogged down with the chronology of following the stages.

Appendix C

Barnardo's Volunteer Form

CONFIDENTIAL
Children's Services
Volunteer Application Form

Thank you for your interest in volunteering for Barnardo's. The information you provide in this application form will help us to decide how you might be able to help us. It is really helpful if you can give us as much information as possible about your experiences, interests and availability to volunteer. If you have any questions about this form, please do not hesitate to contact us on the details at the end of this form.

Part 1 – The volunteer role you are applying for

Role title: **Volunteer / Collaborator on Service Delivery**

Disclosure type: **DBS Enhanced Children/Adults Barred list**

Name of Project/Service/Team: **Domestic Violence Awareness Project**

Location: **75 Osborne Road, Newcastle upon Tyne NE2 2AN**

Cost Centre:

Part 2 - Personal information

First name:	**Middle name(s):**	**Surname:**
Rosanna	**Frances**	**Bellini**

Title: Mr/Mrs/Ms/Miss Miss

Preferred name: Rosie

Home Address:

Daytime phone number:

Evening phone number: **N/A**
(if different)

Mobile phone number: **07724068527**

Postcode:

Email address: **r.f.bellini@ncl.ac.uk**

Date of Birth:

National Insurance No:

Part 3 – How did you hear about volunteering?

- ☒ Word of mouth
- ☒ School, college, university
- ☐ Event
- ☐ Internet
- ☐ Twitter
- ☐ Media (radio, TV, newspaper)
- ☐ Leaflet or poster
- ☐ Volunteer Centre
- ☐ Event, talk or presentation about Barnardo's
- ☐ Other - please give details

Part 4 - Your interests and reasons for applying to volunteer

Rich Text Format (RFT) for Trial Run of Branching Narrative Sample

Start

It is a Tuesday evening and the Johnson family are settling down for a dinner of Cottage Pie together around the table which Sharon has just finished making after picking the kids up from school. Terry asks if Sharon has got around to cleaning the house, as they had a busy weekend out with the children at Chester Zoo and the house is starting to look dirty as it normally gets done on a Sunday. Sharon says that they can talk about that later and asks Shawn if he did well in his school project presentation today.

What does Sharon do Next?
Stay Silent and Continue Eating
Ask if they can talk about it later
Change the topic and ask how Shawn did at School

Ask if they can talk about it later

Terry becomes annoyed that Sharon didn't answer his question, `<<if visited("Sharon: Change the topic and ask how Shawn did at School")>>` *and spoke to Shawn instead,*`<<endif>>` *and he pushes for a response, also asking why Sharon was working later than usual at Asda last night so she had to call to say that she would be late. Shawn becomes uncomfortable with not being able to respond, he shares a knowing look with his sister.*

What does Shawn do?
Stay silent and eat his dinner
Respond to Sharon's Question
`<<if visited("Ask if they can talk about it later")>>`***Agree with Sharon, Parent Talk is Boring***`<<endif>>`

Stay silent and eat his dinner

The dinner table is now very quiet, with only the sound of scratching cutlery in the room. Sharon visually does not want to have this conversation now, and asks Terry again if they can talk about it later. Tracey tries to distract everyone with asking if she can stay over at Monika's this weekend.

How does Terry Respond?
Respond to Tracey's question
Continue to ask Sharon questions
Sigh, squeeze Sharon's hands and agree to talk later

Story_Part3_1

Story_Part3_1

Sharon visually does not want to have this conversation now, and asks Terry again if they can talk about it later. Tracey tries to distract everyone with asking if she can stay over at Monika's this weekend. Conversation is uncomfortable for the rest of the meal.

Continue

Story_Part4

Terry challenges Sharon, asking why she would disrespect him in front of the children by not giving a response to his question when he first asked. Sharon tries to respond that she is exhausted after a busy weekend and a surprise audit at work yesterday which meant she has not had chance to start the cleaning yet. Terry says that she is coming up with more excuses and he starts shouting that she is a bad mother for letting her children grow up in a dirty house.

Terry: Shout at Sharon
Terry: Intimidate Sharon
Terry: Leave the house for a Time Out
*<<if visited("Story_Part2_2")>>****Terry: Comfort Sharon and Apologise***<<endif>>

Terry: Intimidate Sharon
Story_Part5

Story_Part5
Tracey overhears the shouting from downstairs, despite putting her clock radio on to drown out the noise. She is concerned that Shawn might start crying again as he does not like it when their parents argue.

Observations from Trial Run

Pseudonyms A-Z here are provided for men and have no connection to personally identifiable information such as first names.

Saturday 11th May, Seven Men.

I was permitted to host the empty chairs exercise for the first time since I started accompanying Barnardo's on this work, once again demonstrating that I had reached a level of *vulgar competence* that Karen and Janice had faith I could carry out activities by myself. I explained that the exercise would be split into two parts, one which one done in the room with four empty chairs, and the other done slightly differently via technology called ChoicePoint.

The empty chairs exercise went fairly well, where four plastic chairs that belong to the community centre are placed in front of the group with an A4 piece of paper with character names and roles printed in different colours. Despite having the names 'Terry (father)', 'Sharon (mother)', 'Tracey (daughter)' and 'Shawn (son)' on the chairs, sometimes the men would ask and clarify who each person was to the facilitators after the scenario had been read out. One of the men we suspected was dyslexic, being unable to hold particular details in his head at one time. I read the traditional scenario which describes a story where Terry has been emotionally and physically abusing his partner Sharon for years, and the story builds to when Terry hits Sharon as his dinner isn't on the table, Tracey their young daughter calls an ambulance. I was careful to not also read out that Terry hit Sharon with a pan lid that made the scenario feel superficial and comical rather than hard-hitting and intimidating.

Karen asked people when they were responding to take on that particular role when speaking so instead of saying 'I think she would say…' say 'I am Sharon and I would say' to allow different perspectives to emerge within the group. I read out the scenario twice for clarity, and asked the men how each of the characters must be feeling, and although it took a while for men to adapt to stating 'I am …', the group soon got the hang of it. Interestingly, most of the men immediately

gravitated towards Sharon's role in reflecting how she would be feeling and were most resistant to taking on Terry's role – the perpetrator of abuse.

> *"A: I'm Terry, I feel weird, my wife is in hospital, they kept her in for observation as she might have concussion, and now I've sobered up and feeling really really guilty with myself and even now the kids and my daughter had to phone an ambulance, and she's seen what she shouldn't have seen, you know, there's worse things in the earth that you could have seen y'know. I really hate myself for this happening, like every time I've hit her"*
>
> *K: So you feel a sense of guilt from what you're saying?*
>
> *A: Terrible sense of guilt, total remorse which I hadn't felt all the other times I hit her, now I've got the kids and police have been involved, I feel like everyone's now going to judge us as a bad person but …*
>
> *K: And are you a bad person Terry?*
>
> *A: No I'm not, I just got a lot of money problems and the pressure's on, the drinks' helps us, stops things coming up for air but we can't really afford things for the kids, so I have a drink to get us through, get us through the next month and wages. Now it's good, it's bad and now the kids are going to look at me in a different way altogether now."*

This was in contrast to other groups where they were reluctant and resistant to take on a feminine role, out of the concern for being feminised among the rest of the group. As each individual was not assigned a role by inviting the men to take the place of the A4 sheets of paper, as has happened previously, the group were much quieter and the same impact that I have experienced at other groups was not really captured.

I gave an introduction to ChoicePoint where I said that I required four people to take on the role of particular family members, and emphasised that each individual was going to be making decisions from a set of defined choices, and what choice

they took could change the course of the narrative for others. None of the men were familiar with Bandersnatch, Black Mirror that appeared on Netflix, so the choose-your-own-adventure-ness of the activity was a little harder to explain. I explained that once we had a run through of one pass through the story, we would have another to see if the men chose to select different options.

R: Who wants to be Sharon then?

E: Go on then.

J: Well I'll be Terry then!

[group laughter]

Two men were specifically keen on playing Sharon and Terry, having both sat next to each other and joked that the roles meant that there was definitely "*something between them*" (J), this was particularly meaningful as the man playing Sharon had not massively contributed to the session beforehand. After much encouragement, two other men had chosen to play the roles of Tracey and Shawn.

K: Go on L, you were good.

L: Yeah, come on, someone has to!

First Run Through

E - Terry	***J - Sharon***	***L - Tracey***	***P - Shawn***

Choices

Sharon: [[Change the topic and ask how Shawn did at School]]

Shawn: [[Copy his Dad in Asking why the House is Dirty]]

Terry: [[Scowls as Sharon hasn't answered]]

Terry: [[Apologise for getting short at dinner, and ask how Sharon is feeling]]

Sharon: [[Go Upstairs to Bed]]

Tracey: [[Ask Sharon about Earlier]]

[[Next Day – Mostly Positive Ending]]

I began by reading out the scenario of a traditional setting at dinner where an argument was brewing between Terry and Sharon in front of the children. J chose first as to what Sharon does which was a neutral and generally empathetic response; "*I'll change the topic, and try and get away from it*". The tone however was slightly disrupted when P, as Shawn chose the most negative option and found delight in delivering a more negative scenario for the other participants. There was less than a second between him selecting to copy his dad in abusing Sharon, Karen even expressed "*I would have put money on that one*" insinuating that she could predict that P would select the most misogynistic abuse, P laughs at this. The individuals that surrounded him however did not laugh, and E subsequently had to select from a neutral to two negative outcomes to influence the story. At the midway point there was silence across the group.

This was however rectified when E decides to perform the most positive action where he apologies to Sharon leading to a more positive turn of events. Ian also interestingly corrected the option from the perspective of Tracey where he corrected instead of "Asking Sharon what's wrong" he stated she would instead ask "her mum what's wrong" evidencing that he was perspective taking. In this way, what I observed was E was taking on the role of absolving P's negative behaviour and sought to rectify the story through trying to get the story back onto the 'positive path'. Once this option had been selected, the path was set to carve out a more positive story and the group ended up on a positive ending which was praised by the facilitator. E even ended on a joke "he's not bad that Terry y'know".

> *J: "So we're trying to pick, in their shoes, make changes that … that influence the story, see the things that went wrong and make it to do the right choice"*

E: "Like you said, you said, depending on, what we choose changes the options we get"

L: "In your shoes, we're being asked to do the right thing"

J: "I think that this exercise is tryin' to show, that in each situation we have different choices and it leads to a different outcome"

Second Run Through

U - Terry	***S - Sharon***	***Q - Tracey***	***L - Shawn***

<u>Choices</u>

Sharon: [[Stay Silent and Continue Eating]]

Shawn: [[Ask why everyone is so quiet]]

Terry: [[Continue to ask Sharon questions]]

Terry: [[Intimidate Sharon]]

Sharon: [[Call for Help]]

James: [[Stay where she is]]

[[Later That Evening – Negative Ending]]

R: "We've got Terry?"

G: "You know who I am!"

This time round, the group expressed motivation to see how different choices led to different scenarios, with U confessing that he had deliberately selected the opposite of the choices of the first run through to explore the different options.

S: "I'll stay silent this time"

…

U: "I'll intimidate Sharon … sorry Sharon"

…

Q: "Stay where she is … she thinks she's safe there"

Once more, each of Sharon, Tracey and Shawn's options were within the character of family members that were being abused by their father, with James reflecting the concern and fear of the noises from downstairs.

L: "… Plus the police will go in and check and go and talk to all the kids, they have to find out how many children there is in the house, and then speak to them individually and explain why their da' has been arrested, which is upsetting for the kids …"

Generally, the exercise was very well received, and the group expressed that it went very well in making them consider how they could choose to do things differently. This was an aspect of the exercise that, having done and written the story for so long myself, really forgot about the novelty of the actual running through the exercise for the first time. By the end of the session the men who had participated were definitely in agreement that they could see how violence was a choice, regardless of the impacting factors on the individual and appreciated the exercise allowed them to go back and chose something differently.

1st question: agreement

2nd question: "U: I was trying to get from the good scenario first time to see what the other scenario would be, to see the opposite side.

S: I was pushing towards trying to make it bad.

U: I was pushing it to see what the consequences were

L: "There is like 100% you can influence the situation, where in the next minute where you can start charging yourself up, you can blame other things or you can take a step back

U: "… and calm it down."

Q: "So like definitely, you could have gone ten or twenty different stories, but ultimately you have the choice to like you know, like the question does he leave and cool down a bit or does he. In hindsight, you could think like I wish I'd done that."

U: "I think that we really underestimate outselves as to how much control we've got of our decisions, because it's what we do that affects the outcome."

L: "Because it is your choice."

U: "Because you know if you're gonna behave in a negative way, is it going to end positively – probably not."

3rd question: agreement

4th question: Q, agreement

"What I'd change there, that ending bit now the police do have to, explain for the kids, it upsets the kids as to why dad's being arrested. It's upsetting but it's the right thing to do isn't it"

5th question:

U: "Well like I said before, I was interested in seeing what 'routes' were available".

L: "Some of the other ones could have gone either way, you know like leave in one way could be positive, but then another could be continue the argument on like 'don't disrespect the kids' there was less of ones that could have still taken it the same way, to the bad end. You know. Probably

all of them could lead to bad ends, there could be 60 different multiple choices you could go"

6th question:

U: "I think as soon as you selected one way, you kind of knew for example apologising and going down one way, you'd hope that would lead to a good end. The next one, if you're gonna argue, you know, you know how it's gonna end"

The men were especially interested in how the layout of the story influenced the next part of the story and so I showed them Twine using the GUI.

"J: So did you put together that program yourself? Ah very good"

Feedback

K: "It was really good, they knew the scenario and the four that did participate allowed them to know what the family was about, and I think having control of the choices was really good. I don't know … it is about choices that they make, P for example, he chose a negative turn I don't know to be a bit awkward, I don't know, but straight away he chose a negative one so I don't know whether your view was to let them go anyway they wanted or whether you wanted to emphasise, 'listen think about it and think about what the positive consequences could be because you might not have thought this through."

J: "You could almost play with that though, if you're first one comes out really negative you could rectify that with the second choice, this is how we've ended up … how could we go through this again and see if we can improve that – E pulled it back by apologising"

K: "I would love that in the long-term programme, I was so conscious of the three people who weren't engaged were switched off altogether …"

J: Maybe there's another way of doing that though. Why don't you have, I mean those two wouldn't have spoken if you'd set them on fire, so is there a role for people who aren't participating? As an observer? So everyone's got a role, even if you've not got a character. Even if you just said, give one word answer as to what this person is going to be feeling, U could have even said 'sad', it's not beyond people to be put on the spot to say one thing. A freezeframe asking how is someone feeling?"

K: "It needs to be just there, no point in making technology with bells and whistles on it if we can't use it in here"

…

K: It can't be a group exercise if half of them are excluded"

J: "It could be interesting to see how this could be adapted 1-1, with the work we do with the women"

K: "I loved the way that the men had a choice of the way in which the men had a choice in the end, I wouldn't change anything!"

Expression of Interest, Recruitment Form

Call for Expressions of Interest: 3 x Respect Accredited Member Organisations to be partner sites in for Respect's Tech vs Abuse.

Respect are delighted to have been selected as one of the grantees of the Tech vs Abuse fund by Comic Relief. This is a 12-month project commencing on the 1st of November 2019 which will enable Respect to explore the potential of digital tools to reinforce the excellent work that Respect Accredited Members do with perpetrators who are participating in perpetrator programmes. As part of the Tech vs Abuse funding we will be working with tech partner, Rosanna Bellini from Open Lab, Newcastle University and are recruiting for a developer to transform your ideas for technology into a real system.

Tech vs Abuse is a collaboration that was started in 2016 between Chayn, Snook and SafeLives as funded by Comic Relief. This project and funding programme aimed to investigate how digital technologies were being used by those affected by domestic violence within the United Kingdom by consulting with service providers and victim-survivors. In 2019, Comic Relief, Esmée Fairbairn Foundation and the Clothmakers Foundation came together to relaunch this work in the form of a new funding stream Tech vs Abuse 2.0. This relaunch continued to recognise the need to develop tech for of victim/survivors of abuse but as a result of previous findings added potential tech solutions for working with perpetrators of abuse. This is both in order to keep individuals experiencing abuse safe, and to provide opportunities for those using abusive behaviour to choose alternative non-oppressive ways of behaving. It was identified by a variety of different sources, perpetrators of domestic violence are a crucial user group that is currently underdeveloped for, despite the benefits of technical design being highlighted (Bellini et al., 2019; Freed et al., 2019).

In this project we have a rare opportunity to build the knowledge and evidence base of digital tools, explore if and how perpetrators currently use digital technologies as tools of abuse. We intend to build on this understanding to develop ways which use technology to support help-seeking behaviours and inform approaches towards changing abusive behaviours. To ensure that this design reflects the sensitivities of the sector, and the risks involved in introducing new technologies into service delivery, we will use User-Centred Design principles and processes. This approach allows facilitators and users to have a greater part in the design of digital services that they may end up using and provides an iterative approach to carefully ensure the safe and informed design of digital systems (Gulliksen et al., 2003).

Recognising the incredible work Respect Accredited Members do and our commitment to the safety of survivors, we will be exploring these questions and developing a digital response within the context of and to be used within Respect Accredited perpetrator programmes. This is to enhance the work already being done and ensure that innovation is informed by informed and experienced members of our sector.

Anticipated level of involvement from Accredited Member sites

We are looking to recruit **three** Respect Accredited Services to participate in this project with us.

Each site will offer the valuable opportunity to engage with perpetrators currently engaged in behavioural change work and also with frontline workers who we believe have significant insights and experience. Engagement with Respect will initially include a focus group with one set of perpetrators of domestic violence enrolled in a behaviour change prevention programme. The focus group will include a Tech vs Abuse team member asking the perpetrators: about their use of technology, how

they might be misusing this to cause harm to their victim-survivor(s) and how they might be able to identify barriers to behaviour change that might be mitigated by bespoke, technical designs.

After this initial focus group one site will be selected as a 'primary' design site, and two as 'secondary' design sites. The primary design site will, in addition to perpetrator and staff engagement, be asked to convene focus groups from a cohort of survivors connected to their intervention via their ISS service. This group will ensure that survivors have the opportunity to have their voices heard, contribute to the process and importantly to identify unanticipated risks presented by any proposed tech tool. The primary site will also have a greater level of engagement in the design stage of the process from staff and service users to inform the design of our digital system. Secondary design sites will still have a large part in shaping and informing the tool but may not be expected to contribute to all stages of the design process.

While we would ask sites to express a preference for either primary or secondary role **all** expressions of interest require the service to be able to commit to either at the outset.

Benefits for selected sites

- Financial compensation for your time and commitments in the project £1000
- Additional £500 compensation for primary site
- Small financial incentive for each client attending each focus group funded by project to cover time and travel expenses
- Research findings fed back after each phase in the form of a research report
- Close engagement on the themes including training on user centred design, research methods and technical design within a sensitive setting
- Opportunity to be part of an innovative project
- Test site for any digital system developed
- Be the first to be trained and have access to the new digital system

Expectations of Respect Accredited Members partner sites

By applying to be a partner site in this project, the Respect Accredited Member will set out how they will fulfil the following requirements including the anticipated resource required to achieve this. Final criteria will be set out in an appropriate Service Level Agreement between the successful applicant(s) and Respect:

It is expected that the selected sites will host three lots of focus groups with perpetrators enrolled on the site's perpetrator programmes. Group facilitators at all sites must also be available to engage with the project throughout including being interviewed and available to receive training on the design process and digital tool.

Required (essential)

- Have achieved full Respect Accreditation
- Be available for the full duration of the project and have perpetrator programmes running throughout the project length
- Help convene and co-ordinate focus groups with current or former group participants from their programme.
- Have a strong interest in the use of digital tools with perpetrators and be committed to exploring how to incorporate this in their work

- (Primary site applicants) Help convene and co-ordinate focus groups with current or former survivors linked to their ISS (based on their voluntary participation)

These represent the minimum requirements but we welcome applications which include added any value components.

Process for selection

All Respect Accredited Members are invited to express their interest in being a partner site for Respect's Tech vs Abuse grant and submit their application outlining how their service would meet the requirements as set out above.

The deadline for applications is **Monday the 28th of October by 12 noon** and no applications will be accepted after this time.

Upon receipt of the applications a panel discussion and decision-making process will take place (see below) where each application will be discussed and assessed on the detail provided. Once the 3 sites have been selected, we will communicate with all services who expressed an interest to inform them of the outcome of the process.

Panel Composition

The decision panel will be made up of the following:

- Jo Todd – Respect CEO
- Sara Kirkpatrick – Respect Research and Services Development Manager
- Victoria Page – Respect Fundraising and Communications Officer/Tech vs Abuse Project Lead
- Rosanna Bellini – Tech Partner, Open Lab, Newcastle University

Timeframes:

- EOI Released: Tuesday 15th October
- EOI Process closed: Monday 28th October
- Panel meeting held: Tuesday 29th October
- Decisions communicated in writing: Tuesday 29th October
- Contract start date: November

For any queries regarding the project or EOI please contact Victoria Page, the Project Lead at

References

Bellini, R., Rainey, J., Garbett, A., Briggs, P., 2019. Vocalising Violence: Using Violent Mens' Voices for Service Delivery and Feedback, in: Proceedings of the 9th International Conference on Communities & Technologies - Transforming Communities, C&T '19. ACM, New York, NY, USA, pp. 210–217. https://doi.org/10.1145/3328320.3328405

Freed, D., Havron, S., Tseng, E., Gallardo, A., Chatterjee, R., Ristenpart, T., Dell, N., 2019. "Is my phone hacked?"Analyzing Clinical Computer Security Interventions with Survivors of Intimate Partner Violence. Proc ACM Hum-Comput Interact3 CSCW.

Gulliksen, J., Göransson, B., Boivie, I., Blomkvist, S., Persson, J., Cajander, Å., 2003. Key principles for user-centred systems design. Behav. Inf. Technol. 22, 397–409. https://doi.org/10.1080/01449290310001624329

Expression of Interest Form

Please complete the below EOI form and return a completed form to Victoria Page, the Project Lead at [redacted]

Please note there is a 500-word limit on each question.

Respect Accredited Member name:	
Contact Name:	
Role:	
Telephone number:	
Email address:	
Organisation Address:	
Why are you interested in being a partner site for Respect Tech vs Abuse Grant?	
What services and support do you provide to perpetrators of domestic abuse?	
How many perpetrator programmes do you run? What is the average number of participants?	
What services and support do you provide to survivors of domestic abuse?	
Do you currently use any technology or digital tools with perpetrators? If yes, please describe in what capacity:	
Please tell us how you see the technology being able to support the work you currently do with perpetrators of domestic abuse:	
Are there any risks you envisage that could emerge through this project? Please refer to the range of risks from risks to perpetrator engagement, survivor safety to any risks to your organisation being able to participate fully:	
Would you prefer to be a primary or secondary partner site? Why?	

Would you prefer to be a primary or secondary partner site? Why?
Do you have access to a safe and secure space to hold focus groups for perpetrators of domestic abuse and/ or for survivors? If yes, please provide details on these spaces:
What type of digital/tech training would you and your practitioners be interested in receiving?
Please provide any added value contributions and or in-kind contributions which you will be offering as part of this expression of interest. Please describe how you would hope to see this being beneficial and integrating with the Respect Tech vs Abuse grant project:
Any other comments you wish to make or information you wish to share?

Define Stage Research Questions – People attending (or who have completed) a behavioural change programme

Note: only use prompts if men are really struggling to answer

Part 1. Finding Out More Information

Section 1: Introductions

// Introductions, Consent, Consent Forms and Confidentiality and Ice Breaker //

Include an overview of the project, what we did in the Discovery Phase and why were are back now to clarify some important points (in section 1.) and then get insight into a three ideas that emerged from the first round of focus groups across all of the research sites (section 2.).

Section 2: Tech – General use

FOR INTERNAL USE ONLY: Understanding the tech most likely to be used and become embedded into the users' life, influencing a change in their behaviours (assumption: that tech needs to be straightforward with as few barriers to using it so that it becomes that they do not even notice that they're using it).

1. What piece(s) of tech do you most frequently use in your day to do?
    a. Why? What would put you off using that tech? Is it easy to use? If so, what makes it so? If not, what would you like to change about it? (e.g. don't need to log in each time)
2. What piece of tech do you think people are least likely to even notice they are using, or to use without thinking? Why have you chosen that technology? What do you think makes it go unnoticed? *(prompt: everyone uses it, so well designed you don't get frustrated with it, use it everyday so you become so familiar to using this)*

Section 3: Tech – why do you use what you do and why would you use something new?

FOR INTERNAL USE ONLY: Understanding whether tech is going be universally and generally used by course participants or specific only to a few (for example those committed to changing, or those who don't have multiple or complex needs) (assumption: the digital tool will not have an impact on those who are not committed to changing but whose primary motivations for completing the course are external and that it may not be impactful for those with wider and multiple needs).

3. Imagine that we design a tool and we give this tool for you to use specifically alongside this course to help improve your behaviour, what would motivate you to use this tool? Or what would the tool have to do for you to be motivated to use it?
    a. (for example, "I'd by motivated to use it if it would help me get access to my children" or "if it helped me become the person I want to be" etc…
4. You are given this tool, what reason would you have for not using it?
    a. (for example, if it's overly complicated to access, if tells everyone who looks at your screen that you're attending this course etc…)
5. Do you think everyone in your group would want to use this tool?

a. Who would/who wouldn't? Why? What would stop them? Would all of them benefit from it? Why would some and not others benefit? What would motivate them to use it?

Section 4 – Tech facilitated abuse vs Domestic Abuse

FOR INTERNAL USE ONLY :Understanding users, survivors and staff's different perceptions of tech facilitated abuse compared to domestic abuse (assumption: tech facilitated abuse is considered as a separate form of abuse that has a lesser impact and lesser on the victim and less consequences that physical abuse).

2. What do you know about technology-facilitated abuse?
    a. What does it mean? Can you give me some examples?

FOR INTERNAL USE ONLY: Understanding how men regard abuse carried out with tech in relation to their broader use of abuse (assumption: men regard their tech facilitated abuse as not as severe as separate from and not as severe as their non-tech facilitated forms of abuse or do not recognise fully how they use tech in their abuse).

3. Have you or anyone you personally know (inside/outside group) used tech facilitated abuse? *(also suggest: used technology to harm their partner)* How? What were you trying to achieve with this?
4. Do you think tech facilitated abuse and other forms of domestic abuse are different? Do they have the same impact? Do they have the same consequences? Why?

FOR INTERNAL USE ONLY: Understanding men's focus on increased heart rate and stress levels as connected to their abuse (assumption: men believe their abuse is mostly related to anger and do not consider coercive and controlling behaviours and other forms of abuse as significant).

5. If we designed something to tell you when you are getting stressed and your heart rate or blood pressure was increasing, would this help you to stop your abuse? Why/why not? In what ways? How would you know that?
6. Are there any other ways that you can think of how you've been abusive or someone else you know of has been abusive where doing this would not have had an impact? (prompt: can you discuss forms of abuse/abusive behaviours that are not related to "temper" or "anger"?)

FOR INTERNAL USE ONLY: Understanding how coercive control and other (non-physical) forms of domestic abuse could be addressed with a digital tool (assumption: a digital tool is most likely only going to address physical forms of domestic abuse and will have greater difficulty addressing more insidious forms of abuse).

7. Can you think of an example of coercive or controlling or non-physical abuse that you've heard about or are familiar with, do you think a digital tool could prevent someone repeating this behaviour? How would it stop it/what would it need to do?
8. Can you think about any triggers/signs before abuse that might not be physical? How might you identify these? Have you been able to identify them in the past?

Section 5 – Digitally enhancing the course

FOR INTERNAL USE ONLY: Understanding if and which tools from the course could be useful as digital versions (such as an app), and if this would encourage greater use of the tool and doing so will embed into new behaviours (assumption: a digital guided time out or other digital tools based on what is taught in the course would benefit and be used by users and lead to positive behavioural changes).

1. Thinking about the different tools and strategies that you've learnt on the course…which do you use the most? Why do you use these? What do you like about them? How frequently do you use them? When did you learn this on the programme?
    a. *(prompt: time out, taking 10, helicopter view)*
2. What changes do you think using this tool has made? What is the biggest impact you've seen by using this tool? What about the impact on others – have they noticed a difference?
3. Can you think of a tool or any tools you don't really use? Why do you think this is? Is this different to the other men on the group?

Section 6: Course motivations

FOR INTERNAL USE ONLY: Understanding the importance of children and being a parent is key to stopping users abusive behaviours (assumption: this is a key motivational factor to seeking support and to maintaining change).

4. For those of you who have children, how much do your children (either having access to them, or having a positive impact on them) motivate you to change? From a scale of 1 to 10, 10 being they are your main motivation. Can you expand on this? Are there other important motivational factors?

Part 2.

Section 7: Potential digital tools

From all of the ideas that emerged from our conversations with you and other groups across our research sites, we identified three that were popular and that had potential for what we can develop as part of this project. We want to look at this more in-depth with you and hear your thoughts and opinions on them. We have selected these ideas to give you a range of different choices as to what a technical tool could look like but we have had to reject some popular ones (eg. blood pressure monitor) as these ideas might not cover all instances of abuse and therefore not be able to help everyone.

Idea 1: Chat bot (Auto Chat)

The idea is loosely, to have an auto-chat function which you can access anytime to provide you additional support in moments where you need it and can't/don't want to get in touch with the course facilitators. It would function as an instant messaging service where responses would be delivered in real-time (instantaneously). This would not however be a live person, but an auto-bot. Similar settings where this is already used include online counselling and customer service provision.

Thinking about this idea:

1. What are your initial thoughts? What do you like about it / What do you dislike about it?
2. How likely would you be to use it? What would it need to make you more likely? What about it would make you less likely? How would it need to function for you to use it?
    a. Do you use anything like this at present? Why/why not?
3. Do you think everyone on the course would use it? Who would be more likely to use it and who wouldn't probably use it? Why?
4. Can you identify what risks there might be with using this? Who is most likely to suffer these risks?
5. What would you do to prevent these risks?

Idea 2: Tool Box - Guided Time Out

This idea is based on the tools that you learn in the course, such as the Time Out, and creating a digital version of the tool or tools, like a guided Time Out that you can refer to either whilst you are taking a time out, or in other moments to refresh what you've learnt about these tools and how to use them.

Thinking about this idea:

6. What are your initial thoughts? What do you like about it / What do you dislike about it?
7. How likely would you be to use it? What would it need to make you more likely? What about it would make you less likely? How would it need to function for you to use it?
    a. Do you use anything like this at present? Why/why not?
8. Do you think everyone on the course would use it? Who would be more likely to use it and who wouldn't probably use it? Why?
9. Can you identify what risks there might be with using this? Who is most likely to suffer these risks?
10. What would you do to prevent these risks?

Idea 3: Journey Display / Progress Monitor

This idea is based on helping demonstrate the progress being made on your journey towards being non-abusive towards others, a way to map out where you started from, what you've been learning and the changes being made and providing objectives and goals for moving forward.

Thinking about this idea:

11. What are your initial thoughts? What do you like about it / What do you dislike about it?
12. How likely would you be to use it? What would it need to make you more likely? What about it would make you less likely? How would it need to function for you to use it?
    a. Do you use anything like this at present? Why/why not?
13. Do you think everyone on the course would use it? Who would be more likely to use it and who wouldn't probably use it? Why?
14. Can you identify what risks there might be with using this? Who is most likely to suffer these risks?
15. What would you do to prevent these risks?

16. **Out of the three ideas we've discussed, which would you be most likely to use and why?**

17. **Can you think of any tool that you think we've missed and would be more likely to use?**

Technologies for Discussion

This could work (needs exploring)

AUTOMATED CHAT 'AUTO-BOT' (E)

- Explored in other services such as Women's Aid and Samaritans. It could mean that the organisation is 'keeping up with' organisations instead of leading the way. There is a love/hate relationship with these though.
    - Talking to an autonomous, conversational agent.

TOOL BOX

- Lots to explore on this one, consistently came from all the groups

EMOTION DECODER

- Original that no other technology seeks to identify what emotion you are feeling - just recording these emotions. Promotes taking the time to understand yourself.

IDENTIFYING TRIGGERS

- Can be useful to have something digital to identify triggers as and when they happen.

POSITIVE SELF-TALK

- Mentioned a few times, perhaps this is a way of incorporating a pseudo-live chat of some sort? Something to talk to to challenge your behaviours.

GUIDED TIME OUT

- Assists in ensuring TO is followed

JOURNEY DISPLAY

- Way in showing how others are progressing.

PROGRESS MONITOR

- Working towards behaviour change anyway so might be worth having some way of recording this to look back on?

Yikes, avoid

Journal for Post-Incident

- Encourages men to see abuse as 'incidents' rather than on-going behaviours.

Blood Pressure Monitor

- Makes assumption about physical symptoms and abuse that hasn't been established (higher blood pressure) so would reinforce bad learning

Digital Distraction

- Not possible to determine when someone needs to be distracted

Visual Representation of the Consequences

- Not possible to accurately represent what happens next

Nice but out of scope of (TvA)

REMOTE HOMEWORK (SB)

Why nice?

- Staff and users wanted something to work on toward the course

Why out of scope?

- We'd need to tailor this to each organisation or enforce a 'standardised' electronic homework for all organisations.
- We'd need to design a system for multiple users to submit/work on homework at different times. As soon as you have dif users and information this can make the system very complicated.

SUPPORT WORKER TEXTING SERVICE (SS)

Why nice?

- Unsure how this could work but motivational texts or services where they check in with each of the men's groups could be beneficial.

Why out of scope?

- Already pulls on existing technology so we wouldn't have to make anything, we'd just pay another service to do this.

SEARCH ENGINE OPTIMISATION ASSISTANCE

Why nice?

- Worthwhile research to do in the future for identifying information seeking. Suggested research question: *how do men find information online to help them make sense of their behaviours? (could do this via a survey)*

Why out of scope?

- This does overlap with SEA on this project so worth exploring in another project.

CONTENT MANAGEMENT SYSTEM (CMS)

Why nice?

- Many staff members mentioned how it could improve their job

Why out of scope?

- Very challenging to design well, designing for a system with multiple users with sensitive data is not possible in the time we have left.

COURSE PLATFORM

- Way of looking at material and working through it.

We could suggest DAPPs do this anyway

UPLOADING/DOWNLOADING COURSE MATERIAL

- Ensuring some materials are available online for the men to look at, particularly if they have left the group and need a top up might be something to look into. It's very very simple to set up.

QUIZ ON AM I ABUSIVE?

- If designed carefully, could provide that initial step to self-referrals that are initially unsure of their own behaviour.

HOW TO SOCIAL MEDIA

- Lots exists for victims but nothing for perpetrators on what constitutes good behaviour on social media, would need to be updated constantly

DIGITAL FEEDBACK FROM USERS

- Good to start to identify places within the programme where feedback might be beneficial

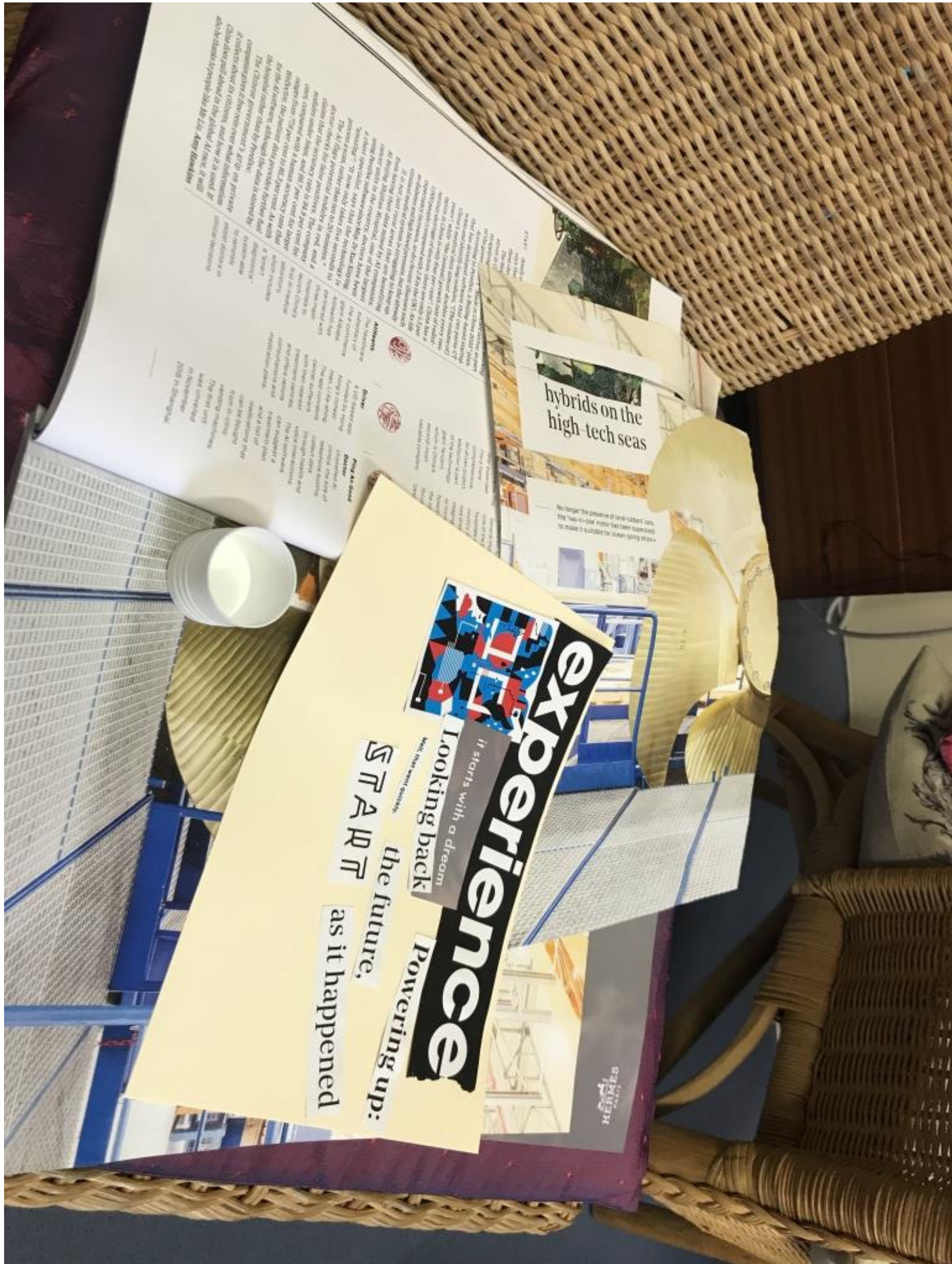
Already Exists

REMINDER TO BREATHE

COMMUNITY PEER SUPPORT NETWORK

REFERRAL FORM

Fragments of the Past, Additional Photos



Change
+
Growth!
ears of Possible