I am a knitter: hand-knitting in a digitally-mediated society

Ву

Michelle Patricia Hanks

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Abstract

Hand-knitting continues to be a popular past-time for many people. It underwent a resurgence in the latter part of the 1990s, which was around the same time as the development of the World Wide Web. Knitting went on to become more widespread around 2007, alongside the time social media and smartphones combined to ensure digital technology came to dominate interpersonal communications. By 2017, hand-knitting continued to be popular, but the media and public focus waned. Also, by this date, concerns began to increase about the psycho-social effects of high levels of social media, internet, and smartphone use.

This research seeks to address the position of hand-knitting in a society that has become increasingly mediated through digital communication technology. It establishes the concept of the *knitter self*, an identity that develops through practicing knitting, that encapsulates the effects of knitting on an individual and sits in contrast to identities developed online. Key to this contrast are two themes: firstly, the control the knitter has over their knitting; secondly, the importance of the objects they make in being useful and conferring this usefulness on the maker due to the embodiment of time and feelings through the making process.

The research method developed combines hand-knitting practice, contextual investigation, and personal testimony, creating a mixed methodology drawing on concepts from practice as research, oral history, modified grounded theory and autoethnography.

There are several contributions to knowledge emerging from this research. It establishes hand-knitting as an interpretative research tool that exploits the slow, embodied nature of knitting to examine the craft itself, within a broad methodological framework. Secondly, it positions hand-knitting as a way of developing skills to negotiate a digitally-mediated society and articulates the importance of sustaining knitting culture in contemporary society through the emerging concept of the *knitter self*.

Table of Contents

Abstract	1
Table of Figures	6
Acknowledgements	8
Chapter 1 Introduction	9
1.1 Background	9
1.2 Terminology	11
1.3 Research questions, aims and objectives.	12
1.4 The structure	13
Chapter 2 Contextual review	14
2.1 Overview of knitting literature	14
2.1.1 Identity and performance	16
2.1.2 Effects of hand-knitting	20
2.1.3 Methodology	22
2.1.4 Knitting in a digitally-mediated society	
2.2 Knitting in practice	24
2.3 Why digital?	26
2.4 Identity and performance	30
2.4.1 Identity construction and concepts of the self	30
2.4.2 What is a knitter identity?	40
2.4.3 The many images of knitting	52
2.4.4 Performance of identity and the self	63
2.5 Effects of being a knitter	76
2.5.1 Brain function	77
2.5.2 Health effects	79
2.5.3 Sociability and communication	82
2.5.4 Sharing	85
2.5.5 Mistakes	88
2.5.6 Focus	90
2.6 Chapter conclusion	99
Chapter 3 Methods and methodology	108
3.1 Methodology	108
3.1.1 Data	112

3.1.2	Subjectivity	113
3.1.3	Intersubjectivity and the position of the researcher	115
3.1.4	Marginal voices	116
3.1.5	Power dynamics	117
3.1.6	Performance	118
3.1.7	Self	119
3.1.8	Accessing culture	120
3.1.9	Interview questions	121
3.1.10	Processing the data	121
3.1.11	Practice in research	123
3.1.12	2 Developing knowledge	126
3.1.13	3 The position of writing	127
3.2 F	Research method	128
3.2.1	The contextual data analysis	129
3.2.2	Gathering data from knitters	130
3.2.3	Reflections	138
3.2.4	Final method	140
Chapter 4	Talking about knitting – the interviews	143
4.1 7	The knitters	143
4.2	dentity and performance	144
4.2.1	Identity construction and concepts of the self	144
4.2.2	The Knitter identity	150
4.2.3	The image of knitting	156
4.2.4	Performing the knitter self	159
4.3 E	Effects of being a knitter	173
4.3.1	Health benefits	
4.3.2	Sociability and communication	
4.3.3	Sharing	
4.3.4	Mistakes	
4.3.5	Focus	
4.4 (Chapter conclusion	185
	Knitting about knitting – a personal practice review	
5.1 I	ntroduction	196
5.1.1	Importance of materials	
5.1.2	•	
	Online vs. Offline sketchbooks	199

5.1.4 Testing the pieces	200
5.2 The pieces	201
5.2.1 In, Round, Through, Off	201
5.2.2 Hand me down	202
5.2.3 What remains	205
5.2.4 Self/performance	
5.2.5 Knitter vs. Twitter	218
5.2.6 The 2018 blanket	225
5.2.7 #knittingfoundinstroud	230
5.2.8 4898 Likes	235
5.2.9 How am I feeling?	239
5.2.10 It's Just Fun	243
5.3 Using social media networks	248
5.4 Conclusions	251
Chapter 6 Discussion and conclusions	254
6.1 Discussion	254
6.1.1 Hand-knitting's position in a digitally-mediated society	254
6.2 Conclusions	270
6.2.1 The methodology	271
6.2.2 Key findings	274
6.2.3 Opportunities for further research	276
6.3 Contributions to knowledge	277
Bibliography	280
Websites	288
Dates of interviews	289
Appendices	291
Appendix 1- Reflections on making	291
Self/performance jumper ('Am I Good Enough)	291
Knitter vs. Twitter.	297
The 2018 blanket.	302
Interlude - using Instagram	304
#knittingfoundinstroud	305
4898 Likes	309
Mittens ('How am I feeling' mittens)	311
Interlude - a trip to Shetland.	312

The 'Addiction' tube ('It's just fun')	315
And so? Initial conclusions	317
Postscript. Knitting in a time of a pandemic	317
Appendix 2 – Interview questions	320
Interview questions V4.0	320
Appendix 3 – Academic contributions	322

Table of Figures

Images are the author's own, unless otherwise stated

Figure 1 Interior of 'How am I Feeling?'	63
Figure 2 Methodologies and their influence on method.	129
Figure 3 The four methods of gathering and analysis of data	129
Figure 4 Hardcopy sketchbook page	134
Figure 5 Patterns for two pieces with notes	136
Figure 6 Chart of final process	142
Figure 7 Profiles of interviewees	144
Figure 8 Part of 'The Welfare State', M.Hanks, 2012, Wool (submitted for MA)	196
Figure 9 Comparing hardcopy (left) and digital sketchbooks (right)	200
Figure 10 In, Round, Through, Off	201
Figure 11 Process for 'Hand Me Down'	203
Figure 12 'Hand Me Down', 2017, Wool and Cotton	204
Figure 13 Stills from the video of the burning booties	206
Figure 14 Stills from video of bootees being unravelled	206
Figure 15 What remains from burning and unravelling	207
Figure 16 Image of 'What Remains' shared online	207
Figure 17 'What Remains', 2017, Wool, Glass	209
Figure 18 Processing the yarn for 'Self/performance'	213
Figure 19 'Self/performance' selfies	214
Figure 20 Close-up of Herdwick yarn	215
Figure 21 'Self/Performance', 2018, Wool - Merino side	216
Figure 22 - 'Self/Performance', 2018, Wool, Herdwick side	217
Figure 23 Sample of daily knitting with tags	218
Figure 24 Sam Meech, Binary Scarves ,yarn, date unknown. (Binary Scarves Sam Meech, no)
date) © Sam Meech, reproduced with permission	219
Figure 25 Blue Knitting (2001) Celia Pym supported by The Gardner Fellowship. © Celia Pym,	
reproduced with permission	220
Figure 26 Knitter vs. Twitter, close up	220
Figure 27 'Knitter vs. Twitter', 2018, Wool and Paper tags	224
Figure 28 The Twitter 'moments' on the left and my daily thoughts on the right	227
Figure 29 The daily stripes, reverse, showing the ends to be tidied up	227
Figure 30 '2018 Knitted', 2019, Wool	229
Figure 31 The six hand-knitted socks and three labels	230
Figure 32 The lost sheep, and the only remains	234
Figure 33 Making '4898 Likes'	236
Figure 34 '4898 Likes', 2019, Wool and Calico	238
Figure 35 Hand-drawn pattern for the mittens	240
Figure 36 'How Am I Feeling?', 2019, Wool	242
Figure 37 'It's Just Fun', 2019, Wool, Exterior	246

Figure 38 'It's Just Fun', 2019, Wool, Interior	247
Figure 39 Responses to online exhibition	250
Figure 40 My final day of knitting the headlines. First impressions	301

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Dedicated to Sarah Clay, a knitter.

Chapter 1 Introduction

Domestic hand-knitting has undergone a renaissance since the late 1990s. It has begun to be studied, often by practitioners in the craft such as lecturer Anna Fisk (2012), and craft researcher Anna Kouhia (2015), exploring phenomena they probably experienced first-hand including the wellbeing aspects of knitting (Fisk, 2012, p161-2) and enjoyment of process (Kouhia, 2015, p.271). Several angles have been taken, as will be discussed in the review of knitting literature, but the position of hand-knitting relative to the effects of technology is under-researched, usually only being mentioned in passing. Whilst much research is conducted by practitioners, they are not using practice as an interpretative tool. This research will establish the position of hand-knitting in a digitally-mediated society, in particular the psycho-social effects. This will be done using a mixed and original methodology utilising knitting as an interpretative tool and assessing the effectiveness of this approach.

1.1 Background

I am a knitter. I was taught as a child and the skill lay dormant until I was working in Information Technology. What started out as a creative outlet became increasingly important to me as a release from the working environment. During my time in IT I saw the rise of, and worked in, the World Wide Web and then saw it develop into social networking sites (\$N\$). Coupled with the increase in smartphones, the technology was becoming ubiquitous. With hindsight I had turned to knitting as an opportunity to create a real, tactile object, unlike the ephemeral programs and websites I was building, and I became aware of the potential this had to affect wellbeing. It seemed I was not alone. David Revere McFadden of the Museum of Arts & Design, New York noted in 2007:

"Our daily lives tend to be dominated by technology and the computer, and a sense of fragmentation or isolation is commonplace. Knitting has become an important way to reassert the tactile and social pleasures we all crave." (McFadden in Gschwandtner, 2007, p.4)

With my own background in information technology, and web development, I do not consider technology inherently negative. It has many benefits, putting information in the hands of all, and connecting people across the world.

However, issues are being identified that are challenging to establish beyond doubt as the technology changes so quickly that research potentially becomes outdated before it is complete, or requires such long term studies that the results may not yet be clear, as much of the technology is still very recent.

This study brings together the two areas of digitally-mediated communications, largely social media use, and knitting to consider how knitters might navigate this environment. As Sherry Turkle, a psychologist working at MIT (Home | Sherry Turkle, no date) states "We build our ideas about what is real and what is natural with the cultural materials available." (Turkle, 1997, p.237) and my materials are knitting and information technology. They may seem disparate, but knitting's resurgence began around the turn of the century, the same time as the world wide web spread. Since 2007, the knitting renaissance blossomed, and social media took off, coupled with smartphones becoming more common and putting the web and social media sites in users' pockets. Ten years later and the knitting world has taken stock of this spike in interest, the initial 'celebrity' knitting culture has subsided, and the sense of positivity has waned a little. It is no longer seen as a cure-all for the world's ills, and the media has moved on to other pastimes, leaving the knitters to their craft again. Similarly, the allure of connecting through social media, constantly available, has shown its downsides, with more features being added to devices to help users curb their usage. The similarity in these timelines may be co-incidence, and it is beyond the scope of this study to establish causation, but it does offer an opportunity to take stock of both environments, and to assess if an old craft such as knitting has something to offer users to negotiate this new technology.

This thesis aims to explore how knitting can help people to negotiate an increasingly digitally-mediated environment, and by using my practitioner identity to underpin the research, introduces the concept of the *knitter self* as a subject able to traverse both environments. The concept is grounded in cyberpsychologist Mary Aiken's concept of the "cyber self", a version of identity that is developed through, and displayed online (Aiken, 2016, Loc.2862). I have established a mixed methodology approach to carry out the research, drawing on oral history, grounded theory, practice as research and autoethnography to develop a method combining personal testimony interviews, contextual data from existing research and knitting itself as a

research and interpretative tool. The latter of these is important as a method of testing the concepts using the medium itself and engaging my own knitter self as the researcher. It exploits the time spent with the objects that ensure the maker is present in knitting and encourages slow thinking. The practice is used to interpret and synthesize both contextual information and primary interview data, and it is the process of making that is important for the research. This research is practice informed, not practice led, as the pieces produced are important, but are not the outcomes of the research, instead contributing to the methodology as a knitted tool for interpretation and consideration of concepts. I have used the aspect of the psycho-social effects of a digitally-mediated society as contextual information and this is detailed in the contextual review.

1.2 Terminology

Identity is currently a very contentious topic, and in this context I am discussing knitting in regard to developing a knitting identity, alongside any other identity one may claim. This is not about examining knitting from a perspective of any cultural group, as this itself is a large topic that others are better qualified to address. The *knitter self* can be adopted by anyone who knits, from any background, ethnicity, class, or gender. This is not an attempt to apply labels, which can be divisive, but of using a term to encompass a sense of self, and a set of skills on which to draw.

Performance is being used as a term to discuss the public display of individual identity and how this compares to the performative nature of online environments (Greenfield, 2015, Loc.2019; Turkle, 2015, Loc.1838; Miller et al., 2016, pp.109-110,204).

This research draws on some of the existing work being done on knitting and wellbeing, but this is not its main focus. In this work, I examine the benefits of knitting as a toolbox of skills the knitter develops over their knitting career, offering a way to negotiate the digitally-mediated society in which we now increasingly live. This is not in a therapeutic sense, but as a way of developing skills for resilience, I make no claims for knitting as a therapeutic aid and have not attempted to assess it as such. Nor is the research investigating knitters using

technology for knitting purposes, but how knitters may be better equipped to use technology more broadly.

1.3 Research questions, aims and objectives.

Research questions:

What is hand-knitting's position in a digitally-mediated society, is it influenced by or an alternative to the psycho-social effects of digital technology?

Can hand-knitting as an interpretative tool be used as a method of reflexive research?

The research aims to address these questions by establishing the concept of the *knitter self* and how this is formed, curated and performed and to what effect. It will determine how knitting can be used as an interpretative tool in reflexive research.

The objectives of the research are:

- To connect to existing research around the impact of technology use and compare these to the impact of hand-knitting.
- To explore the concept of the *knitter self*, compared to the establishment and presentation of an online self.
- To explore the effects hand-knitting may have on individuals and if they
 can counteract the reported impacts of digital connectivity.
- To establish if knitting practice can be used as an interpretation tool for research data and to develop concepts/theories.

The research will be conducted by:

- Carrying out personal testimony interviews with knitters.
- Gathering and assessing research on psychological and social effects of digitally-mediated society.
- Drawing these together through the utilisation of knitting practice as an interpretation tool to answer the research questions.
- Establish a process for examining the research questions through knitting.

1.4 The structure

The structure of this thesis starts with a contextual review of existing research, including a review of the existing knitting literature, an overview of knitting practice, the areas of technological impact under discussion and the main areas of interest. Influenced by the grounded theory methodology, where literature can be used as a data source, this chapter goes beyond a literature review to detail the information gathered from existing research. I then use this information to identify concepts that I test by primary research. The Methods and methodology chapter discusses the methodologies drawn upon, and why they have been chosen, before establishing the research method I have developed to test the concepts identified in the contextual review chapter. The chapter Talking about knitting details the discussion of the textual analysis of the personal testimony interviews undertaken. These were with eight knitters, and they have been given pseudonyms to preserve anonymity. These are Fran, Emily, Megan, Fiona, Amanda, Julia, Susan and Peggy. In Knitting about knitting, the detail of the use of my knitting practice to synthesise, test and examine all the data produced, both from the personal testimony interviews and the contextual review is examined. The pieces of work I have produced are discussed in detail, with any elements of existing practice referenced alongside each piece. In the Discussion and conclusions chapter I bring together all the data gathered thus far, and outline the theory that has emerged, including the concept of the knitter self and the development and success of the methodology. It details the conclusions that are drawn from this, the response to the research questions, and explains the contributions to knowledge I have made through this research.

Chapter 2 Contextual review

This chapter lays out the contextual background to the research. This starts with an overview of the existing literature in which the thesis is grounded, including relevant existing knitting practice. An overview of the literature around the areas of digital culture that the thesis draws upon is provided, together with the purpose of including digital culture as a lens to approach the study. Following this is an in-depth exploration of the background information, starting with identities and how they are formed and influenced, including common views of what a knitter identity is, before discussing how identities may be performed, both online and as a knitter. The final section outlines the discussion of the effects of using digital communications and of knitting and being a knitter. This process links the digital and knitting areas and provides the areas of exploration for the research. It is important to provide a detailed linking of the two areas as this is not a usual approach to research into knitting. The primary research within this study focuses on knitting and the contextual review discusses the effects of digital culture and connectivity bringing together the two worlds and explaining their shared significance.

A note on terminology.

As Daniel Miller notes (Miller et al., 2016, p.9) the term 'social media' is a colloquial term that covers many applications. I use this term as well as Social Networking Sites (SNS) which is a slightly older term, when referencing sites used for sociable reasons, such as Facebook, Instagram, and Twitter. I use the term 'web' to refer to the broader use of websites, and 'internet' as shorthand for any form of connected communication¹. In quotations, I have used the author's terminology.

2.1 Overview of knitting literature

Whilst there are a vast number of pattern books, many with sections on history or culture, writing on hand-knitting itself is less common. This section will give a brief overview, before outlining the areas of particular interest to this study.

¹ Note, technically the term 'Internet' refers to the physical network of servers and cabling, while the 'web' or the World Wide Web is the hyperlinked information space. Many people now use these terms interchangeably.

Sections 2.4 and 2.5 draw on this literature and discuss it in depth, drawing in the research into digitally-mediated culture.

At the end of the 1980s the first comprehensive histories of knitting were written by American Anne Macdonald (1988), and Richard Rutt (1989) who mainly focused on the UK. Following the late 1990s knitting revival, Sandy Black looked at its re-emergence and use in fashion in Knitwear in Fashion (Black, 2002). By 2004, academic articles picked up on the resurgence, with Wendy Parkins noticing its appearance in the popular press (Parkins, 2004) and examined what this meant for the craft, and for the celebrities. She suggested that the celebrities wanted the association with the domesticity and ordinariness of knitting, however, by its celebrity adoption, knitting became less ordinary (Parkins, 2004, p.428). Jo Turney included knitting in her study of craft and taste and what its display in a domestic setting says about the maker (Turney, 2004). Linda Newington puts the major resurgence as occurring post 2000, noting that it was "... located in the media with the notable coverage and success of Castoff: the Internet Knitting Club for Boys and Girls, led by Rachael Mathews." (Newington, 2014, p.10). Rachael Matthews is a key figure in the UK resurgence, who knitted in public places around London and organised a knitted wedding, with knitting artist Freddie Robins, in 2005 (Gschwandtner, 2007, p.115). It wasn't until 2007 that Stella Minahan and Julie Cox (2007) wrote the first article directly focusing on the emerging revival, its public nature and positing thoughts on the cause; in the same year Prigoda and McKenzie (2007) used a knitting group as part of a behavioural study. There was a turning point in 2008 with the first In The Loop academic conference focused specifically on knitting. The papers were published in In the Loop: Knitting Now (Hemmings, 2010), and Newington wrote about how this conference provided a ground to disrupt the stereotypes around knitting (Newington, 2014). Since 2008 academic interest in knitting has increased. It has been examined from feminist angles by Beth Pentney looking at feminist political activism (Pentney, 2008), with Kate Daley looking at this from a philosophical angle (Daley, 2012), Elizabeth Groeneveld examining knitting in third-wave feminist publications (Groeneveld, 2010) and Anna Fisk and Rosemary Kingston focusing on links to spirituality (Fisk, 2012; Kingston, 2012). Rosner and Ryokai presented three papers on their 'Spyn' system for digitally recording the process of knitting in 2008, 2009 and 2010 which tried to make the

making process explicit. Turney drew on her broader craft research publishing The Culture of Knitting in 2009, a critical assessment of knitting culture, from a material culture and psychoanalysis perspective and she has looked at knitted objects as symbols of love (Turney, 2012). The history was updated with Black publishing Knitting: fashion, industry, craft (Black, 2012) an extensive overview of the history of the craft, hand-knitting and industry, fashion and culture, drawing on the V&A knitting collection. Corey Fields studied the phenomena of new knitting groups (Fields, 2014).

The wellbeing aspect of knitting has been studied by Betsan Corkhill, Jill Riley and the Stitchlinks project at Cardiff University and published as Knit for Health & Wellbeing (2014), as well as a paper from Gail Kenning (2015). More recently Rachael Matthews looked at mindfulness with The Mindfulness in Knitting (2017).

The image of knitting and identity has been addressed from different angles. Its use in media has been examined in films by Johnathan Faiers (2014); in crime drama (Turney, 2014) and as a disrupter in films (Maddock in Corkhill et al., 2014). Others have focused on knitting's image, with Emmanuelle Dirix (2014) looking at vintage and nostalgia, while Alla Myzelev (2009) looked at the changing image of the knitter and Anna Kouhia (2015) examined this in the light of documenting her making. Keren Ben-Horin, Gail DeMeyere and Jane Merril's 2017 book *The Sweater, A History* focuses on the history and image of this single garment. Amy Twigger Holroyd's recent book *Folk Fashion* (2017) looked at identity as part of a reclamation of fashion. Alison Mayne's 2018 doctoral thesis looks at the use crafters make of Facebook groups in terms of wellbeing. In 2019 Esther Rutter's *This Golden Fleece* (2019) added to the history of hand-knitting with a personal account of a knitter's exploration of British knitting history around the country, through recreating iconic patterns.

With the increase in academic interest in knitting, articles began to address broader issues beyond merely the fact of a knitting revival. Pertinent to this research, identity and the image of knitting appear in several articles, along with the idea of knitting and wellbeing.

2.1.1 Identity and performance

Myzelev opens her article "As I am finishing my son's sweater [...]" (Myzelev, 2009, p.150), while Fisk (2012), Kingston (2012) and Daley (2013) all use the

phrase 'I am a knitter' in their articles. All three authors use their own practice as a starting point for their interest in researching the theoretical aspects of the craft, and often state the importance of their being a practitioner to their understanding. Like these authors, I use the lens of a practitioner on the questions raised, but unlike them I use knitting itself as a facilitator and tool for research.

This research proposes the concept of a *knitter self*, or identity, that knitters gain through practice of the craft. In her work on craft, Turney (2004) raised the concept of the display of handmade work in the home as showing that the person is a maker, while Minahan and Cox pick up on the idea that craft can "...be viewed as a site for reinforcing personal identity and meaning." (Minahan and Cox, 2007, p.14). Kenning (2015) found something similar in her work on crafters, stating that "...self-identification as a maker frequently extended to their clothing and their home." (Kenning, 2015, p.59). Along with Holroyd (2017) these all propose the identification of 'maker' with display of the made objects, while this research focuses on the maker identity as part of the knitting process and its performance. It builds on Daley's idea that we want to be seen by others as makers and she suggests that this is done through the gaze, when we are seen in the act of knitting (Daley, 2013), which also brings in the idea of the performance of knitting.

Parkins notes that knitting "... is something one is seen doing." (Parkins, 2004, p.430) and while public knitting is seen as part of the revival, this research examines if this is part of the increasing desire of people to carry out their lives in public through social media which has not been addressed so far. Both Daley and Kouhia discuss public knitting, with Daley finding she is aware of being looked at but does "...not object to being watched while I knit." (Daley, 2013), while Kouhia, prefers to knit at home as it is her "...private time..." but this is not through any sense of awkwardness (Kouhia, 2015, p.274). She is using knitting to embrace a domestic space but in a modern way, and conscious of the gendered and politicised notions therein. This suggests an interesting counter to the view that the new revival is dominated by knitting in public, and I will explore this in the light of online performance.

Kouhia (2015) discusses what kind of image she is associated with as a knitter herself and finds challenges within the images of knitters (Kouhia, 2015, p.272) and her own status as a hobbyist and researcher (Kouhia, 2015, p.273). She also sees benefits from knitting beyond a profession, stating that for her "...crafting is knowing and learning..." (Kouhia, 2015, p.275). I concur with these thoughts, and feel they are particularly relevant in the changing modern working environment of flexible jobs and increasing automation, as we need to create an identity for ourselves that is not tied to a traditional job title or role. This research explores how knitting may do this.

The image of knitting as nostalgic is noted by several authors, but whether this is positive or negative varies. Myzelev (2009) notes the subversion of nostalgia as part of the revival (Myzelev, 2009, p.155), while Fisk notes that this connection with the past seems particularly relevant to the new wave of younger knitters (Fisk, 2012, p.171). Minahan and Cox (2007) believe that knitting movements such as Stitch'nBitch have a knowing and ironic view of the past (Minahan and Cox, 2007, p.6), and Myzelev and Kouhia suggest looking to past crafts as a way of finding comfort in the present (Myzelev, 2009, p.152; Kouhia, 2015, p.269). However Emmanuelle Dirix (2014) sees some areas of the resurgence of knitting as part of a broader trend towards vintage style, politically conservative, and part of a movement aspiring to the England of the 1940s and 50s (Dirix, 2014, p.95). She also implies a class and wealth angle, finding the nostalgia somewhat insulting to the original need for 'make do and mend' (Dirix, 2014, pp.94,95). I suggest craft may only gain value when it ceases to be a necessity, as indicated by the value I have found placed on objects now, as compared to my own family past, where knitting was believed useful and to have quality, but not kept as an heirloom as it was so commonplace. The knitters I interviewed also seemed to value handmade items as different to shop-bought ones, as will be discussed in section 4.2.2.1.

The 'Granny knitter' image is part of this nostalgia and a key image of knitters noted by Turney (2004) and Strawn (2012), but there is considerable evidence that despite its frequency, this image is changing to one much more contemporary, (Parkins, 2004, pp.428,431; Groeneveld, 2010, pp.260-1; Fields, 2014, p.155; Kouhia, 2015, p.272; Stannard and Sanders, 2015, p.99). Dirix picks up on how knitting was increasingly being incorrectly reported as 'new' and

fashionable by the late 2000's even though it had never actually gone away (Dirix, 2014, p.92) but with her focus on how it has been adopted by the vintage and craft movement she questions how long it will last (Dirix, 2014, p.93). Of course, if it has 'never gone away' as she states earlier, then it will probably stay after the fashionable bubble bursts and there are many other reasons why it might be a longer term trend, including the benefits noted in this thesis.

Knitting's position in regards to feminism has been examined by several authors. Parkins sees the change from knitting as domestic labour to leisure as part of its change of image (Parkins, 2004, p.434). Beth Pentney (2008) took a feminist viewpoint on how a craft traditionally seen as feminine could be used for political activism as part of third wave feminism. She felt this could be a broadening of the usual feminism sphere and reclaim the craft from its rejection by second wave feminists. Kate Daley (2012) looked at how knitting can be used as a political and feminist tool from a philosophical angle and Elizabeth Groeneveld examined knitting in third-wave feminist publications, including Bust² magazine, and how this can be problematic (Groeneveld, 2010). Groeneveld also raises the issue that for many women lacking cultural and material capital, the choice to pursue knitting as a leisure activity that seems so important in the dialogue, may not be open to them (Groeneveld, 2010, pp.267,270).

Several authors identify knitting as part of the rise of DIY culture from the late 1990s onwards including Pentney (2008), Myzelev (2009), Groeneveld (2010), Fisk (2012) and Kouhia (2015). Kouhia sees DIY as a "...rebellious [...] ethos that strives to reject the domesticated feminine stereotypes commonly associated with traditional handcrafts" (Kouhia, 2015, p.269), whereas what she calls 'nanna' culture is nostalgic, but builds "...on the re-imagination of such insights." (Kouhia, 2015, p.269). The difference in these terms comes to the centre of some of the debates about knitting's image, from nostalgic to activist and I think the idea that it can be both is very appropriate. She seems to suggest that DIY is more political, whereas 'nanna' culture is less so, and more about choosing a different lifestyle.

² Bust magazine was started in 1993 and is still in print. Published in Brooklyn, New York (About BUST, no date)

Several authors, including Prigoda and McKenzie, Rosner and Ryokai, Groeneveld and Kenning noted the way contemporary knitting gave a sense of continuity with past knitters, (Prigoda and McKenzie, 2007, p.105; Rosner and Ryokai, 2008, p.7; Groeneveld, 2010, p.273; Kenning, 2015, p.58). Maddock explains how she has produced work with her mother exploring their relationship (Maddock in Corkhill et al. 2014, p.44). I see this heritage as part of the knitter identity.

Rosner and Ryokai (2010) noted that their *Spyn* program improved "...people's sense of being part of the object's making." (Rosner and Ryokai, 2010) and that the symbolism was made explicit through the documenting of the making process. They extended this to conclude that giving an object is giving "...his or her extended self." (Rosner and Ryokai, 2010). I explore this in this research, where I build on the idea of hand-knitting as part of the self to examine the role this has in relationships, in contrast to that of digital content, and what this offers to the maker.

The presence of the maker is embedded in a hand-knitted gift and as these are very common in knitting culture, they are discussed by several authors in the light of testimony they received. Rosner and Ryokai examined the gift relationship directly and felt their *Spyn* program allows knitters to add extra memories to their gifts (Rosner and Ryokai, 2008, p.8), exposing the emotions contained in them and enhancing "...the creator recipient relationship." (Rosner and Ryokai, 2010). Turney discusses the emotional impact of giving and receiving a hand-knitted gift (Turney, 2012, pp.308-310). Stannard and Sanders noted the thought that went into making a gift, and the significance this gave it (Stannard and Sanders, 2015, p.104), and the result of negative responses (Stannard and Sanders, 2015, p.107).

2.1.2 Effects of hand-knitting

In this research I discuss a toolbox of skills hand-knitters may develop to help contend with a digitally-mediated society. This builds on existing research into knitting and wellbeing and the health benefits of knitting are raised by authors as early as Parkins in 2004, who discusses its potential meditative qualities (Parkins, 2004, pp.435-6). Minahan and Cox (2007), Prigoda and McKenzie (2007) and Rosner and Ryokai, (2008) pick up on the broader psychological

benefits of knitting. The process of knitting itself is proposed as important in creating the mental wellbeing by Maddock (Maddock in Corkhill et al., 2014, p.47) and Stannard and Sanders who also discuss the differing benefits of process and product knitting (Stannard and Sanders, 2015, pp.108-9). Other writers have proposed knitting's benefits in dealing with specific health issues, either drawing on personal experience such as Fisk and Kingston, or on large scale studies such as the *Stitchlinks* project (Fisk, 2012, p.161; Kingston, 2012, pp.18-19; Corkhill et al., 2014).

Minahan and Cox highlight knitting groups as a form of sociability, specifically against the potential alienation of modern society (Minahan and Cox, 2007, p.18) and Corkhill sees benefits in belonging to a group as a way to counter social isolation (Corkhill et al., 2014, p.43), discussing the aspects of the craft that enable the less confident to socialise (Corkhill et al., 2014, pp.41,42). Corkhill also found benefits in the social mix in the groups, as evidenced by Prigoda and McKenzie and Stannard and Sanders (Prigoda and McKenzie, 2007, p.102; Stannard and Sanders, 2015, p.108; Corkhill et al., 2014, p.42).

The idea of thinking about the recipient of a hand-knitted gift is noted by Prigoda and McKenzie (2007, p.106) and Myzelev (2009, p.155) and this suggestion of empathy is further expanded in this research.

Parkins 2004 article notes the role knitting can have in countering the speed of contemporary society, while not specifically mentioning online communications and quotes Jenny Shaw's work on Mass Observation studies that this concern over the pace of life was of more concern to women. (Parkins, 2004, p.433). This may be why women are turning to knitting, but also as knitting is seen as traditionally female, it may be that women have this craft in their 'toolbox' of skills to counteract this concern. Myzelev also notes the benefits of slow craft as empowering (Myzelev, 2009, p.153), and Daley suggests these benefits extend to those around the knitter (Daley, 2013). Stannard and Sanders note that the ability of many knitters to carry out their craft while doing something else is seen as a benefit because of the lack of time people have, although this is at odds with the claims of knitting as a way of slowing down (Stannard and Sanders, 2015, pp.101,105). This research uses practice to address this idea of the attention required by knitting in contrast to digital culture.

Both Corkhill and Stannard and Sanders found that the benefits of knitting extended to skills that could be transferred to other elements of life (Corkhill et al., 2014, p.40; Stannard and Sanders, 2015, pp.108-109) and this is important as I propose knitting as a way to mitigate the effects of digital communications.

For further contextual information I spoke to Tom Van Deijnen, Celia Pym and Rachael Matthews, all key professional practitioners who use knitted textiles and have considered what this may mean, specifically in the areas being considered in this research. These are discussed further in section 3.2.2.6. While this thesis focuses on the idea that the knitting practitioner possesses a skillset or psychological mindset that may be beneficial in navigating a digital world, it is not advocating knitting as therapy. However, it draws on findings from such studies to reinforce findings of the psychological toolbox the knitter may develop.

2.1.3 Methodology

This research contributes to existing work by developing an understanding of knitting as an interpretative tool with the practice of knitting as a method to enable deeper understandings of the value of the knitted object in our digitally-mediated society. The methodology I develop in this thesis draws on Heidegger's ideas around material thinking, developed by Bolt (2010). Political scientist and knitter Kate Daley (2013) explores Heidegger's concept that it is only through art that the narratives of ordinary objects are made clear and suggests that knitted objects would be seen as functional and so would not be seen as art. She feels that he is mistaken in assuming that the object itself cannot reveal truths, and she proposes that by questioning the person associated with objects, narratives would be revealed just as much as an artwork would. I propose that the materiality of hand-knitted objects and the process of making them is revealing in itself, as will be developed through using hand-knitting as an interpretative tool.

2.1.4 Knitting in a digitally-mediated society

The research aligns the current 'knitting revival' as a phenomenon alongside our increased use of social media and online communities and the effects this may be having. While some authors, notably Humphreys (2008) and Rosner and

Ryokai (2008, 2009, 2010) look at the use of technology, and others mention the contrast to modern society, few directly focus on the changes in our digital lifestyles as an influence on the knitting revival. Minahan and Cox put the emergence of knitting groups as reaction to modern life (Minahan and Cox, 2007, p.5), while several other writers see knitting as offering a contrast to working environments, conditions and pressure of modern society (Gschwandtner in Bryan-Wilson, 2008, p.82; Corkhill et al., 2014, p.43; Hemmings in Corkhill et al., 2014, p.49; Fields, 2014, p.157; Stannard and Sanders, 2015, p.103). Others, such as Groeneveld and Fields, feel knitting provides a balance to screen-based environments both physically and mentally (Groeneveld, 2010, p.263; Fields, 2014, p.157). These concepts have been noted as part of broader studies, and in this thesis I hope to build on these initial ideas and examine the idea of knitting providing resilience to the effects of digital communication. Kate Orton-Johnson has studied the use of technology by knitters, examining how its use has changed the perception of knitting, making it more visible (Orton-Johnson, 2014). She highlights the comments that others have made about the turn to crafts in a technological age (Orton-Johnson, 2014, pp.307-308) and concludes that technology has become integrated into knitting as a leisure activity (Orton-Johnson, 2014, p.319), with knitter's documentation of their making like micro-blogging (Orton-Johnson, 2014, p.317). Mayne (2018) looks at how knitting and crocheting alone, then sharing online can aid wellbeing. Her research was conducted through a Facebook group and focused on issues around crafting and clinical wellbeing, finding many positive impacts but also some evidence of negative wellbeing effects.

The link between knitting and coding or binary is widely acknowledged (Minahan and Cox, 2007, p.10; Mazza in Bryan-Wilson, 2008, p.81; Turney, 2009, p.151). Daniela Rosner noted the duality of the meaning of 'digital', referring to fingers and binary and how she developed the knitting tracking software *Spyn* alongside exploring knitting (Rosner in Wilkinson-Weber and DeNicola, 2016, p.191). Links with code may be becoming less obvious with increased use of WYSIWYG³ tools for programming and developing. Many people would not recognise binary and most coding languages are human readable. Liz Collins

³ WYSIWYG – What you see is what you get, or graphical user interfaces for coding and web design.

makes a link between website building and textile crafts (Collins in Bryan-Wilson, 2008, p.81) and academic and writer on creativity, David Gauntlett sees online making as a craft (Gauntlett, 2011, p.80). Miller et al. refer to the idea of crafting an online post and draw similarities to traditional hand work (Miller et al., 2016, p.88), as does Mayne who suggests potential for wellbeing impacts from both (Mayne, 2018, p.166). However, the outcomes differ in terms of longevity and purpose, a sentiment expressed by knitter/blogger Joe Wilcox, who prefers the ability in knitting "...to actually create fabric from thread." (quoted in Myzelev, 2009, p.155).

The openness of the world wide web is likened to craft by Mazza (Bryan-Wilson, 2008, p.81), but may be changing with the large tech monopolies. Jaron Lanier points out the difference between early handcrafted webpages and Facebook templates as an example of the change in creativity online (Gauntlett, 2011, p.195). Diminishing technical ability is limiting online participation (boyd, 2014, p.183) and teenagers can navigate the spaces, but not create them, or understand what is taking place in the background (boyd, 2014, p.197). Creating webpages from scratch takes knowledge of coding but allows for extensive creativity, while application driven templates allow for easy creation, but limits creativity. Similarities could be drawn with knitter's choice of following patterns or creating their own.

In this thesis I will address the gap in the existing knitting literature by directly contrasting the effects of hand-knitting and using digitally-mediated communications to establish both the concept of a knitting identity and a toolbox of skills for resilience to any negative impacts. This will build on the ideas outlined here, as will be discussed in more detail in the rest of this chapter, alongside research into digitally-mediated communications.

2.2 Knitting in practice

Knitting is used as a means of expression by many practitioners, but its status regarding 'art' versus 'craft' is still, unfortunately, debated. Turney sees Freddie Robins' *Craft Kills* (2002) as exploring the idea that "Craft kills art." (Turney, 2009, p.112) with skill and materials important to understand the work. Although the medium is downplayed by some artists, Turney sees it as fundamental (Turney,

2009, p.218). Matthews believes when expressing ideas, knitters are artists, and it is the practicality of much knitting that labels it 'craft' (Matthews, 2017, p.116). Holroyd highlights the low status craft has traditionally had relative to 'art' suggesting it is due to "...the patriarchal nature of our culture." (Holroyd, 2017, pp.37-8).

Some practitioners use the garment form as a means of expression (Black, 2002, p.132). Heather Belcher (2000) uses the emptiness of an unworn knitted garment to explore "...memory, place, identity..." (Black, 2002, p.138). Janet Morton distorted scale with Memorial (1992), a giant work-sock exploring time and labour (Turney, 2009, pp.89-90). Dave Cole exploits scale and materials in oversize objects such as teddy bears (2003), investigating comfort and domesticity (Turney, 2009, p.83) and Maria Porges used children's toys as inspiration for "...Bomboozle (2003), a collection of knitted bombs..." (Turney, 2009, p.116) exploring issues of safety through the uncanny. Celia Pym repairs existing damaged garments as "...a way to briefly make contact with strangers" (Pym quoted in Black, 2012, p.145). Lindsey Obermeyer has made modified sweaters to explore familial relationships in the collection Woman's Work 1997-2008 (Art, no date). Ellen Lesperance makes pieces based on clothing worn at the Greenham Common camp, utilising painted images of knitted garments, and recreating the garments themselves (Brooklyn Museum, no date; Lesperance, no date). Felicity Ford created 'KnitSonik' a system for using sound as a driver for knitting patterns to connect people to their environment (Rutter, 2019, p.299).

Others have moved away from garments entirely. Arno Verhoven has attempted to "...transfer the emotional and symbolic content of the knitted garment into other objects..." (quoted in Turney, 2009, p.84) exploring inherent meaning within knitted objects. Lauren Porter's full size knitted red Ferrari (2006) critiques the masculine, luxury symbolism within the original (Turney, 2009, p.86). Kimberley Elderton knitted consumer goods she desired (2006), testing the effort one would put in to get these goods (Turney, 2009, pp.197-8). I will discuss work that has direct links with my practice in chapter five.

2.3 Why digital?

Technology is becoming ubiquitous with social networking sites (SNS), and smartphones making it easier to be always connected (Miller et al., 2016, p.18; Twenge, 2018, Loc.808), despite their recent emergence - Facebook launched in 2004 (Harkaway, 2013, p.22). This is changing how we see each other and ourselves, and this thesis attempts to establish if knitting can help us deal with these changes. 43% of the global population have access to the internet (Aiken, 2016, Loc.132), and by 2015 it was found that "...an average adult with a mobile phone connected to the Internet checked his or her phone more than two hundred times a day." (Aiken, 2016, Loc.872). Jean Twenge defines her term iGen as the post 1995 generation who have always known the internet (Twenge, 2018, Loc.60), with the "...i in iGen represents the individualism its members take for granted..." (Twenge, 2018, Loc.72). Their social life is now often conducted online (Twenge, 2018, Loc.792).

The speed of technological developments makes research challenging. Professor Sherry Turkle has studied human-computer relationships from as early as 1997 when she highlighted the effect computers may have (Turkle, 1997, p.26). Kraut et al. studied the effects of early web access and found decreases in communication, and increases in depression and loneliness (Kraut et al., 1998, p.1017), and these findings have subsequently been debated. Since around 2010, when writer Nicholas Carr published The Shallows: How the Internet is Changing the Way We Think, Read and Remember (2010), which explored the potential neurological effects of the Internet, several books have examined the psycho-social effects of technology, including Turkle (2012, 2015) on the effects on interpersonal relationships, Dr. Aleks Krotoski (2013), an academic at the LSE and Oxford Internet institute and journalist (Krotoski, 2013, p.217) on the effect of reliance on technology, writer Nick Harkaway (2013) on living in a digital society, Dr. danah boyd (2014), an academic and researcher at Microsoft Research (danah boyd, no date) on the social effects of networks on teenagers, neuroscientist Susan Greenfield (2015) who suggests a technology driven 'mind change', similar in scale to climate change and Mary Aiken (2016) a cyberpsychologist looking at human behaviour. Dr. Daniel Miller's Why We Post project in 2016 was a global anthropological examination of social media use, suggesting that it is an extension of the offline world. In

2017, Shakya and Christakis completed a three-year study on Facebook and wellbeing, which found an overall negative impact. In 2018, psychologist Jean Twenge used historical surveys of American teenagers (Twenge, 2018, Loc.4440) to establish psychological changes after the arrival of smartphones and social media. Jaron Lanier, an early developer of virtual reality, has written several books concerning the effects of technology, and his 2018 book *Ten Arguments for Deleting Your Social Media Account Right Now* explains the problematic business model beneath most social media companies.

Carr is concerned with the increase in screen-based reading (Carr, 2010, Loc.1401) and the effect of technology on offline activity, suggesting that "Even the experiences we have in the real world are coming to be mediated by networked computers." (Carr, 2010, Loc.1549) and online behaviour becomes normal offline, what Aiken calls "cyber-migration" (Aiken, 2016, Loc.289). Turkle tracks the effect of moving to communicating through technology, reducing face-to-face conversation and increasing communication through images and videos (Turkle, 2015, Loc.2183,2186). boyd proposes the internet acting as a mirror for the issues of society (boyd, 2014, p.24), and that many of the fears about teenager's internet use are exaggerated (boyd, 2014, p.22), a view emphasised by Miller et al. (2016). There are concerns around social media use and levels of empathy (Greenfield, 2015, Loc.4085). As far back as 1996, the term 'hyperpersonal' was coined for online communications where individuals "...seek commonality and harmony..." (Aiken, 2016, Loc.3498) but avoid negatives, or clues we would pick up in the real world. How we construct our identity can be excessively influenced by "an audience" and expectation of positivity (Greenfield, 2015, Loc.4085). Our attention and cognition could be affected by use of the web, search engines and communication technology (Greenfield, 2015, Loc.4085; Turkle, 2015, Loc. 1965). Harkaway, referring to Greenfield's earlier reports, points out that she acknowledges that her work is theory based and more research is needed (Harkaway, 2013, p.81). Shakya and Christakis concluded poorer mental wellbeing with Facebook communication compared to offline communications (Shakya and Christakis, 2017, p.210), confirmed by Twenge's survey analysis which noticed changes beginning in 2011-12, related to the

wide availability of smartphones enabling constant internet connectivity (Twenge, 2018, Loc.101,1130-1135,1153).

In 1997 Turkle suggested that the complexity of the issues impacted by emerging online technology, such as community and identity, means it cannot simply be seen in binary terms of good or bad (Turkle, 1997, p.232), or even, as was discussed at the time, in terms of "...utopian, utilitarian, and apocalyptic." (Turkle, 1997, p.231) and many commentators agree (Greenfield, 2015, Loc.438). boyd suggests such binary thinking is caused by "technological determinism." (boyd, 2014, p.15). Harkaway thinks controlling the input we receive is better than switching off (Harkaway, 2013, p.53), while Krotoski suggests negativity may be because we feel powerless to affect the direction (Krotoski, 2013, p.192). Both Carr and boyd point to similar reactions to previous technologies, even the book, (Carr, 2010, Loc.82; boyd, 2014, p.15). Harkaway sees the computer as the successor to the television and telephone that we bring into our private spaces and thereby extend these spaces outward (Harkaway, 2013, p.50) and Miller et al. point out how odd it would be to talk of a "...telephone conversation as taking place in a separate world from 'real life'." (Miller et al., 2016, p.7). Harkaway and boyd suggest technology is blamed for perceived problems because it is so visible (Harkaway, 2013, p.60; boyd, 2014, p.16), when it is highlighting existing problems (Harkaway, 2013, pp.61-62; boyd, 2014, p.212). Miller et al. agree that there is a perceived duality in views of technology, but that communication has always been mediated (Miller et al., 2016, p.8). Their study found over half its respondents did not feel social media impacted their happiness, possibly because it can be a force for positive or negative connectivity (Miller et al., 2016, p.204). Lanier proposes that it is not the technology per se that may cause problems, but the SNS business model where funding comes from those willing to pay to modify user's behaviour (Lanier, 2018, p.26) and that the system "...amplifies negative emotions more than positive ones, so it's more efficient at harming society than at improving it..." (Lanier, 2018, p.26).

The term 'digital native' is contentious, hiding a range of technological skills, privilege, and opportunities for teenagers (boyd, 2014, p.179) who Greenfield feels are less concerned with the potential problems (Greenfield, 2015, Loc.4085), as they may already be affected (Greenfield, 2015, Loc.4134) while

'digital immigrants' have a perspective on what is important not to lose. (Aiken, 2016, Loc.5100). boyd is keen to highlight digital inequality (boyd, 2014, p.196), and a deficiency in media literacy for both online and offline content (boyd, 2014, pp.181,182). Attitudes to social media can contain a class element, with people more socio-economically challenged viewing it as having more potential, while those more privileged regarding it as more problematic (Miller et al., 2016, p.63), and that widening access to technology appeared not to affect societal inequality (Miller et al., 2016, pp.208-209).

Carr feels that any medium changes how we behave (Carr, 2010, Loc.91), especially if extensively used (Carr, 2010, Loc.92). Harkaway sees the effect technology has on us as benign, misunderstood (Harkaway, 2013, p.262) and "...not the problem, it's the response." (Harkaway, 2013, p.177), to societal issues (Harkaway, 2013, p.244). He does acknowledge problematic designs of digital connection technology but advocates individual pro-activeness and control over our digital environment (Harkaway, 2013, pp.243,244), even if some may not be able to (Harkaway, 2013, p.262). boyd and Miller et al. feel that the online environment reflects the offline environment (boyd, 2014, pp.121; Miller et al., 2016, p.7), possibly reinforcing problems (boyd, 2014, pp.156,159) or making visible the mediation that had always occurred in communications (Miller et al., 2016, p.xiii) and found its use varying according to local culture (Miller et al., 2016, pp.13,16).

Overall commentators fall into two schools on the effects of digital communication technology. Harkaway, boyd, Krotoski and Miller suggest it is an extension of offline society, merely highlighting existing features. The user needs to take control. Others, including Turkle, Greenfield, Aiken, Carr and Lanier feel that technology has design features that will change us (as all technology does) but also that there are elements in the design that may be problematic. While much online action will reflect offline behaviour, I feel there is persuasive evidence to consider the effect the technology has in controlling how this behaviour is received or encouraged, as the latter authors do. This research aims to establish what knitting offers in contrast to these effects for the knitter.

2.4 Identity and performance

Identifying as a 'knitter' and what this means is important to many practitioners. Aiken proposes the concept of the "cyber self" (Aiken, 2016, Loc.2862), could there be a *knitter self*, and if so, how is this created, relative to the creation of our online selves? This section begins by looking at how identity can be constructed, and concepts of the self. It then explores how knitters may construct a knitting identity, considering how society views knitters. Finally, it discusses how this identity may be performed.

2.4.1 Identity construction and concepts of the self

There are many influences on identity construction and concepts of the self. Erving Goffman's 1950s work on presenting the self, based in theatrical concepts (Goffman, [1959]1990, p.244) is centred on an Anglo-American society and the idea of the self as separate to society is largely western and relatively recent (Sheth and Solomon, 2014, p.124). There is now an increasing acknowledgement of the influence of society and culture (Sheth and Solomon, 2014, p.124).

Feedback from society is important in identity construction, coupled with prior experiences. Goffman outlines how an impression of a person is formed both by what they say and their actions, and the latter is used by an audience to validate the former (Goffman, [1959]1990, pp.14,18,26,40). It is society that determines the interpretation (Goffman, [1959]1990, p.44), therefore it is important to know the audience. Alfred Gell proposes that a person consists of events, memories and objects associated with them, both pre- and postmortem (Gell, 1998, pp.222-223). Miller feels that society and culture has a major influence on the self, rather than personal choice (Miller, 2009, pp.288,293). Russell Belk's 1988 concept of the "extended self" suggested that external objects such as possessions are important in defining ourselves within a community (Sheth and Solomon, 2014, p.123), becoming part of an extended self (Sheth and Solomon, 2014, p.123). Both Belk (2014) and Sheth and Solomon (2014) have discussed how an online presence relates to this concept, where the online output of an individual is part of their extended self (Sheth and Solomon, 2014, p.127). Belk suggests the interactions with others online add "... 'digital patina' and help to co-construct our identity." (Belk, 2014, p.134) and

the "...fellow participants form part of our extended self." (Belk, 2014, p.134). The digital properties are not "...mine or yours, they become ours." (Belk, 2014, p.134). I suggest the extended self could therefore relate to hand-knitted objects and data about us, with both representing us in the world.

In neuroscience, identity is active and "...depends on some kind of societal context. Mind is how you see the world, whereas identity is how the world sees you." (Greenfield, 2015, Loc.1351) and now this will also be influenced by the norms of our online community (boyd, 2014, p.201). The concept of shared circuits proposes that when we witness another person carrying out an action, or experiencing an emotion, our own brain circuits are triggered in the areas we would use if we were doing the action or experiencing the emotion (Keysers, 2011, p.174). This can be reinforced or diminished by responses (Keysers, 2011, p.205). It relies on both parties sharing a similar set of cultural norms (Keysers, 2011, p.174), so we are not in isolation, our 'self' contains elements of others (Keysers, 2011, p.221). Harkaway acknowledges the changeable nature of the brain, and its role in creating our identities, believing we need to maintain awareness of, and control over, influences (Harkaway, 2013, p.212). Matthew Crawford is a philosopher and motorcycle mechanic (Crawford, 2010) who feels the emphasis on neuroscience explaining our personality has led to the social norms being adjusted through medication, neglecting personal circumstances (Crawford, 2015, p.167).

Donald Winnicott believes it is important for people "...to relate to objects as oneself, and to have a self into which to retreat for relaxation." (Winnicott, [1982]2007, p.158) and if one has different 'selves' to present in different circumstances, this could be very challenging. Transitional phenomena sit in the place between the inner, individual reality, and the outer shared reality (Winnicott, [1982]2007, p.86) and transitional objects assist in the realization of difference between these worlds, and in the development of a self and a sense of identity (Winnicott, [1982]2007, p.107). Mihaly Csikszentmihalyi discusses how 'flow' experiences help to balance external and internal influences in a complex self (Csikszentmihalyi, [1992]2002, p.41).

Turney draws on sociologist Paul Willis on how we develop an idealised self through the making and display of crafts (Turney, 2009, p.171). Miller proposes

that clothing is an important element in identity, and "...that objects make us, as part of the very same process by which we make them." (Miller, 2010, p.60). This echoes Turkle's view that our technology emerges from the society in place at the time, and that there is a cyclical influence, "We become the objects we look upon but they become what we make of them." (Turkle, 1997, p.46). Miller suggests that users from different cultural backgrounds also change social media due to different styles of use as much as social media changes its users (Miller, 2016, p.182) and draws out similarities with clothing and food in their local and culturally influenced nature (Miller et al., 2016, p.211). Sheth and Solomon noted how the social media one generates is an identity marker in a similar way to clothing moving from "... 'you are what you wear' to 'you are what you post.'" (Sheth and Solomon, 2014, p.126). Choosing to knit and give knitted objects creates our identity as 'a knitter'. Holroyd sees the importance of creativity in constructing identity (Holroyd, 2017, p.153) and she proposes the concept of the fashion 'commons', where the areas we access defines our identity (Holroyd, 2017, p.59-60). She suggests making allows us greater freedom to access other areas, and therefore more identities to choose from (Holroyd, 2017, p.68). Holroyd suggests making gives people an identity as a 'maker' which is shown in wearing the object, and that, along with Orton-Johnson and Mayne, this includes online sharing (Orton-Johnson, 2014, p.312; Holroyd, 2017, p.90; Mayne, 2018, p.173). Orton-Johnson sees online sites as places to become 'a knitter' through learning and sharing online (Orton-Johnson, 2014, p.312) and Mayne concurs, noting the role of documenting knitted output and adding the importance of feedback (Mayne, 2018, pp.173,205).

Psychologist Carl Rogers explains that the self is not a fixed thing, but a process that changes and can be inconsistent (Rogers, [1967]2011, pp.171,176), open to authentic, honest reactions to experiences, and that this is what 'becoming one's self' means (Rogers, [1967]2011, p.203). He proposes that therapy would allow the perceived self to "...become more congruent with the ideal, or valued, self." (Rogers, [1967] 2011, p.233) and that a more attainable concept of the ideal was the most common way to achieve this (Rogers, [1967] 2011, p.236), allowing experience to be part of the self, aligning it with the potential self (Rogers, [1967]2011, pp.76-88). Turkle asked if the amount of time spent online means that the 'real self' is not necessarily offline (Turkle, 1997, pp.240-

241) and Rogers' true self concept was adapted by Bargh and McKenna (2002) who developed "...the concept of the 'true self on the Internet' to refer to an individual's tendency to express the 'real' aspects of the self through anonymous Internet communication rather than face-to-face communication." (cited in Greenfield, 2015, Loc.1793). Individuals felt freer to express their 'true self' on the, then mostly anonymous, web (Krotoski, 2013, p.14), as "...no one knows who they 'really' are." (Turney 2009, p.148). Virtual environments could be experimental places (Turkle, 1997, p.258), and the web a place for play and creativity (Harkaway, 2013, p.113) for identity, similar to Erikson's idea of the "psychological moratorium" where things can be tried with minimal consequences (Turkle, 1997, pp.203,204). This echoes Rogers idea of forming the self through experiences, but online. This could be for escapism (boyd, 2014, p.37; Turkle, 1997, p.190) or privacy (boyd, 2014, p.75).

However, changes to anonymity have limited the scope for experimentation (Krotoski, 2013, p.20). In 'nonymous' online environments a new identity emerges, the "hoped-for possible selves" (Yurchisin et al., 2005 quoted in Zhao, Grasmuck and Martin, 2008, p.1819) and this is now found on SNS (Greenfield, 2015, Loc.1836). They differ from an ideal self in that people believe "...they can be established given the right conditions." (Zhao, Grasmuck and Martin, 2008, p.1819), and that they aspire to be this '...highly socially desirable..." person offline given the right circumstances (Zhao, Grasmuck and Martin, 2008, p.1830). Miller et al. found respondents whose offline lives were restricted, and therefore their online lives and selves were regarded as closer to their "real self" (Miller et al., 2016, p.111) going against Rogers' idea of an attainable ideal self. Aiken calls this online, highly curated, separate entity "the cyber self" (Aiken, 2016, Loc.2862). Holroyd suggests our wardrobes contain "our potential selves" (Holroyd, 2017, p.162) but cites Susan Kaiser who suggests "There is no 'essence' or 'true self' waiting to be discovered under the disguise of an appearance." (Holroyd, 2017, p.53).

This opens up the idea that there can be multiple selves. One early concept of a multiple sense of self is James (1890) who proposed a triumvirate of the

⁴ This is a term being used for the opposite of 'anonymous' by some technology researchers, notably in Zhao, Grasmuck and Martin, 2008.

"material me", defined in objects such as possessions and things one has made; the "social me", a multiplicity formed by social relations and differing according to situation; and a "spiritual me" concerned with our mental perception of ourselves (Jones, 2015, pp.102-103). Within this one can see many more recent ideas of the self. Belk's extended self has echoes in the material me, while the idea of multiple identities in differing social situations aligns with the social me. Cooley developed these ideas around the social self and the spiritual self, proposing that societal influences through communication is judged according to what we value or feel is important (Jones, 2015, pp.103,104). Self-concept can change with public exposure if it differs greatly from public perception (Jones, 2015, p.104). Goffman quotes Robert Ezra Park, who states that people wear a mask of the self they want to be, which in the performing, we eventually become (Park, 1950, quoted in Goffman, [1959]1990, p.30). Goffman explains how different characters are enacted for different audiences (Goffman, [1959]1990, p.123).

Turkle notes how users in virtual environments "...cycle through different characters..." in online games (Turkle, 1997, p.174). She believes that the internet has followed philosophers such as Lacan in "...decentring the ego..." or core self, encouraging a multiple view of identity (Turkle, 1997, p.178), but the limited audiences kept this relatively controlled (Turkle, 1997, p.179). Sheth and Solomon note research where experiences in virtual environments "...influence their self-concepts and behaviors after they return to the real world." (Sheth and Solomon, 2014, p.126). They believe younger digital users see no difference between the online and offline space and identity (Sheth and Solomon, 2014, p.126), and several authors see the online environment as merely an extension of offline worlds. boyd notes this (boyd, 2014, p.38), and how social norms are not too different to those found offline (boyd, 2014, p.39). Teenagers often portray themselves differently on different sites (boyd, 2014, p.38), but suggests that this is not a moving between identities, but "...switching social contexts and acting accordingly." (boyd, 2014, p.41). Miller et al also suggest that the societal norms online often reflect the offline world, so if a society is conservative offline, this is also found in that society's online environment (Miller et al., 2016, pp.116,119-126). The visibility of online output encourages conformity (Miller et al., 2016, p.186), and SNS allows conformity to a group or

sub-culture, which in its turn may be differentiated from broader society (Miller et al., 2016, p.192).

Identity on SNS is seen through the groups one lists (Zhao, Grasmuck and Martin, 2008, p.1825) and the friends one is seen with, "...as if the user is saying, 'Watch me and know me by my friends.'" (Zhao, Grasmuck and Martin, 2008, p.1825) and is thought to be more passive and efficient than composing something personal, and about display not description (Zhao, Grasmuck and Martin, 2008, p.1825). Miller et al. also found people used 'likes' and comments to demonstrate group belonging and therefore identity (Miller et al., 2016, p.187). Crawford's view is that becoming skilled in a field changes how the self acts in the world, we develop an understanding of the world, rather than projecting it (Crawford, 2015, p.25). He suggests that through using our hands to make, we become more accepting of the "...contingencies of the world beyond one's head." (Crawford, 2015, p.69), which contrasts with technology that hides these contingencies from us (Crawford, 2015, p.69). Knitters often wear their creations, claiming the identity in a subtle fashion. This is a way that the knitter self is always carried and is not subject to changes, and maybe more stable.

The multiplicity of selves has raised concerns about the stability of a fluid concept of identity. One suggestion is that one develops a central "moral outlook" which allows one to be "...multiple but integrated...[having]...a sense of self without being one self." (Turkle, 1997, p.258) with echoes of Rogers' sense of internal values (Rogers, [1967]2011, p.175). Turkle suggests communication between selves is important along with an acceptance of our different selves leading to acceptance of difference and inclusion. (Turkle, 1997, pp.261-262).

Goffman says it is important to choose the right audience so we are performing the 'correct' part of our selves (Goffman, [1959]1990, p.137). He explains that the audience must only have the right information for them and that "...a team must keep its secrets and have its secrets kept." (Goffman, [1959]1990, p.141). Performers often have negative facts about themselves that could undermine their performance if accidentally revealed, causing embarrassment (Goffman, [1959]1990, p.204). boyd outlines how online, users may present themselves to an imaginary audience, unaware of a potential broader, unknown audience (boyd, 2014, pp.31,32) making it more challenging to know how to operate and

what social norms to observe (boyd, 2014, pp.32,33). boyd discusses how the online self is constructed as a collaborative act (boyd, 2014, p.49) and identity conflicts arise when friends share images of someone that don't fit into the image they are trying to create (boyd, 2014, pp.50,51), a result of what boyd calls "context collapses" (boyd, 2014, p.50). Some try to manage these through trying to keep context separate, but this has been seen by some, including Mark Zuckerberg⁵ as displaying "...a lack of integrity." (Zuckerberg quoted in boyd, 2014, p.50). Miller sees another strategy in the selection of which form of social media to use as a way of controlling the audience for their message (Miller, 2016, pp.25-26,143), but refers to the Facebook space as "open-plan" and being a cause of context collapse (Miller *et al.*, 2016, p.175). Lanier believes that the audience on most platforms is undetermined because context "...is applied to what you say after you say it, for someone else's purposes and profit." (Lanier, 2018, p.64).

Rogers acknowledges the influence of culture but feels that an individual will be more satisfied with their self if experiences construct the self, assessed against personal values, not the views of others, as societal control can be limiting (Rogers, [1967] 2011, pp.103,105,109,111,188-9,213). Others are more specific about the audience for our actions, with Crawford suggesting our actions should be ones we believe in, and are comfortable being judged on (Crawford, 2015, pp.152,153) and the feedback should not be from "...'representatives' of something general, an abstract Public." (Crawford, 2015) p.250). He draws on Hegel's view that we know ourselves through deeds and the feedback we receive on these (Crawford, 2015, p.152), suggesting that "Only a fellow journeyman is entitled to say, 'Nicely done.'" (Crawford, 2015, p.159). He expresses concern that our self could be misrepresented through actions performed as part of playing a role (Crawford, 2015, p.152), with individualism something earned with experience and community (Crawford, 2015, p.184). Harkaway feels that the feedback received through social media is part of a new society connecting like-minded people (Harkaway, 2013, pp.161-169), but Lanier explains how social media is populated with "fake people", so users must operate in a similar way. Thus, the idea of social

⁵ Founder and CEO of Facebook (Mark Zuckerberg, no date)

influence now includes organisations utilising pretend users (Lanier, 2018, p.36). These computer-generated people can operate at a larger scale, and faster than a human, leading Lanier to call these 'fake people' "...a cultural denial-of-service attack.6" (Lanier, 2018, p.55). The user may be conforming to societal norms of a pretend society (Lanier, 2018, pp.55,58).

This shows one way that the technology itself can become a critical voice, another is the application algorithms affecting the self we project. Facebook uses algorithms to decide what is most prominent in a user's feed (boyd, 2014, p.146; Lanier, 2018, p.31) and users may change behaviour to fit what they are told by the program (Carr, 2010, Loc.3436; Turkle, 2015, Loc.1432). The algorithms change regularly to ensure the content engages the user and creates profitable data (Lanier, 2018, p.13) and the user's brain changes according to what it sees (Lanier, 2018, p.15). Lanier is keen to explain, like Rogers, that behaviour modification is not inherently bad, but it is being done "...in the service of unseen manipulators and uncaring algorithms." (Lanier, 2018, p.23). Although operating in the arena of behavioural science, Rogers did not agree with proscribing choices and controlling rewards to create perfect individuals (Rogers, [1967]2011, p.391), believing that it should encourage individual creativity and expression (Rogers, [1967]2011, p.399) and championing "...responsible personal choice..." (Rogers, [1967]2011, p.400). The personalisation can create what is known as a "Filter Bubble", where you see results that confirm existing beliefs (Harkaway, 2013, pp.142-143), leading to confirmation bias and segregation (Harkaway, 2013, pp.143,145) unless the user actively engages with opposing views, requiring an awareness of what is happening beneath the surface (Harkaway, 2013, p.145). The personalisation that algorithms create means that users don't see what others do and are unaware of what they are being offered and any common views or reactions (Lanier, 2018, pp.73,74). Algorithms are also used to categorise people by their actions and interests, which Crawford sees as an extension of offline social science practices (Crawford, 2015, pp.199-200). Offline consequences can follow from these judgements (Lanier, 2018, p.87). For Lanier it is not the idea of

⁶ A 'Denial-of-service' attack is a type of cyber attack designed to overload a system or website in order to compromise access or function (Denial of Service (DoS) guidance, no date).

algorithms that is problematic, any more than the devices themselves, but the business model that decides how they operate and who benefits (Lanier, 2018, p.37).

How others judge our identity is important. Goffman explains how the self is the product of all the people involved in the performance (audience, team members) and whether it is believed by the parties involved (Goffman, [1959]1990, pp.244-246). Rogers feels that underlying the "...controlled surface behavior..." is a basically positive self (Rogers, [1967]2011, pp.90,91,101). For Rogers, developing a sense of one's own internal values (Rogers, [1967]2011, p.175) and a strong knowledge of self allows the individual to weigh up all influences, including societal and experiential, against these values (Rogers, [1967]2011, p.118). This improves trust in one's own judgement and self (Rogers, [1967]2011, p.175), and increased acceptance of others (Rogers, [1967]2011, p.181). He favours a more internal judgement rather than external approval of choices (Rogers, [1967]2011, p.119). Richard Sennett, who has written on making as part of social culture, notes how Facebook's origins encourage users to judge people by the number of 'friends' they have (Sennett, 2013, p.146), while Harkaway admits forming a judgement of Twitter users on their 'follows/followed by' (Harkaway, 2013, p.132).

There can be a search for the perfect image, for instance in 'selfie' images, (Twenge, 2018, Loc.1468), which is an edited (Sheth and Solomon, 2014, p.124), crafted expression for an audience (Miller et al., 2016, p.158), showing group association (Miller et al., 2016, p.186). The idealised image reflects the societal norms of the subject, varying from place to place (Miller et al., 2016, p.158). For some, the pressure to create an appropriate self-image online becomes a burden and could highlight inequality (Miller et al., 2016, p.133) and Twenge suggests that while teenagers regard 'authenticity' as important (Twenge, 2018, Loc.3940) they heavily curate 'selfies' to get the most 'likes' (Twenge, 2018, Loc.4068). Julie Jones (2015) has drawn a comparison between images of the self shared online and Cooley's 'mirror self' where a person reacts to their own image according to what they think others will say (Jones, 2015, p.102). She found differences in self-perception in one fifth of her sample of YouTube users posting on the site (Jones, 2015, pp.102,111-113). Feedback from others caused them to re-evaluate their self-image as it differed from the external views

(Jones, 2015, p.114). Half the participants reported changes to "...their inner sense of self." (Jones, 2015, p.119). Some changed their presentation styles, or became more aware of their audience (Jones, 2015, p.119). She concludes that posting the videos was "...a looking glass lens that magnifies different aspects of self whether that 'self' is the actual, human self or the digital, mediated self." (Jones, 2015, p.122). Miller et al. explain that online is a new frame for Goffman's performance of the self to take place in, adding to those already available offline (Miller et al., 2016, pp.109-110), and that the focus on outward appearance is not new (Miller et al., 2016, p.135). However, Twenge believes that the iGen'ers are more individualistic, rejecting many social norms (Twenge, 2018, Loc.72), as part of a broader cultural shift associated with the delay of adult behaviours (Twenge, 2018, Loc.645). For Lanier the "constant judgement" of social media undermines the potential to develop a self, and self-esteem (Lanier, 2018, p.88).

Making may be a way to insulate ourselves against excessive exterior pressure. Sennett praises craftsmanship as giving a sense of pride in the work objectively judged to be good, but qualifies this with an acknowledgement of the pressures we can place on ourselves (Sennett, 2009, p.9). Crawford and Corkhill found that making gives us a basis in a community and, more importantly, self-belief (Crawford, 2010, p.15; Corkhill, 2014, p.53). Corkhill suggests this lets you "...learn to 'know who YOU are' despite external pressures." (Corkhill, 2014, p.53). This counteracts the socially influenced elements of the "hoped-for possible self" (Zhao, Grasmuck and Martin, 2008, p.1819), and provides a barrier to being unable to maintain one's own narrative if you're "...constantly catering for and to the demands of the outside world..." (Greenfield, 2015, Loc.3950). Jones found that YouTube users' self-esteem positively changed due to the creativity of the medium (Jones, 2015, pp.111-113) and many also became more aware of having an external impact due to having a following, potentially giving them a place in society (Jones, 2015, pp.120-121).

The maker's skill is seen as an identifier (Stannard and Sanders, 2015, pp.101,109; Mayne 2018, p.135), being able to do something others could not (Mayne, 2018, p.167). For Crawford making real objects vindicates a person's self-worth, as they can point to the object itself (Crawford, 2010, p.15) and justify it to an informed and knowledgeable audience (Crawford, 2015, p.159). The pressures

of identity creation are transferred to an object. While it is felt that social making and creativity can improve self-esteem (Mayne, 2018, p.184-185), Mayne also noted that if makers lost interest or motivation in their craft, this had a negative impact (Mayne, 2018, p.152). I feel the difference is the transference to the object, which is more concrete, whereas online it is the self that is being judged.

From this discussion, we can see that whilst our identities are created by social interactions, with SNS they are mediated by the technology. This research seeks out the extent to which we develop a *knitter self*, developed with our interactions with others and formed by the action of making, not just wearing the clothes. This is seen in knitting in public, in giving hand-knitted gifts and the effects knitting has that give us control over our wellbeing, and our identity, which we carry even when we don't have our knitting needles in hand. Society has developed imagery of 'a knitter', commonly either the subversive knitter or the "enthusiastic nanna" (Kouhia, 2015, p.272), and the *knitter self* must acknowledge these. The *knitter self* is developed by the knitter in direct contact with society, whereas our online selves are curated by us, but with input from technology beyond our control.

2.4.2 What is a knitter identity?

Many authors of knitting articles choose to state upfront their practitioner status, either using the phrase "I am a knitter" (Fisk, 2012; Kingston, 2012; Daley, 2013), or making it clear that they are knitters (Minahan and Cox, 2007; Prigoda and McKenzie, 2007; Myzelev, 2009; Kouhia, 2015). They cite its importance in their research (Minahan and Cox, 2007), or in gaining the trust of knitters with whom they are researching (Prigoda and McKenzie, 2007). Except for Turney, most knitting authors are practitioners. Matthews (2020) describes knitting as her "mother tongue" that she learnt at an early age, before coming to understand areas like critical theory. Other practitioners who combine knitting with other skills use broader terms, such as "textile practitioner" (Van Deijnen, 2020) or "handworker" (Pym, 2020), the latter emphasising the hand making of textiles. This could be an example of "identity announcement" which is then confirmed by others, the "identity placement" (Zhao, Grasmuck and Martin, 2008, p.1817).

I am using the lens of a practitioner on the questions raised, while also using knitting itself as a tool for research.

Rogers proposes that creativity should be done primarily for the maker's own satisfaction and its value is "...established not by the praise or criticism of others, but by himself. Have I created something satisfying to me?" (Rogers, [1967]2011, p.354). This focus facilitates accepting the judgement of peers with selfconfidence (Rogers, [1967]2011, p.356), but suggests that being judged or measured by external standards causes a defensive reaction (Rogers, [1967]2011, p.357). Winnicott felt that within the development of the self, "'I am' must precede 'I do', otherwise 'I do' has no meaning for the individual." (Winnicott, [1982]2007, p.176). Does this suggest that the statement 'I am a knitter' should come before the action? I suggest it is often only long term, experienced knitters who are so bold with their knitter identity. Betsy Greer suggests that knitters show their personality through what they choose to knit, finding an "...authentic sense of self." (Greer, 2008, p.25). In making her own clothes, she does not conform to another's idea of acceptability and has a connection to the object, leading to a broader sense of responsible consumption (Greer, 2008, p.30). Sennett outlines how Marx felt that the self develops through making, establishing a presence (Sennett, 2009, p.29).

This identity as a knitter establishes belonging within a group. Goffman talks of team members as "in the know" about a performance (Goffman, [1959]1990, p.88) and quotes Simone de Beauvoir talking about how women see the company of other women as "...behind the scenes..." (de Beauvoir, 1953, quoted in Goffman, [1959]1990, p.115). Knitters are potentially in such a relationship with fellow knitters. The individual performs on behalf of their team, reinforcing the audiences view of the whole (Goffman, [1959]1990, p.235), so a knitter is performing on behalf of 'knitters'. The group has some shared culture, what Crawford calls "...shared frames of meaning." (Crawford, 2015, p.160) and one's peers can offer recognition as an individual within a group "...with whom one is locked into some web of norms - some cultural jig - that is binding, yet also rich enough to admit of individual interpretation." (Crawford, 2015, p.160). Rogers believes reactions should be empathetic, allowing "...the individual to maintain his own locus of evaluation..." and understanding the other persons viewpoint encouraging their real self to emerge (Rogers, [1967]2011, p.358).

Christian Keysers explains how familiarity with a gesture or action makes us feel more comfortable when we encounter them again. Witnessing or doing an action activates our brain circuits and they are ready to respond when this action is seen in others (Keysers, 2011, pp.54-55,177-178). Therefore, I would suggest being around knitters or learning to knit when young will make the action familiar if encountered again in later life and give an easier connection to a knitter. Rutter explains how knitting is "...more than 'just a hobby' for many, and becomes part of who they are..." (Rutter, 2019, p.289). Knitted items become a mark of identity and belonging, both generally such as football scarves, or as knitters, exemplified by the matching hats worn by many visitors to Shetland Wool Week (Rutter, 2019, p.285).

Sennett suggests that shared skills link us to our ancestors (Sennett, 2009, p.22). Knitting often evokes memories, commonly of mothers knitting (Macdonald, 1988, pp.87-8) or of learning to knit (Kenning, 2015, p.60) and Groeneveld found that "...some younger knitters are using knitting as a way to make connections with, and learn more about, their family histories." (Groeneveld, 2010, p.273) and continue a tradition (Prigoda and McKenzie, 2007, p.105; Rosner and Ryokai, 2008, p.7; Groeneveld, 2010, p.273; Kenning, 2015, p.58). Turney notes how knitted objects "...predominantly those produced between mother and child, are symbols of age, the acquisition of knowledge and development, and are often sources of embarrassment to the naive maker in later years." (Turney, 2009, p.12) although Christine Arnold found the offspring of ex-pat Fair Islanders found identity in the garments (Arnold, 2010, p.96). Maddock made her Bloodline artwork with her mother, exploring some of these themes of connection and tension (Maddock in Corkhill et al., 2014, p.44). Matthews found connections with deceased knitting relatives (Holroyd, 2017, p.75) and Mayne's respondents found this even if they had never made together (Mayne, 2018, p.116). Rutter sees knitting as a female connection line (Rutter, 2019, p.29).

2.4.2.1 The knitted object as a carrier of identity

Knitted objects can embody a narrative or symbolism. Winnicott sees his transitional objects as the visual symbol of an inner journey as the child develops (Winnicott, [1982]2007, p.8) and the transition point when the child understands the mother as a separate being (Winnicott, 1982[2007], p.130). Marcel Mauss saw the idea of a person being carried in a gift, endowed with

"...one's nature and substance" and "spiritual essence" (Mauss, [1954]2011, p.10). Rogers believes that creative outputs should express something of the maker, "...my feeling or my thought, my pain or my ecstasy?" (Rogers, [1967]2011, p.354) but Winnicott is unusual in proposing that the 'self' is not found in the products of creativity, and to search for it implies a lack or failure (Winnicott, [1982]2007, p.73). Baudrillard suggests that "In creating or manufacturing objects man makes himself" (Baudrillard [1996]2005, p.27), while Macdonald comments that knitters "...instil our own personality into the yarn." (Macdonald, 1988, p.217).

In Gell's theoretical framework an art object could be anything, including people (Gell, 1998, p.7). Objects do not symbolise a person, they are a person in anthropological terms, part of "distributed personhood" (Gell, 1998, p.231) and have agency "...in the social process..." (Gell, 1998, p.6). A social agent "...is one who 'causes events to happen' in their vicinity." deliberately, and may be people or objects (Gell, 1998, p.16) and the index is the outcome of the act of social agency (Gell, 1998, p.15). Objects act as "...'secondary' agents..." exerting agency through relationships with people (Gell, 1998, pp.17-20). Objects may become the embodiment of the will of the person using them (Gell, 1998, p.21). All "...manufactured objects are indexes of their makers" and the maker causes them to exist (Gell, 1998, p.23), therefore art objects are the indexes of the artist, and take on their personhood, becoming "...a congealed residue of performance and agency in object-form, through which access to other persons can be attained, and via which their agency can be communicated." (Gell, 1998, p.68). From this we can see how the knitted object has the agency of the knitter in its environment.

Turney sees a craft object as "...a receptacle, a carrier, a transmitter of feeling, emotion, sentiment, challenge and relationships." (Turney, 2004, p.279). Miller follows Gell, (Miller, 2009, p.158) saying objects do more than 'represent' a person but, "...mediate and transfer substance and emotion between people." (Miller, 2009, p.37) and collections of objects can be a way of surrounding oneself with those relationships (Miller, 2009, p.63). Sennett discusses becoming "...the thing on which we are working." (Sennett, 2009, p.174), exposing the character of the maker (Sennett, 2009, p.69) with their mark as a symbol of their presence in the world (Sennett, 2009, p.130). Harkaway notes that for

technology such as the iPhone being unusual or unique is seen as negative and "...handwork is just an awkward approximation of computer-assisted cutting..." (Harkaway, 2013, p.174). He notes that what differentiates each person's machine is how they are used (Harkaway, 2013, p.174) and this idea is developed in Miller et al.'s 2021 work around smartphones which notes that users 'craft' them through personalising the content in line with their own use and societal norms (Miller et al., 2021, pp.5,23).

From childhood onwards, people anthropomorphise objects, and this can create a two-way relationship with the material (Sennett, 2009, pp.135,272). Keysers notes how robot actions can trigger the same mirror neurons as other humans, meaning we share circuits even with robots (Keysers, 2011, p.56) and possibly explaining why we anthropomorphise technology (Keysers, 2011, p.124). Turkle suggests this makes them "culturally powerful" (Turkle, 1997, p.49), even accepting computer therapy, where people trust and confide in a machine (Turkle, 1997, p.101). Proponents of artificial intelligence, including Sergey Brin⁷, propose that a machine could be better than a human brain at many tasks (Carr, 2010, Loc.2724), which assumes that thought processes are a straightforward decision-oriented system (Carr, 2010, Loc.2735) and the trend for explaining thought processes through neuroscience leads to the potential for it to be machine replicable (Crawford, 2015, p.277). Turkle sees a consequence of this with technology where "...we seem determined to give human qualities to objects and content to treat each other as things." (Turkle, 2012, p.xiv). Lanier believes that the way many social media platforms operate is to reduce users to a unit in a greater whole, rejecting "...any exceptional nature to personhood..." (Lanier, 2018, p.138). Our technology feels like a person, but we must 'talk' to it "...in a way that makes us kind of like machines." (Lanier, 2018, p.138).

Gauntlett talks of the "...presence of the maker..." (Gauntlett, 2011, pp.76,221) in objects, including hand coding (Gauntlett, 2011, p.81) and cites Ruskin that things should "...bear the marks of the effort of making on them..." (Gauntlett, 2011, p.85). Studies of knitters have found similar responses confirming this idea including comments like "My spirit was part of the project." (Rosner and Ryokai,

⁷ Co-founder of Google

2010) and for some this affected the choice of recipient because "...it's me in the scarf..." (Fields, 2014). Sennett notes how in the medieval craft guilds a piece was judged as if it was a being, addressed as 'you' (Sennett, 2013, p.111). The time and skill evident in the object are important to the agency of the maker in the world (Crawford, 2010, p.14; Rosner and Ryokai, 2008, p.2) and it is through this time spent and the knowledge of the maker that they 'appear' within the work. Gail DeMeyere talks of her positive thoughts becoming part of what she is knitting (DeMeyere in DeMeyere and Merrill, 2017, p.107) and Mayne found that the sense of a piece taking on feelings during making could even prevent someone making a gift if their mood was not good (Mayne, 2018, p.149). Rutter feels the presence of the makers when handling old gloves, partially through the physical parts of the person that will be embedded in the knitting (Rutter, 2019, p.18). From this we see how knitted objects carry the knitter identity in the world, through processes including physicality, memory and time spent with the object, that are potentially more problematic with technology objects.

2.4.2.2 Connection objects

Increasingly technology is used to maintain connections, especially across distance (Krotoski, 2013, p.85) and we may now know more of the minutiae of a relative's life through their SNS posts, or "phatic communication" (Krotoski, 2013, p.91). Miller sees the objects we choose to surround ourselves with as being another voice (Miller, 2009, p.2), something especially relevant today with video conferencing offering a view into more people's homes. However online communications lack a physical, potentially permanent, object. Susan Yee found a connection through the drawings of Le Corbusier that was not there in the digitised versions despite the convenience of the latter (Yee in Turkle, 2011, p.33). Lewis Hyde talks of passing on objects to someone at a different stage of life, as you move on (Hyde, 2012, p.44) and it's common for knitters to inherit craft tools, which Mayne found strengthened connections (Mayne, 2018, p.116). Rutter sees knitting patterns as a way of knitters, usually women, connecting through sharing, what she calls "...a hand-inked Ravelry." (Rutter, 2019, p.256).

Baudrillard discusses how antiques become a "mythological object" as they lose practical usage, becoming signifiers of time (Baudrillard, [1996]2005, pp.77-

78) present now, but from the past. Turney talks of the maker in the object as a form of poesis, that "...brings the past into the present." (Turney 2009, p.143). A knitted item can be such a marginal/mythical item, coming to symbolise a past time/people. Baudrillard suggests people of lower social classes do not have old things as they are not functional (Baudrillard, [1996]2005, p.87) but knitted pieces are often made as heirlooms (Macdonald, 1988, pp.114,275). Possibly knitted gifts are a working–class antique, containing the legacy of time, rather than money, transcending class as a form of social mobility. Objects gain cultural value with time (Baudrillard, 1996[2005], p.147) and I suggest cultural value is placed on the handmade as it becomes less common, causing more handmade items to be kept.

Technology author and journalist Annalee Newitz found that dismantling a computer, replacing components, made it feel more personal, stating that now "It doesn't just belong to me; I also belong to it." (Newitz in Turkle, 2011, p.88). Crawford talks of a connection from a maker to a user or repairer through an object (Crawford, 2015, pp.227,239). Visible mending specialist Van Deijnen suggests repairs show "...an emotional connection to the item, allowing the wearer to think about what it represents to them." (2020). Repair artist Pym discusses how the choice to repair shows an "emotional investment" in an item, and finds the materiality of an object aids communication, saying more than words, stating "...sometimes the thing will do all the communicating." (Pym, 2020). Crawford is also concerned that modern creativity is not seen as a result of an inheritance of past skills (Crawford, 2015, pp.243,244-5). Knitters seem to understand and value their inheritance, and understand themselves as a continuum.

2.4.2.3 Memory

Knitted objects may change in status when the maker dies, gaining extra significance (Turney, 2009, p.143) or even be finished by a successor (Macdonald, 1988, p.60). Containing the mark and memory of the maker, it is seen as a way of marking both "...'How I remember' as well as 'How I want to be remembered'." (Turney, 2009, p.143). Greer discusses "bereavement quilts" made of the clothes of the deceased both as a memorial, and as a way of working through grief (Greer, 2008, p.119). Both Miller and Turkle discuss several examples of how objects either made by or belonging to a deceased person

continue to resonate after their death through continued use (Miller, 2009, pp.33,42; Turkle, 2011, pp.227,230,248-9). Clothes retain more of the deceased as they have an "active permeability" and tactility (Miller, 2009, p.45). Our relationships may be symbolised by what we keep or discard and we create our autobiography through this (Miller, 2010, p.97). Gell suggests that a "...person is thus understood as the sum total of the indexes which testify, in life and subsequently, to the biographical existence of this or that individual." (Gell, 1998, pp.222-223). He discusses how Māori meeting houses were not simply a memorial to a person, but their current being expressing present-day agency (Gell, 1998, p.253). One of Holroyd's interviewees saw her knitting as "...leaving something behind that you have made." (Holroyd, 2017, p.78), which draws on the idea that we "...cannot die as long as there are people on earth who remember us." (Black, S.M, 2018, p.117) and we may be remembered as the maker of an item. I see this as giving the knitter agency in current times, not just a memorial. When knitters make a version of something they were taught by a since deceased knitter, this could be a form of memorial and the knitter may live on in these objects as well as those they have made.

Collections of objects are an "...articulation of the collector's own 'identity'." (Hemmings, 2010, p.11) or a way of surviving through the collection (Baudrillard, [1996]2005, p.104) and the curation creates the image you leave behind. We may try to influence our ancestors through inherited objects, but they control curation of our legacy (Miller, 2010, p.151). The collection of knitters' works could be a way for them to survive and communicate with the future (Crawford, 2010, pp.15-16) as they are used, gaining narratives, being memorialised through the work. Carr believes that the web is taking over as the location for personal memories (Carr, 2010, Loc.2844) and that technology may disrupt the process for consolidation of explicit memories affecting what is recalled (Carr, 2010, Loc.3045,3048). Carr highlights the contrast between fixed computer memory and flexible human memory, where the latter undergoes changes and processing (Carr, 2010, Loc.3008,3014,3016). Technology can create and store memories (Turkle, 2012, p.300) but struggles with the inconsistencies that bring personal memories alive (Turkle, 2012, p.303). A knitted object changes and is adapted, mended, or wears out, like the

memories of the maker. Pym talks of worn-out clothing showing "...the life still in an object..." and "...the imagination around that..." (Pym, 2020).

Memories are often unreliable and curated, but it is the control of this curation that is at stake (Csikszentmihalyi, [1992]2002, p.133). Computers are regarded as a convenient way to control what remains, but deletion may remove the narrative (Turkle, 2011, p.83). Harkaway notes that online is less ephemeral "...as long as anyone can be bothered to maintain it." (Harkaway, 2013, p.25). Computer memory is regarded by some as an extension of a person's memory (Harkaway, 2013, p.119), something Miller et al. also noted as an impact on collective memory, but not something that diminishes our humanity (Miller et al., 2016, p.206). Miller notes how photographs, once a vehicle of memories, are becoming more about fleeting moments due to SNS, especially Snapchat where they are rapidly deleted (Miller, 2016, p.87). However, the persistence of SNS posts means that users can be reminded of the past when posts are brought back to their attention. Users' data persists post-mortem, and the software may curate this (boyd, 2014, pp.11,12), causing its content to appear on friend's pages (Miller, 2016, p.116). Memorial pages may be set up, publicly curated by friends or relatives (Krotoski, 2013, p.22; Lanier, 2018, p.133). Similarly, when we give knitting the recipient controls their treatment and narrative. Curation favours objects associated with happy memories, (Miller, 2010, p.151), but online data may catalogue the bad times, or decline as well. The quantity and detail of online data could allow recreation post-mortem (Krotoski, 2013, p.30) and Ray Kurzweil of Google even suggested uploading consciousness to the cloud (Lanier, 2018, p.133), with the potential to lose control over it (Lanier, 2018, p.134). The output of a knitter could be such data, potentially recreating the knitter self through being remade.

2.4.2.4 Narrative

Knitting contains a journey narrative, with the places in which the work was conducted being part of the object (Macdonald, 1988, p.70). Rosner and Ryokai's *Spyn* application helped knitters to document this as they did not feel the object could tell these explicitly (Rosner and Ryokai, 2008, pp.1,2) although in a later article they link knitting to Gell's theories on object as indexes of agency, which allows the process to be seen in the object (Rosner and Ryokai, 2010). Harkaway suggests that the impersonal design of many electronic

devices divests them of narrative (Harkaway, 2013, p.175). Much technology now records what we do automatically, and we may start to create a narrative to fit the numbers the apps give (Turkle, 2015, Loc. 1503). Turkle believes "Apps can give you a number; only people can provide a narrative." (Turkle, 2015, Loc.1314) and the Spyn program gave people a way to create that narrative. Knitters such as Celia Pym (Turney 2009, p.137) and Matthews see their knitting as "...a vehicle in which I travel. My knitted products are a diary 'on the road' of my life." (Matthews, 2017, p.23). Felicity Ford uses sounds in her environment to inspire the patterns in her knitting (Rutter, 2019, p.229). Pym talks about the knitting being central to her piece Blue Knitting ('Blue Knitting | Celia Pym', no date) where, inspired by a studio-based warm-up practice, she found knitting as a marker of time, and the search for the wool as a way of directing progress of a journey, explaining how "I was looking for this thing, which would then lead me. So the knitting was really, really central to it, it couldn't have been a different process for that project." (Pym, 2020). Lou Baker calls her publicly knitted, sculptural pieces "...a memory catcher, as thoughts, emotions and conversations are knitted into the fabric of the piece." (I knit therefore I am, no date) and I find the organic nature of this concept highlights the difference to a technologically written narrative.

2.4.2.5 Touch

Knitting involves the work moving through the makers hands, leaving marks of the individual's labour. This makes the objects unique and unreproducible (Baudrillard, [1996]2005, p.81), but may have led to knitting not being the subject of academic study (Turney, 2009, p.80). The marks of labour are regarded as something specifically human (Crawford, 2010, pp.63-64) as a sign of authenticity (Turney, 2009, p.80; Gauntlett, 2011, p.65), the imprint of "...the maker's being." (Turney, 2012, p.305) and a way of distinguishing it from mass produced objects (Holroyd, 2017, p.97). Imperfections are sometimes regarded as a sign of authenticity, as suggested by Ruskin (Gauntlett, 2011, p.29,34) who wanted human flaws to be valued (Harkaway, 2013, p.170), although many makers don't want objects to look 'homemade' (Holroyd, 2017, p.96). Turney addresses it as "...each object bears witness to the imperfection of the maker's hand..." (Turney, 2012, p.305) which could either refer to quality, or actual mistakes.

The touch of the makers hand can be seen to transmit to the recipient, as Turney explains, "...the mark of the maker's hand touching the object and in turn the object's consumer." (Turney, 2012, p.305). The use of the term 'consumer' could suggest that the object is consumed in use, as Hyde suggests (Hyde, 2012, p.8) or Turney is seeing the transaction as a market one, however Hyde believes gifts are not part of a market economy because they create a relationship (Hyde, 2012, p.xxv). Some of Mayne's respondents echoed the idea of transferring touch through an object (Mayne, 2018, pp.169-170) and Rutter comments that in making herself a bikini, she became familiar with her own body, and could not make such a garment for anyone else due to its intimacy (Rutter, 2019, p.125). Pym noted the intimacy of handling other's garments brought for repair and the bodily connection, "It's the body, you know. It's the... [...] it has the smell of the person..." (Pym, 2020). Sennett believes that as we interact with society through our bodies "...the capacities our bodies have to shape physical things are the same capacities we draw on in social relations" (Sennett, 2009, p.290). Corkhill has seen how supportive touch is often missing in modern society, and how knitting can safely encourage it (Corkhill, 2014, p.85). The feel of the yarn is a comforting experience for the knitter (Corkhill, 2014, p.113), although Turney suggests that the feel of wool "...may be disliked or reviled." (Turney 2009, p.106), although not all yarn is wool. Mayne notes the soothing nature of working with your hands and the tactile pleasure of working with yarn. She doesn't discuss how this may be expressed when sharing images of the work online (Mayne, 2018, pp.33,121) but one of her respondents specifically contrasted this to working with electronic media (Mayne, 2018, p.121). Pym also notes the importance of materials to her work, explaining the significance of "How things feel in my hands, [...] how thread pulls through a material." (Pym, 2020).

Previously some felt that computers needed "...bodies in order to be empathetic..." (Turkle, 1997, p.111). The importance of touch is notably absent in electronic communications, and a respondent of Turkle's said "Online, you can't touch the computer screen, but you can touch the letter." (Turkle, 2012, pp.270-271) and she explains about her mother's letters, where holding them feels "...as though I hold her heart in my hands." (Turkle, 2012, p.297). Turkle discusses the importance of the hand in caring professions where "...a hand

that reaches for ours says, 'I need you. Take care of me'..." (Turkle, 2012, p.133) but questions if the carer is cruel, then would a robot compensate for human fallibility (Turkle, 2012, p.281)? Pym talks of care being 'useful' rather than looking kind (Pym, 2020).

People may prefer the knowledge and reliability of computers over fallible human authenticity (Turkle, 2015, Loc.5493) and humans may fail against machine standards (Sennett, 2009, pp.99,101), but imperfections can be "...an emblem of human individuality..." against the perfection of machine and robots (Sennett, 2009, p.84). For Sennett, this should be a call to focus on what is human within an imperfect object, instead of trying to mimic the perfection of machine production (Sennett, 2009, p.104). Harkaway acknowledges the important of the maker's touch as "...a guarantee of reality..." and a sense of the item's history (Harkaway, 2013, p.233) but technology designed for manufacture (Harkaway, 2013, pp.171-175) lacks "...the narrative of an object's creation in the hands of a workman..." (Harkaway, 2013, p.174). I see a parallel where the dislike of the imperfections in hand-knitting being overcome with industrialisation could be being repeated where we outsource emotional work to technology and ask it "...to perform what used to be 'love's labor': taking care of each other." (Turkle, 2012, p.107). Pym discusses repair as an act of care, as it is "...keeping things working..." (Pym, 2020). I feel the knitted object potentially counters this outsourcing of love, whereby giving an admittedly imperfect gift, we are holding on to something human.

Discussing how we learn through touch, Sennett refers to the "intelligent hand", that learns through experience (Sennett, 2009, p.238). Mirror neurons are goal orientated, activating circuits in our brains for how we would perform the action (Keysers, 2011, p.60) so how another person knits does not change how it triggers our shared circuits. Our brains use the body to understand the world around us, what Crawford calls thinking "...through the body" (Crawford, 2015, p.51) and Matthews suggests what is learnt through hand-work is "indescribable knowledge" and "...more valuable than any textbook..." (2020). Tools become extensions of our own hands (Carr, 2010, Loc.3268), treated by our brains in the same way as our own limbs, something known as "cognitive extension" (Crawford, 2015, p.46). Tools can change how we work (Sennett, 2009, p40; Carr, 2010, Loc.3296) and Sennett is concerned that working with computers

makes people passive learners (Sennett, 2009, p.44), losing the understanding that comes through the hand (Sennett, 2009, p.52). Carr calls computers "...tools of the mind..." and feels they impinge human capacities "...for reason, perception, memory, emotion." (Carr, 2010, Loc.3312).

2.4.3 The many images of knitting

Having established the importance of society in forming an identity, and how a knitter identity may be seen and developed, one must consider what views society may have of 'knitters'. When a knitter states 'I am a knitter' do they know the perception of this role the audience will have? Goffman states that stereotypes allow observers to place a performance in a familiar category (Goffman, [1959]1990, p.36) and there are many stereotypes around knitting that are discussed here, contrasting them to similar associations online. Greer feels reclaiming them is empowering (Greer, 2008, p.9).

2.4.3.1 Knitting in fiction

Knitting's image is used as a trope in films and literature, from Dickens to Proulx and with different intentions (Black, 2012, p.103). It is often used as a sign of character, both good and bad, from Dickens' Mme Defarge (Rutt, 1989, pp.95-96; Daley, 2013) and Tolstoy's War and Peace (Rutt, 1989, p.95). Rutter explains how Mme Defarge is seen as cold and heartless to knit in such circumstances and as transgressive for knitting in public (Rutter, 2019, pp.78-79). In George Elliot, lack of knitting ability was a character judgement (Rutt, 1989, p.98) and in Elizabeth Gaskell and Jane Austen as a social marker (Rutt, 1989, pp.97,128). Christie's Miss Marple uses knitting to hide (Turney, 2009, p.161) and challenge perceptions (Matthews, 2017, pp.81-83), and in Virginia Woolf, herself a knitter, Mrs Ramsey knits to show security (Rutter, 2019, p.72). 'Knit Lit' is a genre of knitting fiction where the women knit for themselves and it is often seen as a sign of creativity (Turney, 2009, p.169), but still very traditional in its outlook (Turney in Hemmings, 2010, p.42). Jessica Hemmings notes that in southern African fiction, knitting is often used to give familiarity to challenging narratives (Hemmings, 2010, pp.62-65). It has been used to suggest the mental state of characters in films like Breakfast at Tiffany's, often not positively (Faiers, 2014, pp.106,107) but Hemmings challenges the accuracy of the negative connotations of the lone knitter (Hemmings in Corkhill et al. 2014, pp.50-55).

2.4.3.2 Traditional

The 'knitting grandma' image goes as far back as Victorian art (Macdonald, 1988, p.150). Black relates this as a comforting, if complex, familial image from childhood. Often used (and subverted) as a metaphor, it also extends to a perceived lack of quality in what was knitted (Black, 2002, p.134), seen in the prevalence of jokes around "Granny's hand-knitted jumpers" (Turney, 2004, p.267) and the "'Old' woman" of knitting as referring to a pre-feminist attitude to domesticity (Turney, 2009, p.216). Fields' respondents acknowledged the 'grandma image' but felt they didn't conform to it as it would damage their self-esteem (Fields, 2014, pp.155-156). However, many knitters have positive memories of their relatives, who may have been quite glamourous grandmas (Matthews, 2017, p.31). Pym (2020) notes the complexity of modern machine knit belies the 'old lady' images.

There is a sense of nostalgia around this image. While Honore and Brett see craft as a nostalgia for a slower era (Honore and Brett, 2005, p.189) in knitting this can be subversive (Myzelev, 2009, p.155), or be a search for authenticity in the past (Turney, 2009, pp.59-60) although some see the nostalgia for vintage as negative (Dirix, 2014). Learning from and celebrating links to the past can be empowering (Myzelev, 2009, p.152) and identity enhancing (Kouhia, 2015, p.269). It is interesting that a more positive angle on nostalgia is taken by practitioners, which might be either identification with it, or defensiveness, and Crawford feels that distain for nostalgia is an "...idolatry of the present." (Crawford, 2015, p.222). There is evidence of some millennials becoming nostalgic for a time they didn't know, talking "...wistfully about letters, face-toface meetings, and the privacy of pay phones" (Turkle, 2012, p.265) as a way of expressing the impersonal nature of contemporary communication (Turkle, 2012, pp.270-271). Miller et al. propose that many people feel a sense of lost community that they attempt to regain through social media (Miller et al., 2016, p.184).

2.4.3.3 Celebrity

Parkins' 2004 article on the reporting of celebrity knitting suggests it is the ordinariness that celebrities are using in their image creation, but that this changes the image of knitting to be out of the ordinary which may have led to its rise in popularity, along with attempts to associate with celebrities (Parkins,

2004, pp.428,431). While this has now largely subsided, it prefigured a similar effect found on SNS where celebrities are more approachable than a television figure, even becoming "...parts of an extended, digitally-mediated self." (Harkaway, 2013, pp.190-191) and online interaction can "...eliminate the distance between fans and celebrities." (boyd, 2014, p.149).

2.4.3.4 Activist

The 'subversive knitter' can be seen in knitting's engagement with politics and feminism and the level of intentionality of this identity varies. Just valuing knitting can be feminist (Stoller cited in Pentney, 2008) but a feminist knitting practice can be work that embraces gendered associations of the craft, and knitting done for a social change (Pentney, 2008). Faythe Levine and Holroyd believe that making is a statement against mass production (Levine quoted in Matthews, 2017, p.94; Holroyd, 2017, p.168), but the situation is nuanced, with Turney suggesting makers can either conform to, or subvert dominant ideologies (Turney, 2009, p.201) and Kouhia sees her choice to make knitted objects as a complex act, engaging in many socio-political issues (Kouhia, 2015, p.272). Others suggest knitters may not feel this, despite the media reports (Groeneveld, 2010, p.268; Stannard and Sanders, 2015, p.108). Of course, intention does not determine interpretation.

Knitting has a history of political association from the American War of Independence, where eschewing British goods and knitting from local materials was a political statement (Macdonald, 1988, p.26; Black, 2012, p.105), through the 60s and 70s (Groeneveld, 2010, p.269) to today's anti-war protests in Sabrina Gschwandtner's Wartime Knitting Circle (Bryan-Wilson, 2008, pp.78-79) and the Revolutionary Knitting Circle (RKC) knitting "...anti-war banners and arm bands." (Groeneveld, 2010, p.266). This mix of craft and activism has been termed 'Craftivism', after a movement headed by Greer, where two concepts, both with associated stereotypes are combined for positive action (Greer, 2008, p.127). Knitting is a slow form of activism but emphasises the idea of making change "...stitch by stitch by stitch." (Greer, 2008, p.145) allowing more thought to be involved in both the expression and the reception of the activism (Greer, 2008, p.117). Van Deijnen sees repair as a "...a political act to show the world in a more gentle way that you care about certain issues and that you have chosen to repair your clothes as a result." (Van Deijnen, 2020). Turney sees the

knitting group as a site for activism (Turney, 2009, p.175) and groups are similarly formed online. Online activism, or 'clicktivism' allows people to share issues and concerns widely, including political co-ordination using mobile phones and the internet (boyd, 2014, p.206). Social media has been found to be a place to connect with like-minded people, similar to offline, so differing political views may not be expressed, what Noelle-Neumann referred to as a "spiral of silence" (Miller et al., 2016, pp.144-146). Twenge noted the propensity to share within groups, potentially leading to the echo-chamber effect (Twenge, 2018, Loc.3952). Despite events such as the 2011 'Arab Spring' where social media was used as a call to offline action (Sennett, 2013, pp.24-25; Harkaway, 2013, p.149), Twenge found a low level of political engagement in the iGen cohort (Twenge, 2018, Loc.3837,3876,3892), especially among those with high SNS use (Twenge, 2018, Loc.2451,2454), even though they are good at spreading messages about issues online (Twenge, 2018, Loc.3934,3937). People simply subscribe or give a 'thumbs up' and think this is sufficient, giving "...the illusion of progress without the demands of action." (Turkle, 2015, Loc.860), sometimes called 'slacktivism' (Greenfield, 2015, Loc.2345; Twenge, 2018, Loc.2438) something Miller et al. also found (Miller et al., 2016, p.136). People will usually observe, rather than participate in politics, both off and online (Miller et al., 2016, pp.152-153). Lanier cites research suggesting voters' standpoints are becoming more negative, voting against something (Lanier, 2018, p.149).

Knitting has utilised the web to enrol knitters to a project, but then requires action. Mazza's 2003 Nike Petition Blanket, highlighting sweatshop labour, linked knitters online, then required them to knit a square signifying a petition signature (Turney, 2009, p.175). This asks more of the contributor, often including physical meetings. She also developed an online image conversion tool to encourage knitter to knit logos, undermining their power (Gschwandtner, 2007, p.121). This draws on Guattari's idea of "...small acts of resistance..." (Gschwandtner, 2007, p.121) which Mazza sees exemplified in knitting, although saying that, "Craft on its own is not radical or a form of activism or a political act." (Mazza quoted in Greer, 2008, p.107) but craft groups are a space for sharing ideas (Mazza quoted in Greer, 2008, p.107). Water Aid's 'Knit a River' was a similar knitted petition and Greer felt that it required more time of the 'signatories', and the large river of knitted output was harder to ignore (Greer, 2008, p.109). Lisa Anne

Auerbach also uses charts to design political messages stating, "Chart your message, and wear it proudly..." (Auerbach, quoted in Gschwandtner, 2007, p.9). Turkle considers strong ties, in-person debate and challenge as important for real activism (Turkle, 2015, Loc.4578,4624,4609,4615), which can be absent online where Miller et al. found humour the most common political post (Miller, 2016, p.161). Interestingly Twenge notes the 2017 women's march against Donald Trump as a potential turning point toward real action (Twenge, 2018, Loc.2441), and of course the knitted 'Pussy Hat' (PUSSYHAT PROJECT™, no date) was a major feature of this protest. Rutter calls this "...a twenty-first-century reimagining of the bonnet rouge, today's Phrygian cap. It is me saying, 'I am here, see me, count me in.'" (Rutter, 2019, p.82). However, some have criticised the hats as un-inclusive and a simplistic response (Black, Shannon, 2017, p.703).

Early proponents of the Internet hoped it would be a tool for political movements, (Turkle, 1997, p.243), however, this has diminished through mass take up and just as offline, only a small number of people are activists. Knitting allows people to make the small acts of resistance that will probably not cause offence to their social group.

2.4.3.5 Altruist

Charity knitting usually involves not knowing the recipient; has a long history (Rutt, 1989, p.146); can have a political edge (Turney, 2009, p.189); and be a subtle form of craftivism (Mayne, 2018, p.45). It is similarly about small actions (Greer, 2008, p.2) and taps into shared basic human needs, making the person in need seem more relatable (Greer, 2008, p.82). It may be more likely to be used by the recipient (Greer, 2008, p.85) and a chance to improve skills (Greer, 2008, p.92). It can be seen as compensation for a lack of a family role as a knitter (Turney, 2009, p.191) or a way to recreate an identity (Corkhill, 2014, pp.51-52). Knitting for others around the world brings them closer (Greer, 2008, p.89), countering the difficulty we have relating to someone we cannot see due to a possible lack of reciprocation because of distance (Keysers, 2011, pp.222,224). It can bring people together for a cause (Black, 2012, p.154) and caring for the vulnerable can "...change a knitter's perspective on the world." (Corkhill et al., 2014, p.40). Mayne found several of her participants felt that charity knitting gave them a sense of usefulness and outward focus (Mayne, 2018, p.129). Charity knitting could, however, be an example of Turkle's

'Goldilocks effect', where we try and keep people "...at the 'just right' distance" (Turkle, 2015, Loc.3184) by giving them time through a gift, rather than ourselves. However, Harkaway found receiving global information online could also make people feel closer to the people involved (Harkaway, 2013, p.58), and Miller et al. found new online funding concepts such as 'Crowdsourcing', often with little immediate reward, demonstrate how social media promotes altruism (Miller et al., 2016, p.98).

Wartime knitting for the troops is one specific act of charity knitting and often seen as more deserving (Rutt, 1989, p.146). It became a feature of wars from the Crimea to WWII (Black, 2012, p.103). In WWI "...knitting needles were known as 'Women's Weapons'." (Meader, 2016, pp.63-64). It boosted the maker's morale allowing them to contribute (Macdonald, 1988, p.216; Rutt, 1989, pp.139-140). It demonstrated affection (Macdonald, 1988, p.240; Rutt, 1989, pp.139-140; Meader, 2016, p.46), even to strangers who sometimes represented sons they had lost (Macdonald, 1988, p.290). In earlier wars, gifts were sent directly to loved ones, improving morale by connecting them to home (Meader, 2016, p.46), and when this was changed to an allocation system by WWII, this home link was lost (Black, 2012, p.142). These gifts are almost unanimously seen as a positive exchange, apart from some jokes about the quality (Rutt, 1989, p.139) with both sides gaining solace, and the gifts being seen as demonstrating affection and love, even for those not known to the maker. Perhaps in extreme situations, issues of taste and wanting the gift become subservient to the sentiment therein.

The time involved makes hand-knitted gifts special for some (Stannard and Sanders, 2015, p.104) but could be regarded as a sacrifice (Turney, 2012, p.309). Matthews sees knitting as a role "...empowered with 'gift labour' [...] we wholeheartedly give..." (Matthews, 2017, p.101). However, when discussing knitting as therapy, she finds it can heighten the "...preconception that the knitter would rather knit for love not money..." and therefore "...devalues the professional knitter..." (Matthews, 2020). Mayne found many knitters enjoyed the "emotional labour" of making for others (Mayne, 2018, p.129). Rutter emphasises the time required to knit a gansey makes it "...a labour of love as much as necessity." (Rutter, 2019, p.59). It acknowledges the time required to maintain relationships, but as connections become increasingly fast and

frequent, communications from friends can be seen something "...'to be handled' or 'gotten rid of,'..." (Turkle, 2012, p.168). Miller notes how Facebook makes the nature of friendships more visible, including the problem of those you would like to leave behind (Miller, 2016, p.95). Some in his English study site found that they reconnected with old friends, only to regret this (Miller, 2016, p.189) and to fall into only 'light' contact (Miller, 2016, p.189). He suggests the initial attempts at community develop into anxiety over social mixing of audiences, then a compromise of holding people at a comfortable distance (Miller, 2016, p.191). I suggest there seems more invested in a hand-knitted gift than in online friendship, and this may improve the relationship, as will be discussed in section 2.5.4.

2.4.3.6 Alternative

The DIY movement is a term for activities that challenge the mainstream by encouraging people to act for themselves (Gauntlett, 2011, p.52). This can be traced back to the Skiffle movement (Spencer, 2008, p.219), through the 1970s punk and music zines and 1990s RiotGrrrl movement, and often peaked in challenging eras (Spencer, 2008, p.179). Zines are seen as part of the third-wave feminist movement and later included Bust magazine (Spencer, 2008, p.52), associated with Debbie Stoller of Stitch 'n Bitch, and Groeneveld sees them as building on the craft content of previous mainstream women's magazines, but with a "...punk/indie flavour." (Groeneveld, 2010, p.261). Some combined the two, such as KnitKnit (Gschwandtner, 2007, p5) and Slave to the Needles (Gschwandtner, 2007, pp.76-77) that featured knitting alongside other cultural output. They shared a community of exchange, political edge, and economic accessibility (Spencer, 2008, pp.15,36) and it is no surprise that knitting has now taken over from zine production, especially for women (Spencer, 2008, p.64; Pentney, 2008). Greer confirms the craft revivals roots in the DIY movement, notably RiotGrrrl (Greer, 2008, p.12) and Kouhia sees knitting linking DIY culture and what she calls "nanna" culture (Kouhia, 2015, pp.268-269) which is nostalgic but builds on the developments of DIY.

The DIY movement is associated with anti-consumerism (Fisk, 2012, p.171; Kouhia, 2015, p.268) and knitting can be seen as in opposition to the market (Turney, 2009, p.199; Gauntlett, 2011, p.19; Gschwandtner quoted Gauntlett, 2011, p.64; Kouhia, 2015, p.277). Handmaking can be a rejection of mass

production, and a desire for individuality dating back to the Arts and Crafts movement (Minahan and Cox, 2007, pp.11,12). Greer explains the sense of choice she felt being able to make her own clothes, allowing her to make more ethical choices (Greer, 2008, pp.29,32). However, knitting is part of the crafting industry (Turney, 2009, p218) and this can be a difficult negotiation with an anticonsumerist ideology (Groeneveld, 2010, p.263; Holroyd, 2017, p.194). Making gives the choice of mass-market engagement (Turney 2009, p.196). Some suggest knitting can form an "...alternative market culture..." (Ann Cvetkovich quoted in Groeneveld, 2010, p.263; Mazza quoted in Gschwandtner, 2007, p.122) which is a topic being explored by economic thinkers in the light of technological disruption which is changing how markets operate (Mason, 2015, p.143). The 'slow' movement suggests an economic model where people are valued (Honore and Brett, 2005, p.241) and Crawford questions the market ability to value "human excellence." (Crawford, 2015, p.159).

In a hand-knitted object we see the labour evident in the object which differentiates them from most post-modern goods (Turney, 2009, p.80). Several writers draw on Marx's ideas of labour being alienated if the maker does not benefit from the product, as in mass-production (Mauss, [1954],2011, p.64; Baudrillard, [1996]2005, p.211; Crawford, 2010, p.186). Sennett discusses the idea of quality of workmanship being lost in industrial society and the problems for the worker in the division of labour (Sennett, 2009, pp.9,20,105). The process of making a whole object goes against this, reuniting thinking and making (Gauntlett, 2011, p.33) and offers the opportunity to see a task through to completion (Gschwandtner in Bryan-Wilson, 2008, p.82). An awareness of production can change our feelings about consumption, countering some of the effects of the 'throw-away' society (Holroyd, 2017, p.191). Knitting is 'whole object' work but the value of this work in society is something I will examine in this thesis.

Goffman explains how, in presenting a final product to others, the learning process and amount of work involved behind the scenes will be concealed (Goffman, [1959]1990, pp.52,56) as part of presenting an "...idealized version of himself and his products..." (Goffman, [1959]1990, p.56). In service work, Goffman notes that it is normal to keep the audience or customer from seeing what work happened behind the scenes, information that could influence a

willingness to pay the bill (Goffman, [1959]1990, p.117). Crawford believes that we need to evaluate the worth of what we do, to justify it to others and decide if we want to be identified with it (Crawford, 2015, p.154). This justification may be monetary and while challenging whether this leads to an accurate evaluation, presenting a bill to a customer means one must justify one's actions to the customers satisfaction (Crawford, 2015, pp.154,155). For hand-knitting it is almost impossible to charge a reasonable amount for the time involved, even going by a societally deemed 'minimum wage', impacting the value society places on these items. With the digital disruption of the marketplace through lack of scarcity, and data as a product, the current criteria for valuing products may be changing (Mason, 2015, p.163).

2.4.3.7 Environmentalist

There is an environmental and ethical aspect to hand-knitting in both production and consumption (Turney 2009, p.199). There has been an interest in ethical choices by knitters in the recent revival, with eco-yarns and websites promoting sustainable choices (Turney, 2009, p.200) and designers like Erika Knight promoting ethical yarn (Gschwandtner, 2007, p.87). The ability of wool to biodegrade when no longer wanted is also a factor, especially when compared to acrylic yarn, and in a culture of turning against plastics (Rutter, 2019, p.65). Sennett believes "...being able so easily to dispose of things desensitizes us to the actual objects we hold in hand." (Sennett, 2009, p.110). Handmade objects are often kept longer (Crawford, 2010, p.17) as a deeper relationship is formed with them (Kouhia, 2015, p.276; Holroyd, 2017, p.189) and they are perceived to be of better quality (Stannard and Sanders, 2015, p.108). Holroyd believes re-making is a way to avoid goods becoming part of throwaway consumerism by extending their lifespan (Holroyd, 2017, p.108). There is a growth of yarn festivals, celebrating regional wool (Holroyd, 2017, p.39), and local ethical yarn choices is a way of "...reigniting a dying industry." (Matthews, 2017, p.113).

Knitting was part of the self-sufficiency movement as far back as the 1970s (Turney, 2009, p.179), seen as more 'authentic' (Turney, 2009, p.181) and less dependent on corporations (Grant Neufield quoted in Turney, 2009, p.196). Crawford sees making and this quest to engage more fully with our wants and needs not as a nostalgic search for authenticity but as a way of gaining

agency (Crawford, 2010, pp.6,7). Holroyd sees knitting's "...inherently open and tinkerable..." (Holroyd, 2017, p.123) character as an alternative to our 'black box' culture where we do not understand our objects (Baudrillard, [1996]2005, p.124; Crawford, 2010, p.7).

2.4.3.8 Feminist

Feminism has a complex relationship with knitting. As far back as the seventeenth century the image of domestic knitting was gendered (Rutt, 1989, p.84), even though it was done by men and women in many areas (Black, 2012, p.51) and commercial framework knitting was often done by men (Black, 2012, pp.61-63). Hyde suggests capitalism sees gift labour as feminine (Hyde, 2012, p.110) and craft was seen as a way to occupy women's hands (Sennett, 2009, p.57). Knitting featured in suffrage magazines (Groeneveld, 2010, p.271) but women stopped knitting in the second wave "...to break down notions of what women were capable of..." (Stephanie Pearl-McPhee quoted in Pentney, 2008) thereby allowing women now to choose to take them up (Leah Kramer in Spencer, 2008, p.68). Knitting moved from an economic necessity to a leisure choice (Greer, 2008, p.18; Turney, 2009, p.11) between the second and third wave movements (Groeneveld, 2010, p.270), although knitting is still done in some places for low wages and in poor conditions (Minahan and Cox, 2007, p.15; Pentney, 2008).

Greer found her knitting celebratory of past women, valuing their skills (Greer, 2008, p.15) and "...didn't make me a traitor to feminism" (Greer, 2008, p.12). Knitting is now seen as part of self-care (Parkins, 2004, p.434), part of the 'New Domesticity' focusing on women's choices (Myzelev, 2009, p.153) and celebrating women's work (Railla in Spencer, 2008, p.66). Daley sees its use for relaxation and enjoyment as "...part of a resistance at a personal level to various expectations shaped in sexist power relations." (Daley, 2013). Some still see it as tainted (Turney, 2009, p.11), associated with the 1950s (Turney, 2012, p.309) and socially regressive (Dirix, 2014, p.97). The choice to pursue knitting as leisure requires cultural and material capital and Myzelev suggests a middle-class appropriation of a working-class craft (Myzelev, 2009, p.156). Groeneveld does not see knitting, particularly the periodicals around it, as able to challenge some of the issues that surround third-wave feminism and class/race privilege (Groeneveld, 2010, pp.267,270). Turney believes that knitting has a self-

referential nature that will always struggle with its image (Turney, 2009, p.105). Other later writers have engaged with and embraced this complexity through both what they knit and where (Kouhia, 2015, p.272; Stannard and Sanders, 2015, p.99).

Artists such as Janet Morton have explored the position of domestic work (Turney, 2009, p.22) and others have deliberately utilised the perceived inferiority of needlework to highlight women's exclusion from culture, such as Rosemarie Trockel, who used industrially produced knitting to highlight perceptions of domesticity of knitting and its role in the artworld (Black, 2002, p.134). This issue is still current, as Ellen Lesperence found, when a sweater knitted as part of an artwork was handed in to the gallery's lost property department (Rosenberg, 2016). Debbie Stoller says that knitting is reclaiming women's work, even it is devalued compared to male crafts (Stoller, 2003, p.7). Fisk suggests that knitting has been absent from academic study until recently because it is done mostly by women (Fisk, 2012, p.162) and Mayne notes the idea of craft as a superficial domestic pursuit, causing it to be disregarded (Mayne, 2018, p.40). Fisk notes the traditional gendered terms like 'craftsmanship' for male hand work against 'craft/hobbies' for women (Fisk, 2012, p.164), something Sennett has attributed to classical science's belief that men were stronger than women (Sennett, 2009, p.23). Similar terminology issues are highlighted by Turkle in early programming, with terms such as "soft mastery" negatively associated with the "...unscientific and undisciplined as well as with the feminine and with a lack of power." (Turkle, 1997, p.56). Miller suggests that certain media platforms are becoming gendered, describing Twitter as a "...cold male space..." with Instagram a "...relatively quiet, contemplative, crafted place..." (Miller, 2016, p.85), although he also found that females had utilised online environments to bully others, suggesting it as a form of empowerment, as physical ability is not required (Miller, 2016, p.136) although bullying is not always physical.

2.4.4 Performance of identity and the self

These images of knitters may be what an audience considers when a knitter is performing their role in public. Goffman defines 'performance' as "...the activity of a given participant on a given occasion which serves to influence in any way any of the other participants." (Goffman, [1959]1990, p.26). This may not be believed by those involved (Goffman, [1959]1990, p.28) and audiences will be aware of the potential for a "false" performance and be on alert for signs of this (Goffman, [1959]1990, p.66). He explains the roles of the individuals concerned in stage terms and they vary according to information available to them and the area of the performance they access (Goffman, [1959]1990, p.144). Turkle picks up the concept of areas of access with the idea that understanding the messy "back rooms" allows us to appreciate the



Figure 1 Interior of 'How am I Feeling?'

"...complexity of knowledge." (Turkle, 2011, p.321) rather than just the ordered front areas. I see an echo in knitting here, where we often want the back to look as good as the front, and the back is often where a knitter will look at another's work (Figure 1). The idea of putting on a 'front' is noted by Rogers and Sennett. Rogers suggests that actions should agree with feelings and to not do so creates a defensive front (Rogers, [1967]2011, p.323). Sennett discusses hiding feelings such as anxiety behind a mask

(Sennett, 2013, p.181) and following on from the stage concept of a "neutral mask" (Sennett, 2013, p.244) suggests that a person can be more expressive when not concerned about showing themselves (Sennett, 2013, p.245). Miller et al. found a range of views of online self-presentation across their study sites, but underscores them all with the view that they reflect offline behaviour. Some users embraced technology that allowed them to create an image for themselves, whereas others found it an obligation to avoid missing opportunities (Miller et al., 2016, p.133). Some presented themselves very differently online (Miller, 2016, p.119). They see these variations as echoing offline space (Miller et al., 2016, p.157), but being asynchronous they give people time to craft their

presentation (Miller et al., 2016, p.191). The idea of the 'selfie' as narcissistic is challenged by Miller et al., who, while acknowledging the aspect of self-presentation, suggest this is outward, not inward focused, creating shared memories (Miller et al., 2016, p.158). Positive imagery online could place a burden on people to present themselves well or appear happy, but again they suggest this is an extension of the same expectations in offline environments (Miller et al., 2016, pp.202-203) and that pressure to perform is seen predominantly in the more public areas of social media (Miller et al., 2016, p.204).

2.4.4.1 Public knitting

Public knitting is a performance of identity, where knitting "...is something one is seen doing." (Parkins, 2004, p.430) and not all knitters will do it. Rutter has noted the different attitude historically, finding it accepted in Shetland and Jersey but not East Anglian ports (Rutter, 2019, p.53,190). Turney's respondents were more circumspect with their work in progress, even at home (Turney, 2004, p.278) while Daley sees knitting as something people want to be seen to be doing, "...that shapes how we understand ourselves to be perceived in the world." (Daley, 2013) and Rutter notes that the Shetland knitters were proud of their abilities (Rutter, 2019, p.53). Knitting's move from domestic spaces to those previously regarded as masculine domains such as pubs (Parkins, 2004, Minahan and Cox, 2007, p.10), has a political angle as a breakdown of private/public divide (Groeneveld, 2010, p.266, Fisk, 2012, pp.172-173) and its continuing noteworthiness recognises this as part of the 'new domesticity' (Kouhia, 2015, p.274). Knitting or wearing hand-knits publicly creates an opening for conversation (Greer, 2008, pp.54,55), often from knitters or relatives of knitters (Rutter, 2019, p.273). Matthews found it allowed conversations around broader issues such as "...ethnic diversity, and issues of class, feminism etc..." and to learn from "real people" (Matthews, 2020). However, Hemmings, citing Susan Cain, highlights the pressure of an extrovert focused culture, leading to solitary knitters potentially being viewed with suspicion (Hemmings in Corkhill et al., 2014, p.51).

Goffman explains how different roles are performed in different settings and in some we will wish to show our skill, in the area "...from which his occupational reputation derives." (Goffman, [1959]1990, p.43). I see this in the selection of

what to knit in public if one desires to demonstrate a knitting reputation. Even the way we knit transmits a message about our background (Matthews in Hemmings, 2010, p.38), noted by Angela Maddock about the character in the film Wool 100% (Angela Maddock in Corkhill et al., 2014, pp.47-48). While knitters often hold the work as they were taught, beginners frequently aim to hold them in the slower style favoured by the Victorians, seen as more delicate (Rutt, 1989, pp.18-20). Pym highlights how many mended items are not worn publicly, despite being widely shared online, stating "...it's huge on the internet, visible mending, but if I'm honest, I don't feel like I see it in public very often." (Pym, 2020). Online, many SNS are configured so people find it easier to transmit to everyone, to be public with their information rather than limit their privacy (boyd, 2014, p.62) and this external, performance focus can undermine a young person's inner sense of identity, becoming externally driven, potentially leading to insecurity (Greenfield, 2015, Loc.2019). Harkaway disagrees with Greenfield, believing SNS are a tool for, albeit 'loose-knit', community building (Harkaway, 2013, pp.93-95). I suggest these views are not mutually exclusive, as communities are not always positive environments.

This research looks at whether public knitting can be a conscious display of the knitter self, as at first glance it may seem to be, or if there are other reasons for it.

2.4.4.2 Knitting groups

Knitting groups have a long history from gatherings in houses in the late 1700s (Rutt, 1989, p.100,162) to WWII air raid shelters (Black, 2012, p.137). It was a way of socialising, a conversational aid (Greer, 2008, p.54), with knitting's portability as a facilitator (Black, 2012, p.104). They provided an often-rare female space and a time away from daily problems (Greer, 2008, p.59) and Mayne cites Shercliff (2015) on the role of craft groups in offering such reflective time (Mayne, 2018, p.45). It is a feature of the recent revival, with knitting becoming "...more visible, more inclusive and performative." (Turney, 2009, p.95) and Matthews mentions how unusual her knitting group "Cast Off", was in 2000 (Matthews, 2017, p.86). Studies of groups (Prigoda and McKenzie, 2007; Fields 2014) have shown variations in attendees, from mixed socio-economic backgrounds (Prigoda and McKenzie, 2007, p.102), to the "...young, cool, progressive professionals." (Fields, 2014, p.153). Knitting facilitates bringing

together disparate groups (Greer, 2008, p.2; Pentney, 2008; Fields, 2014, p.160) and Corkhill found benefits in the social mix (Corkhill et al., 2014, p.42). Mixing diverse groups is an example of 'bridging social capital' (Gauntlett, 2011, p.139), in this case with knitting as the only link. Facebook also joins all user's associations in one place and seeing the same output (Miller, 2016, p.96) but in this case their only common denominator is you, the user.

Discussing teams, Goffman suggests that "...familiarity prevails, solidarity is likely to develop, and that secrets that could give the show away are shared and kept." (Goffman, [1959]1990, p.231) and that whilst the performance is maintained for the audience, it cannot be in front of each other. He states that team members are "...forced to define one another as persons in the know'..." (Goffman, [1959]1990, p.88). Crawford notes that to learn from a community is to follow the example of others, submitting to the authority of the more knowledgeable (Crawford, 2015, pp.137,139). Keysers discusses the role mirror neurons have in learning, where being shown how to do something rather than told opens "...an exquisitely privileged door between the brain of a teacher and his students." (Keysers, 2011, pp.63-64), and Sennett echoes the importance of this approach, explaining how "...showing comes before explaining." (Sennett, 2013, p.207). Keysers also highlights the importance of seeing fellow students learning, something potentially lost in online learning (Keysers, 2011, p.192), but being surrounded by fellow knitters in a group would offer a similar reinforcement. We have a stronger reaction to, and greater understanding of, the person demonstrating skills we have ourselves (Keysers, 2011, pp.54-55). Greer noted the generous skills-sharing and willingness to praise in knitting groups (Greer, 2008, p.58) and Mayne highlighted the positivity in messages and comments made on participants' work in the online group (Mayne, 2018, p.134). This is an example of Rogers' idea of reaction rather than judgement where the latter involves assigning outside values to a person, while the former is more factual (Rogers, [1967]2011, p.358). This is in the spirit of Ruskin and Morris who "...urged workers to assess the quality of their work in terms of shared experiment, collective trial and error." (Sennett, 2009, p.288). Sennett discusses the "sociable expert", happy to share knowledge (Sennett, 2009, p.248), common in knitting groups, and how trust is built on demonstrable competence in skilled labour (Sennett, 2013, p.170).

2.4.4.3 Online community

In her early, pre SNS work, Turkle suggested people were using computers to compensate for a loss of social space (Turkle, 1997, p.178), what Ray Oldenburg called the "great good place" for social gatherings (Turkle, 1997, p.233), but remained unconvinced that being alone but online would suffice (Turkle, 1997, p.235). She quotes Rheingold in suggesting that in communities, people must "...reach out through screen and affect each other's lives." (Rheingold, 1993, quoted in Turkle, 1997, p.246). Sennett's personal experience of an online collaboration tool was relatively unsuccessful as the interactions became "...simple information-sharing..." (Sennett, 2013, p.28) but Krotoski found that online groups that start around a specific interest can develop into broader support and chat (Krotoski, 2013, p.49). boyd refers to these as "networked publics" (boyd, 2014, p.5), an online "imagined community" (boyd, 2014, p.8), and people can feel themselves part of many overlapping publics (boyd, 2014, p.9) both on- and off-line (boyd, 2014, p.13). Miller suggests that online communities are no less 'real' than offline, because the ideal of the offline community is a romantic myth (Miller, 2016, p.93) and some social media use has been at attempt to reclaim these mythical communities (Miller, 2016, p.184) but, as with those, too much contact becomes intrusive (Miller, 2016, pp.185,188). People in his English study site had often found out more about people in their communities through social media than offline, due to increased online information sharing (Miller, 2016, p.154). On– and off-line communities are complementary (Miller, 2016, p.155) and levels of sociability and community reflect what already exists offline (Miller et al., 2016, p.185). Social media could be liberating for some but retains the cultural norms of the society in which users lived (Miller et al., 2016, p.210). They argue that social media is a medium for sociability, and that webcam conversations diminish differences between online and offline conversations (Miller et al., 2016, p.190). The pandemic restrictions of 2020 have put this to the test. An early study on "Zoom fatigue" suggests that video conferencing is more tiring than in-person meetings due to nonverbal mechanisms such as mirror anxiety, hyper gaze and inability to move in order to remain on screen (Fauville et al., 2021), and in a more recent study Miller et al. acknowledge that online socialising is "...a poor substitute for the

real thing." (Miller et al., 2021, p.225). This suggests significant differences with inperson conversation.

Knitting blogs were an early form of online connectivity sharing experiences and information (Minahan and Cox, 2007, p.7), and linking to form a networked community (Pentney, 2008). Global knitting groups, such as the Knit List (Turney, 2009, p.150) have now been overtaken by Ravelry, a knitting social media site founded in 2007, that now has over 9 million global users (Ravelry: About our site, no date). Rosner felt that knitters were selective about their technology use, and resistance to it was about a perception of technology culture that did not respect the craft or its values (Rosner in Wilkinson-Weber and DeNicola, 2016, pp.196-198). Young knitters have grown up with technology and take knitting anywhere, including online (Minahan and Cox, 2007, p.17) and knitters appear to take the sociability from offline groups to the online sphere (Humphreys, 2008, p.420). Greer found online craft groups a good place to share information (Greer, 2008, p.20). Craft sites encourage users who traditionally avoided technology, including women (Turney, 2009, p.149) and older people (Kenning, 2015, p.61) to connect and find information, and Van Deijnen suggests knitting as a motivator to try digital technology (Van Deijnen, 2020). The rapid uptake of Ravelry after its launch in 2007 built on this network and the ethos of knitting groups of sharing and sociability (Humphreys, 2009, p.3) suggesting the existing character of knitters was important. Its success may also be because the members feel ownership and control (Orton-Johnson, 2014, p.312).

The online knitting group can be a "...visible and performative practice..." (Orton-Johnson, 2014, p.314) increasing the visibility of knitting (Holroyd, 2017, p.202). Orton-Johnson believes the digital activities of knitters is changing their self-perception (Orton-Johnson, 2014, pp.316,319) and some find learning online less intimidating than in a class (Holroyd, 2017, p.41). Mayne's study of a Facebook group set up for research gives an indication of how online knitting groups compare. Mayne found many of her participants felt a similarity between online and offline groups (Mayne, 2018, p.112), with one main difference being that online the making was done alone, then shared (Mayne, 2018, p.175) and that the connection is asynchronous (Mayne, 2018, p.176). However, I would suggest that this also occurs in offline groups. She suggests

online offers an option for people who cannot join an offline group to connect with other makers (Mayne, 2018, p.176) for various reasons, including geography (Mayne, 2018, p.9) and offers a link to others for isolated individuals beyond the shared interest (Mayne, 2018, p.113) although this was important for connection in the group, and 'likes' and comments helped strengthen connections (Mayne, 2018, p.114,115,116). For some it was the only way to receive peer feedback, boosting self-esteem (Mayne, 2018, pp.170,179), however, some found the activity of others highlighted their own loneliness (Mayne, 2018, p.151). She found the group supportive and sharing with high participation and strong ties, indicating a similar bond to that found in offline groups (Mayne, 2018, pp.161,163-164,178). Like Miller, she suggests online is simply another way of interacting with and demonstrating making (Mayne, 2018, p.171). While acknowledging there are questions around the commercial nature of the platform, and accepting potential privacy issues, she feels the group claimed the space which was considered safe due to good moderation (Mayne, 2018, pp.105,171). Overall, Mayne's participants found online craft groups a helpful network "...in personally dark times." (Mayne, 2018, p.112). Van Deijnen suggests digital technology may allow access to other viewpoints "...and other areas of knitting you may not have known about." (Van Deijnen, 2020), but Pym expressed trepidation about the way "...people want to belong to certain tribes..." whilst acknowledging that it may encourage craft activity (Pym, 2020).

While we can connect online to like-minded people, there is a risk of 'cyberBalkanisation', a term for how users break up into increasingly small, focused and exclusive groups (Gauntlett, 2011, p.153; Krotoski, 2013, p.116; Aiken, 2016, Loc.589) and we end up in tight-knit feedback loops (Krotoski, 2013, p.84). Recently there have been widely reported heated debates in online knitting circles, including over inclusivity, accessibility of the *Ravelry* site and its stance on pro-Trump patterns (Convery, 2019; Haynes, 2020; Battan, 2021). This could be an example of the negative or destructive behaviour Lanier feels the SNS inadvertently promote (Lanier, 2018, p.12) affecting the knitting community, but it may be too early to draw conclusions.

2.4.4.4 Gifts

Giving a hand-knitted gift can be seen as a public demonstration of the knitter identity. Gifts historically formed part of a circulation of goods (Mauss, [1954]2011, pp.44-45) and exist outside the financial economy (Turney 2009, p140; Hyde, 2012, p.59). Miller notes that as gifts form relationships, receiving payment is the way some people maintain distance (Miller, 2009, p.270). Sennett highlights Mauss's political angle, contrasting "...the strong bonds created by gift-giving in aboriginal societies with the weak social tissues of competitive capitalism." (Sennett, 2013, p.73). Sennett explains that altruism, doing good when no praise is expected, is a form of gift giving (Sennett, 2013, pp.74,75,94). However, Mauss suggests gifts are altruistic but generally contain an element of reciprocity (Mauss, [1954]2011, p.5; Humphreys, 2009, p.11). This can be in status or objects (Humphreys, 2009, p.5), over time, via other recipients, requiring trust (Hyde, 2012, p.16) and helping to create society (Miller, 2010, p.67). Some have seen this in exchanges of online content amongst teenagers (Turkle, 2015, Loc.2596). Harkaway cites research from 2007 indicating that the brain responds positively to giving and feels that personal relationships bring us into the "hearth" of another (Harkaway, 2013, p.223). Gifts were sometimes destroyed for sacrificial reasons (Mauss, [1954]2011, p.40) or to break a gift relationship (Mauss, [1954]2011, p.35) and Winnicott sees the object being destroyed, but surviving this destruction, as part of the process required to fully use and come to love an object, as the person recognises it as outside their control (Winnicott, [1982]2007, p.126). Hyde emphasises using the gift, which if "...not used will be lost, while the one that is passed along remains abundant." (Hyde, 2012, p.21). Greer believes that "...craft allows us to transform emotion into a tangible object." (Greer, 2008, p.115) and Turney suggests gifts have an "...emotional or sentimental exchange value..." (Turney, 2009, p.139). Knitters find gifts strengthen relationships (Myzelev, 2009, p.155; Turney, 2012, p.306) possibly due to the time involved (Turney, 2012, p.305) but Turney feels the message is only "...fully understood by the maker and consumer." (Turney, 2004, p.279). What objects mean to us is personalised through our own experiences and may mean nothing to someone else (Greenfield, 2015, Loc.3690) or be "...invisible to others." (Holroyd, 2017, p.54). Mayne's respondents talked of transferring care to the gift recipient (Mayne,

2018, p.129) noting that few makers made things for themselves, being content with the enjoyment of production (Mayne, 2018, p.130). One respondent questioned if this was part of the belief that women should be seen to be useful through providing for others (Mayne, 2018, p.131).

The relationship between maker and recipient of knitted gifts is complex. They are commonly seen as symbols of love, often for children (Black, 2012, pp.112-113; Rutter, 2019, p.257), or romantic involvement, which may or may not be reciprocated (Turney, 2012, pp.308,309) and Maddock sees the complexity of both relationships and knitting (Maddock in Corkhill et al., 2014, p.44). Gell's description of the relationships around a work of art seems appropriate in describing a gift relationship too. The piece is the index, while the recipient can either be the patient, in being affected by the index, or the agent, in that they caused it to be made (Gell, 1998, p.24). In the first case, agency is in the hands of the maker (Gell, 1998, p.22), including through demonstrating virtuosity (Gell, 1998, pp.71-72). In the second, the recipient has been a patron, causing the object to be made (Gell, 1998, pp.33,39), giving a different power relationship to the knitted gift if it is requested. In this instance, the maker is working to the requirements of the recipient and must conform to what is expected (Gell, 1998, p.35). These situations are fluid (Gell, 1998, p.22) and he emphasises that the reception is varied and "...may be active or passive..." (Gell, 1998, p.24). The patient may resist, and the difficulty of an index adds to "...their efficacy as social instruments" (Gell, 1998, p.23). Turney sees a dark side to the maker/recipient relationship as a power struggle when they are made to wear a disliked gift (Turney, 2012, p.306). The recipient is being controlled by an obligation to wear the gift and conform to the identity it portrays (Turney 2009, p.32). Turney finds this particularly with gifts from "powerless" female knitters to male recipients, as a way of reversing the power relationship (Turney, 2012, p.308). Gell's nuanced interpretation of maker and recipient relationships, and the second 'patron'-style scenario suggest a different interpretation. Matthews suggests that trusting to handcrafts to gain love and control is not wise (Matthews, 2017, p.109) and Hyde would see a gift with such an obligation as false (Hyde, 2012, p.72) and if the giver cares about the relationship, they would ensure it was not seen as conditional (Hyde, 2012, p.71). However, clothing our

loved ones can motivate the knitter to complete a large project (Matthews, 2017, p.107).

Turkle found that people are now using technology as an attempt to control relationships (Turkle, 2015, Loc.962), through the level of contact, leading to "...a friction-free version of friendship." (Turkle, 2015, Loc.5515) and the technology allows us to keep people at just the right level, "The world is now full of modern Goldilockses, people who take comfort in being in touch with a lot of people whom they also keep at bay." (Turkle, 2012, p.15). Miller discusses what he calls the 'Goldilocks Strategy' in his English Study site where "...people exploit social media to calibrate the precise distance they desire for a given social relationship..." (Miller, 2016, p.5), including passive following, or to increase connection for isolated people (Miller, 2016, pp.100,101,105). He feels problems on social media simply make visible existing awkwardness (Miller, 2016, p.110). Miller et al. note that the smartphone has allowed more casual, but regular contact with an extended group of friends and family and can balance the users' requirements for sociability (Miller et al., 2021, pp.235-236). Accepting the complexity of the message of the knitted gift can counter the new desire for 'friction-free' friendships but when we make a gift to express our love, rather than do it in person, are we using the object to control our connections?

Knitted objects often pass-through different levels of use, potentially ceasing to be used, thus losing authenticity becoming a "...mere cultural sign..." (Baudrillard, [1996]2005, p.83) or a "pure object" (Baudrillard, [1996]2005, p.92). Even Winnicott's transitional objects cease to carry the meaning they once did, as its function is spread more widely (Winnicott, [1982]2007, p.7). Turney discusses how an object's value and status changes with the biography of object's owner through a case study of a child's sweater that comes to symbolise the familial bond (Turney, 2009, pp.140-142,144). It remains a functional, authentic object in Baudrillard's terms (Baudrillard, [1996]2005, p.83), but Turney suggests it falls outside this division as is it more than the remembrance of times past (Turney, 2009, p.143). Miller states that "Objects are magical, talismans that ward off evil..." (Miller, 2009, p.40), and Turkle concurs, suggesting they become a sign that we were/are loved, which is now been seen with objects like phones (Turkle, 2012, p.16).

Knitters generally hope gifts will be well received and cared for (Macdonald, 1988, p.59; Matthews, 2017, p.101), but understand that this isn't always the case (Macdonald, 1988, p.341). Germaine Greer feels bad knitted gifts make the recipient act hypocritically, leading to guilt (Holroyd, 2017, p.88), and one of the roles of the audience in a performance is to show an appropriate level of interest (Goffman, [1959]1990, p.224). Betsy Greer accepted that gifts "...may end up in a closet..." and that charity gifts were more satisfying as they were needed (Greer, 2008, p.85). Rejection of knitted gifts usually involves refusal to wear and often the knitter will stop making for that recipient (Turney, 2009, p.27; Stannard and Sanders, 2015, p.107). Turney suggests rejection of a gift is personal (Turney, 2012, p.306), especially with a romantic partner (Turney, 2012, p.310). It may also be a lack of understanding of the value of the craft (Stannard and Sanders, 2015, p.107), or the knitter could be imposing a style on the recipient, as Turney herself experienced (quoted in Matthews, 2017, p.108) or identity (Matthews, 2017, p.108). Rutter notes that disposing of a handmade object is problematic as it is like throwing away the effort and love involved in making it (Rutter, 2019, p.277), while Pym notes that damaged items can become particularly difficult, with possible guilt over the damage, and not wanting to dispose of the object, which she describes as a "...sort of stuckness...". She also talked of damaged items as no longer holding any fear, so can be used more fully (Pym, 2020).

In 2010 Gable and Reis studied the effects on relationships of sharing positive news or "capitalization" (Gable and Reis, 2010, p.228). Benefits could include increased self-esteem, probably from reliving the event and fixing it in memory (Gable and Reis, 2010, p.229) and wider sharing increased the effects (Gable and Reis, 2010, p.240). The response of the recipient is important (Gable and Reis, 2010, p.229) and they developed a scale according to how active/passive and constructive/destructive the responses were perceived to be (Gable and Reis, 2010, p.232), called the Perceived Responses to Capitalization Attempts (PRCA) Scale (Gable and Reis, 2010, p.233). Overall, only active and constructive comments were found to enhance the relationship (Gable and Reis, 2010, p.235) and constructive but passive responses were felt to show lack of interest and not often a 'reward' to the sharer (Gable and Reis, 2010, p.242). Zell and Moeller (2018) applied this to SNS,

and I see the responses to knitted gifts in this way where it is active and constructive comments such as wearing the garment that could strengthen relationships, but a thank you (constructive), but not wearing (passive) response could be similar to not receiving thanks. This is discussed in section 6.1.1.2, but would warrant further research.

The detached nature of communications technology can protect us from rejection (Turkle, 2012, p.198) and the vulnerability of exposure of feelings (Turkle, 2012, p.206) to which the knitter exposes themselves. Learning to deal with rejection is an important lesson. Sennett notes how "...social transactions are less demanding, more superficial than face to face..." as you can comment or like quickly and without thought (Sennett, 2013, p.144). Miller notes the greater effect negative interactions may have (Miller, 2016, p.173). Lanier explains how evoking emotion is how algorithms work (Lanier, 2018, p.16), and negative feedback gives the easiest results for least effort and is therefore the most utilised (Lanier, 2018, p.18).

Appreciation of gifts confirms the makers place/identity in the family or society (Turney, 2009, p.28) and recognises their skill (Kenning, 2015, p.59; Stannard and Sanders, 2015, p.109). Matthews sees gifts as gratitude to the recipient or charity (Matthews, 2017, p.104). The ratings and comments on online videos (Gauntlett, 2011, p.93) and the Facebook 'like'/'thumbs up' similarly 'places' the individual (Krotoski, 2013, p.58) and is a social sign of "...the positivity and importance of one's post." (Zell and Moeller, 2018, p.31). Miller et al. found the 'like' was a way for users with lower literacy to feel involved (Miller et al., 2016, p.170). The 'gift' of an online 'like' and a knitted gift can both be seen as creating a position in society. However, while the online thumbs up is a public demonstration of support, part of the online performance, the knitted gift is more personal and gives more time and commitment to the recipient.

Turney notes the effort taken to preserve special objects (Turney, 2009, p.58) and objects are only as permanent as we choose them to be. Knitted garments often don't survive to be included in museum collections as they degrade and are eventually disposed of (DeMeyere and Merrill, 2017, pp.11,128). For one contributor to Bernadette Murphy's book, the final object's impermanence emphasised the importance of process (Murphy, 2002, Loc.1261). Choosing to

repair can be a demonstration of what value garments have for a person as Van Deijnen explains, commenting on how repair "...makes people think about the garments and asks questions about the value they represent in their lives." (Van Deijnen, 2020). Pym seems repair as evidence of care, stating "Care could be just keeping the thing working [...] or it could be that it's really well loved and it's tender" (Pym, 2020). Often users perceive online interactions to leave more permanent traces (Humphreys, 2008, p.424), including users of the Spyn program (Rosner and Ryokai, 2010) and of Ravelry who found their online archive as "...a stark contrast to the fragility and absence of a finished object..." (Orton-Johnson, 2014, p.317), a sign of trust in the platform. (Orton-Johnson, 2014, p.317). Spyn is no longer extant, highlighting an issue from the early days of networking, when servers would move or shut down and data would be lost (Turkle, 2012, p.256). Mayne cites Buckley (1999) who proposed that digital archiving was a way of preserving objects (Mayne, 2018, p.59) and suggests digital media can be a method of documenting textiles that may degrade or be given away (Mayne, 2018, p.172) resulting in a personal archive (Mayne, 2018, p.205). Whilst recognising SNS as ephemeral, Van Deijnen sees blogs and Instagram as ways to document achievement or opinions and a way of recordkeeping (Van Deijnen, 2020). Krotoski suggests the online presence is as much 'us' as the real objects we treasure (Krotoski, 2013, pp.28-29).

However, both Harkaway and Turkle note that digital content requires effort to make it permanent (Turkle, 2012, p.299; Harkaway, 2013, p.25) and Harkaway acknowledges how "...chips need fairly narrow conditions to survive..." (Harkaway, 2013, p.71) saying, "Analogue systems have their place." (Harkaway, 2013, p.71). Data can be over-written or become obsolete (Krotoski, 2013, p.30) and its permanence controlled by people and systems we don't know (Krotoski, 2013, p.144). Belk noted that many of our possessions do not exist outside the digital environment, and that this can cause anxiety over their permanence and extra actions are required to overcome this, including printing out or backing up (Belk, 2014, p.133). I suggest it is the recipient of our knitted legacy that decides how, or if, they want to preserve the object. The decision to dispose of a knitted gift is in the control of the owner, and private, however, deleting a social media contact or 'friend' takes effort (Turkle, 2012,

p.260), "...with the persistence of data, there is [...] the persistence of people." (Turkle, 2012, p.260).

Social media has made content more permanent by design (boyd, 2014, p.11), with memories stored online, and this data is "...awkwardly ephemeral." (Krotoski, 2013, pp.28-29). Social media can be searched and revived much later, possibly with problematic consequences (boyd, 2014, pp.33,63). Some teenagers will therefore "encode" posts to hide the meaning to the 'wrong' audience and may make a point of deleting or clearing out old posts (boyd, 2014, p.64,65,66). It may also be why Snapchat, which automatically deletes content, is popular (boyd, 2014, p.64). Goffman notes how the performer doesn't want reminders of previous difficulties while learning (Goffman, [1959]1990, p.157) even though he suggests audiences are more forgiving of a beginner (Goffman, [1959]1990, p.225). Our early attempts at knitting can be hidden, at our choosing, and we can see what we have learnt from them. Of course, if we have given them to others, they may still revive them to our embarrassment, but this is unlikely to be something shared out among a new audience.

So far, we have seen how society impacts identity formation - who that society is and what stereotypes it may have is important. This varies from offline people to online, with its 'unknown' elements. The knitter also has the process of making to influence formation of the self. Identity is performed everywhere, and we have seen ways knitting identity may be expressed but it is unclear from existing research if this is similar to an online, externally facing performance. This research uses the lens of the performances of the online self to explore the way a knitter may perform their knitter self.

2.5 Effects of being a knitter.

Having established the concept of a knitter identity in section 2.4, what could this mean for the individual? Recent studies, most notably Corkhill and the *Stitchlinks* team in 2014, have confirmed anecdotal evidence of the effects of knitting, both physical (Prigoda & McKenzie, 2007), and mental (Kingston, 2012, p.19). Knitting offers relief from screen time (Groeneveld, 2010, p.263) and modern workplace environments (Groeneveld, 2010, p.264; Fields, 2014, p.157;

Holroyd, 2017, p.33). Knitting gives a sense of progress, achievement, and a tangible outcome (Fields, 2014, p.157) offering a creative outlet missing from many jobs (Stannard and Sanders, 2015, p.103). The importance of a change from a 2D screen to a 3D craft gives "...your brain a completely different focus." (Corkhill, 2014, p.48). Lycia Trouton sees craftivism as a rebellion against "...when the screen took over real-time relations and touch..." (Hemmings, 2010, p.106). Mayne's 2018 study notably found some negative impacts on health and wellbeing. There is a study being undertaken in 2020 into knitting, crochet and wellbeing at the University of Reading, although few details are available at this time (Science, not fluff!, no date).

In this section I will explore what effects being a knitter could have on an individual, in comparison to the reported effects of technology use. As noted, this study does not make claims to 'wellbeing' in a medical or therapeutic sense, but outlines the areas of a toolbox of skills knitting may engender in a knitter. For Sennett, the skills gained through being a maker impact the makers' behaviour beyond the craft itself (Sennett, 2013, p.199) but he warns against making too many assumptions (Sennett, 2013, pp.199-200). He talks of coming to have a "...quiverful of skills, each particularly suited to performing a particular act." (Sennett, 2013, p.201) and which one we choose to employ gives the piece of work individuality (Sennett, 2013, p.202). Pym suggests handwork should be part of education as it "...gives you a sense of control and purpose that is very different, and [...] it's empowering." (Pym, 2020) as well as broader skills such as maths and problem-solving (Pym, 2020).

2.5.1 Brain function

Neuroplasticity describes brain flexibility and how it's affected by experiences (Carr, 2010, Loc.359,518), and behaviour (Greenfield, 2015, Loc.897). Sennett discusses how touch acts on the brain in a different way to sight, delivering "...invasive, 'unbounded' data, whereas the eye supplies images that are contained in a frame." (Sennett, 2009, p.152), to the extent that we even say we "grasp something" to indicate understanding (Sennett, 2009, p.154). However, Crawford raises concerns that a neurological approach to understanding humanity can open the door to seeing people as machine like,

with the same binary logic, and replaceable by artificial intelligence (Crawford, 2015, p.277).

The effects of neurotransmitters are important in both knitting and technology, notably serotonin and dopamine. Dopamine is pleasure-producing (Carr, 2010, Loc.587) and is associated with the reward system and "...imbalances in dopamine can trigger gambling, overeating, and drug addiction..." (Eagleman, 2011, p.156). It affects the pre-frontal cortex which is important in cognition (Greenfield, 2015, Loc.1414) and a build-up may even switch off certain genes, leading to increased cravings (Carr, 2010, Loc.587). Serotonin is associated with wellbeing and many anti-depressants inhibit the re-uptake of the chemical, increasing its concentration which "...has direct consequences on cognition and emotion." (Eagleman, 2011, p.206). The repetitive movement involved in knitting may increase the release of serotonin (Corkhill et al., 2014, p.40; Corkhill, 2014, p.33) whereas the intermittent rewards of email, texts, and updates are a motivator to keep us checking (Aiken, 2016, Loc.794), and are associated with the release of dopamine (Turkle, 2012, p.227; Greenfield, 2015, Loc.1703; Aiken, 2016, Loc.824). Lanier suggests the developers at companies like Facebook are aware of the potential disruption this may cause (Lanier, 2018, p.8). Csikszentmihalyi suggests that by responding in this way "...we are controlled from the outside." (Csikszentmihalyi, [1992]2002, p.19), and being at the mercy of external rewards leading to decreased autonomy (Csikszentmihalyi, [1992]2002, p.16). Technology seems to stimulate our brain and "Connectivity becomes a craving..." (Turkle, 2012, p.227) while the calming effects of knitting may counter this.

Sennett explains how working with both hands strengthens the link between the two sides of the brains (Sennett, 2009, p.164) and Corkhill explains how bilateral activities that also cross the bodies midline use considerable brain capacity (Corkhill, 2014, pp.32-33). Gauntlett saw how making can get "...the brain firing in different ways..." (Gauntlett, 2011, p.4). Hebb's rule is often stated as "...neurons that fire together wire together..." (Keysers, 2011, p.141) and is a neuroscientific explanation of how behavioural conditioning works (Keysers, 2011, p.141). Connections are reinforced by repetition as pathways between neurons become stronger as the associations become more instinctive (Keysers, 2011, p.141). This process of Hebbian learning is found in the formation of mirror

neurons as through observing our own actions, the 'doing' and 'seeing' circuits become linked (Keysers, 2011, pp.145,157). This is enhanced by the reward and punishment neurotransmitters (Keysers, 2011, p.188). Both Sennett and Crawford believe that using our hands, tools and gaining a skill changes our view on the world (Sennett, 2009, p.149; Crawford, 2015 p.249). Intellectual technologies can change how we think (Carr, 2010, Loc.724,728) and citing a 2009 study by Small et al. into internet use, Carr describes how changes in the dorsolateral prefrontal cortex occurs after five hours of internet use (Carr, 2010, Loc.1910,1914,1921). Keysers notes that shared circuits are stronger in face-toface circumstances, rather than when we only have audio input such as on the telephone (Keysers, 2011, pp.100-101). Some positive effects of technology use on the brain have been noted. Carr believes that physical technologies can improve dexterity (Carr, 2010, Loc.719), while Harkaway emphasizes how digital technology can improve fast decision making which could aid users' choices over use and attention. Whilst acknowledging the lack of transparency of levels of online manipulation, he feels users need to be aware of it (Harkaway, 2013, pp.206,208), boyd also feels that the mind changes taking place in using social media are not necessarily negative (boyd, 2014, p.93), and that SNS allows teenagers ownership over a social space, and that it is adults' lack of understanding that leads to negative views (boyd, 2014, p.212).

2.5.2 Health effects

The idea of the focused and repetitive nature of knitting being beneficial is not new (Macdonald, 1988, p.142), including dealing with the stress of war and depression (Macdonald, 1988, pp.241,287; Rutt,1989, p.139), more recently the post 9/11 environment (Parkins, 2004, p.436) and the "...political, social and technological changes of the new millennium." (Minahan and Cox, 2007, p.5). Greer sees time out for craft as an important break from "...the chaos of daily life" to allow time to think (Greer, 2008, p.38). Cat Mazza specifically sees knitting as a "preindustrial skill" that she turned to as a "...reaction to working so intensely with technology..." (Mazza quoted in Greer, 2008, p.107). Turney suggests that crafts offer "...stability in an unstable world." (Turney, 2004, p.272; 2009, p.182) by finding comfort in the past (Turney 2009, p.53). Gschwandtner posits that knitting is "...an escape from the computer." (Gschwandtner in Bryan-Wilson, 2008, p.81) while acknowledging technology as a resource.

Mayne found her group enjoyed yarn-based craft as "...an outlet from stresses in daily life..." (Mayne, 2018, p.183) and control was one aspect of this (Mayne, 2018, p.187). One of Mayne's respondents enjoyed the tactile contrast of yarn to the hard materials they worked with and the digital media they engaged with (Mayne, 2018, p.121). Winnicott's transitional objects are items, usually soft, classically a blanket, that act as "...a defence against anxiety..." (Winnicott, [1982]2007, p.5). These objects help the child develop a sense of self, being a "not-me" object (Winnicott, [1982]2007, p.2), and can be drawn upon at a later time (Winnicott, [1982]2007, p.6). Soft knitted items could be an adult's way of harkening back to these soft transitional objects in times of difficulty and Maddock specifically uses Winnicott's phrase for her knitting (Maddock in Corkhill et al., 2014, p.47).

The need to keep going to finish a project can be aligned with working through difficult emotions instead of hiding from them (Greer, 2008, p.41) and knitting creates a "safe space" in which to do this and document it through what is made (Greer, 2008, p.42), emphasising the process more than the product as beneficial (Greer, 2008, p.43). Greer notes research suggesting video gaming can require attention sufficient to provide a diversion from pain and suggests complex knitting could also do this (Greer, 2008, p.46). There is personal testimony of the benefits of knitting in specific health issues, including difficult emotional times (Liz Collins in Bryan-Wilson, 2008, p.82), and anxiety in anorexia sufferers (Kingston, 2012, p.19). It is proposed as helping with depression (Fisk, 2012, p.16; Corkhill et al., 2014, pp.39-40) possibly due to the comforting tactility of the yarn (Rosner and Ryokai, 2008, p.3; Corkhill et al., 2014, p.41), and anxiety (Maddock in Corkhill et al., 2014, p.47). Hemmings sees the upsurge in knitting, along with other crafts "...as a reaction to the anxiety and boredom Csikszentmihalyi cites as a common reality of modern life." (Hemmings in Corkhill et al., 2014, p.49). Corkhill draws on evidence from the treatment of World War One soldiers with knitting to suggest it could be used now "...with those suffering from PTSD." (Corkhill et al., 2014, p.41). Matthews proposes that knitting can help to "...extinguish unproductive thinking..." (Matthews, 2017, p.57). Rutter raises Virginia Woolf's letters in which she suggests that knitting may have helped her during a period of mental health difficulties (Rutter, 2019, p.70).

While finding a largely positive impact on wellbeing through knitting and crochet that were shared online, Mayne highlighted some negative impacts and suggests that the story cannot be seen as completely one-sided (Mayne, 2018, pp.6-7). A small number of her participants found making increased pain (Mayne, 2018, p.146) and for some being focused inward "...could lead to cycles of negative thinking, exacerbating low mood or loneliness and anxieties." (Mayne, 2018, p.147) and some also reported issues with online sharing highlighting a sense of loneliness (Mayne, 2018, p.187). Others felt uncomfortable about the amount of yarn they had amassed (Mayne, 2018, pp.189-190), and for some knitting and crochet were not able to help with more significant problems (Mayne, 2018, p.148). Overall, these were minority views, with most finding the benefits outweighed any negative impacts (Mayne, 2018, p.145), but a useful reminder against simplistic views of craft and knitting as solely positive (Mayne, 2018, p.197-198,201). Matthews also suggests a more nuanced view, commenting on the frustrations of knitting and how "...it can be done with the wrong intentions, it can hurt you if you do it with too much repetitive strain - it can become unhealthily addictive" (Matthews, 2020).

Whether internet/SNS use causes depression is still being debated, with Kraut et al.'s 1998 study on internet use finding that it does, being challenged by later research (Jelenchick, Eickhoff and Moreno, 2013, p.129). Harkaway highlights the difficulty establishing the direction of causation in negative impacts of excessive use (Harkaway, 2013, p.92). Miller et al. did not find evidence that social media caused unhappiness, although users may be more aware of appearance and a need to look happy in some cases (Miller et al., 2016, p.xvii). They contend that the variation in findings of studies on social media and happiness is due to the variety of ways people use the technology (Miller et al., 2016, p.195) and differing cultural concepts of happiness (Miller et al., 2016, p.201). In contrast a large-scale three-year study by Shakya and Christakis in 2017 found "...that using Facebook was associated with a likelihood of diminished future well-being." (Shakya and Christakis, 2017, p.210). They took account of initial wellbeing and levels of isolation and were given access to participants Facebook data, to assess activity levels directly, while wellbeing information was self-reported (Shakya and Christakis, 2017, p.204). They consistently found real-world networks to be more positive on wellbeing

measures than Facebook use (Shakya and Christakis, 2017, p.210). Twenge's long-term assessment of surveys found similar results in teenagers who spend more time engaged in screen activities, as opposed to non-screen ones (Twenge, 2018, Loc.1114,1176,1552). However, she does find that the positive feedback the more recent generational groups received have led to them being happier than the GenX group in the 1990's, even if this is now starting to fall (Twenge, 2018, Loc.4812). As someone who works within the technology industry, Lanier quotes many social media insiders acknowledging the way technology is designed to utilise brain function, using hacker terminology to suggest it is "...exploiting a vulnerability in human psychology..." (Lanier, 2018, p.8) and Facebook themselves have acknowledged that some forms of passive social media usage may be detrimental (Ginsberg and Burke, 2017).

It seems there is still debate around happiness and social media, whereas studies into knitting seem to only have yielded mostly positive results, though Mayne (2018) suggests a more nuanced picture.

2.5.3 Sociability and communication

Much knitting is done alone, but knitting groups are long-established social sites (Macdonald, 1988, p.357) and social bonds are important for happiness and wellbeing (Gauntlett, 2011, p.121) as emphasised by social capital research (Gauntlett, 2011, p.161). They are a counterpoint to Putnam's concepts of increasing isolation as leisure becomes private, and "...build, not reduce, social capital." (Minahan and Cox, 2007, p.8) and can counter the "...new circumstances of the Information Society and the alienation that can be experienced..." (Minahan and Cox, 2007, p.18). There is a debate over whether social capital can be developed online, with Putnam questioning it (Gauntlett, 2011, p.149), while Krotoski believes that the online games and groups provide "...the context that Putnam claimed the virtual world is without." (Krotoski, 2013, p.55) as sociability was extended beyond gameplay (Krotoski, 2013, p.55; boyd, 2014, p.4) as is found with knitting groups.

Kraut et al. found in 1998 that internet use caused people to have "...less social engagement and poorer psychological well-being." (Kraut et al., 1998, p.1018). Whilst not establishing causes (Kraut et al., 1998, p.1029) they suggest a lack of social context due to lack of physical proximity causing weaker ties online

(Kraut et al., 1998, p.1030). Boase and Wellman believe there is a change in communication from "...house-to-house to person-to-person.", called "networked individualism" where people are sought out as a resource (Boase and Wellman, 2006, p.i-ii), although this mainly refers to email. Burke et al. found Facebook to be generally positive in reinforcing relationships (Burke, Marlow and M. Lento, 2010, p.4) and those who exchanged messages between friends increased bonding social capital, but passive use led to a reduction (Burke, Marlow and M. Lento, 2010, p.5) so the effect varies depending on the active/passive nature of use. boyd found that social media has become the environment in which teens socialise, and all the dynamics associated with that are present, but may be amplified by the speed, ease of sharing and need for attention (boyd, 2014, pp.142-145). Whilst bullying has always occurred, social media allows it to happen at any time and indirectly (Miller et al., 2016, p.77). Miller suggests that social media is making people more communal (Miller, 2016, p.4) noting the social nature of Facebook imagery (Miller, 2016, p.86) and his team did not find increased individualism (Miller et al., 2016, pp.181-182) with even the 'selfie' being used to associate with a group (Miller et al., 2016, p.186). Miller found that cultural norms are developed around Facebook friends after a period of use (Miller, 2016, p.111) and online/offline friendships often overlap (Miller et al., 2016, p.100). Where online friends were considered lower status, notably Brazil and China, this was regarded merely as an extension of existing differentiation between levels of friendship (Miller et al., 2016, pp.102-103) and while online offered more opportunity for unpleasant behaviour, this too was seen as extending existing offline behaviour (Miller et al., 2016, p.202). They consider online and offline environments as different 'frames' in Goffman's terms, where there may be different behaviours (Miller et al., 2016, pp.103-104). Shakya and Christakis's more recent research found that interactions such as "Liking others' content and clicking links posted by friends were consistently related to compromised well-being, whereas the number of status updates was related to reports of diminished mental health." (Shakya and Christakis, 2017, p.210). Twenge feels the decline in offline socialising leads to a decrease in social skills (Twenge, 2018, Loc. 1037, 1303).

While the effects on sociability of the online communications environment is still debated, with several significant negative effects being reported, knitting offers

many effects to improve sociability. Minahan and Cox noted the use of knitting as "...a remedial response..." to people connecting globally not locally and knitting groups a departure from individualism (Minahan and Cox, 2007, pp.8,10) while Sennett believes the lessons learnt from making are transferable to relationships with each other (Sennett, 2009, p.289). Corkhill found that belonging to a group counters social isolation (Corkhill et al., 2014, p.43) and knitting groups could offer some help in socialising in a safe environment. Greer notes the capacity for knitting to confer a rhythm on conversation and connection and understanding with wider social groups (Greer, 2008, p.54). Craft blogger Diane Gilleland found making helped to overcome "...our social inhibitions and into real communication." (Diane Gilleland quoted in Greer, 2008, p.56). Sennett believes that "...modern society is 'de-skilling' people in practising cooperation." (Sennett, 2013, p.8) notably using a term associated with the loss of skilled labour to industrialisation, and suggests that approaches learnt in the workshop can improve diplomacy and help manage conflict (Sennett, 2013, p.221). The act of knitting itself is an enabler for people joining groups, allowing the less confident to socialise (Stannard and Sanders, 2015, p.108) due to the hand position providing a protected space (Corkhill et al., 2014, p.42) and the increased control it gives the individual over eye contact and conversation (Corkhill et al., 2014, p.42), as Mayne found, with the position of digital devices possibly offering similar benefits (Mayne, 2018, p.174). It provides an opening for conversations, and knitters testify to strangers talking to them about their knitting (Rutter, 2019, p.273). Crawford found making with others allowed him to have a "...conversation in deed..." (Crawford, 2010, p.197) through what was being made, and Gauntlett uses something similar in his research using creativity to help self-expression (Gauntlett, 2011, p.4). Knitting has been found to improve conversation and "...'switch off' self-monitoring." (Corkhill, 2014, p.36). The focus on the knitting activity helps "...the quiet knitter lose the fear of saying silly things in an unfamiliar social situation." (Matthews, 2017, p.93) and gives unpressured sociability for those with problems like grief (Matthews, 2017, p.96). Pym feels textiles cross cultural boundaries as a "common language" (Pym, 2020), Matthews' "mother tongue". Pym also notes that it is "...easier to talk about something if you are actually looking at the thing together." (Pym, 2020).

Some suggest the nature of internet interaction can help adolescents overcome shyness (McKenna et al., 2002, cited in Valkenburg and Peter, 2007, p.270) and are places for teenagers to learn sociability (boyd, 2014, p.92). boyd outlines how teenagers do prefer to meet in person (boyd, 2014, p.85) but this was limited due to concerns over safety, both their own and their parents' (boyd, 2014, pp.87,88). SNS becomes an alternative space, what she calls "networked publics" (boyd, 2014, p.200), something Miller also found (Miller, 2016, p.182). Both Harkaway and Miller found online was a social space, reflecting offline (Harkaway, 2013, p.25; Miller, 2016, p.2) and that it changed previous private/public boundaries (Harkaway, 2013, pp.49,50; Miller, 2016, p.192). Miller et al.'s view is that smartphones have become a portable 'home' because they contain so much of our lives and allow us to be always contactable, what they call the "Transportal Home" (Miller et al., 2021, pp.219-220). Mayne noted that her participants found her research group to be a "safe space" to share their making (Mayne, 2018, pp.105,116) and make it "visible" (Mayne, 2018, p.170). She proposes that Facebook groups create "...a place where creativity can be performed in digital space as a way of celebrating it and communicating creative practices to other everyday makers." (Mayne, 2018, p.186).

2.5.4 Sharing

As discussed, gifting is considered "...an established [...] culture amongst knitters...", which makes sites like *Ravelry* function well (Humphreys, 2009, p.10). The enjoyment of making for others can be a motivator (Myzelev, 2009, p.150), often thinking of the recipient while making (Prigoda and McKenzie, 2007, p.106; Rosner and Ryokai, 2010) and what the wearer might feel (Matthews, 2017, p.55). Rosner and Ryokai found *Spyn* was a way of "...unravelling the value of the gift..." (Rosner and Ryokai, 2010). Some of Mayne's participants thought of the recipient while making for them, feeling this touch would be transferred to them (Mayne, 2018, pp.169-170). All these aspects show the long-term consideration and empathy within a knitted gift. Winnicott explains the importance of reliability over time to engender trust (Winnicott, [1982]2007, p.147) while Turkle believes "...empathy requires time and emotional discipline..." (Turkle 2015, Loc.2732). Rogers suggests that one should assess people from their point, not just your own perspective, what he calls "empathic

understanding" to improve communication (Rogers, [1967]2011, pp.331,332) but this is a more vulnerable position as it can change oneself (Rogers, [1967]2011, pp.332,333). Keysers suggests that shared circuits allow people to see things from another's view through an intuitive understanding of their actions (Keysers, 2011, pp.50-52), which does not require effort (Keysers, 2011, p.62) and we experience the same feelings (Keysers, 2011, p.104). This does not have to be triggered directly and can include reading about others (Keysers, 2011, pp.128,197), which could suggest that it should be possible to be empathic online as well as offline. Sennett talks of empathy as "...a more demanding exercise..." as one must suspend the ego and engage with the other person, as opposed to sympathy (Sennett, 2013, p.21). Carr suggests that distraction is behind lessening of emotions such as empathy (Carr, 2010, Loc.3472) and Turkle has found empathy to be declining among digital natives (Turkle, 2012, p.293; 2015, Loc.1855). SNS are used by some to keep abreast of personal relations in order not to say the wrong thing, showing consideration (boyd, 2014, p.144) but Twenge found that iGen teenagers did not express empathy for people not like them (Twenge, 2018, Loc.2424). Lanier is concerned that because of the highly personalised feeds we receive we do not understand others' experience and therefore, viewpoint. This makes empathy and understanding more challenging (Lanier, 2018, pp.78,79,125).

The SNS sign of support or empathy is a 'thumbs up' or a 'like' (Turkle, 2015, Loc.2723) which can be regarded as a small online 'gift' of support. However, the person needs to feel "...that you are there for the duration. Empathy means staying long enough for someone to believe that you want to know how they feel..." (Turkle, 2015, Loc.2732). No response is difficult in person, but easy online, so any response is welcomed (Zell and Moeller, 2018, p.28) and the level of effort in responses affects how the recipient feels: 'like' is better than no response, but a comment is more meaningful, and produces positive feelings (Zell and Moeller, 2018, pp.28,31). Users judge how much thought is behind the 'like' and generally they are not considered to improve closeness in relationships. Comments on good news gave more feelings of support and community and were "...perceived as more meaningful indicators of genuine care and interest." (Zell and Moeller, 2018, p.31). If one extrapolates this from the online gift of a 'like' or comment to a knitted gift, I suggest that the level of

time and care in the latter is considerable, so should improve closeness and show empathy. Miller and Twenge note the desire for 'likes' (Miller, 2016, pp.30-31; Twenge, 2018, Loc.836) but Twenge found the sincerity of 'likes' increasingly questioned with age (Twenge, 2018, Loc.836). Miller notes competition for 'retweets' and followers indicating social status (Miller, 2016, p.36) and that on some platforms a 'like' from a stranger was rated more highly (Miller, 2016, p.98). The chasing of 'likes' can cause problems for vulnerable teenagers (Twenge, 2018, Loc.1192) and their absence can cause anxiety (Twenge, 2018, Loc.1277) and delays in responses can enhance feelings of rejection (Twenge, 2018, Loc.1273). Knitting for others seems to demonstrate more of the features of empathy than is seen in the fast, online responses to social media posts.

Much conversation in knitting groups is knitting focused (Fields, 2014, p.160), but there is the opportunity for broad conversation, possibly with people outside your own age/social groups and "...to share not only skills but everyday life..." (Prigoda and McKenzie, 2007, p.103). This breadth and depth of conversation is vital for intimate conversation and close relationships (Altman & Taylor, 1973, cited in Valkenburg and Peter, 2007, p.269), as Matthews (2020) found with public knitting allowing her to engage with others' lived experience. Open and supportive skills sharing is a major factor, "...in a time-poor, commodity-rich climate." (Turney 2009, p.146), helping everyone to improve (Crawford, 2010, p.187) and empowers both learner and teacher (Matthews, 2017, p.97). Mayne found her participants used the group for help and advice on both craft projects (Mayne, 2018, pp.133,136) and related injuries (Mayne, 2018, p.146). This online sharing was "...a key factor in 'becoming' a knit or crochet maker..." through learning from others (Mayne, 2018, p.173). This reciprocity and support for problems differs from the way problems online are 'rated' as interesting with 'likes' and 'hearts', and that "...even the statement of a problem is a performance." (Turkle, 2015, Loc. 1838). Whilst the online arena can be a more comfortable place to express problems (boyd, 2014, p.125), they can also be magnified by it (boyd, 2014, pp.124,140), and lead to cruelty (boyd, 2014, pp.140,144). Miller notes the use of images to express feelings and that "The more negative mood messages are usually intended to elicit some kind of supportive response from one's concerned friends." (Miller, 2016, p.57).

Positive news posting is a way of gaining validation and support (Blight, Jagiello, & Ruppel, cited in Zell and Moeller, 2018, p.27), and Holroyd found this with makers sharing images online (Holroyd, 2017, p.202) and that positive feedback felt good (Holroyd, 2017, pp.44,100). Who is giving the feedback is important, and Crawford suggests this is more important coming from informed peers with whom we share a set of values. This gives both parties "...recognition as an individual." and a mark of excellence (Crawford, 2015, p.160). Positive feedback increases an event's significance when recalled (Zell and Moeller, 2018, p.27), so our narrative changes to fit the feedback. Being in constant view leads to increasing judgemental behaviour and anxiety (Krotoski, 2013, p.82) and passive consumption of others' information causes envy and a decline in satisfaction (Sagioglou and Greitemeyer, 2014, p.359). Miller found respondents who did not like the positive sharing and questioned its authenticity (Miller, 2016, p.112) which could exacerbate an existing low mood (Miller, 2016, p.142). Twenge has identified a change in teenagers' outlook, where positive feedback led to an increase in confidence and narcissism in Millennials, that dropped in iGen'ers (Twenge, 2018, Loc. 1324). She attributes this to more socialising online than previous generations, and only seeing the successes of their peers in an overly positive online environment, and not the mistakes that people may share in person (Twenge, 2018, Loc.1410).

2.5.5 Mistakes

In performances, an "...impression of infallibility..." is maintained by correcting and concealing mistakes before they are seen, and the end product shown without reference to the work involved (Goffman, [1959]1990, p.52). Winnicott notes that "...the imperfections that are characteristic of human adaptation to need are an essential quality..." (Winnicott, [1982]2007, p.187) and Sennett suggests that the flaws of the handmade are an element of individuality in opposition to machines (Sennett, 2009, p.84). Knitwear designer Martin Kidman wanted his commercial products to look handmade or "charming" and not computer created (DeMeyere and Merrill, 2017, p.124), indicating the image handmade can have even in knitters' minds. Fashion designer Rei Kawakubo is said to have altered her commercial knitting machines to create an imperfect look, as she found the perfection of machine-knitting soulless (DeMeyere and Merrill, 2017, p.164). While learning to knit, Murphy noted the ability to correct

mistakes and for her, this marks a difference to life, where mistakes cannot be completely erased (Murphy, 2002, Loc.268,481,486). She notes however, that in knitting one learns what mistakes can be left (Murphy, 2002, Loc.486), and that the importance of process to many knitters made re-doing less of a chore (Murphy, 2002, Loc.759). Greer suggests that art seemed "alien" to her because it didn't have mistakes (Greer, 2008, p.26), but does mention that her first knitting has never been publicly worn due to its errors (Greer, 2008, p.29). Mistakes can demonstrate the object is not mass produced and imperfections connect the knitter to the object (Rosner & Ryokai, 2009; Fields, 2014, p.158; Stannard and Sanders, 2015, p.102). Crafter Cinnamon Cooper feels people should not worry about mistakes as they can "...frequently be righted, or at least we can realize that they aren't going to end a life." (Cooper quoted in Greer, 2008, p.17). The ability to correct (Jubas and Seidel, 2016, p.73; Matthews, 2017, p.17) can teach people to experiment and not be affected by failure (Matthews, 2017, p.69). They can teach problem solving in a safe environment (Matthews, 2017, p.72), a "supportive space" for losing control that Sennett feels is endangered in modern society (Sennett, 2009, p.114). For some, mistakes had to be corrected or cause disappointment with the finished knitting (Stannard and Sanders, 2015, p.107) which points to differences in personality types. Freddie Robins highlights this, liking "...the obviously handmade. But I suffer from being a perfectionist." (Robins quoted in Hemmings, 2010, p.18) and some of Mayne's participants found mistakes frustrating (Mayne, 2018, p.149). Meg Swanson, daughter of renowned knitter Elizabeth Zimmerman, explains the difficulty her mother had trying to make a sweater with mistakes, including how she had to ensure a good finish on some of it to maintain her reputation (Swanson in DeMeyere and Merrill, 2017, p.108). Rutter notes that people rarely closely examine someone's knitting, so you can make mistakes and practice in private, sharing only when you are ready, but it can result in uncorrected errors in technique (Rutter, 2019, p.126).

On SNS users have limited control over what happens to their content, and are "....'on the record' to an unprecedented degree." (boyd, 2014, p.11). Mistakes or embarrassing events are kept for all to see (Aiken, 2016, Loc.1294), so users self-censor to avoid making them in the first place (Turkle, 2015, Loc.4836; Greenfield, 2015, Loc.2034), even if sometimes these mistakes are in the

perception of the, sometimes unintended, audience (boyd, 2014, p.35). Zhao, Grasmuck and Martin suggest that something personal might "...haunt the writer with the passage of time." (Zhao, Grasmuck and Martin, 2008, p.1825). Goffman recognised that individuals may maintain a performance even when alone "...because of a lively belief that an unseen audience is present who will punish deviations from these standards." (Goffman, [1959]1990, p.87) and Rogers acknowledges "...the risks involved in being himself..." (Rogers, [1967]2011, p.203). This self-regulation can be seen in terms of Foucault's discussion on prison surveillance, where inmates conform because they might be being watched and is disempowering (boyd, 2014, p.74). One of Turkle's respondents felt that "...our culture has 'zero tolerance' for making mistakes." (Turkle, 2015, Loc.928). Twenge suggests that in iGen teenagers this caution in expressing opinions and speaking up has extended to the offline environment (Twenge, 2018, Loc.4262) and content persistence is one reason why teenagers are turning to the more ephemeral Snapchat (Twenge, 2018, Loc.854). The iGen group are more aware of the potential for reputational damage and emotional vulnerability from online interaction, regarding it as an aspect of personal safety which can be compromised by risk taking (Twenge, 2018, Loc.2028,2100).

Knitting gives freedom to experiment and make mistakes that can be undone, and the control to decide to do so. We can also choose with whom to share those mistakes, whereas online we are often broadcasting to a large and undifferentiated group (boyd, 2014, p.35). Harkaway quotes Ruskin's view that human flaws should be cherished (Harkaway, 2013, p.170) and discusses instances where people are willing to share their mistakes as signs of openness and demonstrating qualities by dealing with them (Harkaway, 2013, p.229). I believe that online we have combined the flaws of the human, with the perfect recall of the machine, whereas knitters have the human flaws and the control over how much they are displayed.

2.5.6 Focus

Carl Honore has written about the rise of the 'slow' movement, a mindset based around regaining control over the pace of one's own life more than necessarily doing things slowly (Honore and Brett, 2005, pp.13,14). Honore believes that the way to cultivate the right mindset is to "...make time for

activities that defy acceleration..." and he includes knitting (Honore and Brett, 2005, p.239) while Sennett emphasises how "slow craft" allows time for thinking (Sennett, 2009, p.295). Some of Murphy's respondents noted how knitting helped them overcome creative blocks, allowing the mind to process the problem while the hands knitted (Murphy, 2002, Loc. 1655, 1698). The slow speed of making is a contrast to an increasingly fast-paced society, driven by our technology (Turkle, 2012, p.166; 2015, Loc.1253) and craft can critique this (Bratich and Brush quoted in Holroyd, 2017, p.190). Knitting's "different temporality" (Parkins, 2004, p.426) offers "time out" (Turney 2009, p.104) and the opportunity to take time and thought over something (Myzelev, 2009, p.153; Gauntlett, 2011, p.60) and there are benefits to choosing your own pace (Greenfield, 2015, Loc.277). Harkaway proposes the sense of "information overload" is because technology has allowed it into the "hearth", which he describes as "...the place which is set aside for the things that matter." (Harkaway, 2013, p.49). It is our domestic space and is "...to some extent the thing preserved by philosophies of 'slow' evolved to combat the hectic pace of modern life." (Harkaway, 2013, p.50). Turkle points out that "It was the dream of early computer scientists to have machines do the fast and routine work so that the slow and creative work could be done by people." (Turkle, 2015, Loc.1249) but instead we seem to have become beholden to the speed of the technology we are attached to.

However, knitters do knit while doing something else, such as watch television (Matthews, 2017, p.62) which is noted as part of "...fast-paced postmodern lifestyles" (Parkins, 2004). Multitasking is often undertaken to avoid 'wasting time' while doing something not considered productive (Macdonald, 1988, p.xx; Turney, 2009, p.26) possibly echoing the Protestant work ethic (Turney, 2009, p.156). One of Murphy's respondents found knitting was acceptable because it was productive (Murphy, 2002, Loc.636) and although a slow process, the end result is evidence of useful time (Murphy, 2002, Loc.2075). Mayne noted many knitters/crocheters found it a good way to make use of 'dead time', including waiting or travel time, to make something useful (Mayne, 2018, p.137), while others want to be productive with some specifically highlighting the difference with digital devices as unproductive time (Mayne, 2018, p.137). Users are aware that time can be wasted on SNS (Greenfield,

2015, Loc.168) even compared to web browsing, and this can lead to lowered mood (Sagioglou and Greitemeyer, 2014, p.361), but the interaction with others can be regarded as a useful activity (Turkle, 2015, Loc.1042). Miller et al. describe the constant availability of smartphones as "Perpetual Opportunism", allowing access to functions previously not available away from a computer but acknowledges this may also result in the obligation to be available (Miller et al., 2021, pp.128,132). One participant in Miller et al.'s 2021 study found knitting a useful distraction when alone, but they compare this to her use of a smartphone, which they feel is a more effective connection object for her, but is considered less morally acceptable to her than knitting as it is less traditional (Miller et al., 2021, p.41).

Quiet knitting is often seen as meditative, due to its repetitive nature allowing reflection (Rutt, 1989, p.157). Corkhill found knitting alone as important as group knitting, offering different benefits, such as not having to depend on others, and relief from stress (Corkhill, 2014, p.72, Corkhill et al., 2014, p.43). It can help people to enjoy solitude (Corkhill, 2014, p.72), whereas being always connected causes people to struggle with being alone (Turkle, 2015, Loc.1122). Rosner and Ryokai faced challenges when developing their software application as they found knitters wanted to disconnect when knitting (Rosner and Ryokai, 2008, pp.3-4). Corkhill noted the benefits of being able to disconnect (Corkhill, 2014, p.65) and Benedict Dellot suggests it is "...of a desire among people to have more control over their lives." (Dellot, 2015, quoted in Holroyd, 2017, p.196) in the face of technological disruption.

Greer found knitting better than meditation for bringing her into the present moment (Greer, 2008, p.1) and suggests knitting with a set amount of yarn as a way of measuring time, involving redoing the knitting each day (Greer, 2008, p.39). It is a way of marking time, offering structure (Turney 2009, p.217). It has been discussed in spiritual terms (Parkins, 2004, pp.435-6) but Turney sees the knitter focused in the moment as becoming distant from their surroundings (Turney 2009, p.155) and that texts highlighting meditative knitting as an escape from domesticity could be unquestioning of that domesticity (Turney 2009, p.156). Mindfulness is designed to give focus and "...to see the world as it is..." (Williams and Penman, 2011, Loc.554), not as an escapism, and as a way of 'resting' thoughts, so one doesn't get tangled up in them (Matthews, 2017,

p.63). It is associated with making conscious choices (Williams and Penman, 2011, Loc.572), contrasting with technology usage. Several authors offer personal testimony of meditative benefits they have found in knitting (Fisk, 2012, pp.161-2; Kingston, 2012, p.18). While many of Mayne's group participants found knitting calming (Mayne, 2018, p.121), some felt it could cause rumination (Mayne, 2018, p.149). Pym testified to feeling deep concentration while carrying out "...hand-based creative activity...", but does not like the comparison with meditation, which she finds "...makes it sound benign, whereas I think it's kind of powerful actually." (Pym, 2020).

What technology, in the widest sense, we use, impacts on our cognitive abilities (Crawford, 2015, p.35). Knitting can improve cognition (Kingston, 2012, p.18) with Corkhill noting improvements "...in relation to organizing and clarifying thoughts, forgetting problems, memory, and concentration." (Corkhill et al., 2014, p.38), and the bilateral nature focused the mind (Corkhill, 2014, pp.32-33). Carr feels the divided attention may be one cause of "cognitive overload" (Carr, 2010, Loc.1989), and the structure of digital media content a cause of lower levels of understanding (Carr, 2010, Loc.2004,2052), although the mental dexterity needed to negotiate technological multi-tasking may lead to improvements in working memory capacity and faster decision making (Carr, 2010, Loc.2213,2214). The distraction of technology use requires mental agility but can impede functions such as comprehension and interpretation (Carr, 2010, Loc.1931,1934).

The lack of focus on an end result is important in therapeutic contexts (Turney 2009, p.158) known as an autotelic experience, where the activity is rewarding for itself (Csikszentmihalyi, [1992]2002, p.67). Rogers feels it is important that the self is seen as an ongoing process, not a finished product. In this way it is mutable (Rogers, [1967]2011, p.122), and allows for inconsistencies (Rogers, [1967]2011, p.171). Knitting echoes these concepts, as it allows freedom in making, where the process itself is a reward, leading knitters to "...develop skills of persistence, patience and planning." (Corkhill, 2014, pp.34-35) and the idea of making a series of small movements towards a goal is useful (Corkhill, 2014, p.51). The ability to see a project through to completion was of benefit for one of Murphy's contributors (Murphy, 2002, Loc.712) and Holroyd found the end goal a motivator for some makers, with the wearing legitimising the making

(Holroyd, 2017, p.82). Twenge found the iGen teenagers were less focused on intrinsic values and more on the end result (Twenge, 2018, Loc.4292), and preferred regular short feedback on tasks, not on performance (Twenge, 2018, Loc.4326).

Paying conscious attention causes changes in the brain (Greenfield, 2015, Loc.1109) and knitting can focus the brain's attention (Corkhill, 2014, p.33), preventing mind wandering, an aspect of Csikszentmihalyi's flow experience (Csikszentmihalyi, [1992]2002, p.58). He saw that people used information input to avoid negative thoughts (Csikszentmihalyi, [1992]2002, p.119) and the effect of using technology on people's attention span is the subject of some debate. The presence of a smartphone can distract people (Ward et al., 2017, pp.149-150), both through notifications (Stothart, Mitchum, and Yehnert, 2015, cited in Ward et al., 2017, p.142), anticipation of distraction (Turkle, 2015, Loc. 1965), and being aware of not using it (Ward et al., 2017, p.142). When people are together, but absorbed in their phones, they are not having a common experience or shared feeling of an event (Lanier, 2018, p.75). For Miller et al., a person on their phone has effectively "gone home", leaving the communal space (Miller et al., 2021, p.219). Carr feels the distraction of the web is changing our brains from a linear to a more disjointed mode (Carr, 2010, Loc.193), with the nature of search engines and hyperlinks discouraging longer reading (Carr, 2010, Loc.1441,1446), and deep, creative thinking (Carr, 2010, Loc.1888), with "... 'switching costs' on our cognition." (Carr, 2010, Loc.2102), discouraging "...deep, prolonged engagement with a single argument, idea, or narrative." (Carr, 2010, Loc.2463). Harkaway acknowledges this (Harkaway, 2013, pp.9-10), but he counters Carr, proposing that using multiple information sources makes users more factually discerning (Harkaway, 2013, p.86) allowing a person to put together their own interpretation (Harkaway, 2013, p.219) and enhancing decision-making skills that assist attention focus (Harkaway, 2013, pp.89-90). However, even he expresses concern that children may never learn the skill of deep reading, proposing parents enforce practice and accepting some "attention drift" (Harkaway, 2013, pp.90,92-93). Krotoski questions Carr's work as inadequately tested (Krotoski, 2013, p.36) and feels that we can choose to disconnect (Krotoski, 2013, p.44). Later research states that young users have got used to fast information and so lack depth of information (Greenfield, 2015,

Loc.3247), a move away from deep reading (Turkle, 2015, Loc.1735), a lack of concentration on even short tasks (Turkle, 2015, Loc.1173) and a diminution of "...sustained attention, [...] often required during a tedious activity." (Greenfield, 2015, Loc.2747). Twenge found a decrease in teenagers reading books and even magazines since the 1970s (Twenge, 2018, Loc.897,901) quoting students who find it difficult to sit still and read quietly (Twenge, 2018, Loc.911) and cites a study that found that students using laptops "...switched between tasks every nineteen seconds on average." (Twenge, 2018, Loc.950).

The attention of deep book reading could, I feel, be applied to knitting, especially a challenging pattern, or when one is learning, and Carr suggests that reading a book draws "...on our sense of touch. It's tactile as well as visual." (Carr, 2010, Loc.1432), as is knitting. Greer notes that while learning she had to concentrate hard (Greer, 2008, p.1), but as she developed, she found "...my hands eventually took over from my brain." (Greer, 2008, p.37). Despite this, she also says that she can focus on the knitting and "...my mind and creativity are free to roam and explore." (Greer, 2008, p.38). This expresses the seeming contradiction in knitting, but I suggest it probably comes down to the variety of complexity available. Knitting can require the knitter to sit still and concentrate for substantial periods of time, applying sustained attention before receiving the reward of completion, while for simple patterns and experienced knitters, they often knit while doing another task. Selective attention allows the brain to focus on one thing, but it does this at the expense of activity in other brain areas (Keysers, 2011, pp.50-52). Swanson describes how her hands automatically knit plain work allowing her brain to "soar", while repeated pattern work was musical (Swanson in DeMeyere and Merrill, 2017, p.109). One of Mayne's respondents highlighted the focus needed to follow a pattern (Mayne, 2018, p.121), and Rutter notes how she will do other things while knitting "...repetitive and memorable patterns..." but give complex work more focus (Rutter, 2019, p.270). This points to knitting giving people the choice over their attention either choosing simple, repetitive work or when they want to pay more attention and be absorbed in the work, choosing a complex pattern. The occasions of concentrated attention should improve the skill, potentially readjusting the effects of becoming accustomed to the distractions of the web (Carr, 2010, Loc.3062).

There is a suggestion that attention differs according to "...whether it is goaldriven or stimulus-driven, corresponding to whether it is in the service of one's own will or not." (Crawford, 2015, p.9) and I would suggest that knitting is the former, and at one's own will. I see this control as a vital difference between technology and knitting. As Carr notes, attentional control sets us apart as humans (Carr, 2010, Loc.3070) and "We cede control over our attention at our own peril." (Carr, 2010, Loc.3076). Harkaway acknowledges the importance of attention, suggesting that without attention "...your interaction is cursory at best" and it's needed for learning and makes an interaction "worthwhile" (Harkaway, 2013, pp.220,222). He proposes that our relationship with social media and digital devices requires us to make a choice over what to pay attention to (Harkaway, 2013, p.245). Crawford suggests that what we pay attention to "...determines what is real for us..." (Crawford, 2015 p.13). Attention has an online value, as Harkaway explains, "Facebook is not free: you pay for it with your data, which is then traded on to get attention..." (Harkaway, 2013, pp.137-138). Boyd feels teenagers are beginning to exploit the attentional economy for themselves (boyd, 2014, pp.147,148). Crawford sees a similar monetization of attention in public spaces (Crawford, 2015 pp.10-12), focusing on the intentions of the designers of the technologies (Crawford, 2015, p.247). He proposes the idea of the "attentional commons" (Crawford, 2015, p.11), and those with money can leave them for private spaces where one's attention is not bombarded (Crawford, 2015, p.12). He suggests that "skilled practices" (Crawford, 2015, p.23) allow people to reclaim our "attentional resources" (Crawford, 2015, p.11). They provide a set of clear choices, within a framework and we can mute "extraneous information" (Crawford, 2015 p.23). Knitting, I feel, is one such skilled practice, where following a pattern allows us a framework for attention. Lanier goes as far as to call most social media companies "...the ransomware of human attention. They have such a hold on so much of so many people's attention for so much of each day that they are gatekeepers to brains." (Lanier, 2018, p.117)⁸, again pointing to the business model of the design (Lanier, 2018, p.26). Miller et al. acknowledge the

⁸ Ransomware is malicious software used to encrypt data; a ransom is then requested to unencrypt the information (What Is Ransomware? - Definition and Protection Tips, no date).

technology companies' appetite for data collection and the smartphone's role in this (Miller et al., 2021, pp.240-241).

Both knitting and internet/phone use have been called addictive, though not in medical terms (Turney, 2009, p.122; Krotoski, 2013, p.39), possibly because of the lack of chemical substances involved, however a "compulsive behavior" is induced by reward frequency (Crawford, 2015, p.98). Keysers explains that shared circuits play a role in operant conditioning at a social level. If we do something that makes someone feel bad, we will share the emotion and be less likely to repeat it (Keysers, 2011, pp.200-201). boyd suggests that society regards anything as an addiction if it puts "...socially acceptable aspects of their lives in jeopardy..." (boyd, 2014, p.83). The stimuli employed by digital technology are designed to be attractive, even addictive (Carr, 2010, Loc.1834) and their compulsive nature has been acknowledged (Greenfield, 2015, Loc.530; Aiken, 2016, Loc.5166). Internet/phone use plays to the need to feel wanted, with the unpredictable nature of alerts conforming to conditioning behaviour and positive reinforcements (Carr, 2010, Loc.1852,1856; Krotoski, 2013, p.38) with randomness part of the algorithms by design (Lanier, 2018, p.13). The extent of behaviour modification due to digital devices "...is a statistical effect, meaning it's real but not comprehensively reliable; over a population, the effect is more or less predictable, but for each individual it's impossible to say." (Lanier, 2018, p.11). Miller et al. acknowledge the potential of "Perpetual Opportunism" to contribute to the addictiveness of smartphones, but suggests these are exaggerated (Miller et al., 2021, p.132).

boyd feels teenagers are drawn to the friendship, not the technology (boyd, 2014, p18,80), but noted that some had to address their usage of SNS as an addiction to gain some control over it (boyd, 2014, p.78). She feels that concern over social media 'addiction' is being blamed on technology, when it may be socio-cultural reasons why teenagers are engaging with it (boyd, 2014, pp.78,84). Crawford explains when discussing users of gambling machines that "attentional design" is working in tandem with our "...(normal) psychological makeup..." to make money, and when some people become addicted it is seen as a failure of self-responsibility, not a fault in society (Crawford, 2015, p.107). Lanier also argues that it is not the devices or social media that is problematic, but the business model on which they operate, designed to

create income by getting the user to engage through emotions. Negative emotions are easier to arouse, therefore more frequently utilised, which he suggests explains the difficulty in explaining the negative wellbeing effects. He proposes that "...social media addicts appear to be prone to long-term anhedonia." (Lanier, 2018, p.83).

Turney notes knitting's addictiveness puts it outside what is deemed socially acceptable (Turney, 2009, p.122) and it may be a "...response to inner turmoil..." which results in a knitted object and knitters "...essentially consumed by what is merely a 'hobby'." which she sees as a cathartic process, through the concept of the abject (Turney, 2009, pp.122-123). Rutter notes that "...once bitten by the woolly bug, a knitter's passion can be difficult to control." (Rutter, 2019, p.64). Mayne noted the similarity of terminology to that of drug addiction when her participants discussed buying yarn and building up a 'stash'. With many this was enjoyable, but some were less comfortable with it (Mayne, 2018, pp.153-154) and for some it became a source of negative emotions and stress (Mayne, 2018, p.155). Turkle notes similar substance abuse language with computers, including of course 'user' (Turkle, 1997, p.30) and Twenge noted similar language in the terms in which teenagers spoke about their phones (Twenge, 2018, Loc.732).

Being engrossed in a task is part of Csikszentmihalyi's concept of flow and factors that make a flow experience include the possibility of completion, ability to concentrate, clear goals and feedback, and a sense of control (Csikszentmihalyi, [1992]2002, p.49) and one ceases to be "...aware of themselves as separate from the actions they are performing." (Csikszentmihalyi, [1992]2002, p.53) He acknowledges this can be addictive as we crave the sense of order (Csikszentmihalyi, [1992]2002, p.62). A similar feeling of being at one with what we are doing is discussed by Sennett, citing Merleau-Ponty's idea of "being as a thing" and Polanyi's "focal awareness", stating, "We have become the thing on which we are working." (Sennett, 2009, p.174). Many flow elements can be found in knitting. Stannard and Sanders (2015) found flow was a motivation for people knitting. (Stannard and Sanders, 2015, p.110). Some report losing sense of time, which Wendy Parkins sees as a beneficial contrast to everyday life (Holroyd, 2017, p.75).

Harkaway proposes the web as a creative space for play (Harkaway, 2013, p.113), potentially even flow (Harkaway, 2013, p.111), but for Crawford flow experiences give us a point of reference to differentiate the "...manufactured experiences we are offered under 'affective capitalism'." (Crawford, 2015, pp.252-253), boyd notes how the absorption of the flow state is seen as negative when associated with "...a practice that is socially unacceptable, physically damaging, or financially costly." (boyd, 2014, p.80). Turkle cites Alexis Madrigal's idea of the "Facebook zone" (Turkle, 2015, Loc.1197) based on research into gamblers who became 'one' with slot machines, and called the "...dark side of flow." (Turkle, 2015, Loc.1211) because the person becomes trapped, losing control to stop using the devices (Turkle, 2015, Loc.1211,1213). I feel the difference lies in control and intention. Csikszentmihalyi says we need to control instinctive desires through choice (Csikszentmihalyi, [1992]2002, p.115). This is increasingly difficult as technology is developed to provide the intermittent rewards of classic conditioning to keep users checking, instigating the dopamine response, and is initiated by an external actor. Knitting is initiated by us, the user. It provides a continual reward, through both the process and the outcome, as well as potential for positive feedback from a recipient. Compulsive knitters could be regarded as acceptable because they produce something through their obsession. I concur with Turney that the calming effect of knitting may be an outlet for difficult times, and that this may become 'addictive' in as much as it is a pleasurable outlet in a troubling world, possibly made more so by the over-use of technology.

2.6 Chapter conclusion

This chapter draws out some of the main areas of research currently available into knitting, and more importantly, brings in the ongoing research into the effects living in a digitally-mediated society is having on our relationships, with ourselves and others. I have outlined what a knitter identity may be, and how it may differ in creation and expression to the online self, building on the work of Orton-Johnson, Holroyd and Mayne who identified this through the display of the handmade. I have discussed the various reported effects that knitting has, seen against the effects of online interaction.

This chapter has established that only a small amount of existing work addresses knitting as part of a digitally-mediated society. Orton-Johnson suggests an integration of its use into knitting culture (Orton-Johnson, 2014, p.319) while Mayne (2018) looked at the use yarn crafters made of Facebook from a wellbeing perspective, mainly focusing on the craft side. This thesis aims to add to, extend and address a gap in the knowledge around knitting culture by using existing digital research and combining it with knitting practice to explore the intersection of the two, establishing points of similarity and difference. The recent revival has seen a broadening of knitting's function from purely garment knitting to conceptual expression, with textile artists like Belcher and Cole (Black, 2002, p.138; Turney, 2009, p.83). Therefore, its role as a means of expression has been established, and in this research I expand this concept, developing a mixed methodology using knitting process as an interpretative and autoethnographic tool to explore the research questions.

Surveying current research into the psycho-social effects of a digitally-mediated society I found two viewpoints emerging. All writers accept that the digital revolution has affected communication, but while some authors suggest this is an extension of offline, under the user's control, others propose that the design of technology is making this more problematic and may be causing some of the issues, which I find a persuasive argument. Rogers' proposal that one needs a clear sense of self and values to temper external influence is useful here (Rogers, [1967]2011, pp.118,175), with hand-knitting as a way to develop skills and resilience to some of the negative aspects of digital technology.

To establish the concept of a knitter identity I have examined ideas around 'the self' and what influences it. The anonymity of the early web encouraged some to see online as a place to experiment with identity, perhaps showing their 'real self' (Turkle, 1997, pp.240,241; Krotoski, 2013, p.14; boyd, 2014, p.37; Zhao, Grasmuck and Martin, 2008). Even since the loss of online anonymity, users still craft an online image (Miller et al., 2016, p.111) and the online curation of the self is a key part of Aiken's concept of the "cyber self" (Aiken, 2016, Loc.3121). This is grounded in Rogers' concept of the "ideal self", which outlines how the perceived self aligns with the ideal self, and the ideal often becomes more attainable to achieve this (Rogers, [1967]2011, pp.233,236). Experiences inform this process and are assessed against an interior set of values (Rogers,

[1967]2011, pp.105,109,76-88,175). Jones found self-perception could be impacted by the feedback of others, and that in YouTube posters if the self differed from the external perception, it would be changed (Jones, 2015, p102,111-114), an external focus Rogers suggests is limiting (Rogers, [1967]2011, pp.109). It is this idea of a self presented online that influences my concept of the *knitter self*, that is influenced by the act of being a knitter and outwardly presented to the world, and that I aim to establish in this research.

So how may a knitter identity be formed, and potentially differ from the online self? Making is important in establishing the knitter identity which may help develop an inner self esteem (Sennett, 2009, p.9; Corkhill, 2014, p.55), or be transitional in developing the self (Winnicott, [1982]2007, p.107). Rogers talks of creativity being done as self-expression, not for external judgement (Rogers, [1967]2011, p.354) and Greer testifies to this expression and development of the self (Greer, 2008, pp.25,30). The concept of mirror neurons means we react to actions we already have been exposed to (Keysers, 2011, pp.54-55,177-178) so early exposure to knitters begins the process. One must also consider the concept of the ideal knitter and if this has similarities to the 'hoped-for possible self' identified online by Zhao, Grasmuck and Martin (2008). Rogers talks of experiences as influencing the self, that need to be assessed and allowed to influence and change us (Rogers, [1967]2011, pp.76-88). The question this raises is if knitters have an ideal, and who is influencing this, which I will address in this thesis.

I feel that one important aspect to emerge is the role of the audience for the self. Greenfield states "...identity is how the world sees you..." (Greenfield, 2015, Loc.1351), while Goffman ([1959]1990) discusses this in terms of performing roles for an audience, and Keysers (2011) suggests shared circuits need a shared culture. As one may express different or multiple versions of the self for different groups (Goffman, [1959]1990, p.123), so it becomes important to establish who the audience is (Goffman, [1959]1990, p.137). Whilst the online audience has similar influences on behaviour (Miller et al., 2016, p.158) through group association (Zhao, Grasmuck and Martin, 2008, p.1825) and likes/comments (Miller et al., 2016, p.187), for me, online society has some important differences to an offline one. Online audiences may merge or be unknown/unseen causing problematic 'context collapse' (boyd, 2014, p.50; Miller et al., 2016, p.175).

Online society could include "fake people" (Lanier, 2018, pp.36,55,58) and algorithms manipulate behaviour (Lanier, 2018, p.15) with personalised feeds creating a unique view on society for the user (Harkaway, 2013, pp.142-145) losing touch with views outside this controlled environment through lack of shared experience (Lanier, 2018, p.73-74). The online audience appears to be less 'human' and less known than the offline one.

Knitters perform their knitter identity through the public knitting that, although not new, has been a feature of the recent resurgence (Turney, 2009, p.95; Rutter, 2019, pp.53,190). The knitter is demonstrating a skill they want to be seen to have (Goffman, [1959]1990, p.43), and it offers an opening for conversations (Greer, 2008, pp.54,55), and a public link to fellow practitioners (Rutter, 2019, p.273). This raises the question for me of whether the audience the knitter has impacts them, causing them to craft their knitter image, in a similar way to how online selves are crafted? This is likely to be affected by who the audience is for the knitting that is done publicly. The knitter can be part of a knitting group, one of Goffman's teams, with insider shared knowledge and representing the team to an audience (Goffman, [1959]1990, pp.88,235; Crawford, 2015, p.160), even if they are from different backgrounds, with just knitting as the common denominator (Greer, 2008, p.2; Pentney, 2008; Fields, 2014, p.160; Corkhill et al., 2014, p.42). Note that on SNS those you interact with may be a mixed group, but their common denominator is you. Knitting groups are a place for learning in a supportive environment (Greer, 2008, p.58; Mayne, 2018, p.134) and I see this as the informed peer group Crawford feels is an important audience as an arbiter (Crawford, 2015, p.159). This is highlighted in one example of the effects of the difference in audiences. Mistakes are inevitable in a handcraft and knitters vary in their feelings about them (Greer, 2008, p.29; Robins in Hemmings, 2010, p.18; Rutter, 2019, p.126), but the most important aspect of this it that the knitter has control over their choices with them, to correct or expose (Jubas and Seidel, 2016, p.73; Matthews, 2017, p.17). This does contrast with online, where mistakes may persist or re-emerge (Aiken, 2016, Loc.1294; boyd, 2014, p.11; Zhao, Grasmuck and Martin, 2008, p.1825) leading to self-censorship (Turkle, 2015, Loc.4836; Greenfield, 2015, Loc.2034). Overall, the audience for the knitter identity offline is a human, and potentially more controlled and more understood society.

I found most authors noted positive community aspects to knitting, including encouraging comfortable sociability in groups (Greer, 2008, p.54; Stannard and Sanders, 2015, p.108), helping conversation (Rutter, 2019, p.273; Corkhill, 2014, p.36; Matthews, 2017, p.96) and improving social capital (Minahan and Cox, 2007, p.8). It is still debated if this can be achieved online (Gauntlett, 2011, p.149; Krotoski, 2013, p.55; boyd, 2014, p.4) possibly depending on the types of interaction (Burke, Marlow and M. Lento, 2010, p.5). Miller et al. (2016) see online communication as an extension of offline, subject to similar pros and cons. Turkle (1997) and Miller (2016) both feel online is used to reclaim a sense of society, but for Miller this offline community is a myth, while for Turkle the online one is lacking (Turkle, 1997, p.178; Miller, 2016, pp.93,184). This is an interesting difference of opinion, possibly reflecting the professional backgrounds of the authors – Turkle having a technology focus, against Miller's ethnographic work. Of course, knitting has a strong online presence, and studies such as Mayne's (2018) found it was a supportive space, seemingly reflecting offline knitting groups without geographical and other limitations to meeting offline (Mayne, 2018, pp.6,105,171,176). However, there have been recent instances of less pleasant online situations among the knitting community, including arguments around politics, inclusivity and accessibility (Convery, 2019; Haynes, 2020; Battan, 2021), which may indicate a problem with online socialising that would warrant further research.

Not all public knitting is done in knitting groups of course, and wider society has its view on what a knitter is. I have discussed how knitting has many 'faces' in the public view, from the 'knitting granny' to the political activist, or as Goffman would suggest, categories in which an audience would place a performance (Goffman, [1959]1990, p.36). Literature from knitters suggests their feelings about these different perceptions are complex and varied, and many knitters move between them. However, a knitter needs to acknowledge potential images of them an audience may have or roles they may assign or assume. I aim to establish the knitter self's association with these images, and if they are comfortable performing as a knitter with these views in mind.

A knitter's identity may also become public through the objects they make, as these carry their identity and self into the community, with concepts such as Gell's "distributed personhood" and Belk's "extended self" (Gell, 1998, p.231;

Sheth and Solomon, 2014, p.123; Belk, 2014, p.134). Writers such as Mauss discusses this in terms of the 'spirit' of the object (Mauss, [1954]2011, p.10), while for others it is an agency that persists even when the maker does not (Gell, 1998, p.23, pp.222-223; Turney, 2009, p.143). Of course, objects can only continue to have agency if they still exist, and the permanence of knitted objects and online content is similar, with both requiring effort to maintain (Turney, 2009, p.58; Turkle, 2012, p.299; Harkaway, 2013, p.25). However, I feel the control over this is different, and this is an important aspect. Online data is now often outside the user's control, and may persist (Turkle, 2012, p.260; boyd, 2014, p.11), while the knitted object is in the control of its user, but this may not be the maker. Its potential disposal would, however, be private.

Making and giving the made objects influences our self-concept as a 'knitter' (Orton-Johnson, 2014, p.312; Holroyd, 2017, p.90; Mayne, 2018, p.173), with knitters putting 'themselves' in the work (Rosner and Ryokai, 2010; Fields, 2014) shown by the evidence of the hand in the objects (Gauntlett, 2011, p.81) and the knitted items take on the work of identity creation (Stannard and Sanders, 2015, pp.101-109; Crawford, 2010, p.15). This evidence of the maker in an object can give them a heightened sense of connection, found in passed on tools and hand-knitted items and when repairing or handling items (Yee in Turkle, 2011, p.33; Crawford, 2015, pp.227,239), that may be missing in technological objects and communication. This seems to be due to the sense of touch being embedded in the object, transferring to the wearer (Mayne, 2018, pp.169-170; Rutter, 2019, p.125; Pym, 2020), and of course, digital content cannot be touched. Although this may lead to imperfections, this can add to the object's humanity, in contrast to 'infallible' technological perfection (Sennett, 2009, pp.84,99,101; Turkle, 2012, p.281; Turkle, 2015, Loc.5493). Touch and handwork can also be a teaching tool, which is a vital element for this research both through influencing development of the knitter self and directly as part of the methodology, as it offers more than theory (Sennett, 2009, p.238; Crawford, 2015, p.51; Matthews, 2020).

The most obvious sense of connection through a handknitted object is through the gift. However, if the maker is in the object, the gift's reception can be a reaction to the giver, as they have agency in the relationship (Gell, 1998). They may strengthen relationships (Myzelev, 2009, p.155; Turney, 2012, p.306), and

appreciation of gifts, as with online 'likes', places people in a society (Turney, 2009, p.28; Krotoski, 2013, p.58). However, research into online posting, that I consider as an online 'gift' of time and thought, suggests that the effect of online responses on a relationship varied with the amount of effort the response took, and the reaction to it (Zell and Moeller, 2018), an effect originally found in reactions to positive news (Gable and Reis, 2010). What strikes me in this is that given the time taken to create a handknitted gift, and its more personal nature, does it confer greater connection than an online post? Also does the reaction of the receiver change the makers perception of the relationship between the parties involved, in the way it is suggested reactions to news and online posts can?

Most existing research on knitting suggests that it offers a selection of positive wellbeing effects of knitting, with Mayne (2018) being a notable exception, and knitting has long been seen as a respite in hard times (Macdonald, 1988, pp.241,287; Rutt, 1989, p.139; Parkins, 2004, p.436; Greer, 2008; Turney, 2004, p.272; 2009, p.182). While not proposing any therapeutic benefit, in this research I am building on this body of work by filling a gap in knowledge through drawing in the effects of living in a digitally-mediated society and asking if knitting can offer some resilience to its more negative aspects. Miller et al. found the picture of social media effects complex and often contradictory (Miller et al., 2016, p.213), which is understandable as there is not one single type of 'social media user' (Miller et al., 2016, p.195), just as there is not a single type of 'knitter'. Recent large-scale studies vary, with Miller et al. suggesting little impact on happiness, but Shakya and Christakis and Twenge associating SNS use with negative psychological effects (Miller et al., 2016, p.xvii; Shakya and Christakis, 2017, p.210; Twenge, 2018, Loc.1114,1176,1552). I have noticed a general trend towards this view.

In several specific areas, knitting offers contrasting effects to online. One example is around empathy. Knitting for others shows many of the conditions required for empathy, including holding the recipient in mind during making (Prigoda and McKenzie, 2007, p.106; Rosner and Ryokai, 2010; Mayne, 2018, pp.169-170) showing long-term commitment (Turkle, 2015, Loc.2732; Winnicott, [1982]2007, p.147) and giving time (Turkle, 2015, Loc.2732). Several authors cite evidence of empathy lessening possibly due to the nature of online

Attention is another area of debate over the effect of technology with some like Carr and Greenfield worried the distractions lead to diminished attention and a move away from deep concentration (Carr, 2010, Loc.1441, 1446, 1888; Greenfield, 2015, Loc.3247). I find knitting is in an interesting and enlightening position here, as it is varied in the attention it requires. For some it is seen as meditative (Greer, 2008, p.1; Fisk, 2012, pp.161-2; Matthews, 2017, p.63) but many acknowledge doing other things while knitting. Different complexities of knitting, as well as experience, mean the attention required varies (Greer, 2008, pp.1,37; Mayne, 2018, p.121; Rutter, 2019, p.270) and while different authors acknowledge this, this research will explore it through practice. What this research practice highlights is that the knitter is in control of this decision which may differ to the online situation. While the overall effect of online interaction on attention is debated, the idea of attention being part of the currency of SNS (Harkaway, 2013, pp.137-138; Lanier, 2018, p.117) is less contentious, and making may offer a way to gain control over this (Crawford, 2015, p.23), so knitting may offer benefits, regardless of the outcome of the wider debate into the impact on attention of technology usage. The online environment is an external pull on attention, while the control knitting offers points to a more internal driver.

A similarly contentious area is the aspect of online addiction, with boyd (2014, pp.78,84) feeling the user is in control and it may be society at fault while others, including Greenfield, Aiken and Carr pointing to the design of the technology being problematic (Carr, 2010, Loc.1852,1856; Greenfield, 2015, Loc.530; Aiken, 2016, Loc.5166), while Lanier explains that behavioural modification using randomness and algorithms is inherent in the design and business model (Lanier, 2018, p.11). Knitting is regarded with less concern, but similarities are noted around terminology, with knitting terms such as 'stash' for a yarn collection (Turkle, 1997, p.30; Turney, 2009, p.122; Mayne, 2018, pp.153-4; Twenge, 2018, Loc.732). Again, I note the element of control, and the need to keep checking posts is externally driven by the online environment, but the desire to continue knitting is internally driven. This aspect of internal against

external control and drive is an underlying theme for many of the effects I have found highlighted by contrasting the digitally-mediated and knitting environments.

In this chapter I have sought to draw out the concepts that form the basis for the primary research that follows, which seeks to establish the concept of knitter self, how societally influenced it is and if the skills outlined are accepted. This conclusion highlights what I consider to be the most important aspects to consider. It builds on existing work to lay out the concept of the knitter self and its components specifically in contrast to digitally-mediated communication. I am proposing that the process of knitting may offer skills to knitters to help them build an inner sense of self that Rogers suggests can be used to judge all external influence. I will research this through a novel methodology using knitting as an interpretative tool, that is discussed in the next chapter.

Chapter 3 Methods and methodology

In this chapter I will detail the approach I have taken to investigate the research questions and issues expanded on in the contextual review. I will explain the methodologies I have drawn on to develop my approach, the development of my research method and how the research was conducted.

3.1 Methodology

The methodology for this study has been drawn from several existing methodologies to develop a new mixed approach utilising knitting as an interpretative tool. Broadly, these are oral history, grounded theory, practice as research and autoethnography. I will examine the relevant aspects of these in a thematic way. The development of the combination of methodologies has occurred over the course of the research. As Kim Vincs explains, "In the arts, research methodology is often retrospective." (Vincs in Barrett and Bolt, 2010, Loc.2326), as it is a field where research is emergent. Initially it began with an oral history approach, with a small amount of practice as research. Aspects of grounded theory came into play influencing the approach to the interviews and the definition of data. The practice as research element has gained in prominence as a way of testing the themes emerging from the contextual review and analysing the interview data, and as part of this my position as the researcher changed, bringing in elements of autoethnography.

The term 'oral history' has been widely used and has lost some of its definition in common usage (Abrams, 2010, p.2). Historian Lynn Abrams' research is around oral history, but also gender and knitting (*University of Glasgow - Professor Lynn Abrams*, no date), and she discusses how true oral history has "...the distinctive character of specifically engaging with the past." (Abrams, 2010, p.2). In this research, engagement with the past is a part of the testimony of my interviewees as they discuss how they relate to and practice the craft of knitting, however it is not the main focus of the interviews. Therefore, my interviews are not oral history in its true sense and so I use the broader term 'personal testimony' to make clear this distinction (Abrams, 2010, p.176). In a 2010 conference on the use of oral history in visual arts, Linda Sandino explained how a broad definition of the term encompassed "...in-depth interview, recorded memoir, life history, life narrative, taped memories, life

review, self-report, personal narrative, life story, and oral biography." (Yow, 2004, cited by Sandino in Sandino and Partington, 2013, p.2).

Practice as research is also a broad term which is used to describe the use of practice in the research process. It is still a relatively recent concept, and has been criticised by more science focused areas as being insufficiently objective, and difficult to repeat (Bolt, 2010, Loc.2227). There are many variations within this. Stephen Goddard suggests practice-based research projects are notable as they "...conduct their enquiries beyond the sphere of written discourse." (Goddard in Barrett and Bolt, 2010, Loc.2757). Carole Gray has defined practice-led research as a method that both originates in practice and uses practice to execute the research (Gray, 1996, cited by Haseman in Barrett and Bolt, 2010, Loc.3291). Practice-led researchers also often present their findings through practice with "...research outputs and claims to knowledge [...] reported through symbolic language and forms specific to their practice." (Haseman in Barrett and Bolt, 2010, Loc.3316). Another approach is to involve practice in the way of thinking through the research questions. This draws on "Martin Heidegger's notion of 'praxical knowledge' or what he theorised as the material basis of knowledge..." (Barrett in Barrett and Bolt, 2010, Loc.233) where use of materials is a route to understanding. For this research the approach is not producing a practice-only outcome, but is utilising the praxical knowledge approach, using knitting as a method to test out theory about knitting, as will be discussed later.

Autoethnography embraces the role of the researcher within their culture, and the term originates from "...the situated self (auto), culture (ethno), and writing about selves and cultures (graphy)." (Adams et al., 2014, p.70). Using this structure, this study has developed a process I am calling 'autoethnoknitting', where I am knitting about the self and the culture of knitting. I draw on the work of Tony Adams, Stacey Holman Jones and Carolyn Ellis who have written about and utilised the methodology (Adams et al., 2014, pp.2-7). The personal experience of the researcher is important (Adams et al., 2014, p.103), and for this study is part of the method of testing the theoretical concepts through knitting, as I note my reactions to the process. While many autoethnographers choose to write in the first person, to emphasise their personal role (Adams et al., 2014, p.78) and acknowledge the issues of objectivity (Adams et al., 2014,

p.100), this is not the only approach. Adams et al. describes various approaches outlined by Van Maanen, ranging from 'traditional' third personal narratives with a focus on the culture, to a first-person narrative with the researcher as the central element. A middle approach merges the two, what he calls "impressionist tales", which links the culture and the researcher, "...to create a focused and imaginative rendering of fieldwork and personal/cultural experience." (Adams et al., 2014, p.84).

In grounded theory, "...theory is directly abstracted from, or grounded in, data generated and collected by the researcher." (Birks and Mills, 2015, p.17) and it seeks to provide an explanation of phenomena (Birks and Mills, 2015, p.16). Parts of the methodology are often utilised without attempting to produce this explanatory theory and are not regarded as true grounded theory (Birks and Mills, 2015, p.17).

My project was inspired by personal experience of being a knitter and working in information technology. This inspiration for the research points to the use of elements of the autoethnography methodology, where it is acknowledged that a desire to understand personal experience can motivate research (Adams et al., 2014, p.47), and that this offers knowledge and questions that can aid the research (Adams et al., 2014, p.48). Practice as research also promotes "...personal interest and experience, rather than objective 'disinterestedness'..." (Barrett in Barrett and Bolt, 2010, Loc.225) as motivations for research and an approach to conducting the study.

As a knitter, it is important that knitting played a role in the research. In autoethnography, approaches to examining the research information are often more creative, with some using "...aesthetic means..." (Adams et al., 2014, p.38) either instead of, or alongside traditional textual analysis (Adams et al., 2014, p.43). Robyn Stewart outlines a practice as research methodology called "Neonarrative" where a broad range of data, from personal information to published texts are drawn together to develop "...a plausible meaning-giving account that blends the personal histories of the people concerned with the social histories of their field. This is a process that theorises praxis." (Stewart in Barrett and Bolt, 2010, Loc.2967). This broad definition of data will be discussed later.

The oral history methodology addresses several of the concepts examined in my research, in particular the concept of the self, its performance, and the cultural impact on the self. Abrams states that it is a key feature of oral history that the practice and the outcome are "entwined" (Abrams, 2010, p.1) and Mary Brooks has noted that the term 'knitting' also refers both to the practice and the outcome (Hemmings, 2010, p.35). Sandino goes further, that the term 'oral history' also "...covers both the history that is told, as well as the story subsequently presented—as history, as artwork..." (Sandino in Sandino and Partington, 2013, p.10).

My research addresses issues of personal feelings regarding knitting and communication through digital culture, necessitating drawing on methodologies that engage with people. Oral history engages with "...living, breathing human beings." (Abrams, 2010, p.18) and autoethnography promotes the experiences of the human researcher themselves, as well as participants (Adams et al., 2014, p.8) and is a method often engaging very directly with matters around identity (Adams et al., 2014, p.19). Practice as research, or practice-based research is also an approach that acknowledges and uses the role of the researcher to develop "...personally situated knowledge..." (Barrett in Barrett and Bolt, 2010, Loc.144).

Grounded theory is regarded as appropriate for small scale, exploratory research (Denscombe, 2014, p.109) and investigating knitting through the lens of digitally-mediated interactions has not been extensively researched. Autoethnography is also suited to smaller scale approaches, where more detailed results are produced, as it offers "...nuanced, complex, and specific knowledge about particular lives, experiences, and relationships rather than general information about large groups of people." (Adams *et al.*, 2014, p.21). Grounded theory also produces "...theory that explicates a phenomenon from the perspective and in the context of those who experience it." (Birks and Mills, 2015, p.16)

Drawing on several existing methodologies is common in research with elements of practice. It can be seen to offer a way towards new methods as well as new knowledge (Barrett in Barrett and Bolt, 2010, Loc.270). Stewart uses the term "bricolage" for this method of mixing methodologies as appropriate

(Stewart in Barrett and Bolt, 2010, Loc.2890). She suggests that the approach to research should be driven by the research questions (Stewart in Barrett and Bolt, 2010, Loc.2894) with the researcher,

"...travelling between various research disciplines in an attempt to build the most appropriate bridge between aesthetics and experience through processes of production documentation and interpretation." (Stewart in Barrett and Bolt, 2010, Loc.2911)

Natalya Buckel utilised a mixed approach of oral history and material culture analysis in her study of US "feed-sack fashion" and found it "...resulted in findings much richer - yet more complex - than could be achieved using a single research discipline." (Buckel in Sandino and Partington, 2013, p.151). Grounded theory methods are often used with other approaches, being referred to as "modified grounded theory" (Birks and Mills, 2015, p.30). The mixing of approaches from the researcher and different methodologies has been seen as,

"...among the major contributions to knowledge of practice-led research and the performative paradigm. The strength of practice-led research is its capacity to forge new, hybrid or mutant research methods that are specific to the object of enquiry." (Haseman in Barrett and Bolt, 2010, Loc.3484)

3.1.1 Data

Different methodologies have different views on what constitutes data and where it originates. In both oral history and autoethnography, personal testimony interviews are commonplace, and especially in autoethnography can connect the experiences of the researcher to the broader experiences of others, either reinforcing or challenging the researcher's position (Adams et al., 2014, p.55).

In grounded theory, the definition is very broad, and literature is treated as a data source "...to enhance theoretical sensitivity; as data during analysis; and as a source of theoretical codes." (Birks and Mills, 2015, p.22) similar to data gathered from other sources (Birks and Mills, 2015. pp.77-78). This study uses this theoretical data both in this way, and as a contextual framework to develop the areas of interest. Practice as research also has a broad concept of what

constitutes data or information which "...may be gathered from history or theory books and articles, personal journals, letters, artworks, catalogues, conversations, observations and other sources." (Stewart in Barrett and Bolt, 2010, Loc.2977).

3.1.2 Subjectivity

Subjectivity has been defined as "...the quality of defining or interpreting something through the medium of one's mind..." (Abrams, 2010, pp.22-23) and almost all personal testimony will have an element of subjectivity. As a result, the use of personal testimony, such as in oral history and autoethnography has been criticised because the information provided is subject to issues around memory, emotion, and cultural influence. Oral historians have embraced this by encouraging "...our interviewees to tell us about the past from their own point of view and to reflect on 'what do you think about it now?" (Abrams, 2010, pp.22-23). In practice as research, there is an acceptance of a move away from the positivist ideas of universality, to embrace a range of views (Barrett in Barrett and Bolt, 2010, Loc.203; Vincs in Barrett and Bolt, 2010, Loc.2291), and to "...produce situated knowledge..." (Barrett in Barrett and Bolt, 2010, Loc.3252). Autoethnography has been equally unfairly criticised as showing insufficient "...explanatory power, [or] scholarly insight..." (Adams et al., 2014, p.99).

The narratives told in personal testimony interviews are often based on memory, and this is accepted as being contingent (Abrams, 2010, p.6). The individual will recall events from their own subjective viewpoint (Abrams, 2010, p.58), which may not be an objective truth. This is not seen as a problem to be avoided but embraced as it offers insight into how "...individuals express their own sense of themselves in history" (Portelli, 1991, quoted by Sandino in Sandino and Partington, 2013, p.7). The interviewee is telling their own truth (Abrams, 2010, p.79) and why certain things have an importance is of value in itself (Abrams, 2010, p.90). Memories are also influenced by collective memory (Abrams, 2010, p.95), and "...are called using the language and frameworks deemed acceptable or understandable in society or within the group with which the individual identifies." (Abrams, 2010, p.96). The culture or society in which an individual lives is an influence on what narrative they will tell or how they will tell it. Abrams highlights the importance of recognising "...the self as the outcome

of a dialogic process as an individual's consciousness or subjectivity engages with existing discourses in society." (Abrams, 2010, p.57). Bourdieu saw individuals as influenced by their cultural surroundings, creating "...a habitus, a way of thinking..." (Abrams, 2010, pp.55-56), which may change over time (Abrams, 2010, pp.55-56). Foucault also noted how culture and society influence behaviour (Abrams, 2010, p.57). This cultural influence can cause groups whose views or recollections differ from the mainstream to feel unable to express themselves (Abrams, 2010, p.97).

All these elements also apply to the interviewer or researcher, even to the extent of being the reason for choosing the research topic and research design (Adams et al., 2014, p.26). This must be at least acknowledged and reflected upon (Abrams, 2010, pp.55-56). Reflexivity is seen as a way of examining these influences, both in autoethnography and practice as research (Adams et al., 2014, p.29; Barrett in Barrett and Bolt, 2010, Loc.249) and may lead to the development of the methodology (Barrett in Barrett and Bolt, 2010, Loc.249). In the case of autoethnography, subjectivity is embraced as a way of gaining one view on an experience, which of course is not the only one (Adams et al., 2014, p.30). The subjectivity of the artist is widely accepted in practice as research methodologies, even as a way of producing knowledge (Stewart in Barrett and Bolt, 2010, Loc.2903; Vincs in Barrett and Bolt, 2010, Loc.2304; Loc.2310) and in the tacit knowledge a practitioner brings to a subject (Barrett in Barrett and Bolt, 2010, Loc. 184). As we constantly experience new things, our subjectivity changes over time, and gives the researcher "...a new perspective not only on our own lives [...] but on the way in which we make sense of the lives of others. (Andrews et al., 2008, quoted by Wilcox in Sandino and Partington, 2013, p.157). In grounded theory, the researcher's experience, particularly of the research topic, is known as "theoretical sensitivity" and will deepen during the research process (Birks and Mills, 2015, p.12), giving the researcher "...insight into what is meaningful and significant in the data." (Birks and Mills, 2015, p.58). However, care needs to be taken to avoid this experience leading to assumptions or missing important aspects of the information gathered (Birks and Mills, 2015, p.62).

3.1.3 Intersubjectivity and the position of the researcher

The interview situation brings the subjectivities of the participants in contact (Abrams, 2010, p.10) and the two parties can influence each other and the outcome, in what is known as intersubjectivity (Abrams, 2010, p.54). The result of this can impact on the success of the interview and what information is gained from it (Abrams, 2010, p11), with a sense of "...shared values between the parties..." helping to produce a good interview outcome, whereas a lack of understanding on either side can have a negative impact (Abrams, 2010, p.11). It also means that a different interviewer could result in different responses (Abrams, 2010, p.54). As Michael McMillan puts it, "As with quantum theory, the observer affects and is affected by the object of study." (McMillan in Sandino and Partington, 2013, p.32). Whilst it is important to acknowledge these issues, it is challenging to integrate the researcher's position into the research outcomes (Abrams, 2010, p.74). Often the researcher will write about themselves in order to acknowledge their position and power in the design and conduct of the study (Abrams, 2010, p.24) and in autoethnography this is central. It is acknowledged that by doing so, the researcher's background and contribution is exposed and therefore contains some risks (Adams et al., 2014, p.63). This exposure is another way that the methodologies chosen relate to this area of study, as privacy is an issue within social media use. Through practice, my own self will be part of the research through my experience of the materials and my presence within the objects.

One way to improve the sense of 'shared values' can be if the researcher is an 'insider' to the group they are researching with the shared knowledge Goffman outlined (Goffman, [1959]1990, p.231). Buckel noted that her 'insider' position helped to elicit trust (Buckel in Sandino and Partington, 2013, p.149), a position also found by oral history researchers (Abrams, 2010, p.72). In this research my position as a knitter means the respondents know that I understand and value knitting, both technically and emotionally. In autoethnography, "insider insights" are valued (Adams et al., 2014, p.103) and may allow the researcher to "...call attention to the complexities of commonly held, taken-for-granted assumptions about these cultural phenomena." (Adams et al., 2014, p.31). It is also easier for a researcher to be "...confident about my right (and privilege!) to speak for myself, but I am less confident about my right to speak on behalf of

others." (Adams et al., 2014, p.12). In practice as research, the role of the practitioner can also give these 'insider insights'. Bolt discusses Hockney's study of the paintings of Ingres, where his position as a practitioner influenced both the research questions and the method of study (Bolt in Barrett and Bolt, 2010, Loc.705,706). The practitioner as insider can also offer another dimension to the external data collected, to form Stewart's "neonarrative" (Stewart in Barrett and Bolt, 2010, Loc.2870) joining theory and practice (Stewart in Barrett and Bolt, 2010, Loc.2952).

3.1.4 Marginal voices

As a method from the history discipline, oral history has often been used as a way of accessing the voices of those traditionally excluded from the mainstream historical narrative (Abrams, 2010, p.4), giving "...a voice to the voiceless, a narrative to the story-less and power to the marginalised." (Abrams, 2010, p.154). The interview itself can be seen to give the interviewee status and "...the legitimacy to speak..." (Abrams, 2010, p.27) they may not have felt before. She suggests the method gave older interviewees "...an opportunity to demonstrate knowledge and to perform a version of the self that is not congruent with the image of the socially marginalised, physically limited, passive older person." (Abrams, 2010, p.142). It has been used widely in feminist research, allowing women a voice against "...their silencing by the dominant male individualist narrative mode..." (Rowbotham cited in Abrams, 2010, p.44) and this methodology has been used by female researchers to "...conduct research 'by, about, and for women'." (Abrams, 2010, p.156). This makes it especially relevant to researching knitters, who are predominantly female and traditionally more senior. Turney has used oral testimony as her methodology to research crafters in part due to its ability to give marginal people and crafts a voice (Turney in Sandino and Partington, 2013, p.136).

I would like to take this further, making this study, to paraphrase Abrams, 'by, about and for knitters'. To this end aspects of autoethnography are relevant as early descriptions of the methodology suggested it was done by researchers conducting "...ethnographies of their 'own people'" and who choose a "field location" tied to one of their identities or group memberships." (Adams et al.,

2014, p.16), and my position as a knitter allows me to raise up the voices of members of this group.

Practice as research has allowed artists to speak for themselves, without the interlocutor, and practice can be seen as a way of engaging "...with the didactic nature of written language, the oppressive aspects of symbolic law that excludes women's voices, at the same time as it provides me with an alternative means of speaking and of being seen and heard." (Iggulden in Barrett and Bolt, 2010, Loc.1674).

More recently there has been a recognition of the idea that oral histories would reveal an authentic truth about unheard voices may be too simplistic (Abrams, 2010, p.163), especially as the interviewer decides how the material is used. The idea of giving a voice to the marginalised needs to be tempered by the issues around the power relationship that will exist between the interviewee and interviewer (Abrams, 2010, p.27).

3.1.5 Power dynamics

As an event between two people an interview contains power dynamics between participants. Whilst the interviewee may feel they have an opportunity to speak that they may not normally have, this can be seen as the interviewer allowing the respondent that opportunity (Abrams, 2010, p.27). Following the interview, the researcher also has control over the outcome. The respondent gives consent only for certain uses of the material, and may be offered the chance to check the transcript to correct errors (Abrams, 2010, p.165), but the editing and interpretation of the material is done by the researcher (Abrams, 2010, pp.165-166), and this element of control needs to be acknowledged. Adams suggests that researchers need to reflect on "...how well and responsibly the account represents the lives and identities of others." (Adams et al., 2014, p.98). This curation of data bears some similarities to the way social media algorithms deal with the data they are given by users, giving this methodology an appropriateness for this research. Some researchers have tried working with their subjects throughout the project. In grounded theory, Mishler has suggested emphasising the benefits for the participants, and the "...creating of spaces for participants' voices in the interpretation of data and the eventual findings..." (Mishler, 1991, cited in Birks and Mills, 2015, pp.57-58). In

same way as the subjects, in a reflexive process. In the light of these issues with the idea that people telling their story is 'empowering', some researchers in oral history "...speak of advocacy rather than empowerment." (Abrams, 2010, p.169) where the knowledge of both parties is utilised, and the respondents appreciate the wider community benefits their participation may have (Abrams, 2010, p.172). In grounded theory, Birks and Mills advise an advocacy role for the researcher (Birks and Mills, 2015, pp.57-58). 3.1.6 Performance Interviews also contain elements of performance, both in what the respondent is prepared to talk about, and the manner in which they do so. Abrams states that "Oral history is the performance of a speech act." (Abrams, 2010, p.130) and drawing on performativity theory, an identity is created through these performances. Due to the intersubjectivity of the participants, this will be very dependent on the participants, time and place (Abrams, 2010, p.137). The occasion of the 'interview' can affect the way the respondent acts as "...most interviewees are aware that they are expected to perform and will rise to the occasion." (Abrams, 2010, p.22) and "...a performance may be prepared and 'laid on' for the interviewer." (Abrams, 2010, p.148). This has the potential to offer

Partington, 2013, p.143) in her work, and McMillan focused on items in the

respondent's room (McMillan in Sandino and Partington, 2013, p.31). Claire

oral history some have tried a process of "shared authority", however this too

has challenges, being "...time-consuming, long-term, personally demanding,

involves moral and ethical issues regarding interpretative and critical control

p.167). Abrams goes on to suggest that for academics, they need to

acknowledge, but accept the power imbalance and that in a successful

and in many cases may not be an appropriate methodology." (Abrams, 2010,

interview "...each goes away with the assumption that the other got what they

wanted - the opportunity to tell a story to a captive audience on the one side

Including the researcher in the research can help to redress some imbalances

(Birks and Mills, 2015, pp.57-58), allowing examination of the researcher in the

and the collection of research material on the other." (Abrams, 2010, p.168).

insights into the culture and identity of the respondent. Objects can add to this performance, if they have been asked to bring objects along, as Buckel found in her "...use of objects as prompts to spark memories..." (Buckel in Sandino and

Wilcox found focusing the discussion on seemingly innocuous items such as clothing allowed the respondent to discuss more private topics (Wilcox in Sandino and Partington, 2013, p.156). Penny Summerfield discussed this setting out of objects or topics, saying they have "...prepared their memory frame" (Summerfield, quoted in Abrams, 2010, p.60).

What is discussed can be a performance of the self according to culturally acceptable identities (Abrams, 2010, p.64) or influences (Abrams, 2010, p.33). Abrams suggests that people are becoming more open to discussing their private lives as a result of the western "confessional culture" through the media (Abrams, 2010, p.33). The influence of the culture may have a negative influence on some groups to tell a narrative that does not conform. Women "...have a tendency to downplay their experiences because they often do not conform to what is publicly presented as significant in main-stream history." (Abrams, 2010, pp.71-72) or may "...subjugate their own feelings in an interview while privileging activities." (Abrams, 2010, pp.71-72). The interviewer can also be perturbed if the interviewees performance is unexpected (Abrams, 2010, p.135).

3.1.7 Self

The narratives that are given by the respondent are a way of revealing the self. This can be as basic as asking what the person 'does', the answer to which is often loaded with cultural assumptions (Abrams, 2010, p.43). Abrams explains how,

"The life-story interview invites the narrator to dig deep, to reflect on the inner self, to reconcile any conflicts and then to reconstruct the self as a coherent whole in the form of a single narrative. In an interaction with the interviewer, the interview becomes a process in which the respondent actively fashions an identity." (Abrams, 2010, p.33)

In this way interviews are a method for this research to attempt to access what I am calling the *knitter self*, the identity a knitter presents or performs in interactions with others and that is affected by knitting. Of course, the concept of the self is cultural, influenced in the west by the European Enlightenment (Abrams, 2010, p.35). The self is also complex and fluid (Abrams, 2010, p.35) and changes according to the identity we wish to display in that environment

(Abrams, 2010, pp.40-41). Portelli has suggested that no interview "...will ever produce the representation of an undivided or whole self." (Portelli, cited in Abrams, 2010, p.63), a complex concept discussed in the contextual review. Sandino feels that interviews give the respondent the chance to reflect and reconcile past, current and future selves (Sandino in Sandino and Partington, 2013, p.3). In autoethnography, the self is at the core of the research, as an object of study and as a lens to examine culture (Adams et al., 2014, p.46). Interviews can have the advantage of accessing identities on an individual level, rather than how a group may have been portrayed. Shehnaz Suterwalla spoke to members of different groups about how the way they dressed was portrayed in the media and it uncovered more complex and nuanced stories and identities (Suterwalla in Sandino and Partington, 2013, pp.163-167).

The issue of anonymising respondents is interesting in the light of the representation of the self as names are so closely aligned with their identities. Anonymising may be done to protect respondents from the interpretation that will become public, even though the individuals will usually be able to recognise themselves (Abrams, 2010, pp.165-166). It may also allow researchers to discuss a type, without focusing on specific people (Partington in Sandino and Partington, 2013, p.193) even extending to creating composite characters (Adams et al., 2014, pp.60,61). Institutional ethics may also play a part, as well as personal preference of the researcher (Partington in Sandino and Partington, 2013, p.193).

3.1.8 Accessing culture

Abrams states that the testimony given in interviews "...mediates between personal memory and the social world" (Abrams, 2010, p.7) and knitting's place in this mediation is part of what I want to research. Heidegger believed that people exist in relation to their surroundings and circumstance, called "thrownness" (Bolt, 2010, Loc.112). Bolt explains how according to Heidegger, "Each of us lives in a number of intertwining worlds that influence what we value and how we move in the world." (Bolt, 2010, Loc.332). As already discussed, the respondent's memories and responses in interviews are influenced by the culture they inhabit. Therefore, the material provided can be used to access that culture, as well as how they feel about it. Passerini

comments that the material from oral history interviews "...consists not just of factual statements, but is pre-eminently an expression and representation of culture..." (Passerini, quoted in Abrams, 2010, pp.6-7). Adams notes how even "...informal conversations can offer researchers unique insights into identities, experiences, and cultures." (Adams et al., 2014, p.52). Graham Dawson put forward the term "composure" to describe how people draw "...upon imagined forms embedded in culture." (Abrams, 2010, p.66) to talk about their lives in a way that "...makes sense to the respondent and to the audience." (Abrams, 2010, p.67), while some feel that respondents have some agency in opposing the accepted narrative, even if this is challenging (Abrams, 2010, p.70). Wilcox used evidence from oral history interviews to explore if clothing revealed information about society (Wilcox in Sandino and Partington, 2013, p.154).

3.1.9 Interview questions

As discussed, there are many issues affecting how interviews are conducted, and which may impact the questions that are asked. In oral history open ended questions are encouraged, allowing the respondent to tell their own narrative, minimising the interviewers influence (Abrams, 2010, p.124). It is useful to allow the questions asked to develop as the research progresses. This is advised in grounded theory, where there is a process of concurrent data generation and collection (Birks and Mills, 2015, p.90). Data is collected and analysed in phases, for example interviewing in batches. New data sources are established to meet deficiencies in the data collected and analysed thus far in a process called "theoretical sampling" (Birks and Mills, 2015, pp.11,68,73-74).

3.1.10 Processing the data

The data from the interviews needs to be processed and analysed and there are differing approaches to this, with only some suitable for this study. If anonymity is to be assured, transcription is needed, but it can also have other advantages. If done by the researcher it allows an opportunity for close listening and review, where aspects might come to the fore that may not have been noticed at the time of the interview (Abrams, 2010, p.13). However, it may lose some of the performative aspects, and is at a distance from the interview event and the analysis of the information can add to this distance (Abrams,

The analysis can break up the text, and this editing will change the data from its original form. This editing is done with the subjectivity of the researcher, and another individual may have drawn out a different aspect (Wilcox in Sandino and Partington, 2013, p.158). The theoretical sensitivity in grounded theory is seen as the governing characteristic for what the researcher selects (Birks and Mills, 2015, pp.58-59). This is another aspect that needs to be acknowledged in the research method, and the subsequent interpretation. Extracted phrases have been used in artworks such as Bettina Furnée's Witness and Prisoner of War. In these she extracted and combined texts, using a process described as "...intuitive and not strictly analytical." (Furnée and Horton in Sandino and Partington, 2013, p.42). A criticism of this approach is the fragmentary nature of the work may lead to misinterpretation (Furnée and Horton in Sandino and Partington, 2013, p.42).

3.1.11 Practice in research

So far, I have discussed analysing the data through written means, but this study also utilises practice as a means of analysing the data provided by the interviews and theory from the contextual review, through the new method of 'autoethnoknitting'. Keysers talks of how to have a greater understanding of others you "...don't just study, but acquire their skills..." (Keysers, 2011, p.55) and this process of knitting research is designed to better understand the craft and its proponents, by experiencing it directly, in the same mindset. The concept of practical thinking is key to the element of practice as research that is relevant to this study. This involves the idea of using the making process as a way of thinking through ideas, theory, and concepts, through the handling of the material, with a "...joining of hand, eye and mind...", also known as "material thinking" (Bolt in Barrett and Bolt, 2010, Loc.756). Fibre artist Gyöngy Laky explains it thus, "...my protracted process is thinking time, both thinking physically with the activities and thinking mentally with the time" (Gyöngy Laky, 2007, quoted by Kirwin in Sandino and Partington, 2013, pp.91-92). Kim Vincs uses dance to investigate itself (Vincs in Barrett and Bolt, 2010, Loc.2288), and the practice "...is treated as a primary source of knowledge, rather than simply an object of study..." (Vincs in Barrett and Bolt, 2010, Loc.2344). Turkle cites Claude Lévi-Strauss's concept of bricolage as a method for using materials to develop ideas, as "...goods-to-think-with..." (Turkle, 2011, p.4). She describes

how "We think with the objects we love; we love the objects we think with." (Turkle, 2011, p.5) and that bricoleurs use materials in problem solving as part of a conversation that is about listening to them (Turkle, 1997, pp.51,59). Nafus and Beckwith talk of critical making, where the materials "...resist and speak back to the maker." (Nafus and Beckwith in Wilkinson-Weber and DeNicola, 2016, p.120). Sennett suggests that makers think as they work, and "...discussions the producer holds may be mentally with materials rather than with other people..." (Sennett, 2009, p.7). This concept has philosophical roots in the work of Heidegger, and Professor Barbara Bolt is an artist with research interests in material theory, including Heidegger's position on this. She explains how Heidegger believed that,

"...we do not come to 'know' the world theoretically through contemplative knowledge in the first instance. Rather, we come to know the world theoretically only after we have come to understand it through handling." (Bolt in Barrett and Bolt, 2010, Loc.773)

As a result of this, knowledge of what it is to be human, and the way the world is, can be understood through handling materials (Bolt, 2010, Loc.148). It is through the making, not the final object that the "...the Being of beings is revealed." (Bolt, 2010, Loc.127). 'Understanding' is for Heidegger, not a cognitive action, but a result of interacting with things, where "It is only through our practical dealings or involvement with things that the world throws at us that our world becomes meaningful to us." (Bolt, 2010, Loc.406). This understanding through practical engagement he called "handlability" (Bolt, 2010, Loc.1408), and he contrasts this with the idea of understanding just by examining things, "When we just look at things 'theoretically', we lack an understanding of handiness." (Bolt, 2010, Loc.1450). Putting practice as the primary way of developing theory Bolt refers to as "...praxical knowledge – learning through doing..." (Bolt, 2010, Loc.1464). Through an openness to what making may present, new ideas develop (Bolt, 2010, Loc.1499, 1520, 1575). Heidegger even suggests that artworks are not just the result of the artist, but a joint effort, where "...artists, tools, equipment, ideas, materials and processes become co-responsible for the emergence of art." (Bolt, 2010, Loc. 1818). Bolt explains how "...the materials and processes of production have their own intelligence that come into play in interaction with the artist's creative

Methodologies that do not specifically engage with practice also bring in elements of thinking through active involvement. In many cases, if one replaces writing with making, in this case knitting, there are similar concepts. Adams discusses how personal writing is used creatively as a method for producing understanding (Adams et al., 2014, p.68) and reflective writing as a way of joining the views of others with those coming from the self (Adams et al., 2014, p.22). Indeed, there is the concept of "performative writing", which "...is 'writing as doing,' rather than 'writing as meaning'..." (Adams et al., 2014, p.89). In this research, utilising my method of 'autoethnoknitting', I am using the knitting process in a similar way, to produce knowledge through the experience of spending time with the materials and to unite and explore my views and those of my interviewees.

What this does emphasise is that it is the process, not the product that is important in this concept. Greer talks of craft as "...something you can toy and experiment with..." (Greer, 2008, p.26) as opposed to an art object as it is not an 'other' and allows mistakes. This accessibility and experimentation of craft is used in this research, where the process is more important than the end goal or piece (Greer, 2008, p.26). Craft and art objects are usually encountered as finished objects to be assessed (Gates in Sandino and Partington, 2013, p.56), and the process of making is less important in its meaning (Gates in Sandino and Partington, 2013, p.58). Paul Carter believes that new thinking comes from the process itself,

"...because the making process always issues from, and folds back into a social relation. It is this back-and-forth or discourse, that provides the testing-ground of new ideas, and which establishes their interest."

(Carter in Barrett and Bolt, 2010, Loc.554)

Bolt also thinks the process has "generative potential" (Bolt in Barrett and Bolt, 2010, Loc.792) and Barrett says that practice is a way of "...revealing new knowledge." (Barrett in Barrett and Bolt, 2010, Loc.3550) or "...in other words as

modes of enquiry and research." (Barrett in Barrett and Bolt, 2010, Loc.3552) and that the ideas can be "...obscured by the vehicle in which it is carried." (Barrett in Barrett and Bolt, 2010, Loc.3576).

Given the importance of the process as knowledge generation, methods are required to access and articulate this knowledge generated through practice. In grounded theory, memos are used as "...written records of a researcher's thinking during the process of undertaking a grounded theory study." (Birks and Mills, 2015, p.11). They are reflective, analytical notes that allow links to be made across concepts (Birks and Mills, 2015, pp.52-54). Fieldnotes are "...contemporaneous records of events, activities and your responses to them." (Birks and Mills, 2015, p.76). I see both these recording methods as a way of capturing ideas that occur during research and could therefore be used as a concept to capture the knowledge that is produced during the making process, for example an extension of the notes many knitters make on patterns as they work. In addition, the making itself could be regarded as a reflective and analytical process, similar to the memo. This idea of writing about the research process is also found in autoethnography, where researchers may "...share their experience about conducting their fieldwork alongside their insights about cultural phenomena." (Adams et al., 2014, p.26).

3.1.12 Developing knowledge

Through theoretical sampling, theory in grounded theory methodology emerges throughout the research process (Birks and Mills, 2015, pp.67-68). The theory that is developed in an "...an explanatory scheme comprising a set of concepts related to each other through logical patterns of connectivity." (Birks and Mills, 2015, pp.108-109), which are not necessarily universal (Birks and Mills, 2015, pp.108-109). In autoethnography, projects are allowed to develop, sometimes without a clear direction (Adams et al., 2014, p.71). For autoethnography, writing and sources are grouped, and assembled in an intuitive way until the groups "...develop into an internal through-line or logic." (Adams et al., 2014, p.72). In practice as research, truth emerges from the handling of material and the knowledge developed from this process (Bolt, 2010, Loc.2318,2321,2327). This differs from science research where truth is established through "theoretical contemplation" and is a "...measurable

outcome." (Bolt, 2010, Loc.2338). In this methodology, theory and practice operate in a reflexive way to produce knowledge (Bolt in Barrett and Bolt, 2010, Loc.738).

3.1.13 The position of writing

As already discussed, in practice-led research the theory is articulated in practice, but in this study, the practice is part of the investigation method, not the outcome. Whilst the objects made have a position in the research outcome, the importance of process means they are only one element and Estelle Barrett suggests that practice and writing exist in dialogue with each other if the work is to have broader impact (Barrett in Barrett and Bolt, 2010, Loc.213). For Bolt, in an argument against practice-only research, the written work, or exegesis should articulate "...what has emerged or what has been realised through the process of handling materials and ideas, and what this emergent knowledge brings to bear on the discipline." (Bolt in Barrett and Bolt, 2010, Loc.846) and that the artwork itself should not be expected to do this (Bolt in Barrett and Bolt, 2010, Loc.826). This is not just about explaining the work, but is part of it (Bolt in Barrett and Bolt, 2010, Loc.853) and is important in allowing the knowledge produced by the practice to have wider importance and relevance (Bolt in Barrett and Bolt, 2010, Loc.853). Some proponents of practice-led research suggest that to try and articulate the findings through writing it to "translate" into another form which is unnecessary (Haseman in Barrett and Bolt, 2010, Loc.3316). Vincs discusses whether her dances were restricted to exploring issues, or allowed ideas to be suggested by the practice, and this would impact on how they were written up, with the latter option making writing up the practice more complex (Vincs in Barrett and Bolt, 2010, Loc.2359,2371). For this study a combination of both is appropriate, with the practice testing ideas, but being open to the development of more through the making process. For Vincs, the writing and the dances operate together, and the dances were not "...an object to be observed..." (Vincs in Barrett and Bolt, 2010, Loc.2583), which is important in the idea of the practice being a way of thinking. Goddard sees the exegesis as a way of making visible the research process, not a way of critically analysing the artwork produced (Goddard in Barrett and Bolt, 2010, Loc.2737). Bolt sees the role of the exegesis as the way "...practice becomes theory generating." (Bolt in Barrett and Bolt, 2010,

Loc.820) and Barrett believes it needs to explain the significance of the practice research and how "...processes specific to the arts discipline concerned mutate to generate alternative models of understanding." (Barrett in Barrett and Bolt, 2010, Loc.3608)

3.2 Research method

Having discussed the methodologies that have influenced my research method, I will now discuss the method itself, its development and main features. The results of the research in terms of outcomes and practice will be discussed in later chapters.

This study combines data from two main areas of interest that have been gathered and analysed in four ways. The main focus is on how hand-knitting affects its practitioners in a society that is becoming increasingly digitally mediated. Therefore, the data on knitters was gathered from the practitioners themselves. The lens through which these experiences are examined is the context of a digitally-mediated society, that communicates through social media, at a distance. This is a large and complex area of study, that is constantly being updated as technologies develop and so the comparative data for this has been taken from existing research. To analyse my own responses to the issues under consideration, I have turned to autoethnographic techniques, including notes while making, and a reflective practice diary. Finally, alongside textual analysis, all the data has been brought together in knitted objects, testing out the validity of the developing concepts, and providing more data. These approaches, in common with grounded theory research will not produce concepts about everyone, but "theoretical generalisations" (Denscombe, 2014, p.120).

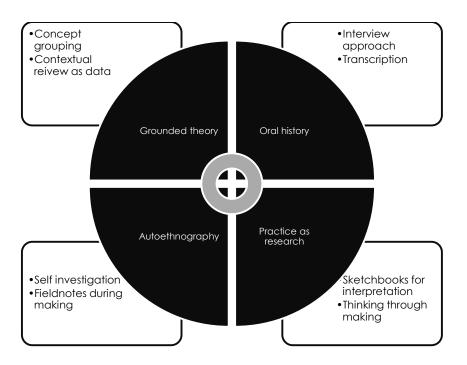


Figure 2 Methodologies and their influence on method.



Figure 3 The four methods of gathering and analysis of data

3.2.1 The contextual data analysis

The contextual data for this study comprised of the existing literature on hand-knitting, alongside literature on the psycho-social effects of digital media. This data was grouped to develop categories, drawing on the coding concept of grounded theory (Birks and Mills, 2015, pp.92,95). These themes or categories

have been refined as further data has developed, including analysis of the interview data. In this way, as appropriate in a grounded theory influenced approach, higher level concepts have emerged (Birks and Mills, 2015, p.86). This has also allowed the bringing together and comparison of the issues in hand-knitting through the lens of issues with digitally-mediated communication, to influence the structure of the interviews, to begin to assess what questions needed to be asked of the interview data, and the making process and analysis.

3.2.2 Gathering data from knitters

To access information about how knitters perceived their craft, and the effects they felt it had on them, interviews were conducted with nine hand-knitters. Using guidance from oral history interviews, but without the direct focus on history, personal testimony interviews were used as the main method to gather data (Abrams, 2010, p.176). Drawing from grounded theory, I have used a light form of "theoretical sampling" approach (Birks and Mills, 2015, pp.11,68,73-74), where the interviews developed as the study progressed and data was analysed. This is also in line with the idea of concurrent data analysis and collection (Birks and Mills, 2015, p.90) along with the broad concept of what constitutes data from grounded theory (Birks and Mills, 2015, p.64). The advantage of this approach allowed themes to develop in the data from all sources, contextual, interview and making, and further research to take place in line with the emerging theory. However, I did not utilise theoretical sampling in the selection of my interviewees. As I was working with a small group of sources, and had already narrowed this down to knitters, I decided not to attempt to categorise my respondents and search out outliers. This is also partly due to time constraints of a study of this size. Following the conclusions raised from the study with a group of younger, or male knitters would be an opportunity for further research.

The first interview was largely conducted as a way of testing my own interview approach. It was with a close family member, who taught me to knit when I was a child and was chosen because it provided important background to my own knitting practice. This interview has not been utilised in the data, as the focus was on piloting interview technique, rather than data generation. In the

main group of eight interviews, three of the knitters came from a local knitting group that I also attend. The other five were contacts made through an open call put on social media via friends, and I had not met them previously. Four were members of the same knitting group. These eight interviews are the ones under consideration in this study. Four of the interviews took place in the respondent's home, and four in a side room of the meeting place of the knitting group. All interviews were audio recorded. They were not video recorded, as I wanted to balance the potential for 'embarrassment factor' and intrusiveness of equipment with the need to capture the interview performance (Abrams, 2010, pp.130,145). Using small recording equipment, mainly a smartphone, was sufficiently unobtrusive and aimed to minimise the formality, while still ensuring the respondents knew that I was taking them seriously and valued their contribution.

Initially, and in line with the early focus of the research on the gift, the interviews would discuss a hand-knitted gift they had been given. Following transcription, I would produce a knitted interpretation of the interview, then return to the interviewee with the object to conduct a follow up interview. This aimed to elicit responses or further narrative, to attempt to begin a 'conversation' through the objects being discussed. I conducted two interviews in this way, alongside contextual research. After reviewing the outcomes of these processes, I found the process to be slow and creatively limiting as there was not much opportunity to bring in contextual data. This was important as this was the main source for the digitally-mediated communication aspect on the study. The approach was amended, removing the direct making response to the specific interview. Instead, making would be a result of processing all available data, from all interviews so far conducted, and the contextual information. Additionally, I made notes on my patterns as I knitted my pieces, which provided further autoethnographic data and reflection on the data on which the pieces draw. With this approach, a further seven interviews were conducted, and eight knitted responses created.

3.2.2.1 The interviews

All interviewees were given an information sheet ahead of the interview itself and signed a consent form to allow data usage. This obviously gave a certain formality to the proceedings, and I tried to keep this as light as possible to

reduce the idea that the interviewees had to 'perform' for the interview (Abrams, 2010, p.22). All the interviewees also knew that I am a knitter. I feel this was important for intersubjectivity in the interviews (Abrams, 2010, p.60) as a positive aspect. I hoped it would provide common ground through an understanding of the terminology, complexity of projects, issues, and moreover, the interviewee was aware of this. The interviewee also knew that I value the craft, important when researching a traditionally female orientated subject as women have been found to "...downplay their experiences..." (Abrams, 2010, p.71) in interviews to conform to societal expectations (Abrams, 2010, pp.55-57). Added to this the common view of knitting as low status, as a knitter I can show I value the craft and allow the interviewee to be 'a knitter'. I certainly found that most of the respondents spoke to me as an insider, even showing me their yarn collection, or 'stash' and some of the responses where they may have felt embarrassed, for example at buying too much yarn, were discussed in 'conspiratorial' fashion. All the interviewees were sent a skein of hand-spun yarn following the interview, as a gesture of thanks from one knitter to another.

The interviews were designed to elicit personal narrative. To this end I tried to keep the questions open ended (Abrams, 2010, p.124), to allow the respondent to talk at length about areas they found interesting. I drew up some guidance questions, to give me some structure and confidence (Appendix 2). These developed over the course of the research, with the focus becoming wider, and questions being added regarding the respondents' use of digital communications media. All the knitters were asked to either bring or consider a piece of knitting. McMillan similarly asked his interviewees in one project to "...share a story about a cherished object in their living room." (McMillan in Sandino and Partington, 2013, p.31) and used photographs of objects brought by respondents along with audio, in works created from interviews (McMillan in Sandino and Partington, 2013, p.31). Initially the object I requested was a gift the interviewee had been given, but as the scope broadened, I developed this request to be any item of hand-knitting that had significance. The nature of the object was not critical as I felt it was important for the interviewee to select something they felt had meaning to them. By asking the interviewee to consider, and possibly bring to the interview, objects in advance, they were

laying out Summerfield's "memory frame" (quoted in Abrams, 2010, p.60) for the interview. The aim was for this object to be a starting point and it proved to be so. The choice of objects may also be considered part of the 'performance' of the interview (Abrams, 2010, p.132), and they may select what they think they should show. Only one brought a gift they had been given, three had items they had knitted, with one of significance only present in a photograph, and the other four brought no items but were happy discussing various things they had knitted.

3.2.2.2 Methods of Analysis

The basic style of the interviews was consistent throughout the research, but the process of analysis developed. All interviews were transcribed for storage, analysis and review and to allow anonymity. All references to names and places were obscured. Making the transcription myself allowed me to notice elements that may have been missed in the interview (Abrams, 2010, p.13) and to become aware of developing concepts. This does take a step away from the spoken testimony, but it allowed me to draw on the words people used, which I found easier with the written word. This can be seen as exposing a constructed self in the text, (Abrams, 2010, pp.34-35) helping to reveal the knitter self I am trying to explore.

After transcription, the first stage of analysis was done through an intuitive approach. The way of choosing the text echoed the approach of Furnée (Furnée in Sandino and Partington, 2013, p.42), exploring the text that intuitively appeared to have importance or was frequently used or noticeable. The process was not formal such as narrative analysis (Abrams, 2010, p.110) or "line-by-line" coding in a process influenced by grounded theory's "open coding" (Birks and Mills, 2015, p.94,95). As noted by Wilcox (in Sandino and Partington, 2013, p.158) the choice of text from interviews takes them out of their context and they could be open to other interpretation. I am aware of this and that my selection is subjective. It exposes the role of myself as researcher, and as a knitter and what I find to be important could be different to a non-knitter. In line with grounded theory, I am aware of my presence in the analytical decisions I am making (Birks and Mills, 2015, Loc.1989). This is a reflexive practice, including asking questions of me as a researcher/maker (Barrett in Barrett and Bolt, 2010, Loc.249). By choosing the words and themes to explore, and interpreting them,

I am aware of the power relationship I have with the interviewee (Abrams, 2010, p.165) offering a perspective on SNS where people are handing over their data for analysis outside their control. The practice element was then utilised, using sketchbooks to expose the interpretation process and as part of the "initial coding" (Birks and Mills, 2015, p.92). The sketchbooks helped to focus and refine ideas by adding detail ensuring that all elements of the designs had relevance.

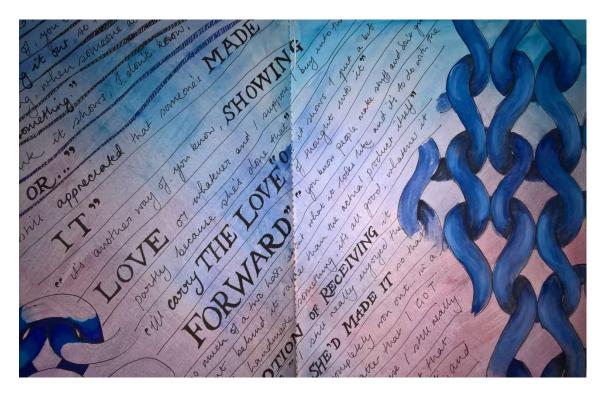


Figure 4 Hardcopy sketchbook page

For the test interview, and the first of the main eight interviews I started a new sketchbook for each interview, however as it became clear that it was important to incorporate and synthesise elements from the contextual review within the making process, a generic sketchbook was then used. As a further way of investigating using digital mediation, the general sketchbook was done solely using a digital tablet device, whereas the first two were hard copy books, and the effect of this will be discussed in the practice review.

3.2.2.3 Practice

As concepts were developed, I began utilising knitting to make items to explore ideas raised in the interviews, in the contextual review data and a combination of both. According to Heidegger,

"...the central question concerning Being is not the everyday activities or practices of human beings, but rather what such activities and practices can reveal or disclose about the Being of (human) beings." (Bolt, 2010, Loc.457)

This suggests that the activities themselves are not important, but what they reveal, and my practice is aiming to reveal important aspects of knitting. In some, text from the interviews has been used directly, in others more abstract concepts have been used. The method utilised was focused on a combination of testing out a theory through making and using the process to develop ideas. This was done using a 'fieldnotes' approach. Initially this was in the form of a practice diary, but this developed into the use of notes on the knitting patterns. It is common for knitters to make notes, for example to mark off completed sections on printed patterns. The patterns for this work were all drawn up for this study and printed out, and many utilise charts, requiring marking off each line. Therefore, the means to note any feelings or ideas were at hand (Figure 5). This ensured a direct connection with the development of my own ideas as they progressed, and was almost a way of interviewing myself. It is a method of making the praxical knowledge being developed transparent. This is akin to the journaling recommended by some grounded theory practitioners, where writing journals and memos can be used to note how the researcher felt during the research process (Birks and Mills, 2015, p.54), allowing them to own methodological choices, and acknowledge "...the influences on your thinking that have brought you to that point." (Birks and Mills, 2015, p.92).

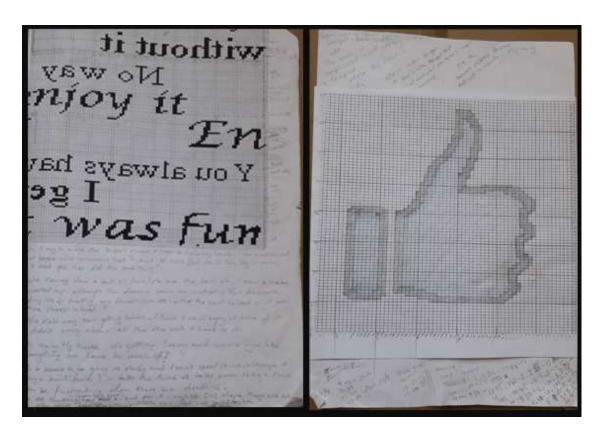


Figure 5 Patterns for two pieces with notes

During the making process I also shared 'work in progress' and completed items on Instagram, to test if others were noting the same things as I was. It did not elicit many comments, but images did get some 'likes'. However, I noted in my fieldnotes that I found it disconcerting to get this feedback from complete strangers, and that there seemed no difference "...regardless of the subject, whether it was knitting related or just a picture of my cat." (Appendix 1). This sharing was useful in giving me further personal experiences of how people react through digitally-mediated communications. The objects made will be discussed in detail in the practice review.

3.2.2.4 Testing

It is important to emphasise that the process of making was a form of testing out the ideas themselves, through an autoethnographic approach. In this way I subjected myself to investigation through the use of fieldnotes, and reflection on making. For this study, the process is the main aspect of the practice contribution to the methodology. It enables the research to test out the effects of knitting in general, as well as the pieces being designed to test the concepts being explored through the making process. This will be discussed further in the practice review. It is putting into practice the use of handling the materials as a

way of understanding as suggested by Heidegger (Bolt, 2010, Loc.148) and that this is revealed in the making, not in the final object (Bolt, 2010, Loc.127). However, for confirmation of concepts, some public response was sought. For both the pilot and the first main interview I carried out a follow-up interview, where the work was shown to the interviewee, and they could respond to it. The aim was more open-ended with the basic goal to get a response to what I had made and possibly elicit further narrative from the participant. The response to the pilot interview was not very successful as I chose to not explain anything about the piece I had made, but to present it and allow for any response. Despite not getting much feedback on the piece, it did prompt further dialogue around knitting experiences. As a result, for the first main interview, I allowed an initial unmediated response, then explained my process and thinking which prompted more discussion and feedback on the objects and their effectiveness in exploring the ideas. The sketchbook helped to show the process, as I had documented it in photographs. However, as discussed, while this approach gave very direct feedback opportunities, it was creatively limited. As the rest of the work was developed from a combination of data, I could not take the piece to any one individual for feedback on the result. I decided to use social media itself as a way of sharing the work. Through doing this I would also be testing some of the issues raised in the contextual review about how people respond and show interest through digital media and the level of effort people would put into a response (Zell and Moeller, 2018, pp.28,31). It was intended to have a small one-day feedback session in person, but this was curtailed by the Covid-19 movement restrictions. This may have offered a comparison to the type of online response received but although some of the objects were challenging to communicate via photography as they had a tactile element, this would not be overcome by a traditional 'exhibition' type event as the viewers would still not have been able to touch and feel the work. Feedback was also sought through participation in an online showcase exhibition and talk, and a conference talk. The other aspect of the photographs circulated online was that they were taken in a domestic setting. Hand-knitting is still regarded as domestic, but some of the pieces were not domestic in scale or content. This will be further discussed in the practice review.

3.2.2.5 Textual analysis

Following the initial grouping by theme that was used for the practice work, the interview text was subjected to a textual thematic analysis. The text was grouped into themes from the contextual review, as data in this chapter had guided the initial direction of questions. This was done after the practice work to give priority to allowing the practice to develop. The results of this analysis are detailed in Chapter 4.

3.2.2.6 Professional practitioners

Three formal conversations were conducted with professional knit practitioners, Tom Van Deijnen, Celia Pym, and Rachael Matthews, following the initial data gathering and analysis. These were conducted online due to Covid-19 restrictions, either using video-conferencing or via e-mail. These interviews enabled me to gain external perspectives and validation on the concepts being developed. I discussed the concepts developing through the thesis in relation to their own practice and largely gained confirmatory feedback, which was utilised in the contextual review, and in the analysis of the knitter interviews and conclusions drawn.

3.2.3 Reflections

I will examine the results of the method in chapters four and five, and the success of the method will be assessed in the light of the outcomes. However, these are reflections on the method itself in producing useable data. The interviews could all be regarded as successful in providing extensive material for both creative practice and textual analysis. The concept of responding to a single interview was limiting, and the practice resulting from the combined data from all the interviews allowed better integration of the contextual and interview data, as well as being able to draw on themes that developed across interviews. The eight interviews considered for this study ranged in length, from around ten minutes to nearly an hour, and this appeared to largely depend on the respondent. Some were keen to give a narrative, while others only offered short answers despite being asked similar questions. In all cases there was a sense of myself being an 'insider' and being taken into their confidence. They discussed techniques they considered challenging, or issues with unwanted gifts with a sense of understanding that I am not sure a non-knitter would have been

given. They also did not find it at all strange that someone would want to research such a domestic subject. The most successful interview took place at the knitters 'knitting place' and I would suggest this set the scene for the discussion and could be explored in future research. Gathering respondents through social media proved more successful than I had expected, probably because it was done through friend recommendations, a crucial aspect of the medium of social media.

It was essential to transcribe the material myself to give insights not initially apparent. Reading through the text allowed me to pick up on phrases used, which could then be taken for interpretation. These were sometimes phrases that several respondents used, or even specific words, which was why conducting and responding to several interviews was a better approach. The role of the object did not prove to be essential, and was not a subject for direct creative work, but was useful as an initial topic of conversation. I found similar levels of information could be gathered from questions alone.

The use of making to interpret the data from both the contextual review and the interview worked well, and I will consider the 'success' of the objects themselves in terms of the research questions in chapter six. I had concerns at the start of the research that the material may not leave itself open to interpretation through knitting. Also, domestic hand-knitting is traditionally seen as dealing in useful objects, worked from commercial patterns, and in this case the objects would often be 'useless' and developed from my own patterns and ideas. The concepts were worked up using sketchbooks, and ideas developed as other pieces were made. This was captured by the pattern notetaking, which was essential to the method, allowing the thought process to be made transparent. As with all knitting, there was a delay between the concept being translated into a pattern and the pattern being realised as a piece of knitting. Until the knitting is undertaken, the success or otherwise of the design concept is unclear. It was important that each element of the design was part of the concept, from the fibre and yarn used, to the knitting style and the outcome. What also became clear through the practice was the importance of process. This is especially relevant to hand-knitting as most domestic knitters would describe themselves as either 'product' knitters, interested in obtaining a result, or 'process' knitters, for whom the main focus in the making itself and once the

item is made it is often given away or used practically. Most of my knitting respondents fell into the latter category, and this seems common in a craft which involves such a time-consuming process. The process was the main element of practice research as it allowed me to contemplate if the materials used, and the techniques employed did indeed draw out the concepts. In addition, as it was the process of knitting itself, and its psycho-social effects on the individual that were being investigated, it was important to attempt to experience these effects first-hand and to document the outcome. This was where the element of autoethnography came to the fore. As will be discussed in the practice review, an example of this would be the knitting of the 2018 blanket, where during the slow knitting process I experienced the ability of knitting to allow reflection not available in many digitally-mediated forms of communication. The concepts come from the making, so can only be fully explored through knitting itself, exposing Bourdieu's "modus operandi" of the final object (Barrett in Barrett and Bolt, 2010, Loc.195) through notes on the making process. In grounded theory, writing is a thinking process (Birks and Mills, 2015, Loc.2726), and my knitting has this function. As well as allowing the concepts to be explicit in the final object, the process and its documentation communicate the concepts explored using the knitting as an interpretation tool. Conclusions are drawn through what I make, so this research is not 'practice-led'. The objects are not the conclusion or outcome, but the thinking/interpretative tool for processing the data.

3.2.4 Final method

The key elements for this methodology are as follows. Data is gathered from interviews, contextual published research, knitting practice and autoethnographic reflections on the making process. The data is grouped and categorised to allow synthesis and comparison. The practice elements may feed into later pieces of work, giving a cyclical element to the method and the practice is used to both test and form concepts, through the process of making. The categories are grouped and refined to form higher level concepts, and synthesis of knowledge emerges from these.

This methodology of utilising knitting as an interpretative tool tests out emerging concepts and integrates outcomes into theory. It positively exploits the position

of the researcher in a form of self-interviewing, addressing some issues of the power dynamics in research. To summarise this, I have called this methodology 'autoethnoknitting'.

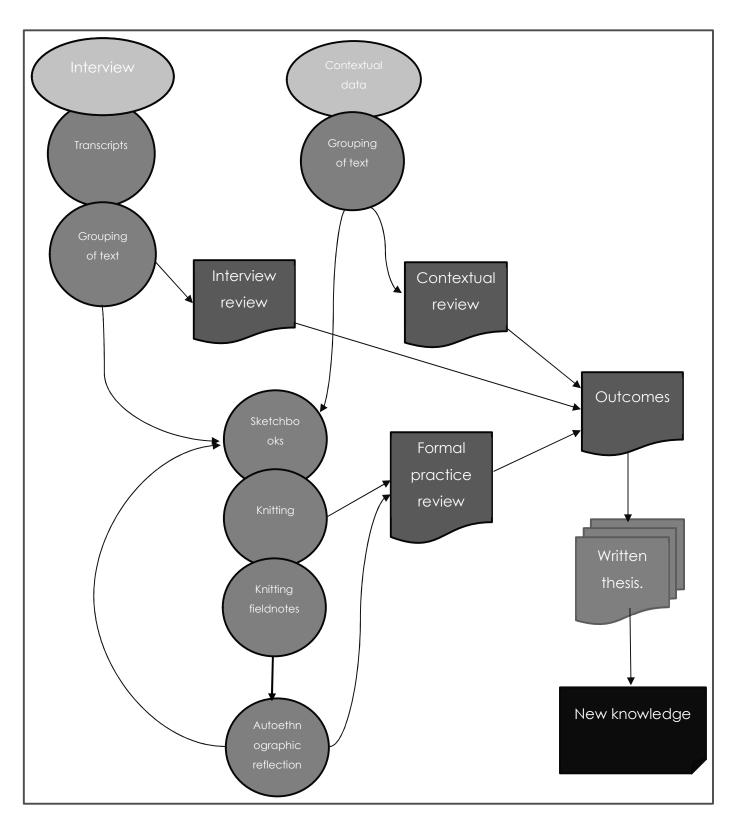


Figure 6 Chart of final process

Chapter 4 Talking about knitting – the interviews

In this chapter I will discuss in detail the results of the interviews I carried out with knitters. As discussed in the methodology, eight interviews were conducted with knitters, many of whom were members of knitting groups, and this analysis is one form of interpretation of these testimonies I have conducted, the other being the practice work, as discussed in chapter five.

4.1 The knitters

I conducted eight interviews that have been used in this study and the interviews were carried out over a period of two years, between 2017 and 2019, in three groups. To retain respondents' anonymity I will not give details of location and occupation and the names used are pseudonyms. These are Fran, Emily, Megan, Fiona, Amanda, Julia, Susan, Peggy. All the interviewees lived in the south-west or south of England and identified as female. Seven of the group were members of knitting groups, three in one and four in another and the remaining knitter was not a member of a physical group but was active in online knitting forums. The ages of the respondents ranged from forties to eighties, and as already mentioned, further research could be done targeting specific age or gender dynamics. Seven had been taught to knit as a child, one even learnt before attending school, while one learnt later in life. One had been taught by a friend, and one at school, with the others all learning from family members, all either a grandmother or mother. No-one's teacher was male.

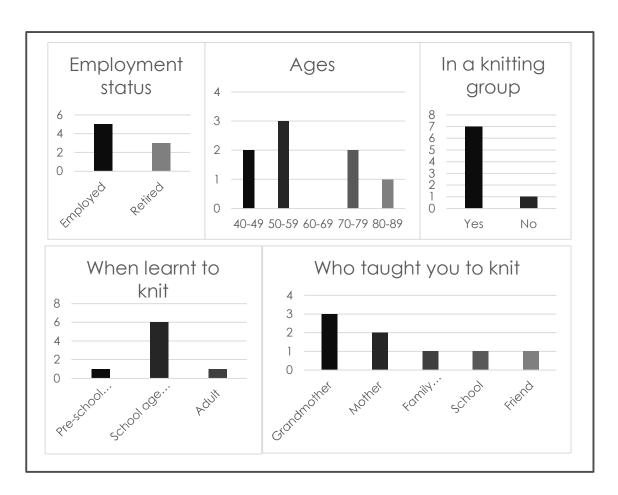


Figure 7 Profiles of interviewees

4.2 Identity and performance

This section will examine the knitter's responses around their identity as a knitter, society's view of knitters and how this was being performed.

4.2.1 Identity construction and concepts of the self

When asked about occupation as an opening question, the respondents generally gave an official-style answer, but through the discussion more nuanced identities were revealed. One interviewee had changed from science to the arts, but was keen to mention their previous career. For Fran handmade objects held a special place, and she stipulated having only handmade gifts for a significant birthday, if people wanted to give a gift at all. This indicated the importance she placed on the handmade as a symbol of affection, but also having the confidence to request this implies that she is happy to be associated with handcraft. 'Hand-makers' is an audience she is happy to display her own status to, and also a team with which she will associate and have knowledge of (Goffman, [1959]1990, pp.137,141). It gives the message to

others that one is not material in outlook, valuing the time people put into an object, possibly indicating Rogers' internal values (Rogers, [1967]2011, p.175). This was something that her mother had also done, which may have made it seem less unusual. It also indicated that she knew people who would be capable of making something, suggesting a crafting community, and that they would want to spend the time making something. Fran herself comments that in the town in which she currently lives "...giving something handmade is [...] very common..." (Fran). This highlights the community aspect of identity in play, showing the 'norms' of the community, similar to those boyd discusses about online communities (boyd, 2014, p.201). This could also be seen in the light of Zhao et al.'s discussion of online community where users are 'known' by the friends they have (Zhao, Grasmuck and Martin, 2008, p.1825). Goffman discusses the idea of our behaviour affecting the explicit displays of identity (boyd, 2014, p.47) and the request for handmade gifts is an explicit association with that culture, backed up by being a maker herself. It could also be similar to boyd's discussion of what teens display on SNS and the response they get (boyd, 2014, p.49) as a method of identity construction. Her request was a public display, like an online post. This community response re-enforcement is the peer judgement Crawford discusses (Crawford, 2015, p.159) as it is a select group, not a general public (Crawford, 2015, p.250) as one would find online. This is a defined context for identity, with a known audience, unlike that potentially found online (boyd, 2014, pp.31-32). However, it is a broad one, and suggests to me that knitters are reasonably comfortable being identified as such in many contexts.

Another way identity was created was through stories that were told about relatives. Megan described an amusing anecdote about her ancestors meeting, giving an indication of down-to-earth, humorous people. Fran discussed how both her parents would make things, including cards, giving her a crafting ancestry, which may have been more important given her career change.

Being taught how to knit was a strong memory for many knitters, evoking a continuation of a skill, and connection to the person who taught them. Often it was mothers who taught their children, sometimes, as for Peggy, before she had started school, or a little later in Julia's case, who remembers her first

garment, a cardigan. For some like Fiona, she couldn't remember exactly when she started knitting, but that it was likely to be a combination of her mother and grandmother who passed on the craft. Susan's grandmother was her teacher, and both women initially started with French knitting, usually with a home made 'knitting dolly', made from a cotton reel. Both Amanda and Emily learnt from their grandmothers at between 8 and 10. Fran learnt as an adult, having been taught to crochet as a child and was taught to knit by a friend, but still recalls her earliest attempts at scarves and hats. This confirms Sennett's concept of craft linking us to our ancestors (Sennett, 2009, p.22,25) and they all evoked family memories, as Macdonald highlighted in her history of American knitting (Macdonald, 1988, pp.87-88). This early exposure could help develop shared circuits around knitting (Keysers, 2011, p.174). Several knitters have passed the craft onto children and grandchildren with some using rhymes to help them learn, such as "In, round, through, off" (Emily) or "In through the front door, round the back, peek through the window, off jumps Jack" (Fran). Peggy found one of her grandsons was very keen to learn to knit, but is not sure he is capable yet, despite being older than she was when she learnt. Generally, the older the knitter, the younger they were when they learnt to knit.

For some, there was a sense of it being more common in the past "Even just a generation or two ago it would have been quite common." (Fran), and Susan had memories of going on holiday with relatives and the women knitting and crocheting together. For Fiona the connection with a previous era was clear, and knitting offered her "...comfort [in] going back in subliminally into that childhood world that has your mum and your grandparents, and you know, your safe world..." (Fiona). They seemed to have fond memories, evoking Rutter's female line of connection (Rutter, 2019, p.29).

Whereas the knitters seemed very comfortable praising other knitters, their concept of themselves as a knitter, and their own sense of self-image varied with their estimation of their own skills. However, these seem to be focused on particular objects, unlike when discussing other knitters. This echoes Crawford's idea that a maker can point to an object they have made as justification of skill (Crawford, 2010, p.15). These objects could be part of the extended self, defining the knitter in a community (Sheth and Solomon, 2014, p.123). Some were quite positive, commenting on some hand-knitting they had seen for sale

and feeling "...I can do better than that." (Julia). Julia expressed pride in a gift she had created, saying "I'm quite proud of that, and I hope she loves it." (Julia) and Fiona broadened this out to state "I love what I create, and what I create is really important..." (Fiona). Fiona had made an object that reminded her of her mother and felt particularly attached to it, saying "...I was really pleased with that, so yes so that's, that's, quite special to me." (Fiona). Megan showed her pride in her work by highlighting the comments from other people "People do admire it I have to say..." (Megan) and "...people have admired it, so I feel quite thankful about that." (Megan), including on some of her more unusual knitted objects such as food, where she enjoyed the surprise of viewers who said, "Good lord is that knitted?" (Megan). Her focus on the object went as far as saying that an item had "...turned out quite nice..." (Megan) almost as if this was an accident. She also commented often on the challenge of a difficult piece of knitting, "I like a bit of a challenge. Yes definitely..." (Megan) or something that took a long time. Susan also got satisfaction from making something she hadn't done before, after getting a request from her child for a complicated jumper pattern that she was unsure she could complete, "...I was so proud of it, I must get a picture. [...] that was about the most I'd ever knitted apart from odd squares for blankets." (Susan) and Megan was proud of a complicated cardigan she had completed for herself that had "...lots of different stitches on it...", even though she didn't like, or even wear, the end result, "...it was complicated, and I was quite proud of it...I am quite proud of it, but I'm not going to wear it..." (Megan). This reflected Sennett's idea of making offering a sense of pride in work seen to be of quality (Sennett, 2009, p.9) and Rogers' idea of a sense of self and values against which to judge experience (Rogers, [1967]2011, pp.118,175). They have a sense of creating something satisfying for themselves (Rogers, [1967]2011, p.354).

Less confident knitters still felt some pride in trying pieces that were difficult for them, often in empowering terms such as "I will learn better stitches, but in my time." (Susan) and "...I'm very slowly knitting that because it's a bit of a complicated pattern for me, but it's working..." (Susan). For Susan, she gained reinforcement of her skills from the recipient of a gift, even if she was aware of the limitations of what she had made, saying "It wasn't brilliant, there's a couple of mistakes in it, but she absolutely loved it and she bought the baby home

Even the most confident knitter was still very open about their perceived inadequacies, and these were more common than the positive statements. Fiona found that she preferred smaller items to knit as she found larger projects boring saying, "So I do get bored [...] you can see here the projects I do tend to be fairly small knits, the baby clothes or accessories or I do these Christmas ornaments or all these sorts of things, hats." (Fiona), but didn't like knitting toys because they were "...too fiddly, I get a bit cross with them..." (Fiona). Megan also found bigger projects less satisfying saying, "...I'm not very good at knitting big things I think..." (Megan). The level of complexity they felt they could achieve was an issue for some, either through perceived inexperience as in the case of Susan who said that they "like simple." (Susan), or problems as they aged, as in Peggy's case, who could no longer follow complex patterns, despite liking them. She felt that "Nowadays I just prefer the plainer things, because patterns are a bit complicated, I get muddled on the rows." (Peggy). There was a sense of modesty about their own abilities. Sennett recalls Castiglione's advice not to brag about one's own abilities as this can negatively impact on others (Sennett, 2013, p.118). Some felt less capable when they compared themselves to other knitters, such as Emily discussing a knitter she had known before she could knit, "...now I can appreciate that she was a very good knitter, because she knitted stuff that I probably, I still aren't, not at that level..." (Emily) and on a hand-knitted gift that had "...really fancy stitches that I still couldn't do..." (Emily). Susan, discussing another knitter, joked that "...I can't

do lace knitting! Some of my knitting looks like lace!" (Susan). This may demonstrate an awareness of self, and an acceptance of others that Rogers suggests comes from that (Rogers, [1967]2011, pp.175,181). I noted that these knitters had also discussed projects they had completed that involved some complex techniques, such as an intarsia sweater in the case of Susan. This may suggest that there is a conflict between the self-image and the ideal self. Looking at Rogers' concept of the "true self" (Greenfield, 2015, Loc.1789) this suggests that the knitters were not fully "self-actualized" as their ideal knitter self was not congruent with their self-image (Aiken, 2016, Loc.3121). However, this may be demonstrating more realism in what they could achieve or wanted to do or enjoyed, tempering their self and creating a more attainable concept of their ideal (Rogers, [1967]2011, p.236). Within this feedback there is evidence of the issue of audience, as one without the correct appreciation may respond negatively (Goffman, [1959]1990, p.141). It also shows the influence of society on the feelings of the knitters, with many of the comments reflecting others' opinions (Goffman, [1959]1990, p.44). The inadequacies could be information the knitter has about themselves that would not be revealed to the 'wrong' audience (Goffman, [1959]1990, p.204). Their 'team' of knitters helped them learn and they showed a pride in learning but a self-awareness of what they didn't like to do. They seem to have developed an individual knitter self through experience (Rogers, [1967]2011, pp.76-88), while having a sense of an idealised knitter, external to them.

Some professed pride in early items of knitting they had made, even if they were not perfect. Julia commented that an early cardigan was not very well finished, but that she was "...so proud of it" and that despite its flaws she "...still wore it." (Julia). This demonstrates a confidence in her own work and being able to embrace the handmade. There did not seem to be any of the embarrassment in the work these knitters recalled that Turney discussed (Turney, 2009, p.12). Emily noted how she wore similar clothes to her sister, but it was the hand-knits that set them apart, and that this made them special. Handmaking was very common in her family, and she was aware that this has changed, making hand-knits "...a bit more special in a way." (Emily). These early recollections are fond ones, and from people who went on to knit later in life, or continued to do so from childhood onwards. This points to an early

identification with non-commercial fashion, possibly embracing Holroyd's fashion commons (Holroyd, 2017, pp.59-60). Hand-knits are seen as 'special' marking them out as different, more akin to what Twenge has seen with the more individualistic iGen-ers (Twenge, 2018, Loc.2728). Could the knitter be trying to mark themselves out? The *knitter self* could be evident early on in embracing gifted hand-knits, and this regard for the gifts as a child could lead them to knit themselves, as these were meaningful for them, possibly drawing on shared circuits developed from seeing knitters (Keysers, 2011, p.174). As discussed later, for Fiona knitting did evoke a safer childhood place.

4.2.2 The knitter identity

Several interviewees saw knitting as important or very important to who they were. Fiona described mentioning knitting when asked about what she did, in addition to her official occupation, adding that knitting was "...what I do, you know, I am..." (Fiona), and Peggy stated that "I am a knitter, and a natterer." (Peggy). This is clearly a statement of identity, associating with knitting, and explicitly taking control of the identity issue. Peggy also felt it was "...a part of my life I wouldn't give up...". It seemed to go beyond something that was occasionally picked up as a distraction, but an important part of who they were. Julia and Amanda both agreed that they would describe themselves as 'a knitter', and Julia commented that this was a long-term activity, stating that she had "always knitted." Peggy noted that she had "...knitted all my life." (Peggy), while Susan had been "...a long time knitting..." (Susan) and Fran was "...always a making type of child..." (Fran) even if she had only learnt to knit later in life. There seemed to be a need to establish a knitting career, even if for some, like Amanda and Megan, it had waxed and waned as children came along when they revisited a craft established as a teen, to provide for them, then let it diminish as "...life took over and I didn't knit very much" (Amanda), then re-establishing it later in life, or when grandchildren arrived. This suggests that for some, knitting needs to have a purpose, a recipient, and maybe there is a guilt attached to making time for knitting when life is busy. However, they seemed now to be happy to knit, even without a demanding recipient. Megan commented that even if people didn't want her work, she would "continue knitting." (Megan), even if it was "...just [...] knitting socks, that's all I'm going to do." (Megan). These biographies seem to confirm my feeling that, unlike

Some commented on the amount of knitting they did, saying that they "...always have to be knitting..." (Julia) or that they "...spend all my spare time knitting, right into the evening." (Peggy). Some, like Amanda, emphasised that they knit alone, as well as in groups. Fiona gave up other crafts in case they caused injury that could limit her knitting, saying of one craft that "...'This is dangerous work for a knitter' I thought I'm not going to do this anymore, it's too dangerous, I'll be damaged for my knitting..." (Fiona) and generally found that even after trying other craft activities she always returned to knitting.

There was a feeling that knitters are a community, and Peggy commented that "...knitters know another knitter..." (Peggy) without elaborating on why this was. She was expressing the idea of an individual within a group with shared norms, as discussed by Crawford (2015, p.160) and boyd in online groups (boyd, 2014, p.201). She also noted that while she knitted with one of her daughters, she hid the work from the other daughter as "...she gets a bit fed up with us always knitting." (Peggy).

The knitters were more comfortable praising the knitting skills of others. This may have been because to be remembered as 'a knitter', the person was likely to have knitted a lot and knitting seems to have been a part of their personality. The majority noted the level of skill their relatives demonstrated. Several mentioned their own mothers and how well they knitted, commenting on how they "...could make anything, she could make things without patterns [...] she was wonderful" (Julia) or how much they knitted. Peggy's mother was "...an avid knitter, she loved knitting..." (Peggy), whilst Megan's "...mother knitted absolutely non-stop, [...] she was continually knitting, all the time." (Megan) and on what they knitted "...our hats and gloves and everything else..." (Megan). Fran's mother was able to knit, but was unlikely to be seen knitting, and Fran was unusual in gaining the skill later in life. She described her mother as "...not like a hard-core knitter particularly." (Fran). Others had grandmothers who were

knitters, such as Emily, who commented that "...grandma was a better knitter..." (Emily) and Susan described her grandmother as a "...a knitter, a profound knitter." (Susan) who was particular about finding the right colour yarn and would make rather than buy items such as cardigans. Her skill was highlighted in her being able to "...knit, watch the telly, and have a conversation, cause she knew the pattern off by heart." (Susan). This emphasis on knowing the pattern suggests a reasonably narrow range. Perhaps this is indicative of a less exploratory or inventive knitting, less subject to the rewards of the novel or new that we find today, or simply of a requirement to knit repeated family garments. Susan was encouraged by her grandfather who bought her a set of her own needles, wanting the children to do things properly. Peggy highlighted how her sister would talk while knitting and was extremely fast, to the point where they would ask her to slow down because of the clicking. She said "...she's got to do it furiously, but she knits lovely neat knitting." (Peggy) and she compares her and her mother's skills negatively to her sister, saying "...I've never seen anything like it. I mean my mum couldn't knit that fast..." (Peggy). Emily noted that her sister "doesn't knit" (Emily). The knitters all seemed to be impressed by fellow knitters who could multitask, knit quickly and evenly, or without a pattern.

Often, they would praise other knitters at their own expense, highlighting areas they couldn't do. This emphasises Crawford's concept of the group with "...shared frames of meaning..." (Crawford, 2015, p.160) and the "cultural jig" (Crawford, 2015, p.160) that knitters judge each other by. For Goffman, team members have a shared knowledge and perform on behalf of their team of knitters (Goffman, [1959]1990, pp.88,115,235). The items relatives made seemed less important or worthy of comment unless they were not as good. For some this was because of a disability, such as Susan's mother who had had polio, or age, in the case of Megan's relative for whom arthritis caused her to only knit dishcloths as she got older. Fran noted her grandmother would knit "...really crumbly knitting..." (Fran) in colours that "...were pretty horrific" (Fran) for her sons, who were open to ridicule as a result. However even this was mentioned with affection, noting that she "...wasn't your typical stereotypical sitting in the corner kind of knitting grandma at all." (Fran) and that Fran had kept and worn one of her father's jumpers. Contemporary knitting friends were mentioned less, but when they were it was similar aspects that were noted, such as "...she was

a quick knitter..." (Emily). The knitters clearly had an individuality gained through being judged by their peers (Crawford, 2015, p.187). As Rutter found (Rutter, 2019, p.289) knitting was part of who they were, and their history. They established themselves in a community, with its own culture (Crawford, 2015, p.160) that was widely understood. A 'good knitter' knit quickly, using complex stitches and while watching television and holding a conversation.

4.2.2.1 The knitted object as a carrier of identity

Hand-knitted objects evoked memories of the recipient in many of the knitters. Peggy recalled knitting a Fair Isle jumper for her father who was in the services, and Amanda also knitted for her father, mentioning a jumper that had lasted over 30 years. With knitting for children so common, knitters recalled items knitted for their children, either by themselves or relatives. Megan had taken up knitting again in order to knit for her children, and recalls making clothes for them out of her own, "I can remember pulling down my own jersey and knitting it up as a smaller one for a child..." (Megan). Julia remembers a toy lamb she made that is still in use, and she has "...had to sew him up a couple of times. But you know, that's part of family isn't it?" (Julia) and Peggy still knits for all her now extended family, to "...keep it all going..." (Peggy). The idea of knitting for family comes through strongly and warmly, with Megan noting how all their jumpers were hand-knitted "...except the school jerseys..." (Megan), and Emily recalls her father's handmade socks and jumper.

Fran notes how the handmade toys her mother made for her are still around, being played with by her children on family visits, and the toy her mother made for her son, possibly remembering how handmade toys get kept, and that she "...daren't throw it away, even though it's not particularly his favourite toy or anything." (Fran). This draws on Winnicott's transitional objects, bridging the gap between child and parent (Winnicott, [1987]2007, p.130) and in this case revisited with later generations. Megan has kept a blanket made of knitted squares that her mother made for one of her children, that was knitted "very fondly" (Megan). This evokes Baudrillard's idea that objects gain cultural value over time (Baudrillard, [1996]2005, p.147), and acting as an index of the maker, with agency (Gell, 1998, pp.15,23,68). They have the poesis Turney and Sennett outlined (Turney, 2009, p.143; Sennett, 2009, p.70), bringing stories of the past and the makers into the present. Susan liked that her grandchildren used social

media to request items for her to knit, and also knitted a cardigan for a friend's

As has become clear from the responses, knitters do feel that the maker is somehow embodied in the object they make. This is clear in comments that Megan made about how the significance of an object was changed by who made it, "...it's the person that knits it sometimes, not what it is..." (Megan) and, "...it meant more to me, not what it was but that she'd knitted it for me..." (Megan). They also made it clear that they feel that they are in what they make too, with Emily commenting that when giving something you are "...putting yourself out there..." (Emily). This is similar to Mauss's idea of the "hau" or spirit, in a gift (Mauss, [1954]2011, p.10) and Gell's idea that an object is part of a "distributed personhood" (Gell, 1998, p.231), exerting agency on others (Gell, 1998, p.68).

4.2.2.2 Memory

Knitters were remembered through their knitting. Several knitters told moving stories of family knitters who had left either finished or unfinished items that became significant after their passing, as Macdonald and Turney found (Macdonald, 1988, p.60; Turney, 2009, p.143). Julia's mother died just before Christmas but had knitted all the family gifts that they were able to open that year. She describes the bittersweet nature of this as "...lovely in a way, but heart breaking at the same time." (Julia). Emily felt that when she was younger, she didn't fully appreciate her grandmother's knitting, saying how she wishes she "...could sort of see the items again..." (Emily). Her grandmother left a half-finished garment on her knitting needles when she died, that was finished by a family member and given to another relative, "...that was really nice that there was this sort of carrying on..." (Emily). This evokes the concept of the knitter's

spirit, or even perhaps 'self' carrying on in the garments, and emphasises the sense of continuity. Gell discusses this as the indexes of the person (Gell, 1998, pp.222-3) and their continuing agency in the world after death (Gell, 1998, p.253). Fiona came across a pattern for a cushion after her mother died, that was in yarn from the area of the UK that her mother came from and in a knitting style appropriate for that area. It was destined for a holiday residence near to where her uncle was buried. The piece carried huge significance for Fiona, and is an example of how even in the seemingly simplest of household objects, knitters can create an object of great significance to them, using patterns and yarn that carry a message for them. Of course, this meaning is often only known to the knitter, which may be positive, but may not be considered later when others look at the item. This can be seen as a form of coding messages for particular audiences. Those with a knowledge of patterns and yarn may gather some of the significance of the piece. It could be one knitter communicating to another, in knitter code, and shows the layers of meaning audiences may derive from an object and how the person will carry different agency with these diverse groups. Goffman suggests different performances for each audience (Goffman, [1959]1990, p.137), and it may be that different audiences will 'read' the performance in a piece of knitting differently and as the item is carrying the agency of the maker (Gell, 1998, p.23) they are reading the performance of the knitter self differently, boyd describes how teenagers give false information to control how a site treats them, but that would not be mistaken by their friends (boyd, 2014, p.46). Do we have different knitter selves for different audiences, in the same way boyd suggests users do on SNS where a user changes what they portray of themselves according to the norms of the audience they expect (boyd, 2014, p.38)? It could also be a way of creating an autobiography through objects of significance that are kept (Miller, 2010, p.97). These memories also echo what Mayne found, where knitters felt a connection through objects even if they had not made together (Mayne, 2018, p.116).

Some pieces seem to have been made as heirloom objects. Susan recounts the story of the lace 'wedding ring' shawl her grandmother made that has been passed on to each new-born over nearly 40 years and that Susan remembers seeing her knitting. It still has the clear, handwritten, washing and blocking instructions and the original sheet on which to pin it out to dry. It is clearly

looked after and treasured, as would have been expected with such an item, which are often called 'Heirloom shawls'. There was an attempt the control the curation through these instructions (Miller, 2010, p.151), but ultimately this passes to each new recipient. These objects are gaining new narratives, and the 'memory' of them develops, unlike a fixed digital 'memory' (Carr, 2010, Loc.3008,3014). However, Susan also seems to have held other parts of her grandmother's knitting legacy in high esteem, something Mayne also found evidence of (Mayne, 2018, p.116). She still has a jumper that was knitted for her father, and that she would use to keep herself warm as a child, that is now imbued with memories of both her grandmother and father. After her grandmother's death, the family carefully went through the knitting materials, and passed on the patterns to a local museum, and divided the pots of needles between the knitters in the family. She talked about how her grandmother was very organised with her knitting equipment, and possibly this sense of value has been passed on to members of the family who now continue to value and use them. This is a clear example of curation of the memory of the knitter, including some objects going to a museum (Miller, 2010, p.151). This family curation is likely to be flawed, biased and possibly unreliable, but done by people who knew the knitter. This is unlike the way digital memories are curated by algorithms (boyd, 2014, pp.11,12) with sites offering up 'memories' of old posts. Also, the agency of the knitter self is present when their descendants use the objects, and their tools, allowing real continuity (Gell, 1998, p.253).

4.2.3 The image of knitting

If there is an idea of the *knitter self*, it must contend with the image of knitters in society, as society contributes to identity. The knitters were mainly aware of the image of the knitting grandmother, and some really embraced it. Peggy referred to herself as "...the knitting grandma." (Peggy) and even knitted a 'Shreddy' in response to a cereal advertisement that featured knitting grandmothers. Julia even knitted a representation of herself for her grandchildren to play with

"...the knitted granny, the knitted me. It doesn't look like me, it just looks like a granny, it's got grey hair and she's got a long skirt and she's

Fiona found the 'granny knitting' term to be negative, relating to knitwear nobody wants, saying "...you always get the granny knits and it's 'I'm hiding that in the bottom of a wardrobe'..." (Fiona) and that knitting "...has this sort of slightly old-fashioned feel to it..." (Fiona) even though she was a passionate knitter. There was clearly the idea that it was the image of the 'granny knitter' that was at fault, not the knitters themselves. Unlike the young knitters in Fields' research (Fields, 2014, pp.155-6), they did not deny this image, but embraced it, possibly as they were older themselves and saw no problem with it, similar to the embracing of "nanna" culture Kouhia highlighted in Finland, so called "grannyism" (Kouhia, 2015, p.269). Susan was aware of the change in image, seeing studies such as this one as proof that "...knitting's no longer a dying art is it?" (Susan) and seemed happy to see this.

None of the knitters saw the craft as subversive or political but were comfortable with its domesticity. However, the willingness of the knitters to partake in charity or outreach projects shows something of the political, quite opposite of the conscious, public, clicktivism. Fiona took part in a charity 'yarnbombing' event, where small, knitted angels were left around a town with supportive messages on them. The objects were anonymous, and were left out as a support, without expecting any feedback, unlike a shared online post. Interestingly, items knitted for charity were often not the knitters' best work. They would knit charity blankets with "odd bits" (Julia) of yarn, or hats with "...cheap and cheerful wool..." which was "...brilliant for charity knitting because it's nice wool..." (Fiona). Megan admitted sending "...not my best gloves..." (Megan) to a charity, because "...they really wouldn't care what they look like, they will keep your hands warm because I felt they were not wasted." (Megan). Part of this seems to be a sense of practicality, that cheaper wools are often machine washable, and that you can make a lot for a small outlay. There was an element of distance from the recipient, like Turkle's "Goldilocks effect" (Turkle, 2015, Loc.3184) and that it was different to how one would knit for a family member. Of course, the time involved is the same whatever the yarn, and this is often considerable, and no-one was forcing them to undertake any of this work, but it does provide an outlet for compulsive knitters. It also spoke of the

need for a certain frugality, that items should be used by someone, or leftover yarn should be used for something useful, echoing Greer's view that charity knitting would definitely be used (Greer, 2008, p.85).

Fran was the knitter who was very anti-consumerist, both generally and in relation to gifts. She said she felt "...a little bit bad if someone's bought you something, you know it's just more stuff in the world, and they've spent money..." (Fran), which made her feel guilty. However, she felt the same did not apply to handmade objects, which were a "...different kind of commodity in my mind" and "...if someone's handmade something, it's all good, whatever it is [...] the emotion of receiving it [is] all brilliant." (Fran). However, she did doubt if this was common view, saying "I kind of think I'm wrong in the way I think about it..." (Fran). In this she directly addresses the criticism levelled at this concept of knitting as anti-consumerist (Turney, 2009, p.218). For her, the love and care in the object changed its status. It was no longer about money, or what the yarn cost, but the sentiment behind it. She wanted people to give her their time, not monetary input. This echoes the slow movement in valuing people above finance (Honore and Brett, 2005, p.241).

Some of the knitters had sold a few small items, but all agreed it was not a commercially viable option, and that they could not charge for their time. Susan noted a knitter at a craft fair that would charge a flat rate on top of her yarn, and Julia only sold items at enough to cover the materials, despite being confident that her work was of good quality and better than what was being sold by the shop already. Fiona said she made a little, but could not "...charge per hour for what you do..." (Fiona). There was the feeling that as they enjoyed the making, they couldn't charge a commercial rate, and that this was not a reasonable price anyway. This emphasises Crawford's idea that our current financially motivated economy does not have an accurate valuation of such work (Crawford, 2015, p.155). Taking his idea that presenting the bill to the customer is a point of justification (Crawford, 2015, p.154) suggests that the knitters did not feel they could justify their actions in time etc. to a customer at their real value. I suggest this is as a result of prevailing economic models, along with a sense from the makers that if they enjoyed the making, they shouldn't charge for it. It could be a result of the idealized, altruistic knitter image (Turney, 2009, p.174) and the feminine nature of hand-knitting, developed from the

Victorian era onwards, being generally undervalued in society even today (Rutt, 1989, p.84; Minahan and Cox, 2007, p.15; Pentney, 2008). Hyde discusses how capitalism associates women with gift labour (Hyde, 2012, p.110) and historically, when women knitted even for industry they were not well paid, and it was largely a second income, whereas the frame knitting was a male labour, and seen as more of a 'job' (Rutt, 1989, p.84; Black, 2012, pp.61-63). I feel we are seeing the result of the image knitting gained during the industrial revolution, as a polite exercise for women, and the continued devaluing of domestic work, despite what Honore suggests (Honore and Brett, 2005, p.190). This may have caused the knitter to lack a confidence in their work.

4.2.4 Performing the knitter self

The *knitter self* may impact the way the knitter feels personally, but it is also performed is several ways. Knitting in public is the most obvious, including in knitting groups, which are a kind of middle ground, being a knitter space sometimes situated in a public environment, whereas many of the knitters were happy to knit alone in public. Giving a knitted gift can also be a performance of the *knitter self*, because, as already discussed, the knitters felt they were giving something of themselves in the gift and choosing a hand-knitted gift instead of a bought one is making a public statement. Where a knitter has an audience, their actions are a performance of the self and Goffman suggests this will be influencing the audience (Goffman, [1959]1990, p.26).

4.2.4.1 Public knitting

Knitting on public transport was mentioned, mainly portable projects, "...just something you can carry, one ball and two little needles..." (Peggy) such as a blanket square, to use up the journey time "...because otherwise you're just nodding along in the bus." (Peggy). Others had knitting bags they carried with them to take advantage of downtime, and if they were in a stressful situation. This has an element of the availability Miller et al. found with smartphones (Miller et al., 2021, pp.128,132). Susan commented that her knitting was "...always in the car so I can always, rather than thinking about it, I just get it out [...] and go for it and it's always just something plain..." (Susan) while Fiona knitted on ferry trips, where she would have some in her main luggage and a small project in her handbag. She seemed to relish the opportunity of the ferry journey as

extended knitting time "...if the weather's nice we sit out on the deck, [...] glass of wine by my side, [...] nibbles, and I will sit there on the deck and happily knit away for hours and hours." (Fiona). She also noted how this led to conversations, from people asking "Oooh, what are you knitting?" (Fiona) to, as she described it "...find the knitter...", with whom she would "...get into a knitting conversation..." (Fiona). Peggy noted how often men would ask her about her knitting on the bus, saying, "It's surprising how many men do. Yeah, I mean they sort of sit on the seat opposite and say, 'oh can you do that while you're travelling?' and I say, 'Yeah, you want to take it up'." (Peggy).

The knitters used knitting as an enjoyable way to pass time, which does have echoes of the old concept of stopping women having 'idle hands' (Sennett, 2009, p.57), that they were happy to be seen doing, countering Turney's view that knitting was hidden away (Turney, 2009, p.278). Turney felt that knitting was a domestic practice, but these knitters were happy to be "...seen to be doing..." (Daley, 2013) their knitting. It is noteworthy that these were not the young, fashionable knitters who were seen knitting at the beginning of the revival. Peggy was a proudly senior knitter and was happy to knit anywhere. They, like Greer and Rutter (Greer, 2008, p.55; Rutter, 2019, p.273), were mostly happy to chat about it, finding kindred spirits and revealing their knitter selves to other knitters, so there was a small element of performance, but this was not the over-riding impression. There is more of the idea of the team of knitting insiders (Goffman, [1959]1990, p.88). They used it to pass time and Greer highlights that passing the time productively reduced stress and overthinking (Greer, 2008, p.40). Also, it was often done alone, and the comments they received confirm Hemmings' view that that the troubled solitary knitter found in fiction is not necessarily accurate (Hemmings in Corkhill et al., 2014, pp.50-55). Susan and Peggy both took plain, simple knitting that suggests they were not performing their knitting and did not need to show reputation enhancing skill as Goffman suggested (Goffman, [1959]1990, p.43). Susan would even say to anyone who asked her about it that she was knitting "...just a square..." (Susan) to limit the questions she was asked, as for her, she was knitting for her piece of mind, and this could be done anywhere she needed it. Knitting publicly may not be widespread, but for these knitters it seemed to be for themselves, not for anyone else, and not about performing for others.

4.2.4.2 Knitting groups

I contacted many of the knitters through knitting groups, so it was unsurprising that they enjoyed them. Susan found the pattern sharing a boon, while Fran belonged to a group that started in a private house but moved to a local pub so that there was no pressure on anyone to tidy the house, and they were comfortable taking over a traditionally masculine space (Parkins, 2004; Minahan and Cox, 2007, p.10). Although this was a very public group, the reason for the location seemed to be more practical than performative, but it was inclusive (Turney, 2009, p.95), allowing people to join who saw the group meeting, or saw the publicity put out by the venue. The groups were quite broad in socio-economic terms, but all members presented as female, and were largely ethnically un-diverse. However, knitting did seem to cross social and age boundaries. They found the mentors and help useful with Susan commenting that the "...ladies here have been amazing, [...] they've re-taught me how to do crocheting." (Susan) and that if she got stuck on anything "...the supports there..." (Susan). Amanda liked that the support was in person, commenting that "...if you're struggling to fathom a pattern out, you know, you've got somebody right next to you who can potentially do it for you or at least show you how." (Amanda). This is similar to Sennett's idea of the "sociable expert" (Sennett, 2009, p.248). It demonstrates Keysers' claim that learning is improved in groups and echoes Greer's findings of support in knitting groups and Crawford's community learning (Greer, 2008, p.58; Keysers, 2011, p.192; Crawford, 2015, pp.137,139).

4.2.4.3 Online community

Most of the knitters used online communities, such as Pinterest, to search for and buy knitting patterns (Julia), and used Facebook to socialise with other knitters, although Amanda commented that "...it's not my first place when I'm doing knitting stuff." (Amanda). She frequented a group that was an extension to an offline knitting group, and on this they would share finished objects ahead of the following weeks meeting, but they would take the object along to the next meeting so they would "...see it for real as well." (Amanda). Mayne suggested this making alone, then sharing was a feature of online groups (Mayne, 2018, p.175), but in this group there was a lot of overlap, sharing in person items made between meetings. Amanda also felt that while it was a

good way to keep in touch with old friends and that it could be "...easier to talk to someone you haven't seen for 20 years about something really deep, and you wouldn't talk to someone you see every week..." (Amanda). She felt that she had a different relationship with those friends she only socialised with online, as opposed to those who she saw offline too. Fiona found online communities to be a good way to "...have that [...] connection with like-minded people..." (Fiona). Discussing using online communities in general, Julia felt it was an effective way to share things to help others, although she was not sure if it did, saying "...well you think you're helping, whether you are or not is sort of another matter." (Julia). The online links did not seem as strong as offline. For most they were a confirmation of an offline community, that was reinforced by 'real' meetings, but they did find the broad support that Krotoski discussed (Krotoski, 2013, p.49). This confirms Millers' view of offline reflecting and being complementary to online (Miller, 2016, pp.155,185) that Mayne also found (Mayne, 2018, p.112). Fiona was the most avid user, and enjoyed connecting with knitting groups worldwide and perhaps not coincidentally was the only one not in an offline group.

Several knitters posted images of their knitting online, and generally liked getting comments from others. Susan found it a way to show her work saying "...I'm like that 'See what I done'" (Susan). Julia and Fiona both found they got a lot of feedback, saying that "...people usually like things." (Julia) and "...I did get quite a lot of comments and things." (Fiona). Fiona used the Love Knitting site to share her images of her knitting, and was happy to have followers for her work, even though she had "...no idea who these people are I mean I could click and look it up..." (Fiona). She found this site gave her more feedback and she liked that it was worldwide and would engage with other users through the comments "...the comments that I will then get back on my projects [...] will come from all over the world to the extent of people then asking me for 'Where did I get the pattern for that?' [...] and you go into this conversation..." (Fiona). She found that the feedback gave her a "...nice sort of feeling and I've never had anybody say anything nasty or...it's not that type of community..." (Fiona). Similar to Mayne's participants she enjoyed the feedback and the ability to connect despite geographical distance (Mayne, 2018, pp.9,179). Fiona did use Facebook, where she put knitted items for sale, but felt that was "...slightly

removed from me..." (Fiona) and was comfortable that "...people can contact me through the page but they, I don't think I've got it so that they can contact me directly..." (Fiona), going on to say that she was "...a little bit wary of social media..." (Fiona). She was also on Instagram but would not allow people she didn't know to follow her, and kept "...it very, very controlled..." (Fiona). She felt that Instagram was "...for people that just want to get millions of followers. I'm much more cautious than that, same with Facebook..." (Fiona). She had not expressed the same concern with the Love Knitting site, allowing people she didn't know to follow her feed. It is possible that this was because it was a community of fellow knitters, or that she only posted knitting imagery, rather than personal posts, or that the site is much smaller. Mayne found her participants felt the closed Facebook group a similarly safe, supportive space (Mayne, 2018, pp.190-191). None of the knitters mentioned the Ravelry site as an online community. In my experience of talking about Ravelry with knitters in general, they seem to use it to look for patterns, and not for the community forums.

The change of self-perception Orton-Johnson found that knitters got online (Orton-Johnson, 2014, pp.316,319) seems to be confirmed by the positive feedback they received when they posted online. The sociability of knitters is highlighted by how comfortable Fiona was with the knitting only Love Knitting site, whereas she kept her accounts on other sites more controlled and private. For Susan, she was happy to share images of her knitting with non-knitting friends, reinforcing her image as a knitter.

For these knitters, the online communities were useful for information – more akin to what Turkle found with friends being about what they could do for you (Turkle, 2015, Loc.2566), a transactional approach, as Csikszentmihalyi found, as conversations are increasingly focused on information transfer (Csikszentmihalyi, [1992]2002, p.129). However, while they were comfortable as knitters online, the offline environment seemed to offer a better sense of community.

4.2.4.4 Gifts

While some of the knitters were modest about their abilities, which dented their confidence to give gifts, many enjoyed having an outlet for their craft. Julia was typical in making for younger family members, but noted that this started

Giving knitting is giving something of the self, which could be affected by reception. This was expressed in a concern for the level of quality, sometimes in a jokey fashion with comments suggesting the recipients were not happy with the gifts, such as that they "...get knitting from me whether they like it or not..." (Fiona) and that the gifts were received "Much to their probable dismay." (Fran) and were something that she would 'inflict' on the recipient. Discussing some homemade Christmas stockings Fran made for her children she said "...they're the ones I force them to use every year..." (Fran) and when her daughter was expecting a child, Fiona knit a lot for her, saying that "...my poor daughter is just drowning in knitted things right now..." (Fiona). Sometimes the language was more explicit and the phrase 'Good enough' was used several times. Emily was apprehensive about giving knitted gifts, saying that she would "...be nervous that the quality of my work wasn't good enough..." (Emily) and that she was worried her work would be "...be a bit tatty looking, a bit dodgy..." (Emily). This is similar to the vulnerability of online social identity construction, and Emily gets round this by avoiding gift-giving. Amanda saw it practically, saying that she was,

"...always concerned that it might not be good enough, so um...particularly if I'm knitting something for a small baby I just like to be very particular that it hasn't got little holes that they can stick fingers in and things like that, so it has to be quite well made." (Amanda)

Emily was very open about the vulnerability of making for someone else, saying that,

"...you've put a lot of effort into it, you put a lot of emotion into it. It's quite a...you're going to, not be judged on it, that's too strong a word, but you're putting yourself out there..." (Emily)

This does suggest that she felt something of herself and her identity was in the work and was not comfortable being assessed on it.

Fran noted that she was more comfortable giving handmade items in the place she currently lived as "...giving something handmade is very accepted here and no-one really worries..." (Fran) and that this made even an imperfect gift acceptable. This suggests that the environment is important, and this was a receptive audience (Goffman, [1959]1990, p.224). Also, Crawford's "cultural jig" in her town was supportive of handmaking, even if she was less confident in her abilities. This demonstrates the power of the environment and culture on how prepared people are to reveal themselves, make themselves vulnerable to the judgement Emily found, and being more comfortable to do this in a similarly minded community (Crawford, 2015, p.160) and to the correct audience (Goffman, [1959]1990, p.137).

Almost all the knitters enjoyed knitting for others and often reported good feedback. This could range from being specifically asked to knit something as Peggy and Susan found, to receiving positive comments. Being asked to make something was seen as flattering, an appreciation of skill that was part of their identity (Kenning, 2015, p.59, Stannard and Sanders, 2015, p.101,109). In Gell's terms this puts the maker in the patient position, making what the recipient wants, and the object thus being the index of the recipient, not the maker (Gell, 1998, pp.33,39) but was not regarded negatively. From personal experience I have been flattered to be asked to make something, then disliked the object in question as it was not to my taste, or enjoyable to knit. This would put a different perspective on the maker/recipient power structure than Turney found, where the knitter had power over a recipient (Turney, 2012, p.306). Knitters knew some recipients who liked their work, "...they do seem to love the things I knit for them..." (Peggy) or would receive feedback on individual gifts, such as "...she loves this cardigan because nanny made it for her." (Susan) or "...she was pleased with her lovely blue, knitted socks..." (Peggy). Sometimes people would send photographs of them using the object, as Fiona in particular found, "...they've sent a little picture saying 'thank you for the present, here's

As knitters they often found that although people were wary of knitting for them, they were very appreciative of handmade gifts they received. Emily understood the dilemma of giving knitting to a knitter, as "...they'd appreciate the amount of hard work, but they don't need it because they knit their own stuff..." (Emily) and Fiona understood that "...they probably would find that a little bit weird but I would actually treasure it, if it was something they had handknitted themselves and had given to me." (Fiona). She hinted at the element of the maker being embodied in the work, saying she would treasure it because "... I would know that that person had put something [into it]" (Fiona). When children arrived, knitters found their fellow crafters were more prepared to give knitted gifts. Fran was given several handmade items for her first child and valued them, "...the knitted handmade things are [...] really lovely..." (Fran) and Emily was given a blanket from a colleague she only knew in passing, but found it "beautiful" (Emily) and appreciated the effort. Emily had a real appreciation for knitters' work, even buying new hand-knits from charity shops, expressing a connection with the imagined makers, "...I always felt there was some old lady knitting those who didn't have somebody to knit for so she just knitted them to put in a charity shop. It used to kind of almost break my heart but then I think, well I'll buy that, then I'll really love it and appreciate it." (Emily). These comments demonstrate how the appreciation gave the knitter a place

and identity in their environment (Turney, 2009, p.28) giving them agency in society. This was often personal appreciation, unlike the public one of an online 'like', which similarly places you in a group or society (Krotoski, 2013, p.58). Fiona was the one who received more public acknowledgement, and was also the most active online knitter, so the two may have been connected.

While some had experienced less positive responses to their work, these were not common. Megan's daughters made it clear that they did not "...like the jerseys I make no [...] Not to their taste..." (Megan) and that if people didn't like what she made they were "...off the list..." (Megan) and she would not use her time making for them, as Turney and Stannard and Sanders found (Turney, 2009, p.27; Stannard and Sanders, 2015, p.107). Emily generally avoided making for friends "...unless they'd asked me for something in particular, it'd be a gift they might not want..." (Emily) and to avoid a negative response which "...you could take [...] quite personally." (Emily), equating with Turney's idea of this being a personal rejection (Turney, 2012, p.306). Fran had heard stories of relatives being mocked in public while wearing hand-knits they had been given, but there were few stories of face-to-face negative feedback, unsurprising as this would be unusual in our society, breaking a lot of social mores.

The most common feeling from the knitters was that they had had some ambivalent responses and suspected that items were not being used. Fiona was quite philosophical, saying that she hoped "...that people use them and appreciate them...um...but no that's up to them really..." (Fiona). Peggy was very aware that "...if they don't want them, they all say they like them and I take it that they do..." (Peggy) and Megan had "...become very realistic about it. It gives me a lot of pleasure if they do wear something, but If I don't see it again, I don't really mind." (Megan). She was aware that sometimes objects were received with thanks, and then were not used, or repurposed, "...they can always be relegated to bed socks if nobody likes them, can't they..." (Megan). Seeing an item worn seems to be the ultimate test, above the, potentially insincere, thanks upon receipt. Peggy noted the variation in her family, "I've seen everything I've knitted on my granddaughters' children but rarely you see it on the other..." (Peggy). There was an awareness that cupboards and wardrobes were the destiny for unwanted knits, "...you always get the granny

knits and it's 'I'm hiding that in the bottom of a wardrobe'. No, I've got the pleasure out of knitting it I almost don't really care...well I do, I would like to think that people like it and appreciate it..." (Fiona) and Susan preferred people to say they didn't want something because of the effort involved

"...I don't wanna spend that time making stuff and then it be shoved in the cupboard. [...] I just think if you don't want something, if somebody doesn't want something, please say, y'know, don't just assume it's ok to just...cause there's a lot of work goes into it, a lot of time and effort and a lot of money on the wool..." (Susan).

Some of this awareness probably came from their own early experience, "...as children we had to learn to make lovely noises when we opened them, [...] we only saw her at Christmas time, so we didn't actually have to wear them." (Emily), demonstrating an empathy with the receiver of the knitwear. Fran suspected that her parents differed greatly, with her mother wearing "...cardigans just to make me feel better so she's always wearing it when we arrive or whatever." while her father "...wore one to the point of you know, properly wearing it out so that's quite satisfying when someone actually properly uses something." (Fran).

These responses demonstrate Gell's idea of how these objects, carrying the agency of the maker, can be "difficult" for the recipient, or patient (Gell, 1998, p.23), but this increases their "...efficacy as social instruments." (Gell, 1998, p.23). It also reinforces the idea that positive feedback needs to be active (Gable and Reis, 2010). The main concern of the knitters was that their labour and love should be used. It was less a rejection than a disappointment in a 'useless' object. Many were aware of how difficult it was to make something that was to another's taste. Emily had disliked the Christmas jumpers because they were in "Gold, shiny wool" but still tried to understand that she was one of the few girls the relative had to knit for "...so I think she went overboard with girly shiny, glittery stuff because she couldn't do it for her sons..." (Emily). Fiona noted that knitters may not keep up as "...people change or styles change or bobble hats will go out of fashion and nobody will want to use the bobble hats..." (Fiona), and as Fran said, "Everyone's pretty particular aren't they?" (Fran). Fran had concerns about the resulting item not being the right fit or colour "...it's quite

hard to get the fit right and style right..." (Fran), and this was partly based on her own experience of knitting garments for herself that she wasn't happy with

"...I've made loads of things for myself that I haven't worn because it's not been quite right, and even though you want to wear it because you've put a million gazillion hours into it, so you force yourself to wear it, but I totally get the idea that if something's not quite right then it's not fun to wear is it." (Fran)

This displayed an awareness of people's different sense of style, going against the idea that knitters give knitted gifts to try and impose their style (Turney, quoted in Matthews, 2017, p.108). Megan found some were happy to ask for adjustments if something wasn't right, "...they're quite clear that if it doesn't quite fit, could I please put it to rights, which I do. If it's too short a jersey then I undo the bottom and I knit a longer rib, which is what you can do." (Megan), which is a better reaction that merely hiding it in the knitwear graveyard at the back of the wardrobe.

Whilst the *knitter self* seems to have vulnerabilities, associated with others' perception of their work, this doesn't seem to affect them continuing with their craft. Note how Megan will "continue knitting" (Megan) even if the recipients decrease as children get older. This suggests a resilience and acknowledges that they don't have to please everyone. They curate what they make for others, and this may influence how they see themselves as a knitter, but they continue to knit, either for themselves or for recipients they are confident will like the result.

This sense of empathy with the recipient is seen in the amount of thought that often goes into the planning of hand-knitted gifts. Often this is expressed in selecting a style or colour that the maker feels the recipient "...will just love..." (Fiona) and this is sometimes based on small things the recipient may have said, such as being "...fed up with all the pink..." (Fiona) when having a baby girl. This seems to suggest that avid knitters will listen carefully to potential gift recipients, to pick up on hints and guidance on what they will like. This is easy when knitting for people they know, but Fiona found that she liked to knit for unknown recipients too, "I love to have somebody to knit for even if it's somebody I don't know or I don't know very well..." (Fiona) and found the response to her 'yarn-

The knitters were also aware of the love that was in the objects they made and had received from others. For Fran, handmade objects clearly showed "...I don't know, love or...it shows that you've really put a bit of effort in doesn't it?" (Fran) and that "...it's another way of you know, showing love or whatever..." (Fran), which she found was not there in the same way in a bought gift. Even when the item was passed on for others to use it was carrying "...the love forward..." (Fran), like the "spiritual essence" in Mauss's gift exchange (Mauss, [1954]2011, p.10). Susan found joy in seeing a garment being used almost to the point of destruction, because it showed it was valued and the recipient felt the affection in it, "...it's been dragged round a bit, you know what kids are like, it's been in the bath more times than not, it's been washed loads of times but it's well battered..." (Susan). These responses do not appear to conform to the idea that giving a handmade gift is primarily a power-oriented relationship (Turney, 2012, p.306) and Gell suggests that the recipient also has the power to resist a gift (Gell, 1998, p.23). While there was an acknowledgement of the problems of giving away an unwanted gift, the love it contained was uncontaminated by this, and still appreciated.

Hand-knitted items did seem to have more of a hold over people, being kept even if they weren't particularly liked, or had worn out, with comments such as "...it's quite hard to give away handmade things." (Fran). This has similarities to the awkwardness of 'unfriending' a contact on SNS (Turkle, 2012, p.260) and the concept of the "...persistence of people..." (Turkle, 2012, p.260). Amanda's

father had to be persuaded to get rid of a favourite jumper she had made for him, when it was "...falling to bits so it went...but he didn't want to get rid of it because I'd knitted it..." (Amanda). Pym talks of the life still in a worn-out item of clothing, "I like really worn-out things, like the...the life is still in an object is and the [...] imagination around that. (Pym, 2020). Emily and her sister both kept all the handmade items given to their children, and she even felt that she could not easily make for items for other people as if she had "...put that much effort in I would want to keep some ownership of it, of the item, either within the family I suppose, or do it for myself." (Emily). She clearly felt that the objects had a strong connection with their maker and were precious. She had taken the decision not to cede control over an object's survival, this contrasts with digital data, whose ownership is a contested point and its permanence often outside our control (Krotoski, 2013, p.144). Julia made sure she gave recipients washing instructions with her hand-knits. This suggests an attempt to influence the recipient and to control the survival of the object. However, the control of the object has passed to the recipient, and they will do with it what they will.

Other knitters tried to be discerning about what they kept. Megan kept certain key items, including a cot blanket knitted by her grandmother, intending them to be heirlooms, saying, "...I'm going to pass it down [laughter] somebody will probably say 'what on earth is this?'..." (Megan) and this seemed to be decided early on in the objects life, "It just got put away, I wanted to preserve it, [...] I wasn't going to give it away or anything, I gave away other ones, but not that one..." (Megan). Fran kept the toy her mother made when her son was born, and she had a jumper of her father's that had been made by her grandmother, that she repurposed when she realised she would not wear it again. She couldn't throw it away because "...you like that she used her hands to make that and that's nice to still have, even though she died a long time ago. But erm, yeah, I did want to keep it, but on the other hand didn't want to have a whole bundle of a whole jumper..." (Fran). As Pym notes, damaged items can present difficulties and become 'stuck', but also give a freedom to change them (Pym, 2020). They had become, as Turney notes, a remembrance of the past (Turney, 2009, p.143) and the familial bond (Turney, 2009, p.142). While Megan and Emily's objects did cease to be functional objects, potentially losing some 'authenticity' (Baudrillard [1996]2005, p.83), Fran's repurposing kept

the object in use and functional. With other objects, Fran was more prepared to get rid of them, but wanted them to have a life with someone else. A jumper she had made was passed on to other families as the children outgrew it, which seems to be a common approach as the children often recognised their old clothes on younger children. She seemed to have some doubts about how ruthless she had been saying, "...there have probably been things that I probably should have kept..." but was keen to pass things on "...so it can have another life." (Fran). This echoes Rutter's comment on how hard it was to give away a symbol of being loved (Rutter, 2019, p277).

Charity shops were a way to avoid a feeling of guilt about giving away objects if they couldn't be given directly. Megan had decided that she didn't like a garment she had made for herself and was going to "...take it down to Oxfam or something. Somebody will wear it won't they?" (Megan), and Fran gave away a large toy that her friend had given to her children that they didn't like, to a charity shop, with the comment that "It was just a really impractical rabbit..." (Fran). She still felt that the making of the item had shown love and care, and this was valued regardless of what happened to the object "...in a way it doesn't matter that I got rid of it because I still really appreciated the fact that she had made it, and I've still got that..." (Fran). Although she felt "...bad about it...", she felt that it had "...found a new life..." (Fran). No-one suggested that hand-knits would be throw in the rubbish, although what happens to charity shop goods is not known to the donator. This feeling of it getting a new life seems almost pseudo-religious, assuaging any discomfort with the idea that it had gone on to 'a better place'. Turkle found that phones had become similarly talismanic symbols that we are cared for (Turkle, 2012, p.16).

This, along with the reluctance to get rid of the items in the first place, shows that these objects continue to show the agency of the maker, as a positive in evoking the love and memories of family and friends, but also potentially negative, as they incite some guilt if they are not proving useful. It also suggests that people do feel the makers presence in the objects and their role as connection, or evocative, objects. They did not attempt to record the objects digitally as a way to preserve them, but respected the need to care for precious objects. They showed the value of them, as Van Deijnen found with the decision to repair and care, both of the object and the maker, explaining

that repair can "...show the world in a more gentle way that you care about certain issues and that you have chosen to repair your clothes as a result." (Van Deijnen, 2020). Pym explains that care can be 'useful' rather than looking kind, stating, "...it doesn't mean that care looks kind all the time. Sometimes it's just you know, useful..." (Pym, 2020).

The term performance has connotations of a deliberate show, done for others' consumption, and I did not necessarily find that the knitters had this in mind. They were showing their *knitter selves*, but it was only a 'performance' in Goffman's terms of trying to influence their audience where gifts were concerned. Public knitting seemed to be more for themselves. They found knitting enjoyable and would do it anywhere.

4.3 Effects of being a knitter

The process of knitting was seen as pleasureable for the knitters, with comments like, "...we just do it for fun, I just enjoy it, it's such a lovely hobby..." (Peggy), "...it was fun to do..." (Megan) and that "...the enjoyment is actually the knitting..." (Fiona). Fiona found she would look forward to her knitting time. One knitter did comment that she had gone off knitting for a short spell and was concerned enough to say that "...[w]hether that was a form of depression or... I don't know, but I just didn't want to do it so I didn't do it." (Julia).

4.3.1 Health benefits

Knitting as a relaxtion (Peggy) or as a way to deal with the uncertainties of life (Julia) were mentioned by the knitters, but for two knitters the craft seemed to have a more profound role in their wellbeing. Susan initially used knitting to help her give up smoking, completing a long stocking stitch scarf by knitting whenever she felt the need to smoke. After a difficult time at work and family bereavements, she turned to knitting as a "...bit of sanity..." (Susan) whenever she found herself suffering with stress, explaining how "...if I feel that I'm getting a little bit stressed I pick my knitting up..." (Susan) and that she would just knit plain knitting that "...if I drop a stitch I don't freak about it, it's just chill out." (Susan). When suffering from anxiety attacks, she would carry knitting or crochet with her, finding that "...it just broke that anxiety, five minutes on this..." (Susan). The focus seemed to be helpful and undemanding, and if she was asked about it, she "...just used to say 'just a square' because [...] I didn't want

to talk to people particularly, what I wanted to do was put myself back in a good place, so I would never dismiss anybody but I just, I... 'just a square'..." (Susan). Also following a challenging work environment, Fiona found knitting "...an absolute life saver I would say..." (Fiona) during a period of mental health difficulties. She found "...knitting was the thing that kept me going through the really bad times." (Fiona). It was something she could control and became for her a place of safety. She explained in moving and honest testimony,

"It was a place I could escape to that was safe. It was also a place that I had some control over. Because when you are going through stress the biggest thing is that...you feel completely out of control of anything any, any part of your life is just spiralling down, and you can't deal with anything. But with knitting it was something I could pick up, I could start, I could work, and I could finish, and I think very often it was the finishing aspect and completing something that I had controlled all the way through from start to finish, was actually really important. But it was also the rhythmic, you know, just the almost mesmeric, almost that going into... almost like a trance type thing, it was just a way of just escaping, you know. And so, you know, while you're in the maelstrom of workplace stress, it was somewhere I could come home and then just pick up and just...calm." (Fiona)

When she later suffered a bereavement, her knitting "...was always there to fall back into and just keep me going really, so it's been an absolute...for me really has been the thing that has kept me going..." (Fiona). Even now she is in a more settled mental place, knitting is a refuge,

"So, it is a safety, it is a safety place, and even now, even now knitting for me is my treat, at the end of the day and I actually...if I knit during the day that is me giving myself permission to have, to sit down and do something nice..." (Fiona)

She now always finds time to knit, completing tasks then "...I can sit down and do my knitting because that's my reward at the end of the day." (Fiona) and giving herself 'permission' to knit in the day if she was busy in the evening. Both cases confirm the idea of knitting helping with anxiety (Hemmings in Corkhill et al., 2014, p.49; Maddock in Corkhill et al., 2014, p.47) and a relief when times are difficult (Collins in Bryan-Wilson, 2008, p.82). It provided a safe space

wherever they were, confirming Greer's view of knitting as a place to be with and process emotions (Greer, 2008, p.42). The portability of knitting made it particularly useful, ensuring it was always available. Susan kept knitting in the car when she had to make multiple visits to hospital to support a relative and she keeps a selection of knitting depending "...on what stage my brain's at that day, it's what I pick up..." (Susan). For both women, knitting was something they turned to when having common, but challenging life issues such as workplace stress or bereavement, and continued with it afterwards as an ongoing comfort. They were both very comfortable talking about both the issues that they had had, and how knitting had helped, suggesting they had arrived at a point of acceptance.

Although for both knitters it was not the objects made, but the process itself that was the source of comfort, knitting could be seen in Winnicott's 'transitional' terms, possibly a 'transitional process', that people turn to "...when a depressed mood threatens" (Winnicott, [1982]2007, p.6) as he found with the childhood objects. Winnicott talked about how transitional objects helped a child move from subjectivity to objectivity (Winnicott, [1982]2007, p.135) and this may be what is happening here, where the knitting process helps a person work through difficulties. Knitting offers stability, as many have discussed (MacDonald, 1988, p.241; Rutt, 1989, p.139; Parkins, 2004, p.436; Minahan and Cox, 2007, p.5; Turney, 2004, p.272; Turney, 2009, p.182) and becomes a safe place for the knitter, separate to events they were experiencing. Perhaps this could be a "not-me" process in Winnicott's terminology (Winnicott, [1982]2007, p.2) that is separate to the individual. It is suggested that such safe places can be found online, in Mayne's research groups (Mayne, 2018, pp.105,116) or for teenagers (boyd, 2014, p.200).

4.3.2 Sociability and communication

As discussed, most of the knitters were part of knitting groups and some emphasised how knitting was an aid to sociability. Peggy emphasised that "...knitters are natterers..." (Peggy). Julia found talking to others helpful, when things were problematic in life or someone was down, and that knitting helped these conversations as "...you can look at your knitting..." (Julia). Corkhill noted

that both the protective hand position and the ability to look away at the knitting when needed increased a sense of control (Corkhill et al., 2014, p.42).

The company and friendship of knitting groups was important for many knitters, as Peggy commented "...I love the company, it brings you together, it's a friendship thing y'know." (Peggy) and Susan commented on the camaraderie saying, "...we just have such a giggle" (Susan). Peggy found it was a reason to leave the house "...because when you're on your own you look for, you come out of the house to look for the company..." (Peggy), as did Susan, who "...got from sitting in the house doing nothing, to getting out, to getting out more..." (Susan). This concurs with Corkhill's findings that knitting groups counter social isolation (Corkhill et al., 2014, p.43) and Puttnam's idea of the privatisation of leisure (Minahan and Cox, 2007, p.8). This is obviously different to online groups, where one stays at home, and both Peggy and Susan felt something important in physically leaving the house and meeting others. Whilst sociability can be found online (Krotoski, 2013, p.55) it doesn't ensure the knitter leaves the house. Of course, if one is physically unable to do so the online groups can be invaluable. Knitting groups were seen as welcoming to anyone, "Nobody's ruled out, anybody can come." (Julia), although Amanda admitted that newcomers changed the dynamic for a time, until they got to know them,

"...it's always a bit strange when somebody new comes on, although we do welcome newcomers, but because we all know each other quite well now it's always a bit...y'know it takes a few weeks to kind of talk about the normal stuff again." (Amanda)

Technology has increased the ability to stay in touch with family members, and Peggy appreciated how easy it now is to take photographs of her knitting to share with other knitters in her family, saying, "...we share family photos and knitting and anything we're doing that's different." (Peggy). However, she also liked to show her knitting to the family in person. Susan used texts and social media to stay in contact with younger family members and appreciated that they found this better but was aware of online dangers and said she was "very protective" (Susan). They seemed aware that there could be potential downsides of online connectivity, which boyd felt were exaggerated (boyd, 2014, p.22), but were happy embracing it as a way of staying in touch. They

did, however, still value real contact. Harkaway (2013), boyd (2014) and Miller (2016) found community online, with Miller suggesting it increases sociability (Miller, 2016, pp.4,86), while Shakya and Christakis (2017) and Twenge (2018) found negative effects for online socialising when compared to in-person relationships (Shakya and Christakis, 2017, p.210; Twenge, 2018, Loc.1130-1135,1153).

Fiona was the only knitter I spoke to who wasn't in a knitting group. She had not found one where she lived and didn't want to travel to one, and felt "...that I might rather just sit here and knit frankly..." (Fiona). She was very happy to sit and knit at home, and had her knitting chair where she was "...all set up..." (Fiona) surrounded by her equipment. She had no problem spending time alone with her knitting, a counter to what Turkle increasingly found, where people had difficulty being in solitude (Turkle, 2015, Loc.1122). Susan enjoyed solitary knitting when she was anxious or stressed, and kept knitting with her for this purpose, echoing Corkhill's findings that solitary knitting can be as beneficial as group knitting (Corkhill, 2014, p.72).

4.3.3 Sharing

Along with the significance of who had made an item, knitters also seemed to value the time, effort and thought that went into making something. Fran believed that it was "...to do with the sentiment behind it rather than the actual product itself..." (Fran) and that handmaking a gift shows that the maker has "...put a bit of thought into it..." (Fran), which, as already noted, was valued even if the object was ultimately given away or not used. This emphasis and appreciation of the time and effort involved ties in with Zell and Moeller's work on SNS responses, where the more effort someone puts into a response, a comment rather than a like, the more positive feelings were felt by the recipient (Zell and Moeller, 2018, pp.28,31). The knitters appreciated the effort in a knitted object, possibly because they understood the craft, with Emily commenting that she appreciated her grandmother's knitting more now than she had done as a child and possibly a non-knitter may feel differently. However, the knitted object does seem to carry more feeling than an online 'like'. Julia talked of thinking about a sick friend while she was in the process of knitting, as noted by previous researchers (Prigoda and McKenzie, 2007, p.106; Rosner and Ryokai,

2010; Mayne, 2018, pp.129,169-170). Fiona was happy that her knitting could offer some solace to another, "...if I could bring any form of...even just a shred of comfort with something that I'd given that would mean the world to me." (Fiona).

Some of the knitters turned to online resources such as YouTube to learn new techniques or look up how to do a particular stitch (Julia, Amanda), others used technology like Facetime to connect to a fellow knitter when they were stuck (Susan). However, Amanda felt that offline support was much better

"...it's much better to have someone in the flesh and say 'actually, that's what you're doing wrong' you know, 'cause when you're trying to follow something on YouTube you're doing it, and you're doing it how you think they're doing it, and it's not necessarily right, but if somebodies actually sitting next to you can say 'instead of doing that, you need to do that' and you go 'ahhh, got it'." (Amanda)

Others felt it was important to share mistakes and problems too,

"...because if you've got something wrong, [...] because you know what it's like when you see knitting, you can see if there's a mistake in it, and you can say to somebody, 'Where's this gone wrong, where have I gone wrong here?' and somebody's always going to tell you, properly where it's, where you've done wrong..." (Susan)

Susan got a lot of support from her knitting group after her difficult times, with her fellow knitters helping her to re-learn her knitting and crochet skills saying,

"...people say to me like, 'you're doing brilliant' y'know, so I just persevere, ask a question if I'm not sure you know, put it to one side, wait till I come back and it's like y'know, and the supports there..."

(Susan)

This is a reciprocal sharing and supporting environment, where people got real help, not just a 'like' or a comment. Matthews suggests this reciprocal learning is empowering (Matthews, 2017, p.97) and all the group improve (Crawford, 2010, p.187). The problems are not just a 'performance' as they can be online (Turkle, 2015, Loc.1838) and require time and empathy from both parties.

Amanda emphasised that the support in her group could extend beyond just craft support, that "...if somebody's going through something difficult, it's a group where we feel we can share." (Amanda) and that any craft activity was helpful in supporting difficult conversations "...when you're doing something that de-stresses you, it's easier to talk about...stuff." (Amanda). Part of this was also because of the relationships that had developed "...you get to know people, and once you've got to know someone, we've had all sorts of things, that we've discussed [...]. It's great when someone's going through a hard time you can be there for them..." (Amanda). This extended sharing was found by Prigoda and McKenzie (Prigoda and McKenzie, 2007, p.103) and improves relationships (Altman & Taylor, 1973, cited in Valkenburg and Peter, 2007, p.269) giving a shared view of the world (Crawford, 2015, pp.146,148) all of which improve ties, and which Lanier suggests is lessened online through personalised feeds (Lanier, 2018, pp.78,79,125). These knitters did not seem to find this as much online. Fiona who was the most comfortable online, did not discuss receiving broader support through online channels, but this may have been because we were focused on knitting.

4.3.4 Mistakes

Knitters were very happy sharing the mistakes they had made, or asking for help in resolving them, Susan saw it as a chance to learn, saying, "...you don't learn unless you share, do you? Y'know anyone that says to me, 'I don't make mistakes' I'm like, 'Really?'" (Susan). Whether they corrected mistakes varied depending on the knitter, the object and if anyone else would notice. Megan found that if it was not noticeable, she would leave it, "...if it's not a pattern and I've got too many stitches then I just knit two together and sail on because it doesn't make a lot of difference..." (Megan) but Julia would always undo mistakes,

"...because I know it's there you see, especially if I'm giving it to someone, I wouldn't contemplate, giving anyone anything that had a mistake in it. [...] Because I've got my reputation to think of! [...] well they probably wouldn't notice, but I would know it was there..." (Julia)

This suggests the performance of skill Goffman felt was for an audience for whom one wanted to show a professional reputation (Goffman, [1959]1990,

p.43) and how the object can perform for the knitter. Susan drew inspiration from her grandmother, who was a good knitter, but still made mistakes and would always unpick "...because she could see something was wrong with it." (Susan). When she had made an error in a large, almost completed, project that would have taken a long time to reknit, she recalled a technique for darning in a dropped stitch, "...it upset me more because I'd done so much and I thought 'Oh my god, I've got to unpick it', but, I remembered nan doing something, and I thought, 'Hang on, if me nan did it, there must be a technique for doing it'..." (Susan) and looked it up online. She was concerned that she was still aware of the mistake, but after others couldn't see the repair, was happy with it, "So I was like that, I've got that right then, so yeah, it's like if you make a mistake, you make a mistake..." (Susan). Megan felt she found complex patterns less relaxing "...because if you relax too much then I make a mistake and I've got to undo it all and do it again..." (Megan).

The knitters did not want others to be aware of the mistake, sometimes asking a trusted person if they could see it, as a test. They were very aware of them but did not want the 'public' to see them, sometimes because of concern over damage to their knitter reputation. This echoes Goffman's "impression of infallibility" where only a correct end product is shown (Goffman, [1959]1990, p.52). This element is similar to the online experience, where people don't want mistakes to be seen, but how this is avoided is where the difference lies. Due to the persistence of data online (Twenge, 2018, Loc.2100) and the difficulties of audience context (boyd, 2014, p.35) users will attempt to avoid making the mistake in the first place, often self-censoring (Turkle, 2015, Loc.4836; Greenfield, 2015, Loc.2034). While Megan did this to some extent by avoiding complex patterns, and no knitter likes making an error and having to undo a piece, as Susan was aware, in knitting even the most experienced knitter makes mistakes, and the knitter has the control over how to resolve these before making the item 'public'. Fellow knitters were a safe environment in which to make and share mistakes (Matthews, 2017, p.72) and to lose the 'control' over being perfect (Sennett, 2009, p.114). The known audience helps in this, as boyd found that misinterpretation by the wrong audience often exacerbating online 'mistakes' (boyd, 2014, p.35). The techniques for correcting knitting mistakes also gave an opportunity for shared learning and support. In the end, the

mistakes are not kept for all to see, as they are online (Aiken, 2016, Loc.1294). The public or the recipient will never know about any problems unless the knitter chooses to share them. This is an extremely powerful element in knitting, that may counter a problematic area of self-censorship being found online, which Twenge found was leading to cautiousness offline (Twenge, 2018, Loc.4262). The knitter is choosing the performance and the audience. Among the knitter insiders, the errors could be safely shared. The control over whether to share, with whom, to correct or not and to be able to correct mistakes is very empowering.

4.3.5 Focus

Knitters do not seem to be immune to the increasing speed in society and the need to get more done. Fiona noted that she no longer worked on one project, but multiple ones, "I've got so many things that I'm desperate to get finished, so much to do, so little time to do it. I always have multiple projects going." (Fiona) and that in the past she would "...go out, you buy the wool, you knit that, you finish it, then a couple weeks later you go 'oh I need something else now'." (Fiona). That she noted this as a change is interesting, and it could be an indication of how society has got faster. Baby clothes were liked by some as they were small and quick knits, and "...you can finish them quickly..." (Peggy) and "...it was quicker to do, it was achievable..." (Emily). Despite these comments, knitting is undeniably a slow craft, and what these knitters are emphasising is the ability to choose the size of project and so one's own pace. However, knitting is not beyond the need to meet a deadline, or to feel the reward of completion, especially for a newer knitter.

Most of the knitters spoke about the process of knitting with more interest than the end result, highlighting it as an autotellic experience (Csikszentmihalyi, [1992]2002, p.67). This contrasts with the end result focus Twenge increasingly found in the iGen population (Twenge, 2018, Loc.4292). The main concern with the product was that it was useful, something Turney noted as signifying the makers role in family and society (Turney, 2009, p.28). Megan was happy with her son's scarf because it was in almost daily use, and Julia wouldn't knit many toys as she prefered "...to knit something that's useful..." (Julia) and while she used to knit them when there were young children to enjoy them, now she'd

"...rather do something that is practical..." (Julia). This feeling of needing to do something useful contrasted with time spent online for Amanda, who felt that "I think actually there's more productive things to do." (Amanda).

Almost all the knitters discussed knitting while doing something else, especially watching television. Megan explained that "...you can feel like you're doing something useful when you're knitting and watching television at the same time. You feel you're not wasting your time." (Megan), while Amanda would knit whenever she could. Julia felt that the television viewing came second saying, "I don't watch television, I knit, and occasionally look up or I listen more." (Julia). Susan discussed a family knitter who would watch television and have a conversation while knitting because she "...knew the pattern off by heart." (Susan) and Peggy's grandchildren noted that she didn't need to look at her work. She felt that she could "...do plain knitting with not concentrating on it..." (Peggy). However, Julia found that concentrating on her knitting was enjoyable, "Whatever my mood, unless I'm really, really tired I want to knit, if I'm sad, if I'm happy, it's just something to concentrate on." (Julia) and Susan's family knitter could focus "Even when people were around, 'cause she was focused, she was blinkered to it." (Susan). Amanda used it to 'kill time' when waiting for appointments or travelling. Rutter noted that she could do other things while working on a simple piece, but used more complex knitting as a way of focusing (Rutter, 2019, p.270). The knitters did seem to highlight this choice. This allows knitters to self-regulate their attention (Crawford, 2015 pp16,17) and make a claim in Crawford's "attentional commons" (Crawford, 2015, p.11).

I noted while interviewing a knitter who wanted to show me something on her phone how her language became more disjointed as she did this. Sentences became broken, shortened and less coherent, and there were more 'um's' as her attention was taken by what she was searching for on the phone, possibly demonstrating an impact of the "switching costs" (Carr, 2010, Loc.2102) of shifting attention from the phone and its disjointed information. I have not noticed this when talking to people while they were knitting. Although none did so during my interviews, this is common at knitting groups, and there seems to be no impact, unless something has gone wrong, or stitches needed counting. The phone did seem to use more attention. Both the knitting and the other

activity undertaken while knitting require 'goal driven' attention, rather than 'stimulus driven' (Crawford, 2015, p.9). The knitter's attention is not being distracted by either and they are in control over what they pay attention to, as Julia pointed out, for her, the knitting was the focus. It enabled a shutting out of distractions at will and seems to diminish the effect of the orienting response (Crawford, 2015, p.8). That for an experienced knitter the actions of knitting are instinctive, probably not requiring conscious attention, does not diminish its power to provide a focused environment, similar to deep reading (Carr, 2010, Loc.172). Divided attention can cause cognitive overload (Gauntlett, 2010, Loc.1989), and knitting while watching television could be seen in this light, but knitting is not designed to distract. This also may confirm the idea that knitting is a way of not 'wasting time' (MacDonald, 1988, p.xx; Turney, 2009, p.26) with the connotations for women that may contain. Once again, the knitter has control over the choice of where to place their attention. They will choose knitting complexity appropriately and are not driven by the knitting itself.

The way knitting was discussed was of something they would not like to give up. Some noted how much time they spent knitting, with Peggy saying that she knitted "...nearly all the time." (Peggy) and that she spent "...all my spare time knitting, right into the evening." (Peggy) and Fiona commenting that "...if there is an opportunity to knit, I will knit..." (Fiona). Fiona did not think that she could knit too much, "For me I just can't knit enough." (Fiona) and that she felt "...a bit twitchy if I can't actually be knitting" (Fiona). She had become "...just a knitting machine, I'm churning it out all the time..." (Fiona). Peggy could not "...be without knitting, I just couldn't, no way could I just sit and not knit." (Peggy). Susan even said that "...it's an addiction now." (Susan) and Fiona admitted that,

"...it is a bit of an obsession and I think if you talked to, I'm sure you've talked to many knitters, I'm sure they all talk the same about it being obsessive and you always have to control it because I would frankly sit and knit all day every day, if I could." (Fiona)

These phrases sound very similar to some that Twenge noted teenagers using about their phone use, such as "I just can't help it" (Twenge, 2018, Loc.732) which she likened to the way a drug addict discusses their addiction. However,

many commentators discussing overuse of technology relate it to the concept of conditioning behaviour (Carr, 2010, Loc. 1852, 1856; Krotoski, 2013, p.38) where the compulsion to keep using the device comes from the random and unpredictable rewards, but this is not found in knitting. However, positive feedback from gift recipients or fellow knitters could offer positive reinforcements to continue (Keysers, 2011, pp.200-201). Unlike social media, it is not focused on negative emotions (Lanier, 2018, p.83). Therefore, even if the terminology knitters were using was similar, it does not seem to be for the same reasons. The other issue with technology overuse is that it puts "...socially acceptable aspects of their lives in jeopardy..." (boyd, 2014, p.83), chiming with Turney's view that the addictiveness of knitting makes it less socially acceptable (Turney, 2009, p.122) but as already discussed, the knitters would knit in public, did not consider it socially unacceptable, nor had been asked to stop. Perhaps one would need to ask those around the knitter if their constant knitting was problematic and only one had noted a negative comment. It seems that knitters know that they love their craft, and that other knitters must feel the same. It may be that knitters were happy to discuss this with me as they knew that I too was a knitter. I don't know if they would have been as forthcoming with a non-knitter. The language the knitters used did suggest an element of a shared 'guilty secret', as if they felt it could be an issue. The knitter's accounts, coupled with some of the earlier comments, seem to draw more on craving a sense of order, which Csikszentmihalyi found could be addictive (Csikszentmihalyi, [1992]2002, p.53).

The materials for knitting also became part of the addiction, with a visit to wool shops and stashing wool away an important aspect. Peggy enjoyed her collection of wool, "That's another fun thing isn't it, you can just stash your wool away until you want it, end up with it in all the wardrobes, everywhere..." (Peggy) and Susan's husband would comment when she added to her existing "...bagful's of wool..." (Susan). Fiona would search out wool shops when she travelled, "If we go anywhere and there's a wool shop. Talk about blinkered..." (Fiona). At one point she found herself at a loose end on a trip and found a wool shop and purchased a pattern, yarn and needles to be able to knit, even though she had plenty at home. This was the only indication from others that the knitting may have been at all problematic, as it could have space and

financial implications. Mayne found some for whom this elicited negative emotions (Mayne, 2018, pp.153-154), but in this study no-one expressed this, except in jest and with a sense of speaking with an insider. Knitting has not been designed or developed to draw people in, or play to the reward system, however it does appear that knitter's self-control over when and how much they knit may be limited.

4.4 Chapter conclusion

I had the pleasure of speaking to eight knitters for this research, who varied in the amount of knitting they did and when they started, but all came across as comfortable with their knitter identity and expressed the importance of the craft to them. For some it was an important part of who they were, but sometimes a busy life meant knitting had to be functional.

As I suspected from the evidence in chapter two, their confidence in their knitter identity increased with time and experience, confirming that the *knitter self* develops through knitting practice. Repetition of tasks embeds their properties on a cerebral level, reinforcing and strengthening neural pathways (Carr, 2010, Loc.575,578) through Hebbian learning (Keysers, 2011, pp.141,145,157) and using our hands for a task can change how we think (Sennett, 2009, p.149; Crawford, 2015, p.249). They felt part of a continuum of knitters past and present, and a family line, or heritage of knitters was important, and was clearly established. This gives the *knitter self* an origin, and normalises it, setting them in a community and history (Sennett, 2009, p.22; Keysers, 2011, p.174; Crawford, 2015 p.129). They positioned themselves as part of the community of knitters, akin to Goffman's team with a shared knowledge (Goffman, [1959]1990, pp.88,115,235).

Many were introduced to knitting at an early age, through wearing and making, highlighting the importance of early exposure to begin the development of the *knitter self*. Drawing on Keysers' discussion on how we react to the familiar (Keysers, 2011, p.174) and Miller's idea of objects' influence on us as much as the other way round (Miller, 2010, p.60), this early experience of knitting could have influenced them to develop as a knitter in later life. Through wearing hand-knits either made by themselves or for them, they mark themselves out as different and this can be an early sign of the development of

In terms of self-esteem and the making of identity, my interviewees were open about perceived shortcomings and saw some as opportunities for learning. In Rogers' terms they had a comfortable sense of self and abilities and were relaxed praising others, another sign of Rogers' idea of accepting the self leading to acceptance of others (Rogers, [1967]2011, pp.175,181). As knitters gained experience, they seemed to gain a realistic confidence in their own abilities, formed as part of a like-minded community, like Crawford's judgement of one's peers as a mark of excellence (Crawford, 2015, p.160) and seeming to align perceived and ideal self, in Rogers' terms (Rogers, [1967]2011, p.233). The knitter with the least experience was perhaps the least confident. Overcoming challenges is also the antithesis of the smooth frictionless environment of prearranged choices Crawford fears the attentional economy wants to offer us (Crawford, 2015, p.76) and that Turkle found in her description of "...a friction-free version of friendship." (Turkle, 2015, Loc.5515).

In chapter two I asked if there was the sense of an 'ideal knitter' that they had not yet achieved, and this was indeed the case, shown through discussion of knitters they had known and admired. This praise was often around skill, speed and quantity of output, and less about particular items this knitter had made, with discussion of providing for the family, and knitting high quality garments, often while holding a conversation. This gives the knitting community a set of standards developed by that community (Crawford, 2015 p.160). These were

generally seen as achievable goals that the knitters could develop, or in some cases already did – many mentioned multitasking. This clear concept of a praised knitter suggests a clarity of values to which to aspire, echoing Rogers' idea of internal values against which to judge external influence (Roger, [1967]2011, pp.118,175). It may also encourage a continuity of self, which Turkle suggests may help with portraying multiple selves in different environments (Turkle, 1997, p.258). I saw little evidence the interviewees would not present as knitters in certain circumstances, suggesting this was a stable identity for them. I found knitters confident in their knitting identity, and comfortable with what they knew or could learn.

In terms of the awareness knitters had of their audience, many of my knitters were more than happy to knit in public, either in groups or alone, and were happy to be seen doing so. In most cases they enjoyed the conversations that resulted from this, unless they were not in the mood for discussion, in which case they would politely shut down the conversation or take out plain knitting to help to do this. Like us all, knitters don't always want to talk! What was notable was that the knitting was not done for display but for their own enjoyment and benefit. They did also post knitting images online, showing this part of themselves publicly and enjoyed receiving feedback as Holroyd found (Holroyd, 2017, pp.44,100). This feedback was from a group of informed peers and the audience here is key. The knitting groups, mostly offline, but also online in selected knitting spaces, offer informed approval by experienced peers and a team of insiders with a shared knowledge (Crawford, 2015, p.160; Goffman, [1959]1990, p.88). What connected them was their knitter selves. The knitters enjoyed camaraderie and were welcoming to newcomers and the knitting gave a common interest, increasing social capital. This has been found in online groups if people exchange messages but varied according to how active/passive the user was (Burke, Marlow and M. Lento, 2010, p.5).

The exchange of skills in knitting groups are active interactions – a newcomer will be helped by others, involving them - showing Keysers' idea of learning from a group (Keysers, 2011, p.192) and Sennett's "sociable expert" (Sennett, 2009, p.248). Knitting groups are a move against "networked individualism" (Boase and Wellman, 2006, p.i-ii), by being interactive, where everyone will be able to help others. My knitters felt the online environment to be an extension of offline

as Miller found in his studies (Miller, 2016, p.155), but both Shakya and Christakis (2017) and Twenge (2018) found online socialising less positive than offline (Shakya and Christakis, 2017, p.210; Twenge, 2018, Loc.1130-1135,1153). Some divided their audience by application also echoing Miller's findings (Miller, 2016, pp.25-26,143) and for one, an online knitting environment was a safer space to interact globally. The knitters seemed in control of how they used SNS and saw it as a good information source as Sennett found (Sennett, 2013, p.28), and connection tool, but secondary to offline. For many of my knitters, their offline community was still a vibrant place, unlike Miller's view (Miller, 2016, pp.93,184), and online was less satisfying, confirming some of Turkle's outlook (Turkle, 1997, p.178).

Knitting as an activity aids conversation, as noted by my knitters, and in existing studies (Greer, 2008, p.54; Corkhill et al. 2014, pp.36,42). This was evidenced by the conversations about knitting they had had with strangers, and how knitting group chat extended beyond the topic of knitting. The wide-ranging conversations in knitting groups suggest the craft has the opposite effect to a group engaged on their phones, who are not experiencing a shared event (Lanier, 2018, p.75).

The knitters confirmed my view that fellow knitters were a group of insiders, and a 'safe audience'. They were happy to be judged as knitters and to be seen in this role. This is similar to the online association with groups on social media where one is known by one's associations (Zhao, Grasmuck and Martin, 2008, p.1825), unsurprising given the socially influenced nature of identity. The difference is in the audience. For example, Fran asking for handmade gifts knew her audience. This is exemplified by the discussion knitters had around mistakes. They had a pragmatic view of mistakes, accepting them as an, admittedly frustrating, part of the process, and an opportunity to learn, and did offer a sense of control over the decision to correct or not. More importantly in this context they were selective over who saw the mistakes, controlling the audience for them to trusted individuals. Knitters often know their audience's credentials, as it is their peer group (Crawford, 2015, p.160), contrasting with the much broader, mixed or unknown online audience (boyd, 2014, pp.31,32), where the 'people' may not be real (Lanier, 2018, p.36). This draws on Goffman's ideas of selecting the right audience, in this case one's knitter

'team', with whom to share mistakes in order to present a finished object to an external audience to maintain a professional image (Goffman, [1959]1990, pp.43,52). Contrast this to online, where people do not want others to see errors, but it is very hard to 'correct' online mistakes once made, leading to self-censoring and avoiding making errors in the first place (Turkle, 2015, Loc.4836; Greenfield, 2015, Loc.2034). The knitting audience was once again seen as a safe environment in which to learn and develop. Within this the *knitter self* can become more confident to make mistakes and choose to correct them, thereby being more prepared to try things.

They were aware of the image some of society has of knitting, in particular the 'Granny knitter' but were unconcerned, even embracing it. In terms of the other 'faces' of knitting I identified earlier, they did not explicitly mention them, but did discuss some of the aspects they engender. Their charity knitting was hands-on, practical support, unlike online clicktivism. There was little expectation of feedback, and they were private actions, not public displays as found online. This is political knitting in the more subtle terms, where making itself is a subversive act (Levine, 2008, quoted in Matthews, 2017, p.94; Holroyd, 2017, p.168). It is more than just a thumbs up for a cause and took time and yarn, even if for many it was not their best. However, the private nature of these acts would not have led to any challenge or debate, often seen as a positive aspect of offline political knitting and activism.

Knitting has sometimes been criticised as being a luxury and non-essential part of consumer society (Turney 2009, p.218; Groeneveld, 2010, p.263; Holroyd, 2017, p.194), but Fran in particular felt that handmade gifts were "...a different kind of commodity ..." to bought items, because of the love and time embodied in them. This is valuing the people involved, something current markets do not tend to do (Crawford, 2015, pp.155,159) and demonstrates how the values of the *knitter self* may differ from the mainstream. Society's inability to value human work was seen in the knitter's lack of ability to charge an appropriate monetary value for their knitting. This lack of valuing of women's labour is long standing, and coupled with their own idea that they enjoyed the making, may contribute to the self-doubt some expressed about their work. Despite not expressly being alternative or activist, the knitters were, deliberately or not, engaging in alternative concepts.

The knitters also expressed self-doubt about their own work, often concerned about whether it would be 'good enough'. I feel this is more in relation to the perception of hand-knits in society, than a doubt over their own skills. This echoes Jones's idea of the self-perception being tempered by external views on YouTube, as in Cooley's mirror self (Jones, 2015, p.102) in this case through societal impressions of knitting. However, they were also demonstrating an understanding of their abilities through experience as Rogers promoted (Rogers, [1967]2011, pp.76-88). The knitter has elements of both, but interior values developed may help to assess these external influences. They accepted that even very experienced knitters made mistakes and saw the need to apply themselves to ensure the work was of sufficient quality to counter the continuing suggestion that handmaking is somehow of inferior quality.

I found the knitters were aware of the maker being present in the objects they made. This came through via pride in their knitter identity being expressed through pride in the items they made, rather than praising themselves. I heard "I was really pleased with that" (Megan), rather than 'I am a good knitter'. They were generally happier to talk about challenges they had overcome, than boast about being a good knitter even if they demonstrated many of the criteria by which they judged a good knitter. This seems the opposite of the curated, perfected, selfie on SNS. They were deflecting their self-image to the object as Crawford highlights, discussing how makers can direct people to the objects they make to vindicate their self-worth (Crawford, 2010, p.15) and also Gell's concept of the object containing the "distributed personhood" of the maker (Gell, 1998, p.231). The objects created gave them satisfaction, echoing Rogers' idea of the value of creativity being judged by oneself, not others (Rogers, [1967]2011, p.354).

There was a sense of achievement through overcoming challenges and learning new skills and they embraced the contingencies of the world Crawford feels are smoothed by technology and are not afraid of the difficulties (Crawford, 2015, pp.69,76). They also felt this in the work of other knitters.

Although the 'ideal knitters' were mostly discussed in terms of their skills, specific items were mentioned as part of a connection to the maker and a narrative of the relationship for which a physical object seemed very important. The items gained narrative and cultural value (Baudrillard, [1996]2005, p.147) and poesis

connecting the past and the present (Turney, 2009, p.143; Sennett, 2009, p.70) and there was a physicality, possibly due to the handling during making embodying the touch of the maker. As has become more noticeable during periods of physical isolation due to Covid-19 restrictions, touching a screen does not confer the same emotion as touching an item made by hand (Yee in Turkle, 2011, p.33). Occasionally objects that were notably poor either in quality or style were discussed with tales told with humour and affection.

The work of family knitters was often shown respect through the care taken of the objects, including a case where a collection was carefully curated and allocated after death, and another where an item was finished and worn post mortem. This demonstrated the control over the permanence of the objects lying with the user of them, and a thoughtful curation, but also a sense of the persistence and continuing agency of the objects (Gell, 1998, p.253). One concept initially considered was if the knitter self could be remembered through remaking patterns they had made. What seems to be the case is that it is the objects the knitter did make and use that continue to have agency, and critically, use. These items, such as Susan's father's sweater, gather new narratives and memories, they are a living thing, similar to the biographic narrative Turney found in passed on garments (Turney, 2009, pp.140-144). This is unlike digital memory which is fixed (Carr, 2010, Loc.3008,3014) and unforgiving. These object-based memories change and develop through handling by humans with all their inconsistencies. They are not a static memorial, as our digital legacy can become, but are useful items with continuing agency (Gell, 1998, pp.222-3).

As suspected, giving knitted gifts formed an important point of connection with family and friends for most of the knitters and can be seen as a form of performance of the self. The variation in how much they did this, and for whom, came from their own sense of confidence in the reception. Some would limit gifts only to immediate family, while the more confident knitters were experienced and comfortable in making for others. They enjoyed feedback and were aware of the potential for a negative reception, but the main concern was if the garment was not used. The highest praise was seeing the item in use, chiming with the idea of an active and constructive response to the gift, which echoes that found in the reactions to positive news (Gable and Reis,

2010). If the gift was not used however, the person would be taken off the list of recipients, suggesting that the relationship with the recipient was affected by the rejection of the gift. The power relationship in gifts is complex, and Gell's concepts of who has agency through the object, the maker, or the recipient who caused it to be made, are useful in understanding it (Gell, 1998, p.24), but I feel it is endowed with a sense of empathy and caring, and a desire to be useful, not a means of control or manipulation (Turney, 2012, p.306). It is not a public statement, but to show care on a one-to-one basis and demonstrates the empathy the knitter has for the recipient, often thinking about them during the making process. The knitters were aware of the negative idea of being 'made' to wear unwanted gits, so considered who the recipient was, and what their needs would be. They wanted to make them happy, even altering items later, and to see their efforts being used and wanted. I would suggest this amount of effort contrasts greatly in the effort of a post or a like, and as Zell and Moeller's research (2018) suggests, should confer a greater connection between maker and recipient. The knitters held hand-knitted items they had received in high regard, only passing them on reluctantly, if at all, because of the connection to the maker. In one case, a garment was repurposed and in others they were given to a charity shop or passed on for others' use. At no point would they be discarded. People felt the connection with the maker and what they had put into the object and that getting rid of it was like getting rid of that person. This echoes Turkle's concept of the "...persistence of people..." (Turkle, 2012, p.260) and the persistence of online data where we "...readily cart around all that emotional baggage from the past into our present." (Greenfield, 2015, Loc.2217).

Several knitters confirmed the existing research, such as Corkhill's *Stitchlinks* project (2014), that knitting could help and offer support in challenging times, and some gave very moving testimony of how knitting had supported them. None reported the negative effects of Mayne's (2018) study, although this is a small study group. It was a focus that offered relief from anxiety and the control over the complete process gave calm in stressful situations. It appeared that the process gave them space to work through and be separate from, problems, echoing comments by Greer on space in which to sit with emotions, both positive and negative (Greer, 2008, p.42). Knitting offered an opening for

sociability, both in public and in knitting groups and these groups then added to the benefits directly from the craft to offer a supportive environment, with sharing of knitting and non-knitting help.

I found clear demonstrations of empathy in the knitters I spoke to through their discussions of holding a person in mind while knitting and giving time and effort in the making of objects. They considered the recipients needs and were prepared to give time to them, more than may be found in clicking 'like'. This understanding ties in with Zell and Moeller's research that the more effort that is put into online communications, the more the recipient appreciates it (Zell and Moeller, 2018, pp.28,31), therefore a recipient should feel the thoughts behind a knitted gift, and it is an active act of attention, although this is never guaranteed.

The knitting group was a site for shared experiences, both in knitting and general life. The knitters found 'in person' support better than, for example, YouTube videos, even though these were also used. The person-to-person support was more reciprocal, and tailored to the individual, where people can see where you are going wrong, not just generic instructions. It requires time and empathy from both participants and contrasts with online problem sharing which may merely gain 'likes' or 'hearts' (Turkle, 2015, Loc.1838). This extended beyond knitting problems, with the sociability gained through knitting extending to allow broader support. Crawford suggests 'joint attention' leads to people gaining a shared understanding of their environment (Crawford, 2015, p.145), the sharing of and helping with experiences provides a supportive safe space, in contrast to the online environment where vulnerabilities are generally avoided (Turkle, 2015, Loc.439).

The knitters echoed existing comments in chapter two around the level of attention they paid to their knitting. Many knitted while doing another activity that may be considered unproductive, such as watching the television. For some, the knitting was still the focus, while for others, it was plain or familiar work that was done while otherwise occupied. This does confirm my view that there is a sense of control over the focus of attention, as well as wanting to be 'useful'. While Keysers suggests any multitasking divides brain activity (Keysers, 2011, pp.50-52), knitters have the benefit of choice over where their attention is

focused. This allows a choice of projects to suit attention needs and the periods of sustained attention may provide brain training in this skill, as deep reading does (Carr, 2010, Loc.1030,1041,1153,1157). It encourages the ability to choose where to apply attention, as Harkaway recommends (Harkaway, 2013, pp.245,254) to assist with any distraction from technology. The interviewees were aware of the speed of society being reflected in their own knitting, often preferring smaller projects, or having several in progress at once. They did seem to demonstrate the planning and persistence Corkhill noted (Corkhill, 2014, pp.34-35) and they felt a sense of control over what projects to work on, and their own pace, although a new baby, or Christmas may impact this!

Several knitters expressed how important knitting was for them, that they could not possibly give up, but none found this problematic, or thought it was a bad thing. They did use terms that could be considered negative if used for other activities, such as 'obsession' and even 'addiction', but the drivers to continue were different to areas such as SNS, such as enjoyment, possibly the encouragement of positive feedback and familiarity from childhood making it an acceptable and useful craft. I never found any knitters who felt they could knit 'too much'. This was discussed with me in terms of insider knowledge, even being invited by one knitter to look at her 'stash' of wool, confirming the idea of the team of knitting insiders being a select audience. The collection of yarn is also seen as part of the craft and there was not a suggestion this was problematic, as Mayne found in her study (Mayne, 2018, pp.153-154). I think knitting offers benefits for improvement that outweigh any sense of 'addiction', even if at times and for some it becomes all-consuming, possibly encouraged by the positive reinforcements (Keysers, 2011, pp.200-201) from gift recipients or fellow knitters, and some element of reward upon completion. However, this is not the randomised behaviour modification for profit of SNS (Lanier, 2018, p.23). The knitter continues for the calm, to produce something useful, to develop their skills found in the knitter self. The technology user continues in part because the technology is designed to make them, through behavioural conditioning, as Lanier explains (2018).

This textual analysis of the interviews shows evidence of the concept of the *knitter self* and the skills that come with it. The idea of control has been confirmed as a key concept, but additionally the idea of usefulness, of the

knitters themselves and the objects being made. In the next chapter I will analyse this using knitting itself, providing more primary research around the contrast to digital communications and focusing specifically on some areas raised by my knitting participants.

Chapter 5 Knitting about knitting – a personal practice review

5.1 Introduction

In this chapter I will discuss the practice element of the research, where my own knitting practice has been utilised as an interpretation and thinking tool as part of a practice-informed methodology.

My knitting practice explores and communicates concepts that draw on the cultural significances of the medium. As knitting artist/practitioner Robins states "...knitting is a common art because it comes with stereotypes that I can work against. Stereotypes give you power." (Robins in Gschwandtner, 2007, p.165). Its 'domestic' status makes it useful in engaging with social concepts and I have previously used it to communicate socio-political ideas, for example the 2012 piece *The Welfare State* which used damaged garments to explore ideas around the importance of the British welfare system (Figure 8). It should therefore be a good tool to investigate its own position in an increasingly digitally-mediated society.



Figure 8 Part of 'The Welfare State', M.Hanks, 2012, Wool (submitted for MA)

The making process itself is useful as a way of thinking. I draw on Bolt's idea of "material productivity" where she develops Paul Carter's "material thinking", to emphasise thinking through the materials and processes, rather than talking through them (Bolt in Barrett and Bolt, 2010, Loc.750, 756), based in Heidegger's concepts of understanding through handling, or "praxical knowledge" (Bolt in

Barrett and Bolt, 2010, Loc.773,792). This goes against stereotypes, when knitting was seen as "...in opposition to female thinking..." (Hemmings, 2010, p.38) in education and society. Indeed, Gschwandtner says she "...started knitting to stop thinking..." (Gschwandtner, 2007, p.5) as relief from her studies. Lecturer Kirsty Robertson has used textiles to teach students about protest, to encourage them "...to 'think through' textiles..." (Hemmings, 2010, p.68) through the subversion of its imagery, rather than through process as I intend to. Jim Drain sees the knowledge of a culture in its handmade garments, as the evidence of making is seen in the object, stating that "A sweater is a form of consciousness." (quoted in Gschwandtner, 2007, p.52). Pym notes how objects can often communicate more immediately than words, stating that "...there is a communication through material and through the thing..." (Pym, 2020). Matthews talks of knitting as a language in which she is "fluent" (Matthews, 2020).

This thinking process is captured through 'knitting notes' on the pattern and a subsequent reflective writing process (Appendix 1) which forms the basis for the reflections within this chapter. This method remains unobtrusive as, like most knitters, I am used to pausing to mark off rows and patterns, unlike using technology, which would interrupt the knitting. This is an important part of my research as it is a way of testing the concept that knitting has something to offer that may be different to using social media. There are two elements to this as I am knitting: firstly, how does this make me feel; and secondly, does the process offer insights into knitting. Knitters know that some practitioners knit for the product, and some for the enjoyment of the process. Through using knitting to examine itself I am utilising both elements, but the process is where the knowledge is generated. The product should contain the concepts explored, but are a physical remnant of the process. In some pieces, destruction is a part of the process, so no 'product' will exist in the end.

Hand-knitting's slowness allows concepts to be explored through the process, and therefore I do not use machine knitting. As Drain says, "With machine-knitting, you're making decisions row by row, but with hand-knitting you make decisions stitch by stitch." (Drain quoted in Gschwandtner, 2007, p.53). Also, many of the aspects of contemporary society I am interested in are emphasised by the slow, methodical process, undertaken as an individual.

I use knitting to examine issues within the craft and in contrast to external forces. Freddie Robins has used machine knitted pieces to look at knitting's image as a "...passive, benign activity..." (Work 2000-03 | Freddie Robins, no date) most notably Craft Kills, a full body self-portrait pierced with knitting needles. Mark Newport's hand-knitted body suits look at knitting and identity in the form of his own invented superhero costumes (Hemmings, 2010, p.46). Away from knitting, artist Kim Vincs discusses using dance as a way to research itself (Vincs in Barrett and Bolt, 2010, Loc.2570,2583) as she doesn't want to "translate" to another form, and David Toop used the sounds from interviews with an artist to create work exploring the artist themselves (Toop in Sandino and Partington, 2013, pp.17-23), and these reflexive methods echo my approach of using the medium to explore itself.

5.1.1 Importance of materials

All elements of my pieces have a significance, knitting is not used arbitrarily but to communicate something particular to the medium. To this end, I am specific about the yarn I use, often hand-spinning to obtain the appropriate fibre characteristics. This adds to the time involved, and the tactility, which contributes to the process, potential thinking time and embodiment of the maker. Although the final object should communicate the concepts I have explored through the making, and this has been tested through sharing online, the process is the main generator of research data.

5.1.2 Use of text

The use of text is important in my practice, and the quotes of the interviewees are important data for my work. Lisa Anne Auerbach uses text in her work, which has a protest focus. She believes knitting gives the message a longevity not found in other textile-based slogans such as T-shirts, emphasising the importance of the medium (Gschwandtner, 2007, p.11). Robins has used text to communicate feelings about events, such as *It Sucks*, a Shetland shawl featuring these words made after the birth of her daughter (*Work 2004-09* | *Freddie Robins*, no date), and her series of knitted banners featuring expressive slogans (*Work 2000-03* | *Freddie Robins*, no date).

5.1.3 Online vs. Offline sketchbooks

Initially I used traditional sketchbook approaches to work through ideas. For the first two interviews (the pilot, and the first of the eight used for the research) I began a new book for each interview. After this I chose to try a tablet device to create a digital sketchbook for all subsequent work. The approaches differed considerably, with positives and negatives on both sides. The traditional paper book was more tactile. I like to use texture and colour to break up the page, to slow down thinking and to present something more visually appealing. They are often a combination of text and image, with text drawn from the interviews combining with relevant imagery and drawn ideas. Drawing knitting is always a compromise, as the ideas are never fully realised on paper but are more of a schematic. Following this, patterns are developed, often on graph paper. However, this is generally a slow, often repetitive process. I have also experimented with graphing software. Initially this was a simple translation of images into pixelated formats, which produced mixed but usable results. Specific knitting design software was also used, and this produced much better results, and was essential for the large It's Just Fun piece due to the size of the pattern. With a paper sketchbook I was able to keep these patterns, and the trial swatches together in the book, along with photographs of making, presenting a whole document of the design and making process. The digital sketchbook allowed for much faster working, the danger of this being that it may reduce thinking time. Honore feels that doing activities that are slower helps to cultivate a good mindset (Honore and Brett, 2005, p.239), and Sennett has discussed the way slower craft activities allow for increased thinking (Sennett, 2009, p.295). It did allow images and text to be drawn into the pages easily and quickly, and was more portable. The device I used has a pen that along with sketchbook software, enabled me to draw on the screen using different brushes, with very realistic feel. This aspect was very similar to a paper book and created good results. The downside was the loss of tactile elements and the result looked more rushed. This may be because it is an online document, and there is not the feel of a permanent piece of work that needs an element of finish to it. Also, I could not attach physical swatches. It was easier to share the work, and it could be printed, but even this did not have the 'feel' of a paper book. Personally, I found the digital sketchbook had some of

the issues discussed with digital communications more broadly. It was very convenient, but the speed sometimes meant that it was not as considered as its offline counterpart, and the end result felt less coherent. However, I don't feel it was detrimental to the pieces made, as I had the advantage of thinking time while making other pieces, and the sketchbooks were a method of developing concepts that were already in consideration.



Figure 9 Comparing hardcopy (left) and digital sketchbooks (right)

5.1.4 Testing the pieces

To gain a wider view on the effectiveness of the final pieces to communicate the concepts they were designed to explore, or the feelings evoked during making I have shared the work with other people. As discussed in the methodology chapter, using the process to think through concepts was the main research focus, so this is an added element but it does offer a broader perspective. The first three pieces discussed were shared directly with the interviewees whose words inspired them as part of the trial method. All of the pieces, with the exception of the first trial piece *In, Round, Through, Off*, were

shared through an online 'exhibition' by creating and sharing posts on Facebook and Instagram and the comments received are discussed in relation to each piece.

The experience of online sharing is important as part of the overall research, testing in a small but significant way the feelings offered by the sharing process and feedback gained as primary experience of using SNS. This is discussed at the end of the chapter and will be drawn out further in chapter six. The feedback on each piece is discussed in each section that follows.

5.2 The pieces

The individual pieces I made for this research will now be discussed in detail, looking at the concepts they are exploring, design decisions made and influences thereon, and reflections on the making. The latter will be drawn from the 'Reflections' document (Appendix 1) which draws on the practice fieldnotes made at the time of making and subsequently written up as a reflective, autoethnographic piece. Each piece will be discussed in turn, although some were made concurrently. The ability of the piece to inform answers to the research questions, or to develop theory will be addressed in chapter six.

5.2.1 In, Round, Through, Off



Figure 10 In, Round, Through, Off

To pilot the method of making as an interview response and interpretation, the first piece was made from the interview with a family member. As previously discussed, this interview has not been included in this research, however the piece demonstrates some elements of the method, in particular the significance of the materials in the work, which results in them often being hand spun

to achieve specific effects. It is a long item of tubular knitting featuring the words 'In, Round, Through, Off', the rhyme used to teach the interviewee to knit and with which she taught me. The words were knitted using hand-spun, Bluefaced Leicester wool in natural colours fading from brown to white repeatedly. The background is in natural white hand-spun Texel yarn. Texel is the main meat breed in Britain, so is very 'ordinary', while Blue-faced Leicester is a premium

wool, soft with a high lustre. The words are precious, indicating my grounding as a knitter, and forming my 'founding story' of my knitter self. The colours allow the words to fade in and out of the background, as knitting did in my early life, before gaining in importance. The process highlighted how when the words were in white, the process was slow and difficult to knit, evoking similarities with relationships, and the process of learning to knit – when the words aren't clear, everything gets difficult. This piece demonstrates the elements of the importance of the materials, and the way the process can reveal more than was conceived in the original design. These elements are used throughout the following pieces.

5.2.2 Hand me down

This was made as a direct response to one interviewee mentioning a tank top she had made for her son that subsequently got passed on to many other children. This was a common occurrence with the children's clothing, and the children themselves would recognise items they had worn on another child. The interviewee felt she was "fairly ruthless" in passing on clothing that the children grew out of but seemed fond of the idea that they were still visibly in use. The piece drew on the item of clothing and makes the passing on explicit, featuring children's names, evoking the name tags often put into children's clothing. The background was spun in Merino wool, to imply preciousness, and fades in colour to suggest age. The writing is in cotton, which would have allowed for the bottom to be bleached, destroying the wool and leaving the words, but I decided this would be an over-emphasis. The making process was documented using photographs of the process in situ. I found this piece to be unchallenging to make, as it did not elicit any further reflections on the concepts examined. When shown to the interviewee they were interested in the technique and the documenting of it. The concepts involved were felt to be emotional and meaningful. We discussed my thoughts on eroding the bottom of the item, and she was glad I hadn't due to the work involved. This pointed to the recognition by a fellow knitter of the work involved in making an item, and a desire not to see it damaged. She also commented that she

passed items on, as if they were left in a drawer they would be eaten by moths, reinforcing a need for objects to be used and useful.







Figure 11 Process for 'Hand Me Down'

When shared online, the post contained some prompts about the piece, as a form of explanation. This elicited a form of question-and-answer session, and three respondents took some time to compose responses. People liked to pass things on to either friends and family, or to charity shops, again because they wanted things to have a further use, and that somebody else may enjoy them. However, some handmade things were kept, and they had become precious. Another respondent discussed becoming very attached to everyday items of clothing, and passing them around the family, becoming special in the process. Everyone felt that the different owners added something to the story and history of the objects, and one noted that the mending she did helped with this, as well as the significance of the maker if they were handmade. One respondent, who was a 'keen' mender, had levels of mending, where they would do more visible and interesting mending on items they were intending to keep, in order to add to their story and personalise them. Another regretted the lack of mending now, and how some items get worn out, but they can't throw them away because they have become too fond of them. Some things were used less to lengthen their life. A respondent also noted her interest in vintage clothing, imagining its previous life.

The responses indicate that the reuse and continuity of garments is important, and the piece picked up on these ideas. However, I feel the online comments were also in response to questions in the post, not just the image or garment itself. For later posts I decided to minimise my comments, and allow people to

draw on the image primarily.



Figure 12 'Hand Me Down', 2017, Wool and Cotton

5.2.3 What remains

This piece was also a response to the first of the eight interviews used in the research, and the interviewee discussed the potential for love to be contained in an object, especially a gift. It was notable that she used the term 'love' several times, but in an understated way, saying "I think it shows, I don't know, love or..." (Fran) and "...it's another way of, you know, showing love or whatever..." (Fran). She also discussed what happens to this if the gift is given away, expressing the view that the love she felt was in the object remained, stating that she "...still really appreciated the fact that she had made it, and I've still got that." (Fran). This piece attempted to draw attention to the idea that the object may no longer exist, but some essence of the love it contained was still there. The love embodied in the gift had passed into memory, so the object was only needed as an aide-memoire. I have previously used destruction or damage in my work, and decided to make a piece and destroy it to test if the remains still had any evocative power. In Heidegger's concepts, a useless or damaged tool becomes a "mere 'thing'" (Bolt, 2010, Loc.1579). We become aware of its Being through its absence (Bolt, 2010, Loc. 1595) and Bolt suggests artists deliberately using this can raise questions about how the world is seen (Bolt, 2010, Loc.1621). Hyde discusses how gifts must be consumed "...when it moves from one hand to another with no assurance of anything in return." (Hyde, 2012, p.9) in a way that sets it apart from market exchange. The destruction of these objects would evoke these concepts and the important of process, as the end product is destroyed.

Three child bootees were made, as these are often given as gifts, and a vintage pattern was used, to symbolise memories of previous knitters.

Additionally, the wool for two of the pairs was some passed on to me by an elderly knitter. The making process was recorded in photographs which could be put together as a film. One pair was left untouched as a record of what they were, one pair was unravelled, and one pair was burnt. The unravelling and the burning process were video recorded and the process noted in a sketchbook.

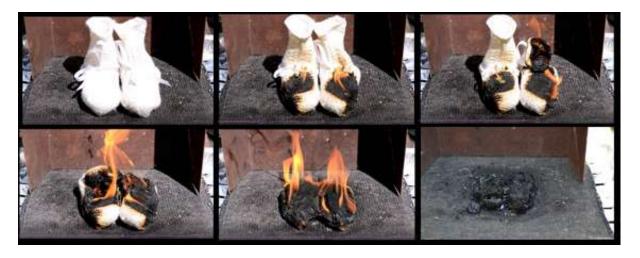


Figure 13 Stills from the video of the burning booties



Figure 14 Stills from video of bootees being unravelled

My responses differed with the processes. The destruction was not easy, as it felt like destroying the time taken to make the objects, and as if the making had been a waste of time. The unravelling was easier, probably as this is a familiar process for a knitter, although Mayne notes the distress undoing work caused some of her participants (Mayne, 2018, pp.167-168). Sheila Pepe utilised this concept in her "Common Sense" crochet pieces, where visitors "...unravel the installation to make their own pieces" (Cvetkovich in Sandino and Partington, 2013, p.131), allowing them to feel more ownership of the space. The result could still be remade into another object, and so was not truly lost. However, the yarn maintained the 'kinks' from the stitches, like an echo of what it had been, but retaining some hope for what the yarn could become. The burning process was more difficult, as the objects were evocative in themselves, and the video made difficult viewing. This was increased as it was done (but not conceived) after the fire at the Grenfell Tower in London. The process was

irrevocable, quick and the final remains had no relation to the starting object. This object seemed to take on more human elements, as remains.



Figure 15 What remains from burning and unravelling

The objects and films were shown to the interviewee. She found the unravelling "...traumatising for a knitter...", and that although this is not an uncommon process in knitting, to make knowing it would be destroyed was different, as there was not the usual optimism felt when starting an object. She found the final, unravelled wool "sad". She found the burning process difficult, with the partially burnt imagery "disturbing" and "bleak". She also noted that she found it difficult to imagine destroying knitting. The white yarn of the burnt booties was felt to make the imagery more challenging because of the discolouration to something that symbolised new life, innocence and happiness. She thought the remains looked like a geological sample, but "traumatising". In discussions around the inspiration for the piece, she commented that if you had lost them the love would still be there, but as I had destroyed them it was different. As they didn't get given to anyone, it was more about my motivation.

To share the pieces more widely, the remains were photographed as a single



Figure 16 Image of 'What Remains' shared online

image (Figure 16). I decided, given the feedback from the interviewee, not to share the films online, but only the image and I feel this was a correct decision. Two respondents found the photographs to be difficult viewing. One, a maker themselves, found the element of made items not reaching their potential challenging,

saying that things they made were like "...fledglings, I've created them, looked after them and now they are off on a grand adventure to be treasured by another..." (Facebook commenter). This echoed the idea of wanting objects she had made to be used and passed on, that I had explored in *Hand Me Down*, but interestingly seemed to be more evocative in a destroyed object. Perhaps it needs a negative image to bring these things to the fore. Another commenter found the use of baby clothing made the image more difficult to view, as it was a reminder of the small items kept by parents even when the children grow up, and the images would have been less difficult if the objects had not been baby clothes. Both respondents found the image 'sad' or 'upsetting' and evoked memories. Another commenter felt that the way it was viewed may be different as a knitter, than as a relative.

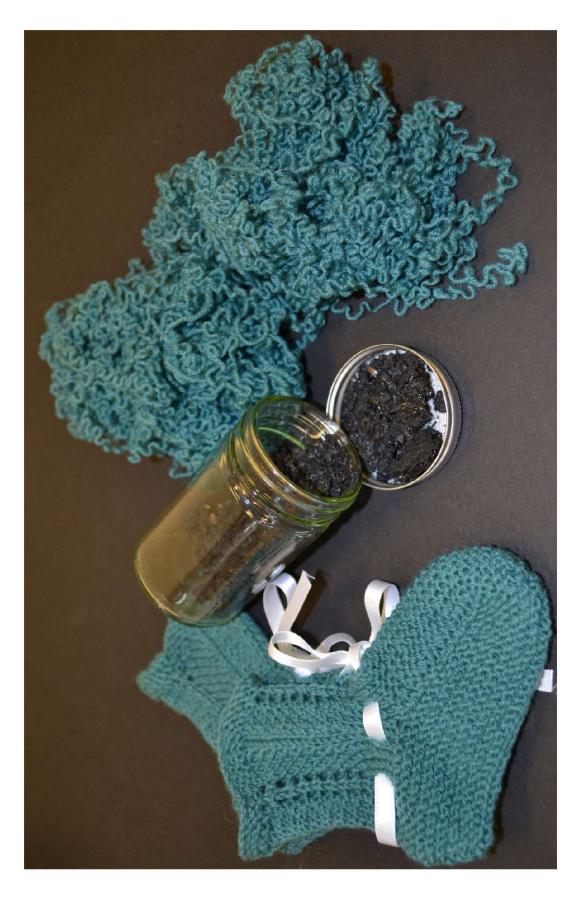


Figure 17 'What Remains', 2017, Wool, Glass

5.2.4 Self/performance

This piece was developed after conducting more interviews and amalgamating this with data from the contextual review. It examines areas around confidence, self-esteem, identity and performance. Identities are portrayed in many ways, and as a knitter I reflected that I show my status in several ways, through wearing handmade knitwear, knitting in public and giving handmade gifts. Goffman regards clothing as part of the "personal front" that "...we most intimately identify with the performer himself..." but this may vary between performances (Goffman, [1959]1990, p.34). Holroyd suggests that making our own clothes allows us to access what she calls the "Fashion commons" where we can choose from a wider range of identities than that offered through commercial clothing (Holroyd, 2017, pp.58-68). She also notes that wearing handmade objects, including sharing online, gives people an identity as a 'maker' (Holroyd, 2017, p.90). Rutter noted how often knitted clothing marks belonging, such as a football scarf (Rutter, 2019, p.285). I also noticed how others make explicit identity claims through wearing sweaters with slogans stating their status as a mother, or someone who does a particular sport, or likes a band. Online this is done through the groups people belong to and the pages they 'like' and share, and Turkle questions whether these are an image or real – "...you know the difference between yourself and your Facebook self. But lines blur and it can be hard to keep them straight." (Turkle, 2015, Loc.1362). Krotoski notes how online there is a separation between

"...the social categories we belong to, like being female, a mother, a volleyball player, Norwegian, liberal or Catholic, from the personal categories we feel, like our subjective sense of who we feel we are." (Krotoski, 2013, p.13)

Aiken talks about the "cyber self" as "...an object - a social artifact that has no deep layer." (Aiken, 2016, Loc.3413)

This piece explores how comfortable we are in the image we portray, especially for a knitter. Is the self we show offline more or less of a performance than the one we show online or are we just linking ourselves to another set of stereotypes that society has established, or deliberately trying to subvert them? Fields draws on identity theory, on how identities are created through what we

want to associate ourselves with (Fields, 2014, p.153) and for Parkins knitting "...is something one is seen doing." (Parkins, 2004, p.430). Through reflecting on work as I made it, I became aware that I would select what projects I knitted in public and not just for practical purposes of transportation or attention levels. This is affected both by the type of knitter I want to portray and my mood at the time, including how much conversation I want to have about what I am making. Turney found knitters she studied often hid their work (Turney, 2004, p.278), which seems less common now as public knitting is more popular, but perhaps knitters are more aware of selecting what to show. Daley suggests that "...we come to see ourselves as people who are seen to knit, and that shapes how we understand ourselves to be perceived in the world." (Daley, 2013). Greenfield said that "Unlike in the real world, a Facebook identity is implicit rather than explicit: users show rather than tell by stressing their likes and dislikes..." (Greenfield, 2015, Loc.1811) and knitting in public is an explicit statement. This is similar to the 'slogan' sweaters I had seen, and instead of making a jumper saying 'knitter', the structure of the jumper itself would draw on these concepts playing with the tension in how we represent ourselves, and how this is like the presentation of ourselves online. Kouhia sees a tension in her own image because of the popular imagery of the knitting "nanna" or the "subversive knitter" and a hobbyist and researcher (Kouhia, 2015, pp.272,273). Online users often present differing identities across different platforms (Aiken, 2016, Loc.2885). From my interviews knitters often expressed self-doubt in what they make. My interviewees were saying things like "I'd be nervous that the quality of my work wasn't good enough" (Emily) and "I'm not very good at knitting big things I don't think" (Megan). The word 'good' came out often, that the work had to meet a certain standard, coming back to the stereotype that handmade equals "...a bit tatty looking" (Emily) as Emily said of their concerns about giving a handmade gift. She also made it clear that giving something handmade, although a nice thing to do, made you vulnerable, "You're putting yourself out there when you give somebody something homemade" (Emily)

Later interviews, not completed at the time of doing this piece, confirmed this element of doubts about the quality. They enjoyed knitting, but some like Susan were aware of mistakes, saying things like "It wasn't brilliant, there's a couple of mistakes in it, but she absolutely loved it..." (Susan), and Amanda echoed the

'good enough' statement, explaining how she took extra care, "I'm always concerned that it might not be good enough, [...] I just like to be very particular [...] it has to be, quite well made." (Amanda). I did have one knitter who had more confidence in her work, even comparing it to others (Julia), probably expressing something many knitters secretly think, but may not say, about others' work. Of course, inherent in this is the acknowledgement that one's own work will be judged with the same critical eye. The piece needed to acknowledge this feeling that the knitting had a performance element, both in the action and the items made.

The jumper echoes the slogan sweaters I had noticed, and is knitted to be reversable, with two different types of yarn. This points to the part of us we allow to be seen, and what we hide, but it can be reversed. One layer is hand-spun Merino, which is a high quality, very soft yarn, often used in baby clothes as it can be worn by most people next to the skin. The natural undyed colour was chosen to be unthreatening. However, it would need cleaning often, and Merino felts very easily so a Merino garment requires special treatment. The other layer is hand-spun Herdwick wool, which is usually used for carpets and outerwear as it is tough and coarse. Its natural colour is a sensible tweedy grey. The yarn is practical and tough but uncomfortable next to the skin. The characteristics of the yarn are important in this piece in representing aspects of our identity performance. The design can be worn either way round, but to read the writing, and to show the softer side, it would need to be worn with the rough side next to the skin. To reflect how challenging it is to control what we display, the edges are in the rough Herdwick yarn and the opposite side 'breaks through' in places. It incorporates the phrase 'Good enough?' direct from the interviews, which can refer to either the item or the wearer. The pattern is a seamless gansey style, drawing on the highly practical style of jumper, but I was making it unwearable. It is also very fitted ensuring you can really 'feel' the characteristics of the yarn. Ganseys were practical sailors wear, a workwear garment that is apparently not about image. However, they were often patterned, which is said to make them warmer, but the knitter would also be demonstrating their skill and knowledge (Rutt, 1989, p.131).



Figure 18 Processing the yarn for 'Self/performance'

differently according to the viewers preference for the different fibres, and this brings in elements of the societal nature of identity with a person's preferences constructed through their background (Gell, 1998, pp.222-223) and what we want to show to others and therefore be judged on. Knitting the whole jumper double-sided took a considerable time, emphasising the effort involved in portraying an image that may not be completely true to ourselves. Goffman discusses how the final product is what is presented to others, with the labour in construction and learning hidden (Goffman, [1959]1990, pp.52,56) and Sennett cites Castiglione's concept of sprezzatura, as appearing effortless (Sennett, 2013, p.117). While I posted images of preparing the yarn, the main imagery shows a finished product, as is shown in most online images. For this research however, I recorded my own process and the labour involved in my notes, revealing the presentation aspect. The patches on the jumper also look like mistakes or errors, and the question mark shows vulnerabilities often not exposed online (Turkle, 2015, Loc.439). While the jumper was being made, I was in control of the design and of how much 'shows through' as this was not charted, merely done as the jumper progressed. This parallels the composition of social media

posts where decisions are made about how much you want to show. boyd has noted how people share a version of themselves online to maintain some privacy or hide something that is happening in their life (boyd, 2014, pp.74,75); they may encode posts to hide content from particular audiences (boyd, 2014, pp.64,65); or may not share some aspects at all as they consider most things shared online to be public (boyd, 2014, p.62). Once finished the jumper had a life of its own, free to be interpreted by others in the same way as a post can be interpreted and possibly misinterpreted. When online content is shared it can lose its context and can lead to misinterpretation (boyd, 2014, p.35), often avoided only through self-censorship (boyd, 2014, p.74; Turkle, 2015, Loc.4836; Greenfield, 2015, Loc.2034).



Figure 19 'Self/performance' selfies

Once complete I attempted to take some photographs of myself wearing the jumper in the type of pose popular on sites like Instagram, of myself in a mirror (Figure 19). This took considerable effort, finding a suitable mirror and location, and highlighted the effort involved in even taking a 'simple selfie' that try very hard to look effortless. Images were taken of the jumper both inside and out, and not only did the yarn work as intended, that is the Herdwick was very itchy next to my skin, but the writing was more successful. In the mirror, in the classic Instagram pose, when the jumper had the Herdwick inside, the writing was reversed, whilst Herdwick side out it was right. This showed the complexity of our self-image. It helped me to think through these concepts and develop them further. It highlighted the effort we put into our image, and I certainly feel more aware of the choices I make, especially as a knitter.



Figure 20 Close-up of Herdwick yarn

I decided to share this piece in person at some knitting groups. I was more apprehensive about this than the online sharing, but got more feedback, and more on the tactility of the piece. Instead of just 'likes' as I found on Instagram, people asked questions. However, they were generally technical questions about the design choices and making technique. Having to explain it in person made me feel more self-conscious about what I was trying to communicate, whereas on Instagram I could compose what I said and explain the symbolism without embarrassment. All this reflects what Turkle has to say about teenagers increasingly turning to texting (Turkle, 2015, Loc.2183), where you can compose and are less vulnerable, not revealing as much about yourself. From the sharing of the final image, as part of the online exhibition, the feedback was more about the meaning of the piece than I received from offline. One respondent who had seen the piece gave a fuller explanation of what she felt it meant than she had when she had seen it, relating "...fear of inadequacy absolutely feels like a constant, uncomfortable, prickling sensation..." (Facebook comment). Another commented on how the concept of being 'good enough' varied with one's own circumstances and was improved when doing things that they enjoyed or made them happy, which improved their feelings of selfworth.





Figure 21 'Self/Performance', 2018, Wool - Merino side





Figure 22 - 'Self/Performance', 2018, Wool, Herdwick side

5.2.5 Knitter vs. Twitter

I knit pretty much every day for relaxation, focus and out of habit. I also use Twitter and tend to check it every day to catch up with world events from the perspective of public figures I find interesting. This durational piece explores the differences or similarities between the two. Initial thoughts were that knitting is slow and constant, producing a tangible, physical object. It is mindful, but performative, and the knitter is in control of what they knit and for how long. The result is usually a useful object. Twitter is fast and constantly changing. It is ephemeral, but the tweets last on the server and may re-emerge a later date, with possible problematic consequences (boyd, 2014, pp.11,33,63). The posts seem thoughtless, but still performative, and the user is a passive recipient, somewhat out of control of the content beyond selecting who to follow. The time spent on Twitter doesn't produce anything, although it could be argued that it creates community.

The piece needed to test how it would feel if knitting had the characteristics of Twitter. It would need to be a daily activity, to not produce something 'useful', and for the knitter not to be in control of what they knitted. It would also apply some of knitting's features to Twitter, by being slow and with a tangible outcome. If it took as long to tweet as it does to somehow knit the message would people do it? Some concern is expressed about 'wasting time' on social media (Greenfield, 2015, Loc.168) and Amanda noted that time spent online could be spent more productively. The piece would examine if using this time to produce an object that could not be used as a garment would be similar.



Figure 23 Sample of daily knitting with tags

Options were explored, including simply knitting for a period of time each day (Figure 23), but this did not tie in with the twitter content sufficiently. Twitter has a page of 'moments', or headlines of events, that are constantly updated according to algorithms. These would be a useful way of accessing the content, without it being under my control. I tried

labelling the row of daily knitting, and the labels used were those often used to label knitting swatches. They also echoed handwritten labels used in the Pitt-Rivers museum, and those objects had a longevity echoing what the piece was trying to explore. To emphasise the link to the content and to remove the control over what was to be knitted each day, the Twitter 'moment' was converted to binary code, a series of zeros and ones, eight for each character, that could be translated into knit and purl stitches. The connection between knitting and binary is well known. The Viral Knitting Project used it to 'knit' viruses

into "...a scarf, which offers warmth and comfort, transcending national boundaries and 'infecting' communities globally." (Turney, 2009, p.213) and Sam Meech used a similar technique to create machine knit scarves using binary code of technology quotes (Binary Scarves | Sam Meech, no date) using two colour knitting. Rachel Beth Egenhoefer constructs work



Figure 24 Sam Meech, Binary Scarves, yarn, date unknown.
(Binary Scarves | Sam Meech, no date)
© Sam Meech, reproduced with permission

around the "...intersection of technology and textiles..." (Egenhoeffer in Hemmings, 2010, p.141), and the connections with coding. She has created work around the idea of computers and knitting needles as 'input devices', manipulated by hand, including developing the Wii Kniittiing program (creative works – Rachel Beth Egenhoefer, no date). I liked the idea that the text would not be obvious, going back to the actual method of data transmission. Linking Twitter and knitting has been done by TOG Dublin Hackerspace in a 'twitterknitter' project in 2013 (The TwitterKnitter | Dublin Hackerspace, DIY, Projects, Electronics, Networking, no date), where a knitting machine was connected to a computer to gather tweets and knit the text. Whilst this highlighted a use of old and new technology, it was not a durational approach, and was not hand-knitted.

The piece would be in the tradition of durational knitting projects such as Pym's Blue Knitting (Blue Knitting | Celia Pym, no date) who knitted daily to determine the stops on a Japanese trip (Pym, Knitting trip around Japan ties up more projects, 2005). It echoes her concept of marking time through knitting, and having a set of rules to govern the knitting, the search



Figure 25 Blue Knitting (2001) Celia Pym supported by The Gardner Fellowship.

© Celia Pym, reproduced with permission.

for yarn led her journey and knitting was key to the piece (Pym, 2020). Janet Morton created News Flash which involved hand-knitting the Toronto headlines for a month. The knitting was done in a shop window and took all day, and was looking at solidifying, recording and memorialising events (Turney, 2009, p.209). Felicity Ford develops patterned knitting based on the sounds she encounters (About KNITSONIK, 2011).

The knitting was done as a circular piece of knitting, to allow for the varying length of each day's message, of 140 stitches, a link to the then character limit of Twitter⁹. The end of each day's knitting was marked with a tag with the date

and just the twitter headline.

Turney suggests that durational knitting "...'embodies' the identity and life experiences of its maker." (Turney, 2009, p.139) and I also recorded a line about events in my own day in a spreadsheet, but I did not



Figure 26 Knitter vs. Twitter, close up

add my personal information to this piece, which implies my own feelings of the public nature of social media and how much we share.

⁹ This has since been doubled to 280 characters

The knitting commenced on New Year's Day 2018 and continued for a full year. While initially as enjoyable as other knitting, after about a month it became a chore, similar to a daily checking of emails or social media, with feelings of not wanting to 'get behind'. When this did happen for one day, the sensation was like having a backlog of emails to deal with. There was also a frustration that it was taking time that could have been used for other knitting projects that may have been producing a 'useful' end result and by June it had started to feel unproductive. The piece was beginning to offer a similar feeling of time being wasted that social media can engender. However, the time it actually reduced was the time I spent on Twitter, as this decreased over the duration of the project. Having to engage with technology while knitting to access the binary 'pattern' was different to how I usually knit, constraining my knitting location. The varying nature of the pattern meant that some attention was needed to knit the piece, but not enough that it was engaging like a complex pattern. It was not possible to carry out any other visual task at the same time. In this aspect the piece raises questions about the attention used in Twitter and in knitting. The knitting was not requiring my attention with updates as Twitter does, through its intermittent updates (Aiken, 2016, Loc. 794), associated with the release of dopamine (Turkle, 2012, p.227; Greenfield, 2015, Loc. 1703; Aiken, 2016, Loc.824). Twitter requires our attention, but knitting can vary in how much attention it takes. Some of the assumptions that knitting is a calming, focused activity may not always be true. When it is boring, I do other things while knitting, and if I can't then it becomes a chore. Many of the knitters I interviewed also mentioned conducting other activities while knitting, sometimes as a mark of a good knitter (Susan) or as a way of doing something they considered useful while watching television (Megan). Peggy specifically mentioned that she did not have to concentrate while knitting plain items (Peggy). This raises the more detailed issue over what benefits 'boring' knitting may have over social media, as opposed to detailed or engaging work. Crawford highlighted concerns over the way that for most of us, our attention is being bombarded without our control (Crawford, 2015, p.5). He feels we should be deciding what we will pay attention to (Crawford, 2015, p.11) and that selfregulating our attention has consequences for independent thought (Crawford, 2015, pp.16,17). This highlights how attention levels in knitting is not a

straightforward subject, and we may require a level of stimulus to hold our attention, even when carrying out something we enjoy.

A random pattern started to appear in the work and both good and bad headlines looked the same. The knitting neutralised all content, like the networks that transmit the data. This was noticeable on days when the headline was particularly shocking, and I was uncomfortable spending time knitting and dwelling on it. If the headlines had been knitted in plain text this would have been clear, but the translation changed them. In contrast, I developed a reluctance to knit what I considered to be 'trivial headlines' as it felt less worthwhile. I was making judgements on the content, despite or possibly because I had no control over it. Zell and Moeller found that positive feedback increases the significance of an event when it is recalled, so possibly this is a similar effect with certain headlines (Zell and Moeller, 2018, p.27).

As the year progressed, I found that I was starting to recognise characters in the binary, like a machine. This raised questions about my position as a hand-knitter. I was knitting what was instructed by the text given, I had no control over it and could not add interest, such as a different colour or yarn, and I could not see a garment developing. I questioned how different this was to what a knitting machine could do. What was I, as a human, adding to this piece that a knitting machine would not, and could someone looking at the end result tell the difference in some kind of knitting Turing test? The real Turing test criteria meant that the artificial intelligence used "...'tricks' to appear human rather than on trying to model human intelligence." (Turkle, 1997, p.86). In a similar way, machine knitting could 'reproduce' hand-knitting, but would not have the element of spirit, touch or narrative endowed by physical contact. Often the image of hand-knitting is that it will 'look' homemade, with the implication of a lower quality item, which is obviously not always the case. Winnicott suggests that imperfections are "...are characteristic of human adaptation to need" (Winnicott, [1982]2007, p.187) and Sennett highlights them as showing individuality as opposed to machines (Sennett, 2009, p.84) but knitters don't necessarily want objects "...to look homemade" (Holroyd, 2017, p.96). The main difference hand-knitting this project offered was the significance of the embedded labour and time in the final piece that would not be present in a machine-made object and this is important in relation to the time invested in

using social media. In addition I had lost the control over the knitting that many knitters, including one of my interviewees, found empowering and that I feel is a key difference between knitting and social media. The Twitter algorithm was determining what was to be knitted, and I could not stop, give up, or finish the piece, a contrast to most domestic hand-knitting, and highlighting the difference with social media. The idea that the knitting would not be finished for a year was daunting, but I have completed other projects that have continued for this long, however the lack of control and the sameness of the content made it more challenging.

When it was complete and I no longer had to knit the piece every day I did find I missed the routine, and not having to consider what I was knitting. This bore similarities to the routine I have for checking social media, which has become an unthinking habit. It is easy just to carry on, like this piece of knitting, but this knitting was becoming uninteresting. The constant change in social media may offer enough interest for people to keep checking and not give up, possibly due to the effects of dopamine when we see a new post (Turkle, 2012, p.227; Greenfield, 2015, Loc.1703; Aiken, 2016, Loc.824). Not having to spend half an hour each day on this project was initially nice, but the time did not get used up in anything significant, but merely got taken up in the general day-to-day. What was different was that there was a tangible object at the end of the year, something to show for the time I had spent. This object was not a 'practical' garment, but it was thought provoking. Whether it was more beneficial than spending that half an hour each day on Twitter depends on what you feel the benefits of social media are. I would suggest the community aspects can be positive, but depend on how this community is making you feel and that is still open to debate.

The idea of 'casting off the year' does highlight how reflective the process of knitting this was. It made me slow down and consider each day. I wanted to explore this further, and by the end of the year was already working out how to explore the data produced more fully, picking up on the issue of my perceptions of the headlines, my own 'headlines' and the reflections of the year.

When shared online, this piece did not provoke much discussion or comment, but one commenter did ask if it could be used, reinforcing the perception that knitting should be useful.

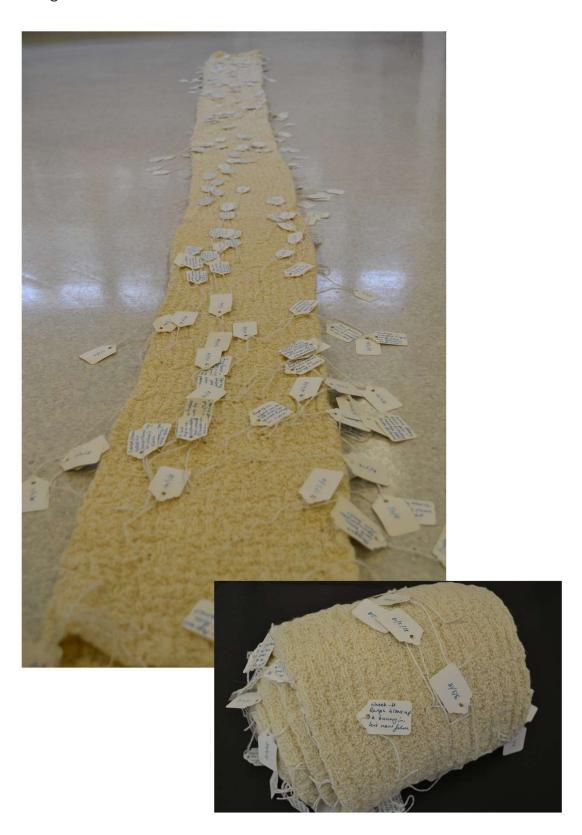


Figure 27 'Knitter vs. Twitter', 2018, Wool and Paper tags

5.2.6 The 2018 blanket

The data collected over the year allowed for a further piece that would explore both the idea of knitting as a means of allowing reflection that is uncommon on social media, and to examine the nature of what content is highlighted as important online. Also, knitters are aware that how one is feeling when knitting is often expressed in the knitting, in elements such as the tension of the yarn and how often mistakes are made. This is subtle and implicit, part of the idea of the maker being in the object made. Mauss suggested that a person's "spiritual essence" was in a gift (Mauss, [1954]2011, p.10), and Gell extended this concept, suggesting that objects are part of a "distributed personhood" (Gell, 1998, p.231). I wanted to make this explicit by showing the range of experiences I had felt during the year. It was an opportunity to compare how my year had been in relation to what was deemed important globally, and to somehow put my 'news' on a par with that on social media. However, I did not want to reveal my own events, as I am a private person. I had not tweeted them and wanted them to be 'present' but hidden. In some ways this echoes what boyd said about online privacy and users coding or not posting things they wanted to keep private, due to the assumption that everything online is public (boyd, 2014, pp.62,64,65,74,75).

Initial thoughts were about using the categories that Twitter uses for the 'moments', such as 'World News' or 'Celebrity', but these would not work for my own daily news, which were simply events and feelings that had happened to me on that day. I decided to just focus on whether the Twitter or personal headline was positive, negative or neutral. This was, of course, subjective and I had to be aware of classifying an item as negative when I simply didn't agree with it, so it wasn't quite as straightforward as initially thought. Being conscious of this, I reviewed the year, categorised the headlines for both Twitter and my personal moments, and grouped them. Mood based colours were chosen to represent them, with moody blue for the negative, sunny yellow for positive and white, or undyed for neutral, and coloured the spreadsheet cells accordingly. The spreadsheet was sorted into four columns, the first two were Twitter and personal headlines grouped by mood, the second two were the same data but in date order. Whilst this was interesting data in this form, and offered the comparisons, the decision to knit this in four columns as a large blanket gave

me the opportunity to really reflect on the information it contained. It also would become a permanent object, unlike the spreadsheet that could become corrupted or deleted at any time. The final object would become a knitted spreadsheet, or what I call an 'info-textile' (rather than infographic). The piece was edged in black with labels on the sections, echoing spreadsheet borders and titles. The resulting blanket would allow reflection in the knitting process, and in the final object, allowing me to wrap myself in the year. This is influenced by Winnicott and his concept of transitional objects that symbolise a child's move from a subjective to an objective view of the world (Winnicott, [1982]2006, p.8). He specifically references objects such as blankets that are soft and may became a "...defence against anxiety, especially anxiety of depressive type." (Winnicott, [1982]2006, p.5). The object symbolises an awareness of separateness, in his case referring to a child and its mother (Winnicott, [1982]2007, pp.19-20) and are what he calls "not-me" objects (Winnicott, [1982]2007, p.2). This blanket is a way of becoming separate to the events of the year, and the resulting object is symbolic of the process undergone during the knitting. It was a way to reflect on the year, to move from instant subjective feelings to a more objective reality through the slow process of knitting each day, reliving it, reflecting on it, and processing it. My subjective view at the start was that the Twitter moments would probably be mostly positive, trivial items. Like most people my own year had some high and low moments, but overall, on New Years' eve, I was glad to see the back of 2018. However, knitting the blanket changed my view on the year that had passed, and also on the nature of the Twitter content. The increasing objectivity, for Winnicott, allows the development of the self and identity (Winnicott, [1982]2007, p.107) as one learns to relate to objects as oneself, and to have "...a self into which to retreat for relaxation." (Winnicott, [1982]2007, p.158) and the blanket was a way to relate to what had happened in the year with the identity or self I now had, having experienced these events.

The knitting allowed an increased awareness of the colours being used, including the amount of each one. After knitting the first two stripes, it was obvious that my year had been more positive than Twitter, which went against



Figure 28 The Twitter 'moments' on the left and my daily thoughts on the right

all my initial feelings. On the sections ordered by date, I was aware of groups of particular colours, and it gave the opportunity to reflect and consider what may have been happening at that time, and what influence the global news may have had on personal feelings. It was very clear when the colours changed, highlighting how quickly events can change and how recent events can colour our feelings about a longer time period. This raises the mindful notion that positive and negative feelings and events are only transient. In this way the slow knitting and reflecting was very helpful in being more objective. Taking time to think and reflect in this way is not common on social media, with the exception of Facebook's 'memories' posts.

Knitting the grouped sections was relatively fast to do, but the daily stripes took

much longer as the pattern had to be followed more closely, pointing to the possible challenges of daily life. There were also a lot of ends that needed to be tidied up afterwards, reflecting on the process of tidying up with hindsight.



Figure 29 The daily stripes, reverse, showing the ends to be tidied up.

This piece had many advantages over the electronic spreadsheet, apart from merely its size and physicality. It was practical as a warm blanket. Knitting each day, instead of just pressing 'sort', offered an insight into the year, and changed how I felt about it. The reflection was not a process that would have occurred through tweeting the feelings at the time, although I may have received feedback from others through social media. This was a very personal reflection, and the object that resulted was personal. Rogers felt that the self was a process, not a product, open to change over time (Rogers, [1967]2011, p.122) and the process of this knitting allowed for the changes in the self, even though it resulted in a product. The product was a 'finished' item, but marked a point in time, not an end goal. It could be a marker of self development. It is

useful as a model for others to use as their own reflection on a time period. It also provided insight into the position of practice in this research, as objects that symbolise a process, where the process is the research.

Two commenters online noted the relation to data, suggesting similarities to other data formats such as bar codes, and the potential to see trends if done over a longer time frame. Another picked up on the difference in how the colours appeared in the block and in the date order sections, feeling that my news in date order did not look very blue, but the blocks seemed to show more. She reflected, "...it shows that during 'normal' life where our sad days are interspersed with happier days overall we don't look back and see that time as being 'sad'..." which was similar, if reversed to my own reflections.



Figure 30 '2018 Knitted', 2019, Wool

5.2.7 #knittingfoundinstroud

Hand-knitting is often given as gifts, so the idea of giving away something you have made is not uncommon for a knitter. The objects themselves can be related to 'giving away' an online post or comment. The feedback received on both things can vary. Both online 'likes' and comments and appreciation of knitted gifts are seen as ways of affirming people's place in a community, confirming their status (Turney, 2009, p.28; Gauntlett, 2011, p.93; Krotoski, 2013, p.58; Zell and Moeller, 2018, p.31). Online this is public, whereas gift appreciation is often private. Several interviewees discussed the feedback they got on things they had made, sometimes good, sometimes more ambivalent. I had discovered from my own use of Instagram that feedback online is often very dismissive and requires little effort. Knitters also often knit for charity, and although the final recipient may not reply, the charity will often send a letter of thanks. I recalled doing some charity knitting and not receiving any acknowledgement, and the subsequent disappointment I felt. Several interviewees mentioned charity knitting, but it is interesting that generally this was not considered their 'best work', often using cheaper yarn, or even less than perfect knitting. Fiona mentioned a church project where angels were left around towns and people posted their thanks and stories of how this had made them feel. She had found this deeply moving. This piece would explore the concept of giving away knitting and by using social media to attempt to receive feedback would relate the two concepts. Objects would be made, left anonymously but with a hashtag for finders to post on social media when they found them.



Figure 31 The six hand-knitted socks and three labels

Socks were chosen as they are often given as gifts, are useful, have a level of intimacy, and are small and suitable for year-round use (unlike gloves or hats for instance). Rutter noted the concept of intimacy in discussing making a knitted bikini, that she would not make for a friend due to the "...implied proximity of touch..." (Rutter, 2019, p.125). Socks have some aspect of this, being on the boundaries of 'underwear', and worn next to the skin. They also require a reasonable level of time commitment, in my case around 10-11 hours for a pair of plain socks. The items would involve my time and would be a contact between me and a stranger. In Gell's terms they would carry the agency of the maker (Gell, 1998, p.22). The choice of socks also shows a certain skill level, an aspect Gell also noted, where a maker can exert agency over a recipient if they do not understand how the item was made (Gell, 1998, pp.71-72). As they would be left in the environment, they were made of entirely natural, undyed wool, which should rot away if not found, and thereby cause minimal environmental impact. This would also contrast with the cheaper acrylic yarn many of my interviewees used for charity knitting projects, and it would test if this impacted the willingness to give the items away to strangers. The pattern was generic, plain and unisex. They were left singly, echoing the evocative 'lost knitting' often seen on pavements and walls. This should also give them an added sense of being out of the ordinary, and Gell discusses how an object's "...peculiarity, intransigence, and oddness is a key factor in their efficacy as social instruments" (Gell, 1998, p23) potentially giving them more agency in the social environment. To encourage feedback, a 'game' element was added using the labels on the sock, encouraging people to find the other part of the pair, either through looking themselves or contact through social media using the hashtag #knittingfoundinstroud. Progress could be tracked using this hashtag. In addition, small, knitted flowers with a similar label were made and distributed. This was all attempting to create interest, and there was a lot of effort involved. This echoed online marketing campaigns, and personal accounts where users try and get multiple followers, and it raises questions about marketing yourself. Once released there was no control over what would happen to the objects, or if there would be any feedback, and in this respect it would be similar to putting a post out on social media. Control over the knitting

Knitting six plain, identical socks had echoes of the hand-knitting industry, and the knitting rapidly became 'work', but I did ensure they were all made to a high standard as, although being comfortable giving them away, and knowing it would be anonymous, I was conscious of maintaining a knitterly reputation. Julia commented that she would always correct mistakes in gifts as she felt she had her "...reputation to think of!" (Julia), so this is not an uncommon feeling for a knitter.

Leaving the socks in the environment was not easy, as I felt self-conscious doing so. I also became concerned when it rained the day after distribution, that they would be getting wet and ruined, and that people wouldn't want them. This differed to my general lack of concern over how my gifts are usually treated, as I usually accept that they may not be well looked after, something MacDonald noted (Macdonald, 1988, p.341).

Social media was checked daily for posts mentioning the objects, and after a week the drop sites were visited to see if the items had been found. All bar one flower label had been taken, but nothing was ever posted on social media. I was happy that they had been taken, not just left to rot, as I wanted them to be 'used' and to be given a new 'home', however I found the lack of response disappointing and somewhat puzzling. The latter was over what use a person would have for a single sock. The lack of posts could have been for several reasons. People may not have used or wanted to engage with social media. They may not have wanted to take the time to post, which could be an example of how posting or commenting is more effort that simply clicking 'like' (Zell and Moeller, 2018, p.31) and my disappointment was understandable given the effort that had gone into making the objects. It felt worse to me than when I give a gift and get no feedback. I still felt connected to these objects because it felt that their role was different to normal. If a gift is used, worn, then it has been useful, has fulfilled its purpose as a gift, its "spirit" had passed to its recipient (Mauss, [1954]2011, p.9). These socks had another role, more like social media posts, to garner interest and to connect people to each other. And it seems they had not achieved this element, even though I knew someone had them.

A month later I tried again with a smaller and more whimsical item. Five woollen sheep, again all biodegradable, were distributed. It was to be six, but I found I was disheartened by the lack of response to the socks. This was commented on in interviews with knitters mentioning that a lack of response from their knitwear recipients often resulted in them being "...off the list..." (Megan) for future projects, something noted as a symptom of the rejection of knitted gifts by Turney and Stannard and Sanders (Turney 2009, p.27; Stannard and Sanders, 2015, p.107). In a way I was taking the town 'off the list' for my knitting. The labels were more explicit in asking for people to post on social media. The response was the same. People seem happy to take someone's work and time and provide no feedback or response. It seemed like a pointer that people will not put in much effort online, beyond clicking like, for someone they do not know. While disappointed in the result, or lack of, I did find that I hoped people liked the sheep, suggesting that I still wanted people to enjoy my knitting, even if they would not tell me. Fiona had commented on the 'angels' project that "...it actually makes a massive difference in people's lives they find these little angels, for me that is just something really amazing." (Fiona) despite not getting any direct feedback on her items, but seeing the feedback on the project in general may have given her the feeling they were beneficial. The only evidence of my project was a small label I found on a bush by the place I left a sheep. I did feel a sense of rejection that there had been no feedback, reflecting Turney's view that rejection of knitting could be personal (Turney, 2012, p.304). Interestingly Turkle notes that technology protected people from rejection (Turkle, 2012, p.198) whereas I had felt this more through hoping for online feedback than I have done with gifts given in person. Whilst you may never know if a recipient liked a gift, as was the case here, this felt worse as I had requested feedback. I did not have the sense of being part of my community that gift appreciation would offer (Turney, 2009, p.28) or online 'likes' give (Krotoski, 2013, p.58). I was expecting public feedback, usual online and people were not prepared to give this, as opposed to the private appreciation usually given for a knitted gift.

This piece is another where loss or destruction of the product is part of the research. It therefore has no feedback from anyone, as there was nothing left to show in the online exhibition.



Figure 32 The lost sheep, and the only remains

5.2.8 4898 Likes

As part of the autoethnographic element of this research I have engaged more with social media, and observed the behaviour found on the sites and how I respond to them. The concept of the online 'like' has been of interest since the beginning of the study, as it seemed a poor substitute for offering support and connection through a gift such as a hand-knitted item. Harkaway talks of SNS not being a broadcast medium in terms of a uni-directional information flow (Harkaway, 2013, p.160), but it is a broadcast medium in terms that its content is distributed widely and somewhat indiscriminately, dependant on the site used and the privacy setting deployed (Miller, 2016, p.3). Therefore, one sees posts from people on subjects you don't have in common, and there can be a sense of obligation to 'like' the posts of people you know, so you don't cause offence. A participant from Japan in Miller et al.'s 2021 study felt the pressure to like posts to create a good impression, what were referred to as "duty-likes" (Miller et al., 2021, pp.150-151). Boyd noted that a respondent felt that he was "...forcing everyone he'd ever met to consume..." his Facebook posts (boyd, 2014, p.204). Even when sincerely intended, clicking a button to show support takes moments. Zell and Moeller's research suggests that the effort an online response takes affects its impact, with users judging the sincerity of a like, and that generally 'likes' don't lead to an increase in closeness, but were better than nothing (Zell and Moeller, 2018, pp.28,31). The time and sense of the maker in a hand-knitted item can offer a sense of empathy as makers think about the recipient while making (Prigoda and McKenzie, 2007, p.106, Rosner and Ryokai, 2010) but how much is an insincere 'thanks' similar to an obligated 'like'? Some of the interviewees really felt they were showing care in their knitting. Julia thought about a sick friend as she was knitting for her (Julia), whilst Fiona felt it was "...nice to have someone that you're knitting for." (Fiona) and that bringing comfort to people was an important aspect of knitting for her. Susan found "...a lot of joy in giving somebody something you've made..." (Susan). What these seemed to emphasise for me, coupled with my own experience, was the empathy that Turkle discussed, talking about how the 'like' is a sign of empathy (Turkle, 2015, Loc.2723), but that people need to feel you are around "...long enough for someone to believe that you want to know how they feel..." (Turkle, 2015, Loc.2732). As my interviewee Fiona said "...it shows

that you've really put a bit of effort in, doesn't it?" (Fiona). Turney suggests one gains a position in society through knitting (Turney, 2009, p.28) and the hand-knitted gift can also be seen as performing one's *knitter self* as a way of being appreciated. The contrast is in the effort it takes to do the different actions.

This piece attempted to find the knitting equivalent to a 'like' in effort. One knitted stitch would take about as much time and effort as clicking 'like'. The piece is made of a piece of knitting cut into individual stitches, then sewn down onto fabric to secure them. The image is of a generic 'thumbs up', not the actual Facebook hand as now one associates even a generic image with social media. The yarn used was left over from actual gifts I had made for people. Knitting the square image was relatively fast, taking just under four hours, but due to the intarsia technique the back of the work was very untidy during the process, while the front looked tidy and organised, an apt metaphor for how most people portray themselves on social media.



Figure 33 Making '4898 Likes'

Once complete the work was cut up, column by column, into individual stitches. I was comfortable 'destroying' the work in this way, but handling the small individual stitches was a challenge. Separated out, they became fragile and hard to handle, not grounded. They became useless, just an object, without the stability of being with their cohort. Even once sewn down they are delicate and fragile and liable to get lost. It looks messy, less neat than the knitting did, but the front and back do not differ so much. To separate out all these 'likes'/stitches took much longer than to make the coherent whole. In all the separating and sewing took 46 hours. The logo can still be recognised, but it looks less coherent and solid. The object has become just that, an object. It could no longer be used as part of something like the knitted piece could have

been (a blanket for instance) and needed careful handling so as not to lose any of the stitches. It may even have to be framed to preserve it. It will certainly need more looking after, unlike the knitted square which could be easily handled, even washed.

Beyond the original idea of merely representing the individual 'likes' in stitches, the process revealed much more. Separating out our care and empathy takes effort and results in a less coherent message. Those stitched 'likes' can fly away, are fragile and are not sturdy and long lasting.

When I shared this online, I tried to be as non-judgmental in the post as I could, writing

"I was looking for a way to compare the 'like' on social media with knitting, especially as a present. I figured the time involved was probably about the same as one knitted stitch. So I did some knitting, then sliced it into individual stitches.

They're reassembled by sewing them onto fabric because individually they became fragile and easily lost.

How much do we think when we click like? What are we trying to say about the 'recipient' of the like, or about ourselves? Is this different to making a gift for someone?

So did you click the button?"

Interestingly, this post got the least 'likes' of any of the work, particularly on Facebook. Perhaps it made people think, and they genuinely didn't like the piece, or were being playful. One commenter on Instagram suggested a 'like' was "...less worrisome than an actual gift..." as it offered love without causing unnecessary objects.



Figure 34 '4898 Likes', 2019, Wool and Calico

5.2.9 How am I feeling?

From several of the interviews the concept of knitting as a source of safety, of refuge came to the fore, something I could also associate with. Respondents described knitting as a place they could go to, a defence. They used phrases like "It was a place I could escape to that was safe. It was also a place that I had some control over" (Fiona), "It was somewhere I could come home to" (Fiona) and "...[what] I wanted to do was put myself back on a good place..." (Susan). Knitting was something they found to be "...the thing that kept me going through really bad times..." (Fiona), "...my bit of sanity..." (Susan) and "...my absolute saving sanity..." (Fiona) and "...my relaxation" (Peggy). These powerful words implied knitting could be something they could find refuge in and hide behind. This echoed the concept of making offering an increased self-belief, giving a barrier to the external influences to which we are subjected and expected to perform to (Corkhill, 2015, p.53; Greenfield, 2015, Loc.3950). Rutter described knitting as "...a safe postern between the oft-shuttered worlds of strangers." (Rutter, 2019, p.273) while Winnicott discusses the idea of a space that develops for creativity and play between a mother and a child as the child develops their sense of self, and that is built on trust (Winnicott, [1982]2007, pp.144,146,148). He also talked about psychotherapy being a "...complex derivative of the face that reflects what is there to be seen." and this leading to a "...a self into which to retreat for relaxation." (Winnicott, [1982]2007, p.158).

This piece explored if our knitting provides us with an identity, the *knitter self*, that we can use as a barrier and feel safe behind. Winnicott's idea of the transitional objects, being a "...defence against anxiety..." (Winnicott, [1982]2007, p.5), is quoted by Angela Maddock who felt her knitting offered this (Angela Maddock in Corkhill *et al.*, 2014, p.47). It also explores how much of a performance we put on in quite an explicit way. Goffman quotes Park's idea of a mask as a self we would like to be (Park, 1950, quoted in Goffman, [1959]1990, p.30) while Rogers explains that it is only when masks are dropped that the person can become themselves, not conforming to others (Rogers, [1967]2011, pp.108-9,114,203). He also suggests "...living behind a façade..." results in erecting a barrier to others (Rogers, [1967]2011, p.323). Sennett draws on George Simmel on how performative masks of appearance are used to protect against exterior stimulation in cities, hiding feelings and protecting

A mask was the obvious choice, but the piece needed to be a day-to-day item and at this point wearing masks was not normal. It also needed to be something the user was in control of, as this was an important concept in the safety the knitters felt, as Fiona noted. A mask could also be quite claustrophobic. Mittens, a common hand-knitted item, echoed the childhood gesture of putting our hands up to our faces, and in this pose very small children often feel they cannot be seen and this link to childhood can be seen in the association with Winnicott's ideas. The hands could display the face we want to show the world, but find it difficult to, while providing a sense of safety and a safe place. This also comes back again to the performance of ourselves, including the performance of being a knitter. The simple choice was for the

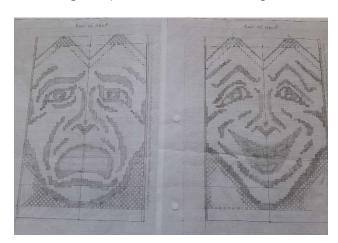


Figure 35 Hand-drawn pattern for the mittens

classic theatre drama masks, echoing Goffman's concept of performing the self as akin to theatre (Goffman, [1959]1990) and they developed in the charting. The happy and sad faces line up, so they can be interchangeable to allow for some nuance of emotions. The insides of the gloves used some of

the powerful words from the interviewees, and were the same regardless of the outside face, because knitting stays constant no matter what face you present to the world. Also, the writing will not make sense from the outside (unless you twist your arms) as we may not want these emotions public. I don't know if the respondents would have said these things if they had not been speaking to a fellow knitter.

Knitting the mittens made it clear that creating a mask for ourselves takes effort. This was not relaxing knitting as they were complex to knit because they're not mirrored like mitten patterns often are and they required thought and effort. Despite being small and portable, I wouldn't knit these in public, partly because

they are complicated, but also because I didn't want to have to explain them and this reminded me of my participant Susan, who would take squares to knit in public and tell people she was knitting "...just a square" (Susan). It highlighted that I do choose what I knit publicly, depending on how sociable I want to be, but this is because I don't want to draw attention to it, the opposite of SNS.

This piece was the most popular when shared online. One respondent noted the idea of safety behind the masks, but questioned if it was truly a place of safety. They noted the idea of presenting a face to the world, including on social media, which was also highlighted by another two respondents. One brought up the destructive nature of comparing oneself to others. And two people noted the idea of people showing their best side online, and hiding behind it, pretending to be something they are not. Two found the faces to be sinister. It is interesting that the idea of presenting a false image of oneself online was picked up by people, but not so much that offline selves can be a performance too. It was the last piece I shared online, so followers may have picked up where my research lies, but the post gave no prompts to guide the respondents in their comments, so these comments had come from the pieces themselves.



Figure 36 'How Am I Feeling?', 2019, Wool

5.2.10 It's Just Fun

The interviewees were all keen knitters, and identified as such using phrases such as "I've always knitted." (Julia), "I've knitted all my life." (Peggy) or said "I am a knitter..." (Peggy) and "...that is what I do, you know, I am..." (Fiona). They were comfortable discussing this with me, a fellow knitter. What was more notable was the variety of phrases used by the knitters. Some were light and straightforward, using phrases such as "I enjoy doing those things." (Megan), "...we just do it for fun..." (Peggy), "...knitting is my relaxation..." (Peggy). Other comments were darker and more insistent, as discussed in section 4.3.5, including "I get a bit twitchy if I can't actually be knitting" (Fiona), "I would never give it up..." (Peggy), "...it's an addiction now." (Susan), "It is a bit of an obsession" (Fiona) and "You always have to control it because I would frankly sit and knit all day every day" (Fiona). If these statements had been made about other things, other people would get concerned, but as it was 'only' knitting there seemed to be no problem, although Turney felt that knitters "...are essentially consumed by what is merely a 'hobby'." (Turney, 2009, pp.122-123). An obvious comparison within this study is the popular concern over social media and internet use. boyd feels that often there are cultural issues for teenagers' engagement with technology, and when some had to address usage, it was easier to use addiction terminology (boyd, 2014, pp.78,84). Twenge also picks up on the similarity in terms between teenagers and their phones and drug addiction, noting phrases such as "'I know I shouldn't, but I just can't help it,'" (Twenge, 2018, Loc.732). Greenfield and Aiken raise issues about the compulsive nature of internet/phone use (Greenfield, 2015, Loc.530; Aiken, 2016, Loc.5166) and Krotoski notes how the alerts conform to conditioning behaviour. (Krotoski, 2013, p.30).

To explore this, I wanted to show these two aspects of the love of knitting, and explore again the idea of the 'safe space' of knitting. The piece is a physical space a person could stand in, a symbolic space to hide. It would feature quotes from the interviews, but edited to remove the word 'knitting'. This would give a sense of ambiguity about the subject of the comments. Bettina Furnée combined a selection of text from oral histories in her 1998 piece Witness about a steelworks and analysis raised concerns about providing a false history because of editing and breaking up the text. (Furnée and Horton in Sandino

and Partington, 2013, p.42). For this work the aim was to draw out the similarities of the phrases used. The darker phrases would be on the inside, where they are unseen. This would be the knitter's space, that I had shared as an insider. The outside was what others would see and would feature the lighter, more acceptable phrases. The interior would be a warm, enveloping colour, and the outside cool and calm. The piece was knitted double-sided so that the 'darker' phrases would read correctly from the inside, but be back-to-front on the outside and vice versa. This puts these inside the space, for the knitter. Nonknitters need not know about this, while it shows the insider knowledge Goffman found within teams, that are hidden from others (Goffman, [1959]1990, pp.88,231). The piece is a large tube of knitting, that hangs from the ceiling and would cover a person. The different 'sides' to how people described their knitting shows a contrast to the view that knitting makes people more approachable, as some of my interviewees commented. Many found people would come and talk to them about their knitting, "...coming up and going 'Ooo what are you knitting?"' (Fiona), but one noted that at times she "...didn't want to talk to people particularly, what I wanted to do was put meself back in a good place..." (Susan). Sennett suggests that withdrawal can be a way to avoid anxiety, but is only a temporary solution. It also may involve only caring about people like you and therefore being more individualistic (Sennett, 2013, pp.183-188) which may echo the online "filter bubble[s]" (Harkaway, 2013, pp.142-143).

Knitting such a large piece took a long time, and at times physically tested out the idea of knitting addiction. I was aware of needing to make progress, but the weight of the developing piece and knitting with both hands to knit the two colours meant my hands would ache after prolonged periods of knitting. I had to take more breaks than normal and not knit on other projects. This was frustrating and I really felt the sense of being denied something I enjoyed. To allow me to continue, I wore compression gloves to support my hands, as the thought of not knitting was not an option. I noted that I wouldn't wear the gloves to my knitting group, not wanting people to tell me I was knitting too much. I questioned if this would be the same if the aches were caused by an office job, or made me feel more embarrassed as it was 'just a hobby'. In some

ways it felt like a negative reflection on me as a knitter. The aches passed with the breaks, the gloves and getting used to the technique.

The large size and amount of time it took raised questions about making something that was not a useful garment. There were similarities to using social media, in that it was mostly enjoyable, sometimes tedious, but the end result was not useful. There was even a sense of guilt at spending so much time on this one piece. It did feel like it took more time than it actually did, only just over two months, but it did become heavy and unwieldy. It felt like anything we have too much of. A self-imposed deadline was increasing the frustration, however I could not knit faster, and had to accept that it would take as long as it took. The one positive was that, like all knitting, it had an end point. Unlike social media, where there are always new posts to check, and updates to keep up with, this seemingly endless piece of knitting would be finished. This raised the problem of the never-ending nature of social media. With constant updating of posts one is never on top of it, and there is no sense of satisfaction at a job completed. In knitting terms, I enjoy the process, but do need an end product, as several pieces in this research proved. Social media, however, appears to be all process and no product.

Making this piece was a challenging piece of knitting due to its size and style. It raised issues about addiction, and beyond it to process and product. The tube is a warm space but can also be quite enclosed and how safe it felt would depend on the individual. It can also be reversed, enabling choice as to which side you want to reveal, the dark or light side. It is the hardest piece to photograph and may be the only piece that has to be experienced, although only if you could stand inside it.



Figure 37 'It's Just Fun', 2019, Wool, Exterior





Figure 38 'It's Just Fun', 2019, Wool, Interior

5.3 Using social media networks

Throughout the making processes I have been experimenting with using social media to share the work made. I have discussed the specific responses received in the discussion about the work, but I would also like to reflect on how I found this process.

The Self/performance jumper was the first piece where I shared the making process online, using Instagram. I was new to the platform, setting up the account for the purpose of this research. The early attempts were challenging as I got used to the conventions of the platform, using hashtags to tap into groups and gain interest and followers. I described my initial attempts as feeling like "...shouting into the wind." (Appendix 1). Receiving comments and 'likes' from strangers felt strange as I found it hard to understand why they would take the time to do this. It was nice that they liked the work, but if it was just a 'like' there was no way of knowing what they thought of it or understood of the work. Miller found in his studies that a 'like' from a stranger was valued more highly and so users would have more open privacy setting on sites like Instagram to allow this (Miller, 2016, p.98). Also, the 'likes' varied regardless of the subject, whether it was knitting related or just a cat picture. Comments from people I knew resulted in a sense of obligation to 'like' and comment back on their posts, and to follow people you knew, even if their post subjects were not of interest. Mauss would suggest that a gift received, such as a 'like', obliges us to return the spirit of the gift back to the giver (Mauss, [1954]2011, pp.5,9), but Hyde believes that if there is an explicit obligation to return something when the gift is given, it isn't really a gift (Hyde, 2012, pp.9,72) and I think this has some resonance here. He also acknowledges that reciprocation is part of what he calls the "...labour of gratitude..." and "...the true acceptance of the original gift." (Hyde, 2012, p.52) and it seems appropriate that the reciprocation to a 'like' takes the same small amount of effort. He believes that whilst society may oblige us to reciprocate, only gifts that are meaningful to us can lead to closer bonds and "...neither obligation nor civility leads to lasting unions." (Hyde, 2012, p.71). This is similar to Zell and Moeller's findings that 'likes' do not necessarily lead to increasing closeness (Zell and Moeller, 2018, p.31). The 'like' requires little effort and is rarely challenged. This contrasts to the process of making someone a gift as a way of showing appreciation. However, the 'like' is

I found that even if I posed some thoughtful questions about the work I was making, this often did not elicit any response. I found it difficult to be so publicly revealing to a group of strangers and chose my words carefully. I am still not sure if people don't engage in this way online, or if the piece did not make people think about these issues. I was surprised at the lack of response, when I had put effort into the posts, and this does equate with Zell and Moeller's findings on people reactions to post responses, as discussed in section 2.4.4.4 (Zell and Moeller, 2018, p.31).

Linking up with people on Facebook was more direct. I had been a casual user of the platform, linked up with only a few close friends, but tried expanding this group to acquaintances from the local area. Sending out a direct request felt quite vulnerable as I did not know what their reaction would be. Emily commented that she found a similar vulnerability with giving knitted gifts, but I had not experienced this specifically with knitting, but did online. I felt this level of 'putting myself out there' almost a request to be liked, despite it not taking the time a knitted gift would take. I found it hard deciding who to approach, and it felt there was an etiquette I did not know. I also found I felt differently when I next saw the person as I now had more information about their 'private' lives.

Trying to export the posts from Instagram was almost impossible, making it feel like I did not own the content. In the end I had to do it manually using screenshots. This has now changed, and you can export all your data, but the format is not very user friendly, being mainly designed for importing into another platform. This highlights how we hand over control of this information. I had been considering that we hand over control of knitted gifts in a similar way, but what this has demonstrated is that we hand over a gift when we are ready, and parting with it, accepting it is on its own. With the posts, I expected them to still be mine. I still had a use for them and wanted to be able to do things with them that the app developer obviously decided I shouldn't. This still feels like my data, whereas knitted gifts I give away no longer feel like mine. This was an interesting insight that only trying this out has revealed.

As of June 2020, the following graph details the responses to the 'online exhibition' I conducted of the work made for the research. Both sites describe the number of comments as including any replies, including those by the post's originator so I have reduced this to number of unique commentators, that is specific individuals who posted a comment, regardless of any replies and discussions that may have resulted from these comments. The Instagram account is public, with most followers unknown to me offline, while the Facebook account is private, but the posts were completely public and shareable.

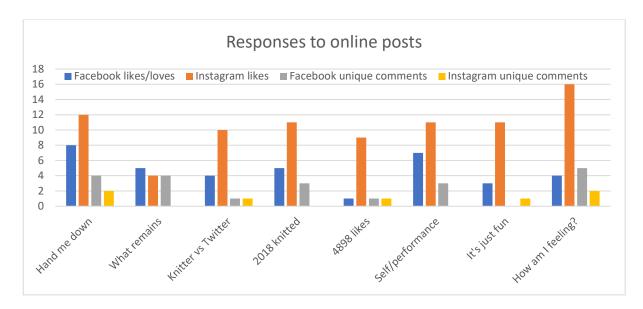


Figure 39 Responses to online exhibition

Overall Instagram elicited the most 'likes', due to the public nature of the account on this platform and the use of hashtags to bring the posts to the notice of a wider public than just my followers. The Facebook posts were public at the time of posting, but still only elicited comments or likes from people I knew. Except for What Remains, all pieces received more 'likes' than comments, and comments were more likely on Facebook than on Instagram. More abstract pieces got less feedback, possibly because people found them less relatable than garment-based pieces, or possibly because they were more challenging to photograph. The piece that got the most response was How am I Feeling? and I feel this is because it is a recognisable garment and was photographically arresting. It also featured faces, which draw in people's attention. The least liked was the piece 4898 Likes, specifically about this subject. This may have made people think about mindlessly clicking 'like', or

that people did not like the piece. This highlights how difficult it can be to interpret something as simple as a 'like', and Facebook have bought in different emojis to allow more nuanced comments. However, they are still only a simple click. The sharing of the work online was another part of testing out the value and emotion of online responses, similar to the #knittingfoundinstroud piece, and as such was a more useful part of the research than an in-person exhibition. While some commenters offered considered and detailed responses to pieces that had taken time and effort, most were content to simply click.

5.4 Conclusions

Using knitting as an interpretative tool and research method has had several benefits. Hand-knitting is a slow process and embodied, and the time involved allowed a contemplation of concepts and ideas that is different even to other practices such as working through ideas in a sketchbook. In this process, many of the ideas were initially conceived during the knitting process and then refined in sketchbook and design work. The difference seems to be in allowing concepts to develop, not trying to consciously work them through. Guy Claxton's research, cited by Carl Honore, suggests that slow thinking produces different brainwaves to the fast, logical decision-making thinking. They are more intuitive, and Honore suggests allowing ideas to "...simmer at their own pace on the back burner..." allowing for more "subtle insights" (Honore and Brett, 2005, p.105), which I found with the knitting process. This contrasts with the fast response expected in digital communications, where reactions and ideas are communicated instantly, and posts quickly pass into obsolescence, gaining no new comments. Sennett believes that makers think while making, not just in the design process or after the making is complete (Sennett, 2009, p.7). This certainly occurred in my making process, and this was recorded in a research diary and subsequently reflected upon in an autoethnographic process.

The tactile nature of knitting has been important both in the design, to explore the concepts and to allow more understanding of the issues. The use of different fibres and yarns engaged my tactile senses allowing me, the maker, to feel some of the concepts being considered. This was particularly noticeable in the Self/performance jumper, where using fibres with different characteristics and spending time with them and how they behaved gave enhanced insight

into the concept being considered. In some cases, it was only working with the materials that gave these insights, they were not part of the design process. This applied to 4898 Likes, where the fragility of the individual stitches and the time involved in presenting them offered an unexpected layer of meaning around the fragility of dividing our gifts, as a single like could be. This clearly draws on Heidegger's theories around learning through making, where we gain an understanding of the world through handling objects (Bolt, 2010, Loc.148). His concept of "handlability" is especially relevant, suggesting that greater insight is gained through handling than through only theoretical engagement (Bolt, 2010, Loc.1408,1450), and it was only through handling the materials and working with them than some of the insights developed in this research. This requires an openness to the potential for ideas to emerge through this "praxical knowledge" (Bolt, 2010, Loc.1464,1499,1520,1575). The pieces can be seen in Heidegger's terms as a co-production of the equipment, processes, materials and the maker (Bolt, 2010, Loc.1818) and Bolt explains this as the interaction of the intelligence of these elements (Bolt in Barrett and Bolt, 2010, Loc.750). This method could be applied to research on any topic, but in this research it had an extra aspect of being used to explore ideas about knitting itself. The research is exploring if the process of knitting can offer the maker some tools for dealing with a digitally-mediated environment, and by practicing knitting as part of the research I have experienced some of these elements directly. Many of the pieces applied features of social media, such as lack of control, long term commitment, limited end results and variable feedback, to knitting, to explore the effects and contrasts. This adds information to the research above and beyond what is discovered about the concepts being interpreted in the specific pieces of work. I have allowed my knitter self, that part of me that is influenced by the process of knitting, to contemplate the concepts being developed.

A further opportunity to reflect on this concept has been found in the 2020 Covid-19 outbreak. As the country went into a full lockdown, I noted that what I could knit changed. Initially I could not concentrate as there seemed too much to be concerned about. Plain knitting seemed to offer calm when, as noted in my reflections, I "...was wondering whether we had enough tea bags." (Appendix 1). After two weeks the situation stabilised, and my knitting needs

changed to wanting a complex, distracting pattern. I ended up knitting a soft toy, and some Fair Isle. I found that the process of knitting, as well as being a tool for interpretation, could be a tool for indication, a bellwether for my broader feelings. Also, even when I stopped knitting pieces specifically for research, time spent knitting still provides productive contemplation on the research, and I continue to note these thoughts down.

Exploring ideas through knitting, and even trying to communicate through the objects seems to use different intellectual layers. In some ways, less cognitive, more sensitive, accessing 'how you feel'. When people respond to knitting, it is often with an instinctive response, perhaps accessing the "Being" that Heidegger talked about (Bolt, 2010, Loc.127).

Chapter 6 Discussion and conclusions

So far in this thesis I have looked at the existing literature around hand-knitting and brought in important research into the effects of living in a digitally-mediated society. In the conclusion of chapter two I have outlined the concepts and questions that emerged from this review and analysis of current research. In chapter three I set out how the methodology had developed into a novel mixed method, using knitting as an investigatory tool to research itself. Chapters four and five detail the primary research, how it answers the questions and gaps in knowledge identified in chapter two, through both a textual and practice analysis. The conclusions draw out the important aspects, building the concepts of a knitter self, and the features this has. This chapter reviews the data gathered as part of the research and collates the theory that has emerged from this information. It draws together the important aspects of the contextual review, the textual analysis and the practice, before indicating the conclusions and new knowledge that have been developed through the research.

The chapter is in two parts. In the discussion section I detail thematically the character of the *knitter self* that has emerged from the research and the important aspects of this character, explaining the major variances from the selves presented online. The second section draws conclusions from these discussions, how they answer the research questions, and what contributions to knowledge this research makes.

6.1 Discussion

6.1.1 Hand-knitting's position in a digitally-mediated society

As Turkle suggests regarding the contrast of virtual against real life, it is not a dualistic issue, but about getting the best of both worlds (Turkle, 1997, p.238).

While this research does not imply any causation, it is notable that hand-knitting saw a resurgence that began in the early 21st century, blooming at around the same time as the mix of social media and smartphones took off in 2007.

Through the research the concept of the *knitter self* has emerged, an identity that encapsulates the approaches and skills a hand-knitter may develop as a result of practicing the craft, and that also enables them to negotiate the influences and pressures of a digital environment. This is the idea that we knit

practitioners have an aspect of ourselves that is 'a knitter', that is at its most basic is someone who carries out the craft. This is not about assigning labels, which are potentially divisive, but about qualities and resilience developed through practice. In my interviews with professional practitioners they concurred with the value of knitting, with Rachael Matthews explaining how for her "...the indescribable knowledge that you develop through a practice with the handmade is more valuable than any text book advice." (Matthews, 2020) and Celia Pym stating "I do think it gives you a sense of control and purpose that is very different, and it's [...] empowering." and "I think it's really an extraordinary resource, if you [...] understand that you can make things with your hands." (Pym, 2020). It is also important to note that this was a small-scale study, and the results may not be true of all knitters, and in line with the methodologies that influenced it, does not seek to make large scale generalisations.

6.1.1.1 The knitter self

I would like to start by outlining the characteristics of the knitter self. These characteristics are built on the evidence I found from the testimony of knitters I spoke to, and the experiences and knowledge that came through practice. Sennett believes skills from making positively affect how we interact socially (Sennett, 2009, p.289) and this is at the heart of the knitter self, where skills learnt from knitting positively affect who we are in a wider context. Contrast this with Twenge's suggestion that an increase in digital interaction, especially postsmartphone, has led to a decline in social skills that extends beyond the online environment (Twenge, 2018, Loc.1037,1303). The knitter self often starts early in life, through exposure to a knitting heritage and has a sense of community and continuity. This gives the knitter a set of standards or values. This community shares knowledge, like Goffman's teams (Goffman, [1959]1990, p.88) especially visible in the coded elements of a piece of work other knitters will understand. In Fiona's case she created a piece of knitting where elements of the design, from the yarn chosen to its ultimate purpose and location were a reminder of her mother. This is a very involved example, but even an everyday piece of work may be understood as more or less complex by a fellow knitter. The knitters mentioned techniques in interviews without explanation, as being a fellow knitter, they knew I would understand. When I showed the Self/performance

jumper to fellow knitters, the discussion focused on technique more than concept. Non knitters will understand a piece on one level, but it seems the knitting community has its own code, beyond just "k1, p1, k2tog". This coded mode of communication is also found online as a way to manage the broad audiences, giving false or coded information, that insiders would understand (boyd, 2014, p.46). Online users may alter what they show of themselves for different audiences (boyd, 2014, p.38; Miller, 2016, pp.25-26) and knitters may do this within their work. They show the technical ability to fellow knitters, and the 'useful garment' to the general audience. However, instead of this representing multiple selves, it appears to be layers of expression of the knitter self, 'useful' to a non-knitter, 'skilled' to a fellow knitter. In my Knitting 2018 piece, I was happy to encode my own events within a piece of knitting but did not make them public. This echoes how an observant knitter may deduct the mood of a fellow knitter from the tightness of their knitting. In this piece I was making these varied moods more explicit through colour-coding the events. In other work, such as Self/performance, a knitter would be more likely to understand the characteristics of the yarn than a non-knitter, as I found when sharing the work.

Knitters feel themselves present in the work they make, and identity is expressed in these objects. In What Remains I questioned what, if the maker was in the object, had I destroyed? I was aware of destroying my time in making and it demonstrates the level of embodiment in these objects. The 'kinks' in the yarn of the unravelled bootees carried an evocation, a memory of what they had been, but maintained hope that it could become something else. However, it was still my time that had been undone and discarded. The embedded time, the sense of a piece of the knitter's life was intrinsic in Knitter vs. Twitter. The laborious nature, coupled with the daily repetition and lack of control over what I knitted raised questions over the benefits of this being hand rather than machine knit. What was different was my time embedded in the piece. This is a form of Gell's "distributed personhood" (Gell, 1998, p.231), the knitter self embodied in the knitted object, and the agency is that of the knitter affecting anyone encountering the knitted object. While a technological object may contain something of its original maker, it can develop an anthropomorphic character through its functionality (Turkle, 2012, p.xiv). This feels more

manipulative than the 'character' and narrative a much-loved sweater develops over time, that may have begun with the personhood of its knitter. Perhaps the idea of objects as "distributed personhood" (Gell, 1998, p.231) has trained us over time to be open to machines and they are simply part of the same continuum as a knitted sweater being representative of the maker.

The knitter identity is internally driven but is influenced by society causing some self-doubts due to negative societal opinions of knitting. However, a knitter's internal values may offer some resistance to this and also the knitter is much more in control of what they display. This will be developed further when discussing mistakes, but here, whether to show one's knitter self is in the hands of the knitter, and they can take pride in a well-received object. My use of the wording 'good enough' on Self/performance reflected those doubts expressed, but also was an explicit form of identity display. Any self-doubt is externally influenced rather than the interior knitter self and an alternative interpretation of the Self/performance jumper is that it should be worn with the soft Merino side to the inside, with the comfortable self-image surrounded by the harsh negativity on the exterior. The self-doubts would be expressed in the wording only seen by the wearer when looking in a mirror, and less clear to the outside world. This picks up on Cooley's 'mirror self', where self-perception is altered to fit the views of others (Jones, 2015, p.102) and on Rogers' concept that we can only be ourselves if we unite our ideal and perceived selves (Rogers, [1967]2011, pp.233). The knitter self appears to be more comfortable with itself than the digital self. It has an ideal, or 'hoped-for' self (Zhao, Grasmuck and Martin, 2008) but unlike the online environment, for the knitter, potentially achieving their ideal is in their control, often with the support of their community of knitters. They can practice, try new techniques, and learn from peers which are all elements of the toolbox of skills available to the knitter self. In knitting, society influences how we may view knitters and knitting, but there is a transparency and a fellow human understanding.

In contrast to Aiken's "cyber self" (Aiken, 2016, Loc.2862), the *knitter self*, although aware of external influences, is less manipulated by others. The performance aspect is found more in the gift than in public knitting. This research has found that public knitting appears to be for the self and not curated for others, except to control interaction. While this performance aspect

was public and an explicit statement of their knitter self, it seems to have been done for the benefit of the knitters themselves, either to pass time usefully, or to improve mental wellbeing. The public knitting was not about what others thought, which differs greatly from online performances of the self (boyd, 2014, p.62; Greenfield, 2015, Loc.2019). There was no evidence of my knitters feeling the need to perform for different audiences (Goffman, [1959]1990, p.123) or avoiding showing their knitter status publicly. Public knitting was an inward focused activity, differing from SNS, which tends towards outward focused display, crafted for external approval (Miller et al., 2016, p.158; Twenge, 2018, Loc.40,68). Public knitting is not being done for 'likes'. Rogers' idea that creativity is something done for self-satisfaction is also relevant (Rogers, [1967]2011, p.354) as the interviewee's knitting in public is being done for the maker's piece of mind and enjoyment and not others. However, when making pieces for this research I noted that I was reluctant to knit them in public, in some cases, such as It's Just Fun or the Self/performance jumper, they were large projects that were unwieldy to carry, but I was also reluctant to take out in public even small items such as the mittens for How am I Feeling? I reflected more broadly on what I would knit in different public situations and found that other people's reactions were a consideration. I suggest this comes down to two factors. Firstly, the amount of conversation about my knitting I wanted to engage in. The research pieces would have prompted conversation and explanation and if I was not in that frame of mind, I would not show them. Susan also commented that she would knit squares for her own wellbeing, but if asked about them would comment that it was 'just a square', to politely shut down conversation. Secondly, I would consider what type of knitter image I wanted to portray. Utilising challenging techniques would show more skill to fellow knitters. Socks demonstrated practical useful items, but also can look complex to a non-knitter. It seems clear to me that I was choosing how much to display. I also felt in control of this decision. This seemed to contrast with much of the evidence from the interviewees, who mostly stated their willingness to knit in public, but did not say what they would knit. I believe this may be because I especially focused on this as a concept, others may not have considered it. Heidegger, cited in Bolt (2010) suggests that when using objects every day we may cease to notice them, and in making an art object it takes it out of the

everyday and raises awareness about the object (Bolt, 2010, Loc.1396,1401). Goffman talks of areas of professional performance, where reputation needs to be upheld (Goffman, [1959]1990, p.43) and this was not evident in what the interviewees chose to knit, but they were aware of having a 'knitter reputation' in the quality of objects they made, as is clear in the later discussion on mistakes. This shows an awareness of the judgement of others on their work, so the explanation for my awareness of this performance is that most of the knitters discussed their knitter self in terms of the objects they made, and this may be a reflection of that object focus. If one accepts the embodiment of the maker in the object, as the knitters largely did, one can extrapolate the judgement of the object as a sign of knitter reputation for the knitter self. It is a realised, not idealised, self because although there is a separate 'ideal knitter', the knitter self is not necessarily aspiring to it, but uses it for inspiration, and has a realistic idea of their own ability.

6.1.1.2 Usefulness

The concept of usefulness is a key aspect, as a motivation and a benefit to the maker. The knitters were very keen to ensure items were useful, demonstrated through the efforts taken to make an appropriate gift, and the enjoyment of active and constructive feedback (Gable and Reis, 2010), where an item was seen to be used. There was a sense of the individual being in the objects made, through the time taken and feelings embodied, and therefore the usefulness of these objects confers this on the maker.

Any obligations to use an object is an obligation to the knitter self and this is seen in the sense of permanence of the items. Objects would be passed on if no longer wanted, not thrown away, contrasting with our technological objects which we may imbue with a sense of anthropomorphism while they are of use to us, but will readily dispose of. Items made by ancestral knitters were kept useful, even to the extent of finishing objects, demonstrating a need for use and a way this use can continue after death, as their objects continue to gain narrative. According to Bolt (2010), Heidegger believed technology causes humans to see objects only for what they can do, so called "enframing" (Bolt, 2010, Loc.1198), preventing other understandings from being revealed by the object (Bolt, 2010, Loc.1207). He contrasts merely theorising or observing objects - "present-at-hand" - with the understanding that comes through use - "readyto-hand" (Bolt, 2010, Loc. 2338), so for knitters, the slow process of making can introduce an understanding through use that may not be found through a bought object. A damaged, or broken item can only be "present-at-hand", but the knitter's fixing restores its useability, and through this use offers understanding of the world (Bolt, 2010, Loc.1450,1595). This phenomenon was also found in their tools, which were often passed on. They do not become a fixed, static memorial, but a living, developing, aspect of the knitter's continuing agency.

For the practice element of this research I created many objects that are not 'useful' garments and time has been spent making these. Some could be used, such as How am I Feeling?, Hand Me Down or Knitting 2018, some were objects only for display, such as It's Just Fun, or Knitter vs. Twitter and in some cases, such as 4898 Likes, What Remains and #knittingfoundinstroud I actively destroyed the usefulness of the item. Obviously, they had a role as research tools, but I was aware that in some cases I was spending time creating knitting that would, ultimately, spend more time in a box (not, I would add, in the back of the wardrobe 'knitting graveyard'), than in use and the longer duration pieces, Knitter vs. Twitter and It's Just Fun made me question if this was a constructive use of time compared to that spent on social media. For me the practice had benefits, of allowing time for mental processing and working through the concepts being examined, but could simply knitting, for no end goal have any purpose? This could be an area for future research. However, it does seem that a useful end product offers additional benefits to the knitter, including the satisfaction of completion, the choice of new projects and the control over that and the enjoyment of seeing an item in use and feeling useful themselves. As Turney notes, usefulness shows the knitter has a position in society (Turney, 2009, p.28).

The Self/performance jumper was made almost useless by my deliberate yarn choice; therefore, its role was to show identity, and possibly gain feedback, hence why I shared a lot of the making online and was interested in the feedback it had. Like an online post, the purpose of the piece #knittingfoundinstroud had been to gain feedback, so I found the lack of feedback more disappointing as it did not fulfil this goal and so felt useless. This was confirmed when I found less disappointment in receiving no feedback on

the toy sheep as someone may still have found them enjoyable and so 'useful'. This suggests that the goal of a social media post may be similar to the role in this piece of the single sock – to gain feedback. Therefore, a lack of feedback on a post can be equated with seeing a garment unworn, as an 'unliked' post would equally have not fulfilled its purpose. Lack of feedback on a garment can be tolerated if the garment is used, has fulfilled its purpose, as feedback can be insincere. This is the active nature of feedback seen as important by Gable and Reis (2010). Passive feedback, even if constructive was not seen as building relationships (Gable and Reis, 2010). Therefore, to an extent, the 'like' on an online post has the same role as using a hand-knitted gift in showing appreciation appropriate to the purpose. Both using a hand-knitted gift and a 'like' show support for the producer of the gift or post. These #knittingfoundinstroud objects randomly placed in the community were behaving like posts, and I did not get the community affirmation I had hoped for.

An awareness of the importance of the objects made is shown through the interviewees actions when they received handmade objects, which could be passed on, but not destroyed and should continue to have a use. In What Remains the piece attempted to explore through absence what was the 'essence' of a hand-knitted gift, and the objects were destroyed. What came through this was not a representation of the love in an object, but an evocation of people from the past and a sense of the loss of a useful object. This seemed clearer in an object that was no longer useful, highlighting what was lost. What remained was an evocative object, but it did not keep the sense of love remaining when the object was gone. The remains seemed too sad to be a reminder of love. In some ways this suggests that the memory of the love in a gift is almost stronger if nothing remains, than if a damaged or partial object survives. Pym talked about the problematic nature of damaged objects where "...maybe there's a feeling of guilt that it's become damaged or there is a [...] sort of stuckness, like the things damaged, but you don't really know what to do with it, because you definitely don't want to throw it away..." (Pym, 2020). Given the importance of use, the partial object could also be defined as one that has lost its use: several knitters preferred to give an item away than be reminded of it not fulfilling its purpose.

Gifts were often donated to charity or handed on to other children. Even if an item was cherished, it was passed on to avoid it being damaged by nature, such as moths. If it was a special item, this was carefully preserved, but still in some cases brought out for special occasions such as a christening shawl passed on through generations, or a blanket still used on a spare bed. The charity shop has the role of a site of rebirth for an unwanted knitted object, and was explored in *Hand Me Down*. In this piece the names and fading communicated the accumulating narrative and that the sweater continued to be a useable object. Again, this was an active and constructive response to a gift (Gable and Reis, 2010) and acknowledged the life still in an old object (Pym, 2020). While their objects are in use, the *knitter self* is still useful.

This sense of usefulness was also confirmed by the quantity of feedback received through the online exhibition - the more abstract pieces receiving less feedback. Gell felt that objects that were more difficult may be more effective (Gell, 1998, p.23), but this small feedback sample did not immediately demonstrate this. However, some items only raised issues and ideas for people through an absence, either of use, or of the object itself, demonstrating their use as a thought-provoking object, rather than a wearable item.

6.1.1.3 Control

In contrast to a digitally-mediated environment, knitting gives the practitioner a sense of self that may defend against the external influence that is a feature of digital communication technologies (Greenfield, 2015, Loc.1744,4085). This highlights the importance of the control the knitter has over process, effects and environment. The *knitter self* is an active, not passive character choosing what to knit, for what purpose or benefit and for whom. They are not passive recipients of information or choices and are not driven to continue by an external agent. In knitting, the finished object can make us feel good, but we soon move on to casting on the next project. These projects could be seen like new posts, always another one coming along. However, with knitting projects the knitter is not passive. They are in control of choosing when and what they knit next, they are not being bombarded by posts to keep up with, whether they like it or not. After a satisfying project one can stop, enjoy the satisfaction, and take a pause without pressure or 'fear of missing out'.

There is external influence on the *knitter self*, but this is from other people, not algorithms, or a desire to gain 'likes' and their toolbox of skills gives a knitter a sense of inner self and resilience that Rogers suggests helps to assess these influences (Rogers, [1967]2011, p.175). Such control can be seen in several areas and provides a keystone for much of the contrast knitting offers to the digitally-mediated environment, coupled with usefulness. It is one aspect of the toolbox available to the *knitter self*.

6.1.1.4 Audience and influence.

The knitters controlled how much to display to others and to what audience, contrasting with the online environment. This is evident in the response to mistakes, where the knitters chose whether to correct and to whom to reveal them, usually only sharing with a specific audience, or 'team', of other knitters, and not with the public. This control is in stark contrast to an online environment where mistakes persist and are out of the user's control, leading to selfcensorship (Turkle, 2015, Loc.4836; Greenfield, 2015, Loc.2034; Aiken, 2016, Loc.1294). The element of choice of audience is explored in the pieces It's Just Fun and Self/performance where I used the double knitting technique to produce a double-faced reversible item. It's Just Fun allowed a choice of which side to display of the knitter self – the light hearted, fun hobby, or the more obsessive. The Self/performance jumper also incorporated this duality. The effort performance can take was clear from the complexity of manufacture, with the double-faced fabric taking twice as long to make as a standard single-layer jumper would.

Despite external views of knitting causing some questioning, the knitters were comfortable in choosing when and where to be 'a knitter' and in many ways they also embraced external stereotypes, even treating them playfully. This was more common in more senior knitters, while younger ones were influenced by these societal views, a similarity with online behaviour. The ideal knitter was not a result of these societal perceptions but developed from other knitters the interviewees knew and admired. It was therefore more achievable, often with community support, alongside a sense of their own abilities. This contrasts with the online environment where the user may feel achieving their ideal self relies on external forces or a narrative outside their influence (Zhao, Grasmuck and Martin, 2008, p.1819; Carr, 2010, Loc.3436; Turkle, 2015, Loc.1432; Greenfield,

The feedback received on hand-knitted gifts was in some ways similar to comments received by users of social media, but the knitter controlled the audience for the gift and so tailored what was made for them. According to Zell and Moeller's concept that the impact an online response has on a relationship is affected by the effort involved (2018, pp.28,31), the gift of a like will not strengthen a relationship in the same way as a knitted gift would, because of the time and effort involved in making the gift. The hand-knitted gift shows empathy and thought for the recipient and is intended only for them, emphasising the benefit of a gift over a show of online support, such as a 'like' or 'thumbs up'. The knitted gift is narrowcast, unlike the broadcast nature of much of social media (boyd, 2014, p.62). This may be the reason for the common occurrence of the less difficult, but less satisfying 'like' rather than more effective feedback and may explain the lack of response to #knittingfoundinstroud as these gifts were broadcast. The audience for them was unknown to me, and so such a small sample may simply not have reached an appreciative audience.

The knitters were influenced by the comments and perceived opinions of others, in a similar way to users' responses to the algorithmic feedback on SNS and that which Jones (2015) found with people posting YouTube videos. However, the difference lies in who controls this and the level of understanding of the feedback. Knitters knew some work would not be liked or was not as good as something another knitter could do – they had received feedback, or noticed themselves. This was open and not hidden, and while they changed their behaviour by, for example, no longer knitting for a particular recipient, they continued to knit, and often used a better knitter as an inspiration in a positive way. This suggests a good sense of core self by which to assess external influence (Rogers, [1967]2011, p.175). It backs up Corkhill's idea that making

improves self-belief against external pressure (Corkhill, 2014, p.53) although the knitters were still very self-effacing. This judgement on gifts could be a cause of a similar self-curation of the *knitter self* as the online self, but what does differ is that not all knitting is for others. Social media is an outward facing communications tool. Knitting of gifts is also outward facing, communicating the identity of the *knitter self* to the recipient, but there is also the private enjoyment of the process, bringing its own benefits.

Knitting offers a safe space, that is internal and private, while online spaces are often public and outward facing. The knitting process created this space, allowing a focus away from problems and was portable enough to be taken anywhere it may be needed. Of course, technology such as the smartphone now means that technology is always with us - Miller et al.'s "Transportal Home" (Miller et al., 2021, pp.219-220) - but it is worth noting that the knitters in this study did not report turning to their smartphones. The knitters suggested that knitting was a space for them, that was not public or judgemental. The knitting practitioners' space does not seem to exclude those around them, as Miller et al. suggest smartphone use may do (Miller et al., 2021, p.219).

Knitting is often done alone, an aspect of the safe environment, and several of the knitters found this calming and enjoyable. This is notable as solitude is now rarer among those with high levels of connectivity, who are always receiving input and feedback (Turkle, 2015, Loc.1122). Two pieces of my work explored this concept of the safe space. How am I Feeling? gave the knitter a comforting mask to show the world, while they retreated to the safety of their knitting, with the words of comfort inside. Wearing them is of benefit to the wearer, and shuts off the outside world, as a metaphor for the effect knitting can have. They were portable, like the knitting, as well as being soft from a tactile perspective, something Winnicott found helpful (Winnicott, [1982]2007, p.5). The wearer controls when they retreat to this space, as with knitting. It's Just Fun also utilised the idea of a safe space, in this case more substantial, but with more of the sense of insiders and outsiders. The social spaces inhabited online can be a place to retreat to, but they still make demands on the user to be 'on show' and to be playing a public role, and Miller et al.'s "Transportal Home" concept blurs public/private boundaries (Miller et al., 2021, pp.219-220). The knitter can experiment in their private knitter space, either alone, or with fellow knitters.

6.1.1.5 Attention and focus.

While the online environment is one where information is short-lived and distraction almost a feature, knitting is often put forward as meditative and positive for the makers attention. However, this research suggests that although knitting can be reflective and allow contemplation as the research method used has evidenced, it is complicated, as only some knitting is complex enough to hold the knitter's attention. For an experienced knitter, knitting is not inherently attention holding and plain knitting is often done while multitasking, but complex patterns required focus. The complex knitting may be utilising similar ongoing rewards to the online environment, as difficult areas of a pattern are completed.

Capturing my thoughts and feelings while knitting my research projects made me aware of the variety of attention levels knitting requires, and in particular two long projects that required an intermediate level of attention. Both *Knitter vs. Twitter* and *It's Just Fun* took a long time to construct, with the designs requiring me to look at the work and the pattern. In both cases I noted that it was becoming frustrating. It was not plain enough that I could do other things, nor interesting enough to engage my attention fully, suggesting a certain level of interest required to hold my attention. What is important is that the knitter has control over what project they choose, and therefore the attention it will require, and where to place the attention if other things are occurring at the same time, and this is internally driven. During the early weeks of the 2020 Covid-19 restrictions, knitting provided a useful tool for me to assess my attention levels (Hanks, 2020), as the complexity of knitting I was capable of indicated my capacity to concentrate more broadly and changed with the developing situation, an area for further research.

The comfort found by some knitters in the process maybe because of the tactile nature of knitting. Winnicott's transitional objects are soft and comforting but are also a separate object to the child (Winnicott, [1982]2006, pp.5,130). The object allows a move from subjectivity to objectivity as the child gains awareness of objects apart from themselves (Winnicott, [1982]2007, p.135).

Perhaps creating these separate, soft objects allows the knitter to apply objectivity. As discussed, knitters are aware of themselves in the knitting, but it is separate, sometimes given away. This may offer an increased level of objectivity on life, especially given the time taken on these objects. This was evidenced by the making process of Knitter vs. Twitter and particularly the companion piece Knitting 2018. In making these pieces - the first as events were taking place, focused on digitally controlled content, and the second reflectively, including more personal material - allowed a consideration of the year that had passed and an increased objectivity on the events. The work undertaken for Knitter vs. Twitter during the year slowed me down, allowing more reflection on the information I was consuming. It was also a contemplative moment to 'cast off' the year in December 2018, giving a sense of completion. By knitting the Twitter moment, I had time to absorb it. However, knitting the subsequent blanket, based on the spreadsheet of data gathered over the year was much more powerful. It allowed a period of reflection on the whole year, to gain perspective on actual rather than perceived events and changed how I felt about the year. It was a definite move from subjectivity to objectivity, gaining a distance from the year through the object. Winnicott's talks of how this helps to develop a sense of identity (Winnicott, [1982]2007, p.107) and I was aware that I had developed as a different person through the events themselves and the making of the blanket, and the process could be seen as part of the continuing process of development of the self as Rogers indicates (Rogers, [1967]2011, p.122). This would not have occurred if I had simply 'tweeted' out my events as they happened, as I found reflection is less common on social media. The object itself, and my awareness of thoughts and feelings during the making process embedded therein, also has a continuing reflective role, both visually but also in its status as a useful physical object.

As the knitters I spoke to were self-selecting, it is no surprise that most were keen knitters, who often spent considerable time on the craft. The terminology they used varied between light and jovial to darker phrases about addiction and obsession. They did not want to stop knitting, even if they could not find recipients for their products. This has clear parallels with some of the concerns being expressed about phone, internet or SNS use, with similar terminology being used (Turkle, 1997, p.30; Twenge, 2018, Loc.732). Working daily on *Knitter*

vs. Twitter did become a habit or routine for me, like checking social media, partly because I didn't have to think about what I was doing. The difference seems to be in the benefits the users found and the motivations for continuing. As discussed, knitting offered a safe space for the knitters, sociable, calming and giving a sense of control, and thus the opportunity to enter Csikszentmihalyi's flow state (Csikszentmihalyi, [1992]2002). Using SNS can have many benefits, allowing self-expression and a way of connecting with likeminded people, but underneath it lies the design of the product that utilises behavioural conditioning to make us repeatedly check for new content (Carr, 2010, Loc.1852,1856; Krotoski, 2013, p.38; Lanier, 2018, pp.11-13,21). It's Just Fun drew out these concepts, providing a safe interior space that acknowledged the need to continue the practice, and the exterior performance for others. I experienced my own frustrations when I had to reduce the amount of knitting for a period while making the piece and the sense of being denied enjoyment. The piece also became too unwieldy, something that would only have been noticeable because it was hand, not machine knitted, and this was a suitable metaphor for overuse. Knitting is an active act, over which we have control of its speed, when it is done, and a sense of completion.

6.1.1.6 Permanence.

As well as having the choice over what to knit, the knitter has control of the completion of an object. Online there is no sense of completion, as information is constantly updated from an external source. In *Knitter vs. Twitter*, I was not in control over what I was knitting as I was a passive recipient of the content the algorithms produced, like the users of the application. Also, I could not decide to stop, unravel the piece if I did not like it or finish when I wanted to. I chose an end point for this piece, but it could have continued indefinitely, highlighting an issue with social media where the information never ceases, there is no end point, no satisfaction in a finished object, or reflection on the time spent in producing it. Passive use of social media has been linked to decreased satisfaction and an increase in envy (Sagioglou and Greitemeyer, 2014, p.359) and the passive reception of a continual stream of data may also not be helpful. Once a knitted item is completed, there is still an element of control over its use. Control over the physical objects' survival and therefore usefulness lies in the owners' hands, and if this is not the maker, they may have given

instructions on upkeep to the recipient. If it was something they had made and given away the interviewees wanted to retain some control over the item, either keeping it in the family, or giving care instructions. This attempt at control contrasts with digital data, where control over the permanence is often ceded to a third party (Krotoski, 2013, p.44). I investigated this in #knittingfoundinstroud where, once released 'into the wild', I had no control over the outcome of the objects. With the pieces I left, their use was to get feedback, which was also outside my control, and people chose not to respond. This sense of exposure to the whims of others seems part of the nature of social media. In knitting the spreadsheet for Knitting 2018 I created a solid object that had a further use as a warm blanket. This gave a physicality to the idea of the past year that was not found in the spreadsheet. Both require some effort to maintain their permanence, but the digital content would require no effort to destroy, whereas the blanket would, as even casual environmental damage could be repaired, showing its value (Van Deijnen, 2020). Also damage from use can be seen as the item achieving its potential as a useful and used object, even if there is sometimes dismay at a cherished item of clothing wearing out. Online communications do not continue to be useful, even though they may persist, and are often time limited. In the spreadsheet, I noted the data, but it then ceased to have further use. In the blanket I felt the data.

6.1.1.7 Concern and empathy.

Wanting objects to be used meant the maker thought carefully about what was made for others, trying to ensure it was right for the recipient, demonstrating a thoughtfulness and empathy. The process of making 4898 Likes highlighted the fragility of the 'like'. The process of separating the stitches, that each took the time equivalent to clicking 'like' to make, resulted in something delicate and easily lost. The finished image was fragmented, not long-lasting, and was no longer useful as the knitting lost its purpose when spread out. This illustrates the concentrated empathy within a piece of knitting, which is a long-term commitment, with a potentially useful outcome. The 'like' is a short-term show of support but are liberally spread out amongst posts. The commitment to time is clear in a knitted gift, and the knitters were aware of what this meant. They noted that thought had been put into the work, including thinking of the recipients as they knitted. They reflected on knitters from their family who had

made items for them, appreciating the time and emotion involved now they had experienced it as a maker themselves. This shows that not only can spending the time knitting for someone demonstrate empathy for another person, but the knitters were also conscious of this. The lack of response to #knittingfoundinstroud means not only that I cannot know what the finders felt but possibly that people were not aware or appreciative of the effort that went into making the objects. I feel that the experience of knitting also offers an increased awareness of what goes into making by others, heightening a sense of empathy, possibly through the mechanism of shared circuits, where one reacts to things you have experienced (Keysers, 2011), and it is possible that a knitter may have responded differently if they had found any of the objects.

This discussion has brought together the evidence to describe the features of the *knitter self* and outlines the important elements of the toolbox it offers.

6.2 Conclusions

The thesis examines hand-knitting in a society where communication is often mediated through technologies such as social media. It explores and develops the concept of the *knitter self* which is an identity developed through the practice of knitting and has skills and effects that may offer resilience to the effects of a digitally-mediated society, because they are internally, not externally driven and largely under the knitter's control. The study researches this through the development of a novel mixed methodology that incorporates hand-knitting as a research tool. This use of practice offers insights above and beyond what could be established through theory alone, and positively exploits the role of the researcher and their own *knitter self* in a process I have called 'autoethnoknitting'.

The research questions posed at the outset are concerned with two areas.

What is hand-knitting's position in a digitally-mediated society, is it influenced by or an alternative to the psycho-social effects of digital technology?

Can hand-knitting as an interpretative tool be used as a method of reflexive research?

Underlying these are questions around whether hand-knitting offers a different set of experiences, and therefore effects on the self, than digital technology does. Is the self that develops different to Aiken's concept of the "cyber self" (Aiken, 2016, Loc.2862), which is the self that has developed in "cyberspace". She describes it as "...who you are in a digital context. This is the idealized self, the person you wish to be..." (Aiken, 2016, Loc.2862), and goes on to explain how it is the self that "...interacts with others..." and is "...a highly manipulated artifact that has been created and curated for public consumption..." (Aiken, 2016, Loc.2862). The concept of the knitter self is the term I am using to describe the self that has developed through practicing knitting, is influenced by the effects of knitting, and interacts with others. The post-2000 revival featured public knitting prominently, and could this be a sign of the influence of technology, if this public knitting is as performative as our online presence can be, and are knitters comfortable showing their knitter self in any situation? The performance of the self through giving hand-knitted gifts makes connections with others, as is done online, but is it different in any way?

It is important to reiterate that there is not an assumption that technology is inherently 'bad', or negative. There are considerable positives that are offered by digital communications in allowing people to keep in touch and build community. However, this thesis has, by its very nature, brought out some areas that may be problematic in order to examine how a craft such as knitting can help to mitigate them.

6.2.1 The methodology

The methodology draws on four existing methodologies to form a novel approach.

• From oral history it uses personal testimony interviews, and it is appropriate because oral history is interested in issues that are of interest to the study, such as identity and performance. One issue from the oral history methodology is how the researcher makes their position clear in the research and I feel by using my own practice this has been achieved in this case.

- From grounded theory it draws on the iterative nature and the concurrent data collection and analysis through a cyclical approach, using all sources, including literature, as data for analysis.
- From autoethnography it takes the idea of drawing on personal experience and being an insider as I have put it, it is 'by, for and about knitters'. It was my knitter self conducting the interviews, and we were in a safe knitting space. I then allowed my knitter self to carry out the analysis through the practice. My use of knitting as a tool utilises the role of the researcher, and unites theory and personal experience with the experience of others for confirmation or challenge. The autoethnographic writing allowed me to reflect on what had been useful in the practice diaries and to integrate thoughts that developed from other areas, such as my use of social media.
- From practice as research, it draws on Bolt's interpretation of Heidegger's 'material thinking' or understanding through doing. I would describe this as practice informed, not led, as the process is the research, and the objects are not expected to carry the weight of explaining the outcomes. The materials, my role as a knitter, the process of knitting and reflection on the final product all contributed to the concepts produced. This was through the design of the objects including selection of materials used, and the methods of use, to provide reflections through the process. The objects, such as Knitting 2018, symbolised the process, but the process was the research and elevates pieces above being merely a communication of data. The materiality of the process, drawing on Heidegger's concepts around "handlability" (Bolt, 2010, Loc. 1408), allowed concepts to emerge from the nature of the materials being used, how they behaved and how they felt, such as the Self/performance jumper and 4898 Likes where insights only emerged through the process of working with the materials. Physically working with the pieces for a period of time is important, both in embodying the maker in the work and in developing concepts from and truly appreciating their materiality. The process of knitting is a tool for experimentation, synthesis and analysis.

The research method that has developed is iterative and reflexive. The data was gathered from existing research into the two main areas articulated in the research questions, and then synthesised, and from personal testimony interviews. This data was then analysed both textually and through practice and the results fed back into further analysis, until conclusions and outcomes could be reached. The final objects were also tested on an audience, many of whom were not practitioners, using the other medium under scrutiny, social media. This was done through online sharing and gave feedback both on the pieces, and what it was like for me as a knitter to share these objects through digital technology. These are reflections on my own social media experience, rather than rigorous experiments, and have been treated with appropriate caution in conclusions drawn. They offer is one knitter self's view of using social media. The knitting practice differed from most knitting the interviewees would regularly do, as it was working largely to my own designs, and without the aim of a wearable garment, in common with other textile practitioners like Celia Pym and Rachael Matthews who use the craft in a more exploratory fashion (Pym, 2020; Matthews, 2020). Although not a direct question asked of the knitters, indirect evidence suggests the majority worked to commercial patterns and the idea of producing a usable item was important for many of them. However, the act and the process of knitting remained the same, and I was able to experience many of the effects around, for example, focus and performance, as any other knitter.

Whilst the method proved successful in this research, there is always room for improvement or development. To respond to specific questions from the interviews the method could be improved by making the selection of areas of interest less intuitive, possibly through conventional coding of the text before developing pieces to explore these further, although in this research it was useful to have two methods running concurrently as the processing time of the knitting worked alongside more intensive 'written thinking'.

This approach is novel because it combines four existing methodologies, and uses the knitting process as an interpretative tool to try out emerging concepts and integrates the outcomes into theory. This 'autoethnoknitting' uses my position as a practitioner and researcher as a way of self-interviewing which addresses the issue of the role of the researcher and also the power dynamic of

6.2.2 Key findings

Two key findings have emerged from this research.

Firstly, that knitting is a very effective reflexive research tool because it allows for insights from the materials themselves and utilises the features of the *knitter self* to analyse the data, and it establishes the concept of 'autoethnoknitting'. It allows for insights above and beyond what could be established through interviews, by ensuring I, as the maker, was aware of and focused on specific, perhaps more subtle, aspects. This conscious consideration of the effects of knitting is the one major difference between this 'research knitting' and that undertaken by the interviewees. The theory that has emerged, and the conclusions that have been drawn could only have done so by using knitting in this position, as a process of experimentation of the concepts coming from the data. It allowed my *knitter self* to be present in the research, and to contemplate issues that come from the personal testimony, but that may not have been directly considered by the interviewees, only inferred.

Secondly, it establishes the concept of the *knitter self*. More than just being a practitioner of a hobby, I am using the concept of the *knitter self* to encapsulate all the aspects of what practicing knitting may do to our psychosocial being, and how it may offer benefits in how we negotiate an increasingly digitally-mediated environment. Pym described hand-making as "...a resource you have within you..." (Pym, 2020) and it is not being suggested that it is a therapeutic tool in any medical sense, but a way of developing skills for resilience and understanding of the self. Rogers' proposal that one needs a clear sense of self and values to temper external influence is important (Rogers, [1967]2011, pp.118,175), and hand-knitting could be a way to develop skills to be resilient to some of the negative aspects of digital technology.

The *knitter self* is an internally driven identity, with some societal influences and with gains to the self that offer skills to deal with an externally driven online environment. The knitter knits to have control in their life, to be useful and gain

the benefits shown in the toolbox of skills that hand-knitting enables through practice. These include:

- a comfortable sense of the identity of being 'a knitter', also demonstrated through the objects made;
- a sense of empathy with others, shown through giving time and thought in making hand-knitted gifts;
- control over display of their knitter status, and the audience for this, including making and mending mistakes;
- a sense of producing a useful object, and therefore of being useful themselves:
- a sense of continuity through hand-knitted objects.

Overarching all of this is that these skills are internally, not externally driven and this is important for the contrast to the digital environment. Knitting offers contrasts in several areas.

- The knitter controls the audience for their output, and is less influenced by external forces.
- The knitter chooses the level of attention needed for their making, which is not externally driven.
- The output of a knitter has a physicality and ongoing presence and agency.
- The need to create useful objects ensures thought, empathy and consideration for the recipients, which goes beyond what may be in an online response.
- There is an increased sense of control over the knitter's environment with a safe knitting space to retreat to, to choose what to create, what to correct, what to pay attention to.
- Knitting encourages supportive sociability.

To return to the extended questions posed at the start of the conclusions, knitting does appear to offer a different experience and impact compared with the digital environment. Knitters seem comfortable with the self that develops and allowing this to be seen, but this research did not find evidence that public knitting was part of a performance, as is found online, because it was largely done for the benefit of the knitter. The connections made through

knitted gifts differ to online activities through the strong presence of the maker in them and the level of thought and consideration contained within.

In answer to the research questions, the position of hand-knitting is to offer an identity and toolbox of skills to help build resilience to and negotiate the contemporary society that we have found ourselves in. Knitting is a successful tool for reflexive research through material thinking, reflection time and positive use of the role of the researcher.

Turkle talks of using virtual environments to experiment, then bringing the results back to offline life (Turkle, 1997, p.263). This research suggests knitting can offer similar effects, allowing space to explore and play which impacts life away from the knitting chair. Because of the inevitable difficulties with correlation and causation, one cannot derive from this research whether knitting definitely causes these characteristics, or if individuals who already lean this way may be more inclined to take up a craft like knitting that seems to embed them. As a small-scale project, this study is a starting point for further research.

6.2.3 Opportunities for further research.

As this is a small-scale research project, with appropriately tentative emergent conclusions, the proposed concepts could be explored further and in other ways.

The scale did not allow for targeting of audience, and as it deals with areas of identity, further studies on knitters with specific backgrounds or ages could be undertaken to test if similar results could be found in, for example, younger knitters or more active technology users. It could also be approached from a cyber-psychologist's angle, rather than a knitter's one, to see if this gave different results, possibly looking at users of digital media who knitted, rather than knitters who used digital media. Specific areas such as the idea of knitted objects as transitional objects helping people come to terms with issues could be further explored, which would need input from psychologists. The theories could be further tested by teaching non-knitters to knit to see if they gained some of the benefits of developing a knitter self that have been discussed. Many areas of interest arose, that there was not time to investigate fully, and many of the individual effects discussed could each be researched in more depth.

This research is focused on what knitting can offer in a digitally-mediated society, but does not suggest that other crafts or activities may not show similar benefits. The methodology of using the practice of a craft to test what it may offer to its practitioners could be used for other activities. Although many of the benefits found to the method were around researching knitting itself, it could be tried as interpretative tool for a non-knitting topic to establish if it were equally effective.

The main primary research for this thesis was undertaken before the outbreak of the Covid-19 pandemic, however during writing up the findings I have tried to include reflections and research that have emerged on an event that has accelerated our reliance on digitally-mediated technology. During the recent Covid-19 pandemic, knitting saw a reported increase in popularity (Mark, 2020; Wood, 2020), alongside other crafts, something I personally noted. The increase feels significant, and could be because of more available time, but could be a result of the effects discussed in this thesis. Popular press and early research papers suggest that although technology has been vital in maintaining contact during the periods of lockdown, there have been downsides. For example, socalled "Zoom fatigue" (Fauville et al., 2021) and Miller's views on video conferencing developing to accept its difference to real contact (Miller et al., 2021, p.225). This research would indicate the usefulness of knitting to counteract some of the downsides of the, albeit essential, increase in online communications. Obviously, these are early observations, but further research could explore this.

6.3 Contributions to knowledge

This research makes several contributions to knowledge. It uses the lens of digital culture to examine hand-knitting, which addresses a gap in knowledge, specifically proposing the concept of the *knitter self* that covers the idea of knitting as able to mitigate some of the effects of living in a digitally mediated society. The *knitter self* develops through exposure to a community of knitters, but is internally driven as its benefits come through practicing the craft. Knitting offers a safe space for the *knitter self* within which to develop, which contrasts with the online environment. Knitters have control over this environment, as well as over what to create and pay attention to; to make or correct mistakes and

The practice methodology is a useful contribution to craft/handmaking research as it has been shown to offer insights through materiality not accessible through theoretical analysis alone, and positively exploits the position of the *knitter self* through the concept of 'autoethnoknitting'. It is effective because the *knitter self* is at the heart of the research with the benefits discussed. The slow process can be reflective, allowing theory to emerge. The materiality of the process is important, especially when knitting itself is the subject of the research. It has value as a method of researching knitting, but also more broadly as an example of utilising the practice under consideration in the research as autoethnographic experimentation that offers more insight than interviews, observations, or contextual data alone.

This research has potential relevance to a broad spectrum of groups. The first of these would be anyone who uses social media. With further research for confirmation and clarification, hand skills such as knitting could be promoted as ways to mitigate some of the more negative aspects of digital communications, and allow people to enjoy the positives more. In academia, it offers a contribution to discussions around knitting culture, and for the technology community in discussions around communication issues, while other craft researchers could use, adapt and extend the methodology. More broadly, educational establishments could use hand making to help mitigate some effects of digital communications, something Pym agrees with, stating "I wish that, [...] knitting or craft or handwork was an essential part of primary education" because if you don't learn early "...it's hard to understand it, or access it" (Pym, 2020). I am concerned that many young people may not

have been around knitters in the way older generations saw mum knitting, so the concept may not be available to them. It could be encouraged as a way to develop a different mindset, for example in relation to making mistakes or showing care.

I am a knitter.

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Dates of interviews

All interviewees were based in the south-west of England and were interviewed by the author. Half took place in the interviewees home, and half in a side room of a knitting group.

'Emily', 2018

'Megan', 2018

'Fiona', 2019

'Amanda', 2019

'Julia', 2019

'Susan', 2019

'Peggy', 2019

Appendices

Appendix 1- Reflections on making

This appendix is a piece of writing based on my knitting notes made at the time of making combined with my sketchbook ideas as a way of reflecting on the making of each piece. I have used some of the text in the practice review, but have included the whole piece here for completeness.

I have found that while knitting, I am able to contemplate concepts more deeply than when, for example, working ideas through sketchbooks. As I usually have paper (my knitting pattern!) and a pencil to hand when I am knitting, I have begun to note thoughts and feelings that come through the knitting process to capture and explore this more. This method remains unobtrusive, as like most knitters, I am used to pausing to mark off rows and patterns, unlike using technology, which would interrupt the knitting. This is an important a part of my research as it is a way of testing the concepts that knitting has something to offer that may be different to using social media. There are two elements to this as I am knitting: firstly, how does this make me feel; and secondly, does the process offer insights into knitting. Or in other words, is knitting a thinking tool for interpreting ideas both through the process and the product. Knitters know that some practitioners knit for the end result, and some for the enjoyment of the process. Through using knitting to examine itself I am utilising both elements, the process and the product have equal importance in the method. And me? I am a process knitter, once the item is made, I can detach from it quite easily. It is a useful object, to be given away, used, washed and potentially worn out. Here I reflect on my experiences of developing and making work to explore these concepts.

Self/performance jumper ('Am I Good Enough)

I am a knitter, and it's an important part of who I am. However, I am aware of the sometimes unusual response I get to this statement, which seems to come from the prevalence of the 'grandma' knitter image. My research around identity and image made me more aware of how people were displaying their identities, and how I display my interest through wearing handmade knitwear, knitting in public and giving people handmade gifts. I noticed how offline, people would display quite explicit statements of identity, including sweaters

with slogans. Online it was done through the groups people belong to and the pages they 'like' and share. What interests me in all this is how it relates to our knitter self. Are we happy to portray ourselves as a knitter, and if so, what sort? I know I think about which knitting I do in front of my fellow knitters – I want something I can do while I talk, so not too complex, but if I'm honest I like something showing a bit of skill, maybe a bit of cable, or Fair Isle. Deep down I want people to know I am an experienced knitter, even though none of us look down on a new knitter. Is this more honest than the person we are online, or is it as much of a performance of ourselves? Are we just linking ourselves to another set of stereotypes that society has established, or deliberately trying to subvert them? I wondered if knitting in public is explicit. Or if I could make it more explicit. Initially I explored the idea of making a jumper stating 'Knitter' or 'I am a knitter' on it, but decided to explore more with the structure of the jumper itself, in order to play with the tension in how we represent ourselves, and how this is like the presentation of ourselves online and offline. I also had picked up from my interviews that being a knitter is not all positive with knitters often expressing self-doubt in what they make and it needed to acknowledge the performance element. The word 'good' came out often, that the work had to meet a certain standard, coming back to that stereotype that handmade equals "...a bit tatty looking" (Emily) as Emily said of their concerns about giving a handmade gift. She also made it clear that giving something handmade, although a nice thing to do, made you vulnerable.

Thinking about a garment that would express that difference between what we will show and how we feel I wanted to stick with the jumper theme, as something seen as cosy and covering, and to incorporate some of the words my interviewers used. Being a spinner I immediately thought of different breeds of wool to represent this. Merino is a very fine, expensive, soft wool that even people who don't like wool because it is 'itchy' can tolerate. It said nice and acceptable to me. If I used undyed, cream yarn this also said 'neutral' and 'unthreatening', but high maintenance because it would need cleaning often, and of course, hand washing as it felts easily. As a contrast the toughest yarn I know is Herdwick, often used for carpets because it is so hardwearing. It is the very definition of scratchy, tough yarn, and most people would struggle to wear a jumper made from it next to the skin (although it is very good as outer wear

because it is so hardwearing). It has a lot of kemp or dead hairs in it, that, once spun into the yarn, tend to dig in. It said 'practical' and 'tough', but also challenging to wear and tolerate. Its natural colour is a tweedy sensible grey. To really get the feel of these fibres I wanted to hand spin the yarn, to get exactly what I wanted, and to live with them for a while and get inside their characteristics. To combine the two, I decided to double knit the jumper with the Herdwick on the one side and Merino on the other. If it was worn merino side outwards it would be quite uncomfortable to wear, but the outside would look 'nice', if worn Herdwick side out it would be comfortable, but show a tougher side of ourselves. I wanted it to reflect how we can't or won't always maintain our image so areas would 'break through' from either side, and also I made the edges in Herdwick, where you come most into contact with. This would suggest that you can't avoid the difficult bits. The words I settled on were 'Good enough?' as these really summed up the insecurities I was picking up on. Planning the pattern I went for a gansey style, with no seams, as this is a really practical jumper, but I was making it unwearable. It would be fitted (in fact a big snug) ensuring you could really 'feel' the characteristics of the yarn. Ganseys were practical sailors workwear, but they were often patterned, which is said to make them warmer, but to me seems also about the knitter wanting to show their skill and knowledge.

So to the spinning. I started with the Herdwick, which is known to be a challenging fibre to spin (there I go, showing off again...). It was very coarse, and couldn't have been spun fine, and was rough to handle. The kemp was shedding everywhere, so instead of being the practical yarn it was messy, like real life. The merino was as soft as expected, and easy to spin, but picked up bits from everywhere and I even had to select plain yarn to tie off the hanks in case any colour ran when it was washed. The Herdwick was messy, but the merino was really sensitive and needed more care. It needed more 'looking after' whereas the Herdwick just needed cleaning up after!

I also found that while spinning I was thinking through the interviews I had done, about the responses people gave to giving items away, and what responses you need to get from people. This was the beginning of what became the

After all the spinning, the yarn has to be washed, to set the twist and give the fleece a final clean. I loved that the pretty merino turned the water as dirty as the Herdwick, so for all the difference in style and texture, they were both pretty mucky underneath. I found myself favouring the Herdwick yarn, which I think says a lot about how I see myself. Maybe everyone could be categorised by wool type?



After knitting a sample, the yarns behaved as expected, but the Herdwick definitely made a better, more compact fabric. Spinning the yarn had taken a lot of time, from beginning the spinning in April to casting on the jumper at the beginning of November. Now I had done a lot of other things in between, but there was already a lot of me and my time in this piece. Of course, I needed twice as much yarn as would normally be needed for a jumper because of it being double knit. It takes a lot of effort to put on a performance.

As expected, the knitting offered more interpretations on the original idea. The unevenness of the merino allowed the Herdwick to peek through, a dark background under the soft white outer, suggesting to me that we can never really hide our underlying self. I found myself identifying with the Herdwick as this underlying personality. I'm just not sure everyone would prefer this hardy yarn, which could be a downside of this concept, but for me it spoke volumes. I got to the 'Good enough?' wording just as the stress around Christmas really kicked in. It seemed so appropriate, as we are led to believe that everything should be perfect at this time of year, the food must be perfect, everyone must be visited and all the gifts we give must be 'just right'. Maybe we should take away the question mark and allow ourselves to be 'Good enough'. I am a pretty fast

Once it was finished I tried to take some 'classic' Instagram photos of me in the jumper. It was very difficult. It turns out we have very few places in our house suitable to take the pictures. I had to clean the mirror, and tidy up a bit to make the photos look acceptable. This seemed so ironic as I was making and photographing something about portraying an image. I also couldn't manage to take photos in focus! Suddenly all those classic Instagram selfies had a new dimension for me – just how much effort had those 'effortless' looking images really taken? I took images of the jumper both inside and out, and not only did the yarn work as I wanted it to, that is the Herdwick was very itchy next to my skin, but the writing worked even better than expected. In the mirror, in the classic Instagram pose, when the jumper had the Herdwick inside, the writing was reversed, whilst Herdwick side out it was right. This showed the complexity of our self-image. It helped me to think through these concepts, and develop them further, but not to come to definite conclusions, partly because I'm not sure if there are any easy answers to this issue. However, it really did highlight the effort we put into our image, and I certainly feel more aware of the choices I make, especially as a knitter.

I noted how I felt on paper, but also shared images of the process online. This was my first experience of Instagram, and my early attempts were clunky. I didn't really know about hashtags, and getting interest. It felt like shouting into the wind. It took until December for me to get a comment on a post, from a

complete stranger (why do people I know not want to comment on my work?) and instead of being happy, I just found it strange. Maybe I'm too suspicious but I ask what's in it for them, why would they do it? I continued to get random 'likes' on Instagram and whilst it was nice that people liked the work, I couldn't tell what they were really thinking, or what they understood from the photos as they didn't comment. I received comments from a fellow knitter (all positive) but then felt obliged to reply, and to 'like' or comment on her posts, so it became an obligation, a guilt. Also, even when I made a mistake in the posts, people didn't comment. Were they being nice, not reading it properly, or not understanding what I was saying and didn't want to say anything? Maybe they thought '...knitting this like a traditional canary.' was really a knitting term, instead of what autocorrect did to the word 'gansey'.

In January I decided to put more effort into linking with more people on Facebook (having only really joined for the university course and having 'lurked' for a couple of years). I sent friend requests to several acquaintances. It felt a bit vulnerable – what would their reaction be? They all responded positively, but some took up to a week to respond, and I started to think I had offended them in some way. However, it did change how I felt next time I saw them – as if I had to be more friendly as I now had more information about their private lives. I found it hard deciding who to send a request to - I think it felt very 'forward' and what if they declined? I've since had friend requests from people I was hesitant to contact. It felt like there was an etiquette that I wasn't privy to. This reminded me a comment Emily made to me about the vulnerability of making a knitted gift for someone "...when you give somebody something you've made, you've put a lot of effort into it, you put a lot of emotion into it. It's quite a...you're going to, not be judged on it, that's too strong a word, but you're putting yourself out there..." (Emily)

I decided to share this piece with some 'real' people, 'In Real Life' or IRL as it gets referred to. I took the finished jumper to my knitting group, and to one I hadn't been to and was attending to recruit interviewees. I was more nervous sharing in person, but got more feedback, and more on the tactility of the piece. People asked questions, unlike on Instagram where I mainly just got 'likes'. I had to explain it in person, so felt some embarrassment, whereas on Instagram I could compose what I said and explain the symbolism without

embarrassment. At the knitting group, there were lots of questions about technique and the practicalities, but also some comments on the design choices, such as 'did I use a pattern?', 'the neck is very itchy', 'it's very heavy/cosy'. All this reflects what Turkle has to say about youngsters texting, where you can compose and are less vulnerable, not putting yourself out there as much. But you get less interested feedback. You can compose online, but don't get questioned.

Knitter vs. Twitter.

I knit pretty much every day. I find it relaxing, helps me focus and is a habit. I also on tend to check Twitter every day. I don't have my phone set to alert me to new tweets, as it would never shut up, but I check it a few times a day to 'catch up' with people I find interesting. They tend not to be friends and family, but comedians, politicians and writers, who have, as you can imagine, been pretty busy recently. In the light of this I wanted to explore the differences or similarities between the two actions. From my own feelings about it, coupled with what I had been reading, knitting struck me as slow and constant, producing a tangible, physical object. It is mindful, but performative, and I am in control of what I knit and for how long. Twitter for me is fast and constantly changing. It is ephemeral, but the tweets last on the server and many a politician or celebrity has been caught out by an old careless tweet reemerging. The posts seem thoughtless, but still performative, and I am receiving and not controlling what I see. I was looking for a way to show and explore this in knitting, exploring how it would feel if Twitter took as long as knitting, with an equally 'useless' result, unlike most knitting. I wanted to carry out daily knitting echoing social media use, but use this time to make a real object to investigate the concern people have about 'wasting time' on social media, the longevity of the message and what it takes to create it. The time spent on Twitter doesn't produce anything, although it could be argued that it creates community (although I don't find this due to who I follow). What if knitting was like this? What if it took as long to tweet as it does to somehow knit the message – would we bother? I considered knitting for a certain amount of time, but this didn't tie in sufficiently with the Twitter content, and would be the same every day, rather than varying as Twitter usage does. I decided I wanted to knit the messages is some way, and found the Twitter 'moments' – a set of ever changing headlines

that Twitter highlights everyday. These are ephemeral and changing, so by knitting them it gives them knitting's permanence. They would also be producing a tangible object. I experimented with knitting one line of knitting per day for a month and adding a tag with the Twitter moment, but this kept the knitting and message too separate, although I liked the tags, as they are the same tags I and other knitters use to label swatches. The month of knitting with its tags had the feel of the exhibits at the Pitt-Rivers museum, with their hand-written tags, which I have always found fascinating. These object spoke of longevity, which added to the significance of the questions I was exploring between uses of time, permanence and control? I needed a way to link the message and the knitting more closely. By converting the tweets to binary, which is how the data is actually transferred, this could be interpreted as a knitting pattern. Each character, including spaces, are given an eight-digit code of 0s and 1s and I used this as a knit and purl pattern. I liked the idea that the text would not be obvious, going back to the actual method of data transmission. The knitting would need to be done every day and a year felt like a good duration.

I recorded the Twitter top moment, along with a note about my day as well in a spreadsheet so I could keep track. I decided to mark the end of each days knitting with a tag with the date and just the Twitter headline, keeping my own news private. I was and still am unsure how much of this I want to share, and this also says a lot about my own feelings of the public nature of social media and how much we share.

I started the knitting on New Years day 2018. At first it was similarly relaxing to other knitting I do. The main difference was that I had to follow a 'pattern' (notebook page) on my laptop, so I had to engage with technology while I was knitting, when for me they are usually very separate and this constrained when and where I knitted. However, by early February it was becoming a chore. I had to make sure I checked Twitter every day to get the moment, and then the knitting would take at least half an hour. It was already starting to be similar to checking email or social media, not exactly unpleasant, but a bit tedious. In June I missed knitting one day, recording the headline, but not getting to knit it, so I had to knit double the next day. I was conscious of having got behind with it, and it felt like a backlog of emails. I also couldn't do

anything else visual while I was knitting it – no TV or reading – as I would have done with other plain or tedious knitting. I could listen to audiobook/radio, but it's not interesting enough on its own. How does this compare to Twitter, and the attention we have to use while using it? Twitter requires our attention, but knitting can vary in how much attention it takes. It made me question some of the assumptions that knitting is a calming, focused activity. When it is boring, I do other things while I am knitting, and if I can't then it becomes a chore. In this respect this piece raised some questions about the attention status of knitting. So what benefits does 'boring' knitting have over social media? Possibly very little regarding attention, unless the persistence is good training for the brain in dealing with less exciting input. Sitting with the lack of input or stimulus could be beneficial, but my own experience of it over a year didn't show any great results.

It ate into my knitting time for other projects – which seemed to be producing a 'useful' end result, whereas by June this was starting to feel unproductive. Was this really any more or less a 'waste of time' than checking Twitter? I was beginning to question my motivation. I cut down how much I read my own Twitter feed, so ironically I started using Twitter less.

Even though I am a process knitter, and enjoy a long piece of knitting, the idea that this was definitely not going to be finished until the end of the year was a little bit daunting. It was unusual in having a time frame governing when it was finished, rather than the completion of a garment. A jumper is finished when it has a front, back and two arms, not when you've been knitting it for two months. It was most like the experience some of us had of learning to knit, when we got encouraged to knit a scarf that somehow never seemed to be finished. I also couldn't leave it in the bottom of my knitting bag to come back to like any other project that became tedious. Luckily, I liked the look of the work itself – how I would have felt had I not liked it I don't know. A random pattern started to appear in the work. I also found that I was starting to recognise characters in the binary, like a machine. Was I just becoming a knitting machine? I was simply knitting what I was instructed to do, I had no control over it and could not add interest, such as a different colour or yarn, and I couldn't see a garment developing. How different was it to what a knitting machine could do? What was I, as a human, adding to this piece that a knitting machine wouldn't, and

could someone looking at the end result tell the difference? What would a knitting Turing test be, and does it matter if you can tell it was handmade? This also comes back to the image of knitting, that often people expect handmade to be not very good, which has always annoyed me. Was I becoming part of the Twitter algorithm that was turning out the moments? The main difference hand knitting this project was the significance of the embedded labour and time in the final piece that would not be present in a machine made object and this is important in relation to the time invested in using social media. Of course there is nothing to say for definite how it was made unless you are told, other than a subjective judgement on the quality of the workmanship.

Within the evolving pattern, the knitting is neutral, both good and bad headlines look the same in the end result. I became aware that there were some shocking headlines hidden in the knitting that I didn't like knitting as I had to dwell on them, even though the headline was in binary. Does the knitting make it acceptable? Would I knit these headlines in plain text or is the binary conversion what negates them? It seemed significant that this is how the actual data is transmitted across networks, which are also neutral. It is our interpretation of the data that loads the headlines. As I was knitting I felt that the headlines were mostly about trivial things, such as celebrity gossip, or reality television, however when I looked back, randomly picking out tags I found many of them were about serious issues. Maybe I was more judgemental about the trivial headlines, and resented spending my knitting time on them, so they stuck in my mind more. Would I have felt better knitting more 'worthy' headlines? This points to the how we react to posts and feeds, remembering the things that stick out to us which of course would vary from person to person.

New year's eve came as a relief, the last day of knitting. I was very glad to stop. I had not posted anything about the process on my new Instagram account, but this is what I wrote once it was finished.



Figure 40 My final day of knitting the headlines. First impressions

It didn't get much response, but at this point I didn't have many followers. I did miss the routine, and not having to consider what I was knitting. Is this one of the appeals of social media. I certainly have my own routine of checking Facebook in the morning (again, I won't have the app on my phone) and it has just become an unthinking habit. It is easy just to carry on, like this piece of knitting. I wanted to stop the knitting because I wanted to knit something more interesting. Is social media interesting enough for people not to want anything else, and is this down to the dopamine affect? Getting the time back was nice, but that soon dissappeared into the general day-to-day and I can say with hindsight that I didn't do anything significant with the time. What was different was that I had a tangible object at the end of the year, something to show for the time I had spent. This object was not a 'practical' garment, but it was thought provoking. Is this more beneficial than spending that half an hour each day on Twitter? This depends on what you feel the benefits of social media are, I would suggest the community aspects are the positives you could take from this, but this depends on how this community is making you feel which is still debatable.

The idea of 'casting off the year' does highlight how reflective the process of knitting this was. It made me slow down and consider each day. I wanted to explore this further, and by the end of the year was already working out how to explore the data produced more fully, picking up on the issue of my perceptions of the headlines, my own 'headlines' and the reflections of the year.

The 2018 blanket.

Given that I now had a years' worth of data, charting my day against the 'Twittersphere' day, I wanted to reflect more on how they compared. While I had been knitting the Twitter year, many things had been going on for me, big and small, good and bad, and knitters will know how these things can affect our knitting. I wanted a way to make this more obvious and explicit, while also looking at my perception of the type of news on Twitter, which I had felt was quite trivial. There were days when Twitter seemed slight and trivial compared to what was happening personally, and others when some awful thing had happened globally, but I could do nothing about it and was possibly having quite a good day. I also wanted to put my news on the same 'level' as the Twitter moments, because for me they were often as important, if not more so. By making them explicit they would be present, but my actual event would still be hidden, and not made public. I am still, at heart, a very private person, so this blanket would be exposing my feelings more than I would usually allow. It is worth noting that I didn't tweet any of these thoughts, which I could well have done.

Initial thoughts were about using the categories that Twitter uses for the 'moments', such as 'World News' or 'Celebrity', but these would not work for my own daily news. I just don't know enough celebrities, obviously. I decided to just focus on whether the item was positive, negative or neutral. This was, of course, subjective and I had to be aware of classifying an item as negative when I simply didn't agree with it. Being conscious of all of these, I reviewed the year, categorised the headlines for both Twitter and my personal moments, and grouped them. I chose mood colours to represent them, with blue for the negative, yellow for positive and white, or undyed for neutral, and coloured the

spreadsheet cells accordingly. I then had to decide on how to represent them. The excel spreadsheet, sorted into colours, looked very effective, and certainly showed the trends, but had no further meaning. I wanted to feel the year again, to reflect on it and to explore permanence through the contrast with an electronic version. I could easily delete my spreadsheet, or a server error or hard drive failure could lose it. I do back up my work, just as I protect my knitting from moths, but accidents do happen. I chose to knit 4 stripes. The first and second would be the Twitter moments and my personal moments grouped by colour. The third and fourth would be the same but daily as they happened, to show variation in mood over time. When sewn together they would make a knitted spreadsheet, or 'info-textile'. The resulting blanket allowed reflection in the knitting process, and also in the final object, allowing me to wrap myself in the year. Having been reading some Winnicott, his ideas around the role of the transitional object as a method of moving from subjectivity to objectivity (Winnicott, 2007, p8) came through strongly for me, not just because it was a blanket. It was a way to reflect on the year, to move from instant subjective feelings to a more objective reality through the slow process of knitting each day, reliving it, reflecting on it, and processing it. My subjective view at the start was that the Twitter moments would probably be mostly positive, trivial items. My own year had featured some real high points, with getting through confirmation, but ending on a real low after losing a close family friend unexpectedly in the autumn. On new years' eve, I was glad to see the back of 2018.

I had noted my feeling about the original *Knitter* vs. *Twitter* in my own notebook. I decided for this project to go public and record my thought on Instagram. The main question with this would be did I self-censor?

The first thing I noticed was that as I was knitting I was very aware of which colour I was mostly using. I kept wondering what was going on at that time (but with hindsight) and reliving the year and its events, both good and bad. After knitting the first two stripes, it was obvious that my year had been more positive than Twitter, which went against all my initial feelings. It was proving to be a very reflective process, both on how recent events can colour how you look back on a period of time, and also what effect the news and headlines could

Knitting the grouped sections was quite relatively fast to do, but the daily stripes took much longer as I had to follow a pattern more closely. There were also a lot of ends that needed to be tidied up afterwards, maybe reflecting on the process of tidying up with hindsight.

I wondered if this said something about how dealing with the day-to-day could be more challenging. I posted this on Instagram, and while the comment got seven 'likes' it got no relevant comments. It was odd to be so (for me) revealing, and I did try not to censor what I said, although I did consider the wording carefully. I was asking some thoughtful questions, only to elicit little response. I am still not sure if people don't engage in this way online, or if the piece did not make people think about these issues.

I was more aware of the daily changes in mood, both online and personally, and it made me very aware of how quickly events can change, and of the mindful notion that positive and negative feelings and events are only transient. In this way the slow knitting and reflecting was very helpful in being more objective. This taking time to think and reflect is not common on social media, apart from Facebook's 'memories' posts.

I edged the piece in black with labels on the sections, to echo the spreadsheet borders and titles. However, I truly felt it had so many advantages over the electronic spreasheet. Apart from being a more impactful object, it was practical as a warm blanket. Knitting each day, instead of just pressing 'sort' really gave me an insight into the year, and changed how I felt about it. The reflection was not a process I could have had if I had just tweeted the thoughts out into the ether. What I didn't get was the feedback that may have come from the tweets, and I was surprised at the lack of feedback on Instagram to the knitting.

Interlude - using Instagram

Posting on Instagram is interesting as I don't usually share my knitting process this much, and among complete strangers. I had to get to grips with using hash tags to get the posts noticed outside my circle of friends and relatives. It did

feel odd getting 'likes' from strangers, but I do question the depth of feeling behind them. The 'likes' varied regardless of the subject, whether it was knitting related or just a picture of my cat. So far hardly anyone has commented on the work, the main exception being a knitting friend. I am also aware that I now feel a certain obligation to 'like' posts from people I know almost in return, which has echoes of the obligations for gifts discussed by Mauss etc. My own feelings about this are that it required little effort and is unchallenging (it's unlikely that you will get picked up on what you have 'liked' by anyone). This is in stark contrast to the process of making someone a gift as a way of showing appreciation. However, the 'like' is responding to something they have done, but the gift also is about the giver (although the 'like' is an identity marker for the giver too). Interestingly I received a comment from a friend on a pair of socks I had given her as a birthday gift, which she put alongside a post on the blanket.

Trying to export the posts from Instagram was almost impossible, making it feel like I don't own these posts. In the end I had to do it manually using screenshots. This highlights how we hand over control of this information. I had been considering that we hand over control of knitted gifts in a similar way, but what this has demonstrated is that we hand over a gift when we are ready, and part ways with it, accepting it is on its own now. With the posts I still had a use for them, and wanted to be able to do things with them that the app developer obviously decided I shouldn't. This still feels like my data, whereas knitted gifts I give away no longer feel like mine. This was an interesting insight that only trying this out has revealed.

#knittingfoundinstroud.

I wanted to explore the concept of feedback, given my experience of using Instagram. Several interviewees discussed the feedback they got on things they had made, sometimes good, sometimes more ambivalent and I wanted to tie together the idea of giving things away and getting feedback and how this compares to 'giving away' a post online. Online this is public, whereas gift appreciation is often private. How does it feel not to get feedback? I thought about charity knitting, but often charities will send a letter of thanks and I recalled feeling disappointed not to get one after doing some charity knitting.

I decided to knit some objects and give them away, anonymously, but with a hashtag to allow people to post on social media. I decided to knit socks, as these are useful, and have a level of intimacy, are small and suitable for yearround use (unlike gloves or hats for instance). They also require a reasonable level of time commitment, for me around 10-11 hours for a pair of plain socks. As I intended to leave them, I did not want any synthetic fibres, as natural undyed wool should rot away if not found, and thereby cause minimal environmental impact. I also did not want to use a 'cheap' yarn, in contrast to many of my interviewees, to see if this impacted on how I felt about giving them away. The yarn used was 100% Blue-faced Leicester sock weight yarn, which was very satisfying from a tactile perspective. However, this made them less hard-wearing than usual sock yarn that contains nylon. The pattern was generic, plain and unisex. I initially was going to leave them in pairs, as this would ensure they were 'useful' however, following discussions, it was felt more effective to leave them singly, echoing the 'lost knitting' often seen on pavements and walls. I had always found these lost objects very evocative, and often photograph them. Following this I decided to add a 'game' element to the project, to get people who find one sock, to try and locate its pair, either by hunting around Stroud, or by contacting other finders through social media, as the labels would encourage finders to use the hashtag #knittingfoundinstroud, which I could use to track progress. I also knitted some small flowers in the same yarn to attach to labels asking 'have you found any socks yet?' with the same hashtag. I felt it was necessary to do this to try and 'drum up' interest, but it was quite a lot of effort, similar to the idea of it being an effort to garner social media interest, whereas knitted gifts are generally just given. Should you need to 'market' yourself in this way? And of course, I didn't know if I would get any feedback at all, just like giving knitting, or posting online. I hoped that people connecting through social media to get a pair of socks could explore connections through the knitting and technology, but it would depend on it actually happening. What was interesting about this project is that once released I had no control over what happens next, very like what happens when you post online, but would I feel as detached as I do when giving gifts directly, or that sense of ownership I felt over the online posts? Several interviewees mentioned that they like the control they have over

knitting, but once given away the control is lost, and this is the same with a social media post. There could be lots of interest, connections made and enjoyment by the finders, or nothing could happen, and my work could sit and rot away.

I knitted six adult socks, and knitting six identical plain socks was quite tedious. This reminded me of women in the past who had to do this to supplement the family income and while I enjoy knitting, this rapidly became 'work'. I did not mind the idea of giving them away, as I already give away a lot of my knitting. The only difference was that I wouldn't know who got them, and I was hoping to get feedback, for them to start something. I also made sure they were well knitted. Despite not knowing where they were going, I still felt I had a knitting reputation to maintain.

I had to work up to distributing the socks as I felt very self-conscious. I thought out areas that I could leave them discreetly and I became more aware than usual of the amount of CCTV cameras in our small town. In the end I chose parks, the local cemetery and canal walk, all popular places with walkers, and left four of the socks. It rained the day after I had put them out and I felt concerned about them, even though this felt silly. I was bothered that they would be getting wet and ruined, and that people wouldn't want them. This was odd, as I never check how recipients use or mis-use my gifts. I started checking on social media the next day, but there was nothing. I continued to check for a week, but still no response. Maybe they had not been found? After a week I had to go and check if they were still there, and to leave another sock to try and drum up more interest. All had gone except a flower label, which was left with an abandoned glove that had obviously been there since winter and was inhabited by woodlice. I was excited that they had gone, someone had them, but disappointed that there was nothing online. I felt happier that they had been collected than if they had just been left to rot. It seemed I was more bothered by them not being 'used', even though a single sock was not useful. After another week I checked on the other sock. It too had gone. A few days later I left the last one, hoping this would be the one to elicit a response. Nothing. I went out to check if they had gone and they all had, but no-one was taking up the opportunity to post. This posed lots of questions. What were they doing with a single sock? Did they not want to post anything? Did they care

After a month I decided to try again. This time I would knit something smaller and more whimsical. Given Stroud's history of woollen textiles, I went for small sheep. I aimed to make six sheep, to match the socks, from the same yarn and stuffed with pure wool. However, tedium struck again, and I only made five, with my enthusiasm dented by the lack of response to the socks. This was commented on in interviews with knitters mentioning that a lack of response from their knitwear recipients often resulted in them being 'off the list' (Megan) for future projects. Was I somehow taking the town off the list for my knitting?

I was more explicit with my labels, directly asking people to post on social media. My enthusiasm was definitely dented, as it took me a month to get around to distributing them. I left them on benches and walls, which was easier as they were smaller than the socks, and would check back on them after a week. I was much less interested in checking social media this time round (coupled with a holiday to distract me) but after a week I checked online. Nothing. I checked a few of the deposit sites. Nothing. Once again, people had taken my knitting and left no feedback. I thought toys might have got a response. Maybe I left it too long and didn't build up some momentum with the project, which people have to do on social media to get lots of followers, but I was still surprised to get no feedback, that people will take something that takes some time, but not give any feedback. I kept checking social media

Writing this now, I have done another online search, but still nothing. I am still a little surprised that it got no response at all, but think it is to do with how easy clicking 'like' is, but actually posting requires effort, and my knitting just didn't prompt enough interest to inspire this effort. I still wonder what people did with the socks, as a single sock isn't much use! I hope people enjoyed the sheep, showing that I still want people to like my work, even if they won't tell me.

4898 Likes.

As is becoming clear, part of this knitting journey also covered my experiments using social media much more. I've certainly found it interesting, and not always positive, and I'm not sure how much this is down to the media or my personality. I've discovered that I am a much more private person than I realised, but then rarely before would we have been expected to 'broadcast' aspects of our life to the general public. Coming to social media quite late - like many IT people I avoided it mainly because of issues of privacy and working out what use it would be – I joined Facebook at the same time as reading up widely on its potential affects, both good and bad. I should have been aware of what I might feel, but it still caught me off guard. I found myself resenting the posts I saw from friends, asking why they wanted to post things, were they 'showing off'? I had to make myself stop and think about my reactions and realised a lot of this is due to its broadcast nature, as opposed to the narrowcast of a conversation. I was seeing things that my friends probably wouldn't talk about in depth with me as they knew it wasn't a common interest, but on social media you are broadcasting to all your friends, so don't tailor the message like you would in person. I think the knitting equivalent would be to make whatever you liked, in any size and give them to random friends. Some would be right, but others wouldn't fit, be inappropriate, or be off the mark in taste terms. But usually knitters try hard to make garments that suit the recipient.

But mainly I have found social media to be an odd mix of people sometimes stating strongly held views, but mostly just clicking 'like' on everything and anything. I found I too felt obliged to join in this game, and –whisper this quietly

– it feels very insincere. I feel bad even saying that, as the people whose posts I 'like' might set real store by these affirmations, but the time it takes, and the way I felt so obliged to do it make me question its validity, and this has been backed up by research suggesting that 'likes' don't lead to an increase in closeness (Zell and Moeller, 2018, p31). This is something at the heart of my research from the start. When I take time to make something and give it to a friend, how much more care and love is this showing than if I just click 'like' on their post. But how often do I get no feedback at all on the gift? And why does this bother me- would a grateful reception just be like my obligated reciprocal 'likes'? And when I make a knitted gift am I just showing off and performing my knitter status, regardless of if the recipient cares or not? How much is this different to the performance everyone is putting on, especially now it is all done online, and in the hope of getting 'likes' and comments. The contrast for me seemed to be in the effort it took to do the different actions

In an attempt to get to the bottom of this I wanted to try and equate a piece of knitting to a 'like'. To me, one stitch would take about as much time and effort as clicking 'like'. Was there a way of showing this, and linking it visually to the like symbol. In the end, I decided to knit a generic 'thumbs up' symbol and then divide it into separate stitches. It was interesting that even a generic thumbs up symbol, not the actual Facebook one, is enough now to imply 'like'. I also made sure I noted how much time I spent making it, as time was such an element in the message I was trying to get across. I conveniently had some yarn in appropriate colours (black, white and blue) leftover from jumpers I had made for people. Were those jumpers better than a 'like'? The piece of knitting was quite quick to knit, taking just under 4 hours to complete. It used an intarsia technique, so I noticed how messy and tangled the back of the work was, while the front was neat and tidy, a good example of not showing the world the messy bits of life.

I knew as I was making it that I would be cutting it up, and I've done a few steeked sweaters in my time, so I felt comfortable cutting it. However, I was nervous about the separate stitches. Separated out, they became fragile and hard to handle, not grounded. They became useless, just an object, without the

stability of being with their cohort. Even once sewn down they are delicate and fragile and liable to get lost. It looks messy, less neat that the knitting did, but the front and back do not differ so much. To separate out all these 'likes'/stitches took much longer than to make the coherent whole. In all the separating and sewing took 46 hours. Was it worth it? You can still make out the logo, but it looks less coherent, less solid. The object has become just that, an object. It could no longer be used as part of something like the knitted piece could have been (a blanket for instance) and needed careful handling so as not to lose any of the stitches. It may even have to be framed to preserve it. It will certainly need more looking after, unlike the knitted square which could have been put through a washing machine and survived.

I hope the piece gets across the idea that separating out our care and empathy takes effort and results in a less coherent message. Those likes can fly away, are fragile and are not sturdy and long lasting.

Mittens ('How am I feeling' mittens)

One of the advantages of doing the second batch of interviews in quick succession was that certain themes came to the fore quickly. One of these was the idea that knitting gave people a sense of safety, of a refuge. I understood this feeling, as I find that while I knit for many reasons, it is still something I like to do when the world is challenging, for whatever reason. Looking more closely at the transcripts of the interviews I was struck that some people almost described knitting as a place they could go to, a defence. Could I make something that would make this explicit?

I considered a mask, but this was not something that you could wear day-to-day, as I wanted something that could actually be used. It could also be a bit claustrophobic as it could be hard to take off, and would look very odd walking down the street in. I was drawn to the idea of mittens, as it echoed the gesture of putting our hands up to our faces to hide as a child, or when things are difficult. They are also often worn by children. What if our hands could display the face we want to show the world, but find it difficult to? Obviously, this comes back again to this performance of ourselves that we find ourselves doing, including of course the performance of being a knitter. The simple choice was for the classic theatre drama masks, and they developed in the

charting. I find developing patterns as I chart much easier than trying to sketch them out and then develop the chart. I would do a happy and sad face, but make sure they lined up so they could be mixed up, as life just isn't as black and white as is often presented online. The insides of the gloves would use some of those powerful words my interviewees had said. I kept them the same regardless of the outside face, because knitting stays constant no matter what face you present to the world. It protects you from the opinions of others.

However, once the knitting started it became clear that creating a mask for ourselves takes effort. This was not relaxing knitting as they were complex to knit because they're not mirrored like mitten patterns often are and they required thought and effort. I also found that, despite being small and portable, I wouldn't knit these in public – partly because they are complicated, but also because I didn't want to have to explain them at knit night – reminding me of Susan, one of my respondents who would take squares to knit in public and tell people she was knitting 'just a square' (Susan). But this made it obvious to me that I do choose what I knit publicly, depending on how sociable I want to be. My knitting is clearly a performance of me. What adds to this in the mittens is that the writing will not make sense from the outside (unless you twist your arms) as we may not want these emotions public, they are for us, private. I would love to know, but don't know how easy it would be to test, if the knitters I spoke to would have said these things if they had not been speaking to a fellow knitter.

My next step is to try wearing these mittens over the winter, as day to day objects and see what reactions I get to them. Will I be brave enough to wear the mittens I wouldn't knit in public?

Interlude - a trip to Shetland.

I am a knitter, honestly.

I love the knitting from Shetland and Fair Isle. Big complicated lace shawls and detailed stranded knitting engage my brain, requiring concentration, produce beautiful results, and if I'm being completely honest, show off my knitting skill. Getting compliments on this work feels good. After the last *In the Loop* conference I had been talking to several people from Shetland who had said

I've been back 3 days now and some aspects of the trip have started to sink in. Firstly, that Shetland is a truly stunning and inspiring place. I felt very 'at home' there and wanted to cast on some knitting straight away. Secondly, the people of Shetland are very friendly. Lots of people chatted to us in the street, on the ferry and in shops. Obviously, this would be about knitting? No. This was the thing that has been picking at my brain since I got back and the parts of me that were numb from the ride back began to come back to life. Almost all the conversations we had were about bikes, biking and how we found riding around the island. This was lovely, but not what I had been expecting. Even when we said that I was there for wool week, this was acknowledged, and the conversation moved on. Now we were in full bike gear, carrying crash helmets most of the time, so our mode of transport was pretty clear, but I was also in a hand spun, hand knitted jumper, sometimes carrying a bag from a wool shop. It seemed this was unremarkable as many people were in lovely knitwear, and it wasn't the distinguishing feature that it might be somewhere else. On Shetland I may have been a knitter, but more prominently, I was a biker. Most of these conversations were with other bikers, who would come up to us and start chatting, so we had that in common with them, but even in the wool shop the

conversation I got into was the limitations of bike luggage for buying wool. In the end I only bought enough to make a small cowl for myself to remind me of the trip. Also notable was that the other wool week visitors were not very chatty. I attended some open events but did not feel that these were 'my people', and this bothered me somewhat. This may have been because my expectations were too high. I had expected to go to Shetland and be amongst lots of other knitters and chat about knitting. I was amongst knitters, but it seemed that to the local knitters this was unremarkable, and to the visiting knitters I did not look like them. Most of them were older than me (and I'm not a youngster!) and I was generally in full technical bike clothing. Many of the islands knitting studios produced machine knitting, which is beautiful, but not my tradition. Where I did feel connected to knitters was in the Croft house museum, seeing the tools I use on a daily basis – the same knitting needles I use, some hand cards and a spinning wheel I could easily have sat at. I got ideas for how to block a shawl in a small space, and a real sense of connection with the women who would have done this work. I connected with the island and its inhabitants, but not with the visitors on the bus tours. What does this say about me, or about knitting?

I am concerned that I don't recall seeing many young people amongst the knitting visitors. Of course, taking a week out to visit a remote island is an undertaking that is probably easier for someone retired, but it still made me concerned – this was living up to too many stereotypes. I have been left with a sense of concern that I may have been deluded in feeling that knitting is modern and fashionable, but also with a feeling that it is still important in helping us deal with what modern technology does to us, so would benefit younger people even more than older ones. But how to encourage this?

I had expected to come to Shetland and be with my tribe, but I got this slightly wrong. Being a knitter on Shetland was unremarkable to the islanders, but biking in the windiest place in the UK was notable. That I was displaying my 'knitter self' in my clothing was not out of the ordinary somewhere with such a knitting tradition. It is also a possibility that to some of the visitors, my 'biker' identity was intimidating, although I wear technical touring bike gear for touring, not leathers. In the layers of identity, in the home of the knitting styles I love, my being a knitter was taken for granted. I was with my tribe, and it did

not need comment. It reminded me that the selves we display are layered and differ in different places. 'I am a knitter' is probably not something that needs to be said in a place where it is ubiquitous.

'I am a knitter, of course'.

The 'Addiction' tube ('It's just fun')

A lot of the knitters talked of having to knit, and I completely understood that. I generally knit every day to a lesser or greater extent, and some days have knitted for hours. It may be that they felt they could say these things to me, being a fellow knitter and I wondered how much of this sentiment they would share with a non-knitter. There was a range of phrases they used, some light and straightforward – talking of fun and relaxation. Others were a little darker and more insistent, about not being able to give it up, or talking in terms of obsession or even addiction. If these statements had been made about other things, other people would get concerned, but as it was only knitting, this seems ok. And what about social media? The press get very excited about any talk of internet or social media addiction. I was also thinking more about the concept of knitting as a safe space. Could a piece be made that showed these two sides to knitting, and also be a symbolic space in which to hide. I worked out that a tall tube of knitting could represent this. On the inside would be the darker, less comfortable phrases, and the colour had to be warm and enveloping. Knitters feel comfortable in this space, even if others may not. The outside was cool and calm and light, all just a bit of fun. I decided on a warm dark red for the interior and cool blue for the outside. The whole piece would be 'double knit' so that the 'darker' phrases would read correctly from the inside, but be back-to-front on the outside and vice versa. Also it needed to be big enough to stand in.

I hadn't been knitting it long when it became clear how long it was going to take. Thinking about the idea that knitters have control over what they knit, I didn't feel this was very controlled. Or very useful. Was spending hours doing something you can't use akin to using social media – fun, but ultimately without much purpose? While I was enjoying knitting it, the weight and knitting with both hands (to do the two colours) was making my hands ache. The irony of

winded epic project. I could start something, and if I don't like it or enjoy it, stop

making something about being addicted to knitting making my hands hurt was

not lost on me, and having to take more breaks was frustrating me. I was really

feeling the sense of being denied something I enjoyed. I needed to work on it, and so wore compression gloves that help when I have to do a lot of knitting.

The thought of not knitting for a while was not an option. Is this was addiction is

and rip it all out and start something else. I am not being bombarded by posts to keep up with whether I like it or not.

The final result turned out well, and is almost bigger than I expected. I am really happy with the way the words work, but the tube is a little claustrophobic inside, and whether one would feel safe inside it is debateable. I like that it could be reversed -you can choose which side of yourself you want to show.

And so? Initial conclusions

What has become clear when making these objects is that the time involved in knitting allows contemplation that would not necessarily happen when 'trying' to come up with ideas, even sketchbooking. Knitting gives you the opportunity to sit with the ideas, while 'working' them physically. Writing this in the midst of a general election campaign being played out in the digital sphere, it seems something people don't often do online.

Postscript. Knitting in a time of a pandemic

So, really this reflection should have ended here. Some conclusions, and get writing. But, as I said, I am a knitter, and even though I am not making work for this research, I am always knitting, and now is no exception. Since Christmas, I've been working on simple projects for people. There are two pairs of socks for presents for family, and a jumper that is a request from a nephew, which I want to encourage, so can't refuse. But the socks are still sat, wrapped in a box upstairs, because in between me knitting them, and getting to deliver them for the birthday and mother's day we have been in 'lockdown' because of the COVID-19 pandemic. It is a frightening time, and I guess these little things don't matter in the bigger picture, but they do make me quite sad. They seem to symbolise what we can't do.

The other telling thing I noticed was what I was capable of knitting. When it started to get serious, and we were told not to socialise, I found my concentration went out of the window. All I could do was plain, garter stitch. Luckily I have an ongoing blanket that was just this and it was all I could do. No pattern, no choosing colours, just moving my hands and not thinking about anything. I needed calm when my brain was wondering whether we had

enough tea bags. Then suddenly, after about two weeks, it completely changed. I needed pattern, busy, silliness, focus. I ended up knitting a toy rabbit. For no reason, it doesn't have a home, but it felt as if the enormity of what was happening had sunk in and I needed to get engrossed in some detailed instructions, to stop myself thinking about what might be. It's still similar, and now there is an almost complete fair isle hat.

Knit night hasn't happened for three weeks now. Within a few days I set up a Facebook group, with intermittent success – the first week a few of us shared pictures of what we had been knitting, and exchanged compliments, but it hasn't really carried on. It's a nice way to make sure people are ok, but doesn't match the chat around the big table. Also, some of the group are not on the platform, and I worry they feel excluded. Another member has set up a zoom meeting, which we will be trying tonight. I am a bit apprehensive as I've always found video conferencing takes a bit of getting used to, but we will see if it works better than the Facebook group.

Well, after three months, the lockdown is gradually being lifted. I got to deliver the socks, from an appropriate social distance (that phrase seems so normal now). The zoom meetings are happening every week, and it's lovely to see everyone. The knitter that organised them has done an amazing job, getting even less technically minded people on the platform, and those who can't are being contacted to make sure they are ok. From a community aspect it is a triumph. However, speaking totally personally, I still find video conferencing a challenge. The screen feels like a barrier to me, and the last thing I want to look at after a day of using it for writing. I miss being able to have one-to-one chats to individuals about something only we would be interested in. These meetings seem so 'broadcast', where you are speaking to everyone. It's really hard to see what people are knitting too, but it has proved that a lot of knit night chat is not about knitting! But it is better than nothing, and for now that seems to be the world in which we live.

And my knitting? It continued to vary for a while, and I now seem to be wanting to get things finished, which could take some time as all the projects are big. I've learnt how variable concentration can be at the moment, so some things are plain, and some detailed, like a complex piece of lace knitting. I have also

learnt to see my knitting as a good bellwether to indicate how I am feeling. I have also noticed that, even now I am not knitting 'research pieces', I do still contemplate while I knit, and have to note down thoughts about the research in the middle of knitting a blanket, so that aspect of this definitely holds true for me. Luckily, as a knitter, I always have a pencil and paper nearby.

Appendix 2 – Interview questions

The interviews conducted were conversational in nature, and I took cues from the interviewees for the direction the interviews went. However, I did develop a basic set of questions and topics I wanted to cover. It developed over the course of the interviews, but this was used for five of the eight interviews.

Interview questions V4.0

Anything you don't want to talk about is fine! Age and occupation – about you

What is your knitting history? When did you learn to knit? Who taught you? Any rhymes etc.?

How much do you knit now? Would you describe yourself as 'a knitter'? Is it important to who you are?

Have you ever knitted 'too much'? Do you feel your knitting time is important?

Are you part of a knitting group? Prefer to knit alone? Have you found this useful? Have you made knitting friends? Do you knit in public?

Do you knit for others?

If not - why not?

If yes: Who for? Do you choose who to knit for?

Is there a significant gift you have made? Tell me about it

Are you concerned what happens to the item after its left you?

Have you been given a hand-knitted item?

If no: did you not know any knitters?, or not recall any gifts?

If yes: Describe it to me

Who made it? What is you relationship to them – then and now? Has it changed?

Were they a 'big knitter'?

Why did they make it for you? Occasion?

Do you still use it? How is it kept? Has it changed over time?

Has making for others changed how you feel about gifts you've been given?

Thinking about social media, what types do you use? When did you start using it?

And are you a regular user? Are you 'active' – commenting etc?

What kind of things do you use it for? Anything knitting related? Do you share knitting images online? How do you feel if people comment? Would you share mistakes?

Are you members of lots of groups or online communities?

Do you find it useful/ supportive (both knitting and more generally?) Have you made friends online, different to offline?

Do you present yourself online (are you a knitter) – does it vary and is it different to offline?

How do you feel about time spent online?

Anything else I've not asked about?

Appendix 3 – Academic contributions

The work has been discussed at the following conferences and forums, in addition to the online exhibition I conducted specifically to share the work.

19th November 2016 – Presentation to the Knitting History Forum Conference - The Hand-Knitted Gift: using knitting as a research tool

April 2020 – Walls in Online Place Volume 1 - Participation in online UAL showcase exhibition of work and associated presentation for the private view. (https://www.arts.ac.uk/study-at-ual/postgraduate-study/postgraduate-community/walls-in-online-places)

21st April 2020 – Contribution to UAL online student magazine 'Post-graduate stories' – *Knitting in Days Like These*. An article discussing using knitting and attention spans in a pandemic. (https://www.arts.ac.uk/study-at-ual/postgraduate-study/postgraduate-community/stories/knitting-in-days-like-these)

7th November 2020 – Presentation to the Knitting History Forum Conference – 'I'll have to knit about it'- Knitting as a thinking tool

Other academic contributions

16th May 2019 - Hanks, M. (2019) 'Book Review - Folk Fashion: Understanding Homemade Clothes by Amy Twigger Holroyd (I.B. Tauris, 2017)', Fashion *Practice*, 11(2), pp. 269–271. doi:10.1080/17569370.2019.1607226.