IS-enabled creativity and survival of co-located artist/craftspeople communities: supporter experiences

by

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submitted for the degree of Doctor of Philosophy

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## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Expansion / meaning</th>
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<tbody>
<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
</tr>
<tr>
<td>DCMS</td>
<td>Department of Culture, Media and Sport (New Zealand)</td>
</tr>
<tr>
<td>EBS</td>
<td>Event booking system</td>
</tr>
<tr>
<td>e-business</td>
<td>Electronic business</td>
</tr>
<tr>
<td>e-portal</td>
<td>Electronic portal</td>
</tr>
<tr>
<td>ERP</td>
<td>Enterprise resource planning</td>
</tr>
<tr>
<td>GFC</td>
<td>Global financial crisis</td>
</tr>
<tr>
<td>KM</td>
<td>Knowledge management</td>
</tr>
<tr>
<td>MACO</td>
<td>Micro-sized arts/crafts organisation</td>
</tr>
<tr>
<td>MBIE</td>
<td>Ministry of Business, Innovation &amp; Employment (New Zealand)</td>
</tr>
<tr>
<td>MSB</td>
<td>Micro-sized business</td>
</tr>
<tr>
<td>NZ</td>
<td>New Zealand</td>
</tr>
<tr>
<td>Post-GFC</td>
<td>Post Global Financial Crisis</td>
</tr>
<tr>
<td>SME</td>
<td>Small and medium-sized enterprise</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
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<tr>
<td>USA</td>
<td>United States of America</td>
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Abstract

Artists/craftspeople are often self-employed (Markusen 2013) individuals/partners (i.e. micro arts/crafts organisations or MACOs) forming creative collectives around, for instance, locations such as communes, galleries and government-run art centres (i.e. co-located MACO communities). They have historically rejected automation since the industrial revolution, and privileged art/craft creativity over business (Rowbotham 2008; Wilson 2002) and economic survival (Fowler 1997). This trend continues today (Bendixen 2010; Jakob 2013), including the rejection of IS due, for instance, to perceived threats IS has on employment (Christensen 2010) and on the tradition of the superior aesthetic quality of hand-made art/craft compared to digital art/craft (Jakob 2013). Artists/craftspeople are more likely to be under/at the poverty line due to focusing on their art/craft (Abbing 2011), and less likely to value business benefits (e.g. profit, competitive advantage and efficiency), compared to owner/managers of micro-sized businesses (MSBs) in other industries. Supporters of co-located MACO communities (e.g. managers, administrators, volunteers) can appropriate IS to coordinate the community (i.e. supporter-IS) so that MACO members do not need to use IS, and/or can provide communal-IS to help members with the affordability of accessing IS (Bain & McLean 2013; Bendor 2014).

There has been limited IS research, however, on MACOs and their communities, and on supporter experiences with appropriating (e.g. adopting, designing, implementing, using) community-level IS in co-located MACO communities in particular. The IS literature has examined IS appropriation by small and medium sized enterprises (SMEs), but few articles explore MSBs specifically which are different to other SMEs (Jones et al. 2014; Parker et al. 2015). The peculiarities of MACOs, however, meant the limited findings on MSBs might not apply to MACOs. A further limitation of the IS literature is its focus on SME owner/manager perspectives at a firm level, with most research neglecting the perspective of supporters who help owner/managers with IS appropriation (Parker et al. 2015). Research on (co-located) SME/MSB community-level IS such as portals (e.g. Gengatharen 2008; Sellitto & Burgess 2005) also provides little insight into supporter experiences with appropriating supporter-IS needed to manage SME/MSB communities. Instead the
focus is on macro-level success factors and owner/manager perceptions of portals (i.e. communal-IS).

The thesis fills these gaps in IS knowledge by conducting in-depth interpretive case studies of four co-located MACO communities. It explores how supporters experience appropriating community-level IS intended to help with the art/craft creativity and economic survival of their co-located MACO communities. The lack of prior research meant it was appropriate to start the study with a theoretical lens based on empirical literature on MACOs, rather than using established theory (Creswell 2014). Framing the study at the start with established theory and their concepts could have narrowed (or pre-empted) the nuances and complexities of supporter experiences (Klein & Myers 1999; Mitev & Howcroft 2011). The empirically-derived lens, by contrast, described terms underpinning the research aim and guiding the data collection very broadly. Specifically, the four co-located MACO communities covered the two major types of art/craft (i.e. low-brow and high-brow) and location types (i.e. rural and urban). Further, communities and supporters were chosen because they had appropriated at least one type of community-level IS (i.e. supporter-IS or communal-IS or a combination). Cross-case themes emerged from a hermeneutic process of data analysis, and these themes were then compared with established theories to identify ones offering a suitable overarching conceptual framework making sense of the themes.

The major contributions of this thesis are as follows:

- Established theories used commonly in IS research on SMEs (e.g. diffusion of innovation theory, resource-based theory) were not suitable as overarching conceptual frameworks because they did not make sense of differences between low-brow and high-brow communities. This was also the case with established theories which have been used to examine co-located SME/MSB communities, including lesser-used theories (e.g. actor network theory).
- Bourdieu’s theory of practice was suitable because:
  - the concepts of fields, habitus and doxa helped make sense of the differences between low-brow and high-brow communities, and why supporters/MACO
members may reject business methods and uses of technology such as IS imbibed with business philosophies; and
° the concepts of economic, social, cultural and symbolic capitals helped make sense of the (non-IS-based) day-to-day practices of MACO members and how these practices influenced the nuanced, complex challenges supporters faced with community-level IS appropriation. The concepts also helped make sense of supporters’ day-to-day use of, and challenges with, community-level IS.

- This appears to be one of the first IS studies to use all these concepts from Bourdieu’s theory in one study, because the limited use of this theory in the IS literature typically involves applying only some of these concepts (e.g. not doxa).
- The study uses two established theories to extend the conceptual richness of Bourdieu’s theory for making sense of supporter experiences:
  ° It uses the three dimensions of social capital developed by Nahapiet & Ghoshal (1998) to make sense of how community life influenced supporter experiences regarding community-level IS appropriation. The limited IS literature applying Bourdieu’s theory typically do not use the three dimensions when applying the concept of social capital.
  ° It uses concepts from social construction of technology by Pinch & Bijker (1984) to make sense of how supporters designed community-level websites, which required additional concepts relating to design and not just Bourdieu’s concepts which were instead more suited to making sense of day-to-day website appropriation/practice.
- The thesis provides empirical evidence that it would be worthwhile for IS scholars to ask new research questions, such as those relating to supporter experiences with appropriating IS in co-located communities. These would complement the more common questions explored in the IS literature relating to SME owner/manager perceptions of appropriation at the single firm level.
- The study fills gaps in IS knowledge concerning MSBs by focusing on MACOs. It also appears to be one of the first studies to synthesis the fragmented literature on co-located SME/MSB communities.
Chapter 1: Introduction

1.1 Problem statement

Organisations in the arts/crafts sector, which are within the creative industries, typically consist of sole-operators or two creative partners. This fits the definition in New Zealand (the context of this thesis) of “sole-proprietors” having no employees and “micro-sized businesses” (MSBs) having 1-5 employees (MBIE 2014). Small and medium-sized enterprises (SMEs) in New Zealand have 6 to 99 employees (MBIE 2014). Artists/craftspeople are therefore often selfemployed (Markusen 2013) and engage in traditional art/craft forms such as painting, photography, theatre, dance, jewellery making, costuming and fashion design, as well as indigenous art/craft forms (Maori in this study). They focus on creativity in their work, on novelty or creative breakthroughs, and on providing esoteric value that is difficult to quantify materially and financially (Bendixen 2010; de Monthoux 2004; Greffe 2008; Greffe & Simonnet 2010). Artists/craftspeople who run micro arts/crafts organisations (MACOs) typically operate in close-knit communities, groups or clusters (Bain & McLean 2013), which are referred to as MACO communities in this thesis. These communities can be formed around temporary/transient activities (e.g. art/craft markets, exhibitions and festivals), and/or longer physical locations (i.e. referred to as co-located MACO communities in this thesis) such as galleries/studios, government run art centres, museums and rural art/craft industrial clusters (Jakob 2013; Lazzeretti 2012). The thesis focused on co-located MACO communities in rural and urban areas because boundaries and membership of such communities were easier to determine based on a physical location (see section 1.3 for more detail).

Co-located MACO communities (and other communities of creative organisations) have traditionally relied on government funding to survive. This funding has been cut significantly since the 2007-2008 global financial crisis (GFC) in many countries such as New Zealand, the United States of America (USA) and the United Kingdom (UK) (Creative New Zealand 2010; Cardy 2011; DCMS (UK) 2011; Loacker 2013; Stothart 2012; McDonnell & Tepper 2014; Roy 2014). Creative New Zealand (2010) was the first organisation to state explicitly that the New Zealand government
expects (communities of) creative organisations to be financially self-sufficient. The government literature shows this trend continues today in New Zealand (Cardy 2015). Governments worldwide expect (co-located) MACO communities, and their MACO members, to appropriate modern business methods such as information systems (IS) to be financially sustainable (Brown 2015; Newsinger 2015; Gilmore & Comunian 2016).

It is unclear, however, how co-located MACO communities can appropriate IS to survive economically and creatively. Sections 1.3 and 2.2.1 explain that one reason (or tension) is that artists/craftspeople in these communities often believe creativity is at odds with capitalist management/strategy approaches focusing on economic gain. This means artists/craftspeople can reject these approaches, along with technology such as IS, if they believe these are tools of capitalism. The shared norms/values in co-located MACO communities (Bain & McLean 2013) can reinforce these views. Attempts to introduce IS into co-located MACO communities must therefore breakthrough such traditional anti-technology attitudes held by artists/craftspeople. Section 1.3 explains this tension further, and other tensions between IS, economic survival and creativity in co-located MACO communities.

The individuals dealing with such tensions and helping co-located MACO communities to appropriate IS could be diverse, and potentially included supporters internal (e.g. managers, administrators, volunteers) and external (e.g. government representatives, IS solution providers) to the communities (Bain & McLean 2013; Parker et al. 2015). The thesis focuses on community-level IS internal supporters can appropriate to help their community in at least one of the following broad ways:

- **communal-IS** appropriated at the community-level for use by MACO members for their own art/craft practices, such as shared broadband and software access so artists/craftspeople can run their business; and
- **supporter-IS** appropriated by internal supporters (e.g. managers, administrators, volunteers) to manage the community (e.g. payments, member relations), but not used by MACO members to operate their art/craft practices.

The focus in this thesis on supporters internal to the communities appropriating community-level IS, rather than MACO artists/craftspeople appropriating IS to run
their own practices, was important because of the tensions between IS, economic survival and creativity (section 1.4 states other reasons). For instance, it was anticipated that internal supporters could appropriate (e.g. adopt, use, manage) supporter-IS without affecting the freedom of MACO members in a co-located community from rejecting IS for their own practices. The researcher thought communal-IS appropriation might occur if the norms in the co-located MACO community allowed members to use IS while other members were free to reject IS. Further, exploring community-level (not MACO-level) IS enabled the thesis to consider the potential impact of MACO members’ and/or internal supporters’ perceptions on if/how particular community-level IS were appropriated in co-located MACO communities. This meant supporters could face diverse challenges when attempting to appropriate supporter-IS and communal-IS in their community. Such supporter experiences could relate to communal-IS if they were the main people responsible for introducing and maintaining such IS for use by MACO members.

The aim of the thesis is thus to explore how internal supporters experience appropriating community-level IS intended to help with the art/craft creativity and economic survival of co-located MACO communities. The following sections elaborate further on this aim, and explain the contributions made by the thesis. The first two sections contrast MACOs with non-creative MSBs, and those in other creative sectors, on the basis of their products (section 1.2) and other characteristics (section 1.3), to explain why (co-located) MACO communities warrant IS research in their own right (see section 2.2 for detail). This includes a summary of the tensions between technology, creativity and economic survival within co-located MACO communities which could influence supporters’ experiences of community-level IS appropriation. Section 1.4 then explains the contribution to IS knowledge made by the thesis resulting from this study beyond just co-located MACO communities. Section 1.5 then summarises the research aim and the overarching research question.

1.2 MACO community products

MACO communities can be distinguished from other MSB/SME communities based on their products. Artists/craftspeople in MACO communities practice a variety of art/craft forms which are known in this sector as high-brow or low-brow arts/crafts.
High-brow art/craft is considered to be creative work showing an intellectually refined and high culture understanding. Artists/craftspeople in high-brow MACO communities perceive their art/craft work to be desired by those in elite social circles. This is because elite purchasers of such art/craft products often want to own high-brow art/craft to show their status in social circles (Alexander & Bowler 2014; McDonnell & Tepper 2014). Examples of art/craft in high-brow MACO communities include the visual arts/crafts of painting, photography and sculpture, and also the performance arts of theatre and dance. In more recent history, cultural institutions like museums have opened up high-brow art/craft to the masses so that it is accessible to all members of society (Alexander & Bowler 2014; Johanson et al. 2014; McDonnell & Tepper 2014; Hesmondhalgh et al. 2015). Similarly, high-brow art/craft has become popular with corporations which invest in high-brow art/craft both for financial and aesthetic valuation (Monin & Sayers 2006).

Low-brow art/craft (or popular art/craft) is considered to be at the opposite extreme to high-brow, and embraces arts/crafts drawn from popular culture (Alexander & Bowler 2014; Storey 2015). Examples from low-brow MACO communities include comic book, pop, street and tattoo arts/crafts. Artist Robert Williams claimed to have coined the term ‘low-brow art’ in the 1970’s with the advent of surf and tattoo art forms (Storey 2015). Browne (2006), however, argues for the use of the term ‘popular culture’ because it is an inclusive term for all art/craft forms that do not fit into the high-brow category, such as folk craft, indigenous art, jewelry making and costume/fashion design. In this thesis, the term ‘low-brow’ will refer to all popular culture arts/crafts based on Browne’s argument.

It should be noted that arts/crafts from low-brow MACO communities can move to high-brow status over time (Jakob 2013; Alexander & Bowler 2014). For example, native indigenous art/craft can be seen as akin to folk art (and thus considered low-brow art/craft), but also distinct in their origins outside of Western European history (Browne 2006). Harakeke (traditional Maori weaving) and kapa haka (traditional Maori dance and song), for instance, were originally seen as low-brow in New Zealand. But art movements like the Surrealists, government initiatives and the persistence of indigenous artists/craftspeople and their communities have seen this work raised in status and appearing alongside high-brow art/craft (Fowler 1997).
For the purposes of this thesis, creative communities in the film, music, publishing and computer game development sectors (Nov & Jones 2004) were excluded in this study. This is because organisations (and their communities) in these creative sectors are often already adopters of IS and rely on digital replication and distribution (Alexander & Bowler 2014), and have thus been the subject of much research focused mainly on the economic benefits of IS (e.g. Bhattacharjee et al. 2006; Papagiannidis & Berry 2007; Benoit & Hussey 2011). As a consequence, IS research on these creative sectors has explored the impact of security, privacy and copyright infringement (Bhattacharjee et al. 2006; Boczkowski 2010) which can adversely affect economic survival in these sectors. The creative industry literature argues that IS has considerable potential to assist all firms in creative sectors to become more economically viable (Greffe 2004; Mateos-Garcia et al. 2008; Speer 2008; McFarren 2010). Research suggests this is applicable to firms and their communities in the film, music, publishing and computer gaming sectors (Florida 2002; Greffe 2002) for digital sales transactions, marketing and distribution (Greffe 2004).

As will be elaborated on in the next section, artists/craftspeople in (co-located) MACO communities are often much earlier in the IS evolution compared to these other creative sectors (and compared to MSBs more generally) due to the different culture and history of the arts/crafts sector. The next section summarises these differences between MACOs and MSBs, and why these differences highlight the need for research on the experiences of supporters appropriating community-level IS intended to help with the art/craft creativity and economic survival of co-located MACO communities.

1.3 MACO technology, economic survival and creativity tensions

There is a creativity-business tension in the arts/crafts sector as a whole, which exists to a greater extent than in other MSB-dominated sectors. Historically, artists/craftspeople in this sector have had a philosophical rejection of work practice automation during the industrial revolution, so that they saw a conflict between creativity and business (Bendixen 2010; de Monthoux 2004; Wilson 2002). This means this sector has been dominated by artists/craftspeople pursuing creative pursuits and believing art/craft work should not be constrained or dictated by managerial philosophies and approaches.
This in turn results in a *creativity-technology tension* because artists/craftspeople are more inclined than other MSB owner/managers to see technology such as IS as detrimental and contradictory to their art/craft creativity (Bendixen 2010; Greffe & Simonnet 2010; Wilson 2002). Specifically, the creativity-technology tension has arisen because IS and other 21st Century technology are often seen as the antithesis of the hand-made creative culture of artists/craftspeople who value traditional arts/crafts (Jakob 2013). Furthermore, artists/craftspeople often believe technology such as IS controls how they work and live, which is counter to the process of creative living and leads to further technology rejection (Wilson 2002). The sector’s heterogeneity means there are some (e.g. young artists/craftspeople) who embrace IS in their creative practice (Black & Browning 2011; Greffe 2004; Shin 2010). Nonetheless, the sector-level creativity-technology tension has potential to be more extreme in arts/crafts compared to many other sectors (de Berranger et al. 2001). Further, art movements which embrace technology (e.g. avant-garde digital art movements) tend to be in the minority compared to other MACOs (Bendixen 2010).

Another tension in the arts/crafts sector is the *creativity-economic tension* which, along with the creativity-technology tension, has implications for IS in MACOs and their communities. Artists/craftspeople often struggle to become established and financially self-sufficient in the competitive arts/crafts sector. This is because artists/craftspeople, at the sector-level, have traditionally expected each other to forgo economic wellbeing to focus on creativity, and this sector-level culture continues today in countries such New Zealand, the USA and UK (Bakhshi et al. 2013; Bennett et al. 2015; Dekker 2013; Jakob 2013; Major 2009).

This appears to be especially so in New Zealand. Artists/craftspeople in New Zealand have struggled more than those in the USA and UK because they had to ‘shake off’ (or end) their colonial image as England’s poor cousin when it came to creativity. This occurred in the radical seventies with the recognition of Maori indigenous art/craft, which is now a world leader in fine art and creative industries. Nonetheless, for many New Zealand artists/craftspeople this does not mean economic survival (Florida 2005; James 2015).

Artists/craftspeople worldwide, and in New Zealand in particular, therefore often move under and above the poverty line (Abbing 2011). The creativity-economic
tension is often seen as a rite of passage by artists/craftspeople to achieve credibility in MACO communities and in the art/craft sector, while they try to gain recognition for their work over time by focusing on creativity rather than profit (Demetry et al. 2015). Such artists/craftspeople work in low-paid jobs (e.g. wait-staff in restaurants, cleaners, arts administration, short-term contracts) to support themselves (Abbing 2011; Carey 2015; Jakob 2013; Kooyman & Jacobs 2015). Some non-creative MSB owner/managers, like artists/craftspeople, choose lifestyle (Eikhof & Haunschild 2006; 2007) above economic success. But the MACO literature cited above (see also Bain & McLean 2013) implies artists/craftspeople in the pure arts/crafts sector are perhaps more likely to be at the extreme end of this continuum.

Creativity-economic and creativity-technology tensions have implications for IS. ‘Cash strapped’ (or financially struggling) artists/craftspeople often cannot afford to feed themselves or their families. MACOs are more likely than other MSBs (at the sector level at least) to face financial burdens of purchasing IS such as hardware, software, connectivity and training. The creativity-technology tension means artists/craftspeople are more likely to prioritise any finances they have on supporting family and performing their art/craft work, rather than using money for IS resources. This can be an issue for MSBs more generally, but MACOs appear to be more extreme in this respect. A further issue is that artists/craftspeople in high-brow and low-brow communities often have not been educated about IS (see section 2.2.1 for more detail), and the creativity-technology tension can reduce their willingness to learn how IS could help them with creativity and/or economic survival.

It is worth noting that some artists/craftspeople, just like MSBs in general, are at the other extreme and are motivated by profit more than creativity, as well as others who are between both extremes (Bridgstock 2013). This means MACOs are heterogeneous just like MSBs in general (Parker et al. 2015). Nonetheless, the literature suggests MACOs are likely to be at the extreme end of limited finances, with higher priority uses of money than for IS. Indeed, the limited IS research on artists/craftspeople who decide to use IS in the form of online marketplaces (which link buyers and sellers) has found there is so much competition (including from art/craft hobbyists), that the prospect of online sales to help with economic survival
are extremely low (see Jakob 2013). Artists/craftspeople for which the creativity-technology tension is strong would likely reject such capitalist uses of IS outright.

The complications of the creativity-economic and creativity-technology tensions (and the creativity-business tension which often leads to rejection of management/capitalist approaches) means it is not surprising that artists/craftspeople tend to work in MACO communities. These include co-located MACO communities in rural and urban areas (Lazzeretti 2012), as well as ad-hoc project groups, intertwining with other MACO communities in a seamless and ever changing network (Shorthose & Strange 2004; Loacker 2013). For this reason, MACO communities are the primary milieu for many artists/craftspeople (Lazzeretti 2012). Communities help members overcome creativity-economic tensions by working together and sharing resources, as well as being a milieu where members are safe to interact based on their shared values (Bain & McLean 2013; Pasquinelli & Sjoholm 2015). The post-GFC context of limited funding (section 1.1) means, however, these communities, and especially co-located MACO communities (e.g. see Bain & McLean 2013), must prioritise how community-level funds are used to support the art/craft creativity and economic survival of the community and MACO members.

The prevalence of rural and urban communities in the art/craft sector suggested that IS research should target MACO communities, rather than examining artists/craftspeople independently of their communities, given their collectivism. The range of community types (e.g. co-located, temporary events, interpersonal networks) in which artists/craftspeople engage meant the study reported in this thesis needed to target identifiable communities. The researcher therefore examined co-located rural and urban MACO communities because they had clearer boundaries, due to supporters, MACO members and community-level IS potentially being identifiable and observable at a physical location. It was anticipated that MACO collectivism around a physical location could enable supporters internal to the communities to appropriate communal-IS to share the financial burden (i.e. creativity-economic tension) of MACO members who wanted to use IS. Even free IS such as Facebook necessitate access to hardware (e.g. computers) and services (e.g. an Internet connectivity), which require funding and potentially a physical location for access. It was also expected that internal supporters would need to balance competing priorities
(e.g. art/craft creativity versus cost saving versus community-level IS) when using limited community funding. Further, it was believed supporters might need to take into account the creativity-technology tensions of members (i.e. shared norms/values) when making decisions about if/how community-level IS were appropriated.

Co-located MACO communities therefore appeared to be suitable novel, complex milieu in which to gain new insights into how internal supporters of co-located communities of SMEs/MSBs in general experience appropriating community-level IS. The next section shows there is a lack of IS knowledge relating to the experiences of supporters of co-located SME/MSB communities in general, which was addressed in this thesis by exploring co-located MACO communities. More importantly, the next section explains how this thesis contributed to the small but growing IS literature which goes beyond examining SME/MSB owners/managers (and/or their individual firms) as the unit of analysis (see Parker et al. 2015) by exploring broader SME/MSB communities. In this thesis, internal supporters and their experiences (i.e. the unit of analysis) appropriating community-level IS appropriation in SME/MSB communities were of interest, rather than IS at the single firm-level.

1.4 Significance of the thesis

This thesis addresses recent calls (see Jones et al., 2014; Parker et al., 2015) for IS scholars to address a gap in IS knowledge regarding MSBs, which the thesis achieves by focusing on artists/craftspeople running MACOs. The researcher’s review of IS literature on artists/craftspeople (e.g. Anderson et al. 2015; Black & Browning 2011; Buechley & Perner-Wilson 2012; de Berranger et al. 2001; Greffe 2004; Pasquinelli & Sjoholm 2015; Shin 2010; Wilson 2002) confirms that IS research on MACOs is even more limited. This literature assumes MACOs should use IS in a manner similar to other MSBs (e.g. online sales, producing digital art/craft work) and should conform to modern business uses of IS. However, this is at odds with the creativity-technology and creativity-business tensions which the MACO literature (see section 1.3) suggests exists within the arts/craft sector. That is, the tensions imply that potential IS use by MACOs may be more complex than currently reflected in the IS literature on SMEs/MSBs. For example, the IS literature has not explored MACO communities where poverty and rejection of modern capitalist approaches is part of the core values of (some) members. This implied IS research relating to MACOs was
warranted, because findings concerning (and based on) SMEs/MSBs may not apply to MACOs and their communities (see chapter 2).

The existing IS research on MACOs has also explored artists/craftspeople separate from their communities. That is, the limited IS studies on MACOs have surveyed or interviewed artists/craftspeople without understanding their appropriation and perceptions of IS in terms of their involvement in MACO communities. These prior IS studies thus do not explore community-level IS (co-located) MACO communities, which appeared to have potential to address (to some extent) the creativity-technology and creativity-economic tensions described in section 1.3.

Table 1.1 shows two major types of SME/MSB communities and two types of community-level IS (defined in section 1.1), and summarises the associated gaps in IS knowledge. The table emphasises that IS research focuses on communal-IS used by SMEs/MSBs and largely ignores supporter-IS used in SME/MSB communities. The study in this thesis therefore contributed to IS knowledge by exploring supporter experiences when appropriating supporter-IS (including considering how creativity-technology and creativity-economic tensions influenced these experiences) in addition to communal-IS. Table 1.1 shows that both types of community-level IS are evident in the few studies which explore IS in co-located MACO communities.

The thesis did not explore non-co-located MACO communities because members of these communities, who are typically separated (globally) by distance, must use IS to participate. Focusing on co-located MACO communities, by contrast, accounted for:

- the creativity-technology tension which could be experienced by (some) MACO members, because they would not be required to use communal-IS or supporter-IS if they rejected technology (while supporters and other members could); and
- the creativity-economic tension which could be experienced by MACO members (e.g. financial problems), because they could use communal-IS provided by the community rather than purchasing their own IS hardware/software and services.
Table 1.1: IS literature coverage of types of community-level IS

<table>
<thead>
<tr>
<th>Types of community-level IS</th>
<th>Co-located community (members collaborate in the same physical location, optional IS use)</th>
<th>Non-co-located community (members who must use IS to join because they are separated by distance)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communal-IS</strong> (IS for all SME/MSB members to use to run their own business)</td>
<td>Limited MACO community studies were identified (Bain &amp; McLean 2013; Cardamone 2007; Cardamone &amp; Rentschler 2006). SME community members use websites to trade internally and/or externally to their rural community (e.g. Galloway et al. 2004; Gengatharen 2008) and/or for knowledge sharing (Mason et al. 2006).</td>
<td>MACO community members use websites to buy/sell (Jakob 2013) and share knowledge (Kuhn &amp; Galloway 2015; Noor &amp; Nordin 2012). SME community members use websites for knowledge sharing/collaboration (e.g. Avgerou &amp; Li 2013; Nolan et al. 2007; Zaglia et al. 2015).</td>
</tr>
<tr>
<td><strong>Supporter-IS</strong> (IS used by supporters to manage/run the community, but not used by SME/MSB owner/managers to run their own business)</td>
<td>No SME/MSB community studies identified. Limited MACO community studies identified (Bendor 2014; Cardamone &amp; Rentschler 2006)</td>
<td>No MACO or SME/MSB community studies identified.</td>
</tr>
</tbody>
</table>

Another gap in IS knowledge relating to SMEs in general reported by Parker et al. (2015) is that most research has focused on the perceptions, experiences and views of SME/MSB/MACO owner/managers with IS within the context of their own firm. This means that experiences of other stakeholders outside the single firm is under-represented in the IS literature. This includes IS studies in the categories shown in Table 1.1 which, as explained further in section 2.3.3, only or mostly report on owner/managers in (non-) co-located SME/MACO communities and their experiences using communal-IS (predominantly electronic or e-portals) to run their firm. Very few of these studies report on the experiences of internal community supporters who help appropriate (e.g. introduce, use, maintain) communal-IS or supporter-IS for the betterment of their SME/MSB community. This includes the MACO-related studies cited in Table 1.1, where very few report on supporter...
experiences with appropriating the supporter-IS and communal-IS to help with art/craft creativity and economic survival of their co-located MACO communities.

Parker et al. (2015) point out that this issue is more typical of the IS literature on SMEs/MSBs in general. For instance, only a small, but growing, body of IS research examines the experiences of vendor-consultants helping SME/MSB clients to build websites (Carey 2008), as well as to implement accounting IS (Bradshaw et al. 2013; Bradshaw et al. 2015) and enterprise resource planning (ERP) systems (Chamberlain 2014; Liang & Xue 2004). In other words, the focus of the latter research has moved beyond the SME firm-level and owner/manager perspective, and started to include the experiences of vendor-consultants helping SMEs appropriate firm-level IS.

This thesis builds upon, and also diverges from, this emergent work by exploring the experiences of supporters internal to co-located MACO communities (i.e. not external stakeholders such as vendor-consultants) appropriating community-level IS (i.e. not IS purchased independently by MACOs to run their own business) intended to help with the art/craft creativity and economic survival of co-located MACO communities. In other words, this study goes beyond the typical owner/manager and firm centric view common in IS research, and beyond dyadic relationships (i.e. between owner/manager (and firm) and vendor-consultant). Instead, it focuses on IS appropriation at the community-level (i.e. supporter-IS and communal-IS) rather than the firm-level, and on the experiences of internal supporters who appropriate such IS for the art/craft creativity and economic survival betterment of the community. Supporters were those in a co-located MACO community who helped run the community (e.g. managers and administrators) and who helped appropriate community-level IS (e.g. introduce communal-IS, introduce and/or use supporter-IS).

Further, the creativity-technology and creativity-economic tensions in co-located MACO communities were expected to reveal complex, nuanced supporter experience, which are not typically encountered in IS research focusing on SMEs/MSBs (and their communities) in other sectors.

1.5 Research Aim

Overall, sections 1.3 and 1.4 highlight that it was unclear if existing research findings in the IS literature would apply to co-located MACO communities given the
peculiarities of the art/craft sector. The unique culture and history of co-located MACO communities and their members, particularly in balancing art/craft creativity and the necessity of economic survival, lead to the following research aim to:

Investigate how internal supporters experience appropriating community-level IS intended to help with the art/craft creativity and economic survival of co-located MACO communities.

The limited IS research on MACOs and their co-located communities meant it was not desirable for the empirical research (e.g. data collection) to be guided using established theories at the start of the research. This was because using established theories (and their concepts) could have narrowed the study (Mitev & Howcroft 2011) to ignore nuances and complexities of supporter experiences with appropriating community-level IS, which is largely unknown in the IS literature (see sections 2.4 and 3.10.3 for further details of this argument). Similarly, section 2.2.3 shows that most literature on MACOs, and their communities, overlooks IS and means that established theories used in this (non-IS) MACO literature could similarly result in biased investigation. It was thus unclear which established theories would be a suitable overarching conceptual framework.

For this reason, data collection was guided instead by a theoretical lens (Creswell 2014) comprising a few broad terms based on empirical (not theoretical) literature on MACOs, which took the form of describing the key terms associated with the research aim. The descriptions were purposefully broad to reduce the restrictiveness of the research design, while balancing this against the need to provide some scope or boundaries for data collection. It was recognised that such a lens would not offer concepts for making sense of the nuanced, complex supporter experiences when appropriating community-level IS which were anticipated based on the literature on MACOs summarised in section 1.3 and further in chapter 2. The empirical study in this thesis therefore let empirical themes, relating to such complexity and nuances, emerge inductively from the data analysis. It was only then that these themes were compared to established theories among the plethora available in the literature (from various disciplines) to identify an overarching conceptual framework to make sense of emergent nuanced, complex findings relating to supporter experiences. Theory building was not the goal because such efforts tend to produce mid-range theories...
(Eisenhardt & Graebner 2007), while the aim of this study was instead to identify a ‘grand’ (overarching) theory which could make sense of the findings. These empirical and theoretical research aims, therefore, were achieved by answering the following research question:

How do internal supporters experience appropriating community-level IS intended to help the art/craft creativity and economic survival of co-located MACO communities, and how can this be conceptualised using an overarching framework?

Answering this research question involved conducting four interpretivist case studies of two low-brow and two high-brow co-located MACO communities in a creative region of New Zealand. The four communities were also evenly mixed in terms of rural and urban to reflect the typical locations of these communities (Bain & McLean 2013), and the difficulties rural MACO artists/craftspeople can experience with IS compared to their urban counterparts (Anderson et al. 2015). The case studies involved in-depth interviews with supporters internal to these communities to collect rich stories of their experiences with appropriating community-level IS initiatives. They also involved observing the use of these IS and collecting other data such as documents to supplement the case study interviews. Chapter 4 presents these rich community-level stories.

Cross-case analysis involved hermeneutic iterations or cycles of identifying emergent themes between the case studies, returning to empirical IS literature (e.g. on co-located SME/MSB communities, and SMEs/MSB more generally) to compare these themes, and identifying new themes from the literature to compare with the findings. This process led to the emergent findings from this study confirming and extending the IS literature on co-located SME/MSB communities. The outcomes of this hermeneutic process are presented in chapter 5.

This was followed by exploring the literature from various disciplines to identify established theories which could be an overarching framework for making sense of the emergent cross-case findings on the complex, nuanced experiences of supporters. Chapter 6 presents the outcomes of this theoretical analysis.
IS scholars in future research on co-located MACO communities in other countries can determine if the findings in this thesis apply more broadly than New Zealand. The thesis makes a practical contribution because governments may also use the findings to prioritise funding to help co-located MACO communities with the community-level IS they require for creative and economic survival.

1.6 Thesis Outline

Figure 1.1 summarises the structure of the thesis, and how each chapter led to answering the research question presented in section 1.5. Each chapter is explained further next.

Figure 1.1: Overview of the thesis chapters

Figure 1.1 shows that chapter 2 reviews the IS literature to justify there is little empirical research on internal supporter experiences with appropriating community-level IS in co-located SME/MSB communities in general, no IS research on supporter experiences in co-located MACO communities in particular, and very little MACO appropriation of IS generally. The chapter shows that supporter experiences in this regard were potentially complex and nuanced due to the unique culture and history of artists/craftspeople and their communities. This meant it was unclear which established theories could serve as an overarching conceptual framework for making sense of such supporter experiences. Chapter 2 therefore presents a
theoretical lens which guided the empirical research (while being flexible with minimal, broad terms) to explore the complex, nuanced experiences of internal supporters involved in such appropriation of community-level IS.

Chapter 3 justifies the appropriateness, and describes the design, of the interpretive multiple case study approach used in this study to explore supporter experiences with appropriating community-level IS in their co-located MACO communities. This includes explaining how the theoretical lens from chapter 2 was used to inform the selection of the case studies and the supporters from each MACO community, and to report in a broad manner the case study narratives (see chapter 4) using the key terms in the research question. It describes the hermeneutic process which was used to identify the emergent nuanced, complex themes relating to supporter experiences regarding their appropriation of co-located MACO community-level IS which used to produce chapter 5.

As shown in Figure 1.1, chapter 4 presents the narratives for each case study separately based on terms from the theoretical lens presented in chapter 2. Chapter 5 then presents the outcomes of the hermeneutic process (described in chapter 3) which led to identifying emergent cross-case themes relating to the complex, nuanced experiences of the supporters, which were derived from the narratives in chapter 4. Chapter 5 explains how the cross-case themes confirm and extend the IS literature, and thus why the thesis makes a contribution to IS knowledge.

Chapter 6, as shown in Figure 1.1, then justifies why one established theory, which has received limited use by IS scholars, appeared to be suitable as an overarching conceptual framework for making sense of the emergent cross-case themes from chapter 5. Specifically, chapter 6 argues that the thesis makes a theoretical contribution by showing this study appears to be one of the first in the IS literature to combine a specific set of concepts from this established theory to make sense of its empirical findings. It also explains how other established theories can be integrated with this broad, overarching theory, to provide further richness to the concepts for making sense of specific emergent cross-case themes.

Chapter 7 summarises the major contributions of the thesis:
to IS knowledge by confirming and extending the limited literature on supporter experiences with appropriating community-level IS in co-located SME/MSB communities by focusing on co-located MACO communities. This contributed to IS knowledge because MACOs, MSBs generally, and MACO communities have received little attention in the IS literature, and because MACOs were atypical of the types of SMEs/MSBs more commonly explored in the literature; and

to theory by showing how various concepts from an established theory can be used together as an overarching conceptual framework to make sense of complex, nuanced findings on supporter experiences with community-level IS appropriation in co-located MACO communities. This makes a contribution because these concepts from the established theory appear to be rarely combined in the IS literature in the one study. A related theoretical contribution is made by complementing this established, overarching theory, with other established theories for added conceptual richness.

The chapter also offers recommendations for practice, summarises the major limitations of the study, and suggests opportunities for future research arising from this research.
Chapter 2: Literature Review

Chapter 1 explained it is important to explore how internal supporters experience appropriating community-level IS intended to help with the art/craft creativity and economic survival of co-located MACO communities. This chapter will justify the need for this research as follows.

Section 2.1 will first provide an overview of the IS literature on SMEs to show there is a need for more MSB related research by the IS discipline. Section 2.2 then explains that MACOs are a specific type of MSBs with their own (co-located) community-based history and culture focused on creative work. MACO traits are compared to the IS literature on SMEs/MSBs to argue that existing IS research insights may not apply (fully at least) to MACOs, and that IS studies on MACOs are thus warranted in their own right.

Section 2.3 then reviews the literature specifically on IS use within co-located SME/MSB communities to demonstrate that little research exists on the experiences of supporters within these communities who help appropriate community-level IS. This includes explaining why co-located MACO communities were appropriate to study in order to fill this gap in IS knowledge. Finally, section 2.4 summarises the key terms from the empirical literature on MACOs in particular which served as broad lens for exploring internal supporter experiences when appropriating community-level IS intended to help with art/craft creativity and economic survival of co-located MACO communities.

2.1 Need for micro-sized business (MSB) related IS research

There has been over two decades of IS research into SME adoption barriers, use and benefits of various IS applications (Peltier et al. 2012) such as:

- Electronic business or e-business such as websites and e-marketplaces. The literature argues these applications can help SMEs, for example, to globalise quickly and cheaply and/or to gain more customers (e.g. Alonso Mendo & Fitzgerald 2005; Ghobakhloo & Tang 2013). More recently the literature has explored social media use by SMEs (e.g. Ghezzi et al. 2016; Kim et al. 2013;
Perrigot et al. 2012), including in developing countries (e.g. Abed et al. 2015; Mohajerani et al. 2015).

- Knowledge management (KM), including knowledge sharing, trust, communities of practice and co-opetition in an IS context, as well as the support of government in mobile knowledge sharing (e.g. Duhan et al. 2001; Levy et al. 2003; Nolan et al. 2007; Choudrie & Culkin 2013).

- Enterprise resource systems (ERP), where initially cost was a barrier to SME adoption, but some SMEs have been finding improved business operation and success with ERP implementation. However, issues of inadequate vendor support in this process have resulted in significant issues (Pob-Nzaou & Raymond 2011; Ruivo et al. 2013; Ruivo et al. 2015; van Beijsterveld & van Groenendaal 2016; Zach et al. 2014).

The need for research on SMEs is justified in the IS literature based on their unique characteristics compared to large firms. For example, they often lack human and financial resources, and have limited IS knowledge and/or strategic planning, which means they have difficulty keeping up with new IS applications (Lawrence 2010; Cragg et al. 2011; Gottfridsson 2011; Kannabiran & Dharmalingam 2012; Choudrie & Culkin 2013; Eze et al. 2014). Further, SMEs are generally controlled by one or two owner/managers, especially in micro and small businesses, which means their knowledge and perception of IS benefits has a significant influence on whether IS will be adopted (Cragg et al. 2011; Ghobakhloo & Tang 2013). Due to these simpler/flatter management structures, however, SMEs often have less coordination problems than larger firms due, for instance, to the closeness of owner/managers and employees (Cragg et al. 2011). SMEs have been characterised as being more risk averse than larger firms and therefore reluctant to risk IS investment, but also more innovative and prone to higher failure rates (Alonso Mendo & Fitzgerald 2005).

The IS literature emphasises that low levels of IS expertise in many SMEs means they depend on external expertise, more so compared to larger firms, to adopt and use IS (Cragg et al. 2011; Ruivo et al. 2013). SME owner/managers have found that trust is often hard to achieve in these external relationships (Sarker et al. 2012). For example, studies have found that SME owner/managers often do not feel they are being provided with good advice and value for money in terms of support from IS
vendor-consultants (Chamberlain 2014; Beckinsale et al. 2006; Howcroft & Light 2010; Upadhyay et al. 2011). Other owner/managers turn to family and friends they know and trust when adopting and using IS (Parker & Castleman 2009).

The IS literature also emphasises that, in addition to SMEs being different to large firms, there is also heterogeneity among SMEs because, for example, they operate in different industries and have different sizes and business motivations (Alonso Mendo & Fitzgerald 2005; Parker et al. 2015). This heterogeneity means the relevance and use of IS applications to SMEs are quite diverse. For example, some SME owner/managers aim to maximise profit and competitive advantage. But others set up their business for lifestyle reasons, such as to have autonomy over their own working lives, pursue creative endeavours, or be closer to family (Cragg et al. 2011; Parker & Castleman 2009). The implication is that IS use, desired benefits and relevance will be different for SMEs such as non-profits (Duhan et al. 2001; Kendall & Kendall 2009; Parker et al. 2015) compared to owner/managers with entrepreneurial and/or profit maximising aims. This emphasises the need to understand SME owner/manager motivations and priorities when investigating IS adoption and use (or appropriation) and their experiences during appropriation.

One way of taking into account SME heterogeneity, and understanding their adoption and use of IS, is to heed a recent call by Jones et al. (2014; see also Parker et al. 2015) for more IS research focused on micro-sized businesses (MSBs):

*While research into ICT adoption by small and medium-sized enterprises (SMEs) is relatively well developed, several researchers assert that understanding is limited regarding micro-sized enterprises* (Jones et al. 2014, p. 286).

The New Zealand definition of an MSB, which is the context of this thesis, spans from a sole-proprietor with no employees to 5 employees (MBIE 2014). MSBs make up 85% of the sector in New Zealand, which is a reflection of New Zealand’s small size, where micro businesses dominate the landscape (Al-Qirim 2003; 2005). This is consistent with the definition in Australia (ABS 2004), but can be contrasted with other MSB research cited in this thesis, mainly from the UK, which defines MSBs as having less than 10 employees based on the European Commission (2015) definition.
This emphasised the need for this thesis to focus on MSBs in a single country to ensure consistency within a national context.

Research has shown that IS-related challenges are magnified for MSBs compared to SMEs more generally (Barba-Sanchez et al. 2007; Wolcott et al. 2008; Jaouen & Nakara 2015; Jones et al. 2014). For example, e-business growth by MSBs, more than SMEs generally, is affected by limited time and resources, thus limiting MSBs’ e-business development often to a basic level (Jaouen & Nakara 2015; Jones et al. 2014). Furthermore, training is restricted to self-training more so in MSBs compared to SMEs (Jones et al. 2014). Few MSB owner/managers have been found to plan and formalise their approach to e-business compared to larger SMEs, and show a general lack of interest in e-business growth, where email, websites and online trading was lower (Jones et al. 2014).

MSBs to a much higher degree than larger SMEs are socially-oriented and rely on business/peer networks, which results in IS adoption being focused on areas such as interpersonal business relationships (Barnes et al. 2012; Kamal 2012; Jones et al. 2014). However, large systems like ERP systems do not align with this ability, due to MSBs lacking resources, IS skills and knowledge. Instead, simpler tools such as social media and mobile phones are more suitable. However, often IS strategy is ad-hoc and reliant on owner/manager input, who may have low IS skill levels; and even more so for sole-proprietors (Jones et al. 2014; Simmons et al. 2008; Wolcott et al. 2008). IS scholars have called for more MSB-related research due to their differences to larger SMEs (Jones et al. 2014; Parker et al. 2015; Simmons et al. 2011). This includes considering MSBs with diverse non-profit imperatives such as lifestyle, time with customers and family (Parker & Castleman 2009; Jones et al. 2014).

Research specifically relating to sole-proprietors also shows they often do not take part in long-term planning for adoption of IS (Jones et al. 2014). Instead, decisions on investment are made in the short-term and ad-hoc to meet immediate operational requirements, and only when available financial resources are available and benefits are readily evident. Sole-proprietors tend to focus on flexibility and low-cost approaches, which may provide better customer outcomes, by helping sole-proprietors be more responsive to their customers. Jones et al. (2014) therefore calls for more diversity in IS studies:
The findings from this study suggest that there needs to be greater attention in the small business literature to diversity within SME classifications, particularly in the case of sole-proprietor micro-enterprises” (Jones et al. 2014, p. 289).

The thesis addresses this call by reporting on a study of the arts/crafts sector in New Zealand which is dominated by sole-proprietor MSBs with owner/manager values quite different to SME/MSB owner/managers normally explored in the IS literature. The next section explains the uniqueness of MACO artists/craftspeople further, and justifies why IS research relating to MACOs is warranted in its own right.

2.2 Need for MACO related IS research

MACOs have some aspects in common with MSBs in general. The next sections will explain, however, MACOs have various traits that, when taken together, mean they are at the extreme end of MSBs, and thus warrant IS research dedicated to this sector.

2.2.1 MACO historical rejection of modernity and technology

Artists/craftspeople have historically rejected technology since the inception of modernity, which stimulated the industrial age (Christensen 2010; Fowkes & Fowkes 2009; Jones 2006; Randall 1998; Rowbotham 2008; Wilson 2002). Technology in factories threatened the livelihoods of artists/craftspeople (Randall 1998; Rowbotham 2008). This went hand-in-hand with their rejection of systems of management, where artists/craftspeople perceived that businesses appropriated technology for efficiency and control for the pursuit of pure profit or economic sustainability (Marx 1932, 1959; Weber 1920, 2002; Zuboff 1988). Artists/craftspeople typically revolted against this ethos and chose to privilege creativity over economic gain (Fowler 1997; Jakob 2013; Noor & Nordin 2012; Rowbotham 2008). The phrase creativity-business tension (as noted in section 1.3) is used in this thesis to refer to this rejection by artists/craftspeople of managerial (or economic, capitalist) philosophies in favour of creativity.

Artists/craftspeople have often continued, in the age of computers and IS, to believe technology threatens their means of employment, and to fear technology (Christensen 2010; Greffe 2004; Jakob 2013; Wilson 2002). For many artists/craftspeople, traditional hands-on processes are fundamental to their creative process, and they often view any intrusion of technology such as IS into their
art/craft practice and business processes as having the potential to remove creativity and harm their mental and physical health (Christensen 2010; Gouzouasis 2006; Jakob 2013). Others see wider implications, such as the erosion of their culture: “The fear of cultural erosion of ... batik makers is strengthened by their belief that ICT can propagate the erosion process” (Noor & Nordin 2012, p. 106). This is true in indigenous culture, just as it is in western high-brow culture (Alexander & Bowler 2014). A further reason for this resistance is that kinaesthetic (e.g. physical touch during greetings) and emotional communication is often valued by artists/craftspeople, so that IS-based communications in the art/craft sector is often less acceptable (Jones 2012; Norman 2013). The phrase creativity-technology tension (section 1.3) is used in this thesis to refer to this rejection of technology, including IS, by artists/craftspeople. This tension is related to the creativity-business tension mentioned above, but not necessarily the same, because artists/craftspeople may reject business philosophies but could still use technology such as IS for what they perceive as non-business purposes such as discussing creative work (Greffe 2004). That is, assuming IS-based communication is acceptable to them in the first place.

Another historical reason why those in the arts/craft sector often reject technology is the fear of government surveillance. This links back to the new factory model of modernity where a worker would be watched and controlled by the technology of modernity (Foucault 1980). It also reflects their concern that technology can be used by governments to control marginalised groups, which include those residing in arts/crafts communities (Bauman 2002). With the advent of the internet, this has been called an electronic cage of surveillance (Parenti 2008). The arts/crafts sector has a history of challenging government surveillance and control, often as activists. This is linked to their aesthetic autonomy (Adorno et al. 1965; Levine 2002), which is a phrase referring to the freedom of artists/craftspeople to explore their personal approach to creativity in their work and lives (see section 2.2.2 for more detail). The creativity-technology tension is also evident when artists/craftspeople reject modernistic management approaches involving using technology for control and surveillance (Bendixen 2010; de Monthoux 2004; Jakob 2013; Zuboff 1988), because technology is seen as a tool of capitalism and, thus, not neutral (Roberts 2006). In such instances, this creativity-technology tension is related to the creativity-business tension, where they reject profit and control-driven management.
The traditional IS literature on SME/MSB adoption barriers contrasts with that of MACOs. More specifically, the IS literature on SMEs/MSBs mainly reports on the rejection of IS from the view that owner/managers do not perceive benefits, or do not see IS as relevant to their products/services or way of conducting business (e.g. Jones et al. 2014). In this sense, IS is viewed by owner/managers (and/or IS scholars) through the lens of modernity or management philosophies. The broader literature on MACOs, by contrast, suggests that such modernity-based views of IS may not be appropriate to MACO artists/craftspeople, who may reject modernity and its associated management philosophies due to the creativity-business (and associated creativity-technology) tension. In other words, they may reject the idea of business and related values, and any IS which is imbied with such modernity values.

IS research on SMEs suggests that MSB (and MACO) owner/manager fear and resistance to IS can be attributed mainly to their lack of IS knowledge, which in turn means they do not perceive benefits and are unwilling to seek advice from IS vendor-consultants (e.g. Jones et al. 2014). The argument in the IS literature is that if MSB owner/managers gain and have more IS knowledge, then they will more likely make informed decisions about the potential of IS in their business (Jones et al. 2014). The culture and history of MACO artists/craftspeople and tensions described above suggests, however, artists/craftspeople may resist attempts to be educated about IS. The literature comparing high-brow and low-brow artists/craftspeople offers further reasons why educating MACO proprietors about IS might be problematic.

High-brow artists/craftspeople (see section 1.2) are often taught by art educators who do not have IS skills (Black & Browning 2011; Shin 2010). Alternatively, these artists/craftspeople believe technological skills are part of the role of technicians who support famous artists (Greenfield 1999; 2015). This is similar to photographers viewing those who once developed film as lowly technicians who were not worth crediting (Greenfield 1999; 2015). This can mean there may be little motivation for high-brow artists/craftspeople working in the sector to learn about how IS might help their MACO practice, because they do not see technology use as being part of their role. Research has focused on changes to arts/crafts curriculum to include IS and other technology (Black & Browning 2011; Shin 2010), but this will mainly
influence new generations of high-brow artists/craftspeople. This suggests that attitudes about the role of technology in high-brow art/craft is difficult to change.

Low-brow artists/craftspeople, by contrast, are often self-trained and have not attended universities/polytechnics, or ‘drop out’ of secondary education due to feelings of marginalisation, and thus tend to have low participation in education (Fine 2003; 2006; McCullough 1998). This would include IS education. Similarly, artists/craftspeople often self-learn their art/craft, implying they would need to self-learn IS as well. Only those already motivated about IS are likely to do this, unless those in their community can help them (see section 2.2.2).

Overall, since most arts/crafts organisations are MACOs (see section 1.1), the literature summarised in this section suggests that, as a sector, artists/craftspeople are more likely than other sectors dominated by MSBs to fear and distrust of technology such as IS (i.e. the creativity-technology tension). This implies that IS research focused on MACOs is warranted to understand the nuances of how their culture, history and potential creativity-technology tensions play out with IS appropriation. The limited IS research relating to MACOs is reviewed in section 2.2.3.

The next section explores further cultural-historical aspects of artists/craftspeople which can also influence their relationship with IS.

2.2.2 MACO values, collectivism and financial struggles

MACO artists/craftspeople have specific values that underpin the culture of the arts/crafts sector, based on the concept of autonomy (Pang 2009). The arts/crafts sector developed its own concept of autonomy called aesthetic autonomy (Adorno et al. 1965; Levine 2002). This dates back to the early days of the enlightenment movement where artists/craftspeople broke with religious morals and the scientific movement in the belief that arts/crafts should not be judged in the same way as morals or science (Gaiger 2009). Artists/craftspeople were able to explore art/craft without inhibition, allowing them to create breakthrough contributions to arts/crafts by living and working outside normal society’s rules/norms. This in turn fed into the art/craft work they produced in the form of self-expression (and sometimes activism) about society and its norms (Levine 2002).
Artists/craftspeople historically and in current times form collectives or alternative communities outside of mainstream society (Bain & McLean 2013; Carlsson 2008; Hamdi 2004). These include co-located artistic clusters evolving into communities (Buechley & Perner-Wilson 2012; Crawford 2008; de Monthoux 2004; Drake 2003; Fowler 1997; Jakob 2013; Rowbotham 2008), which form complex networks, social milieus or social ecologies (Costa 2012; Shorthose & Strange 2004). MACOs and the arts/crafts sector operate as a collectivist culture (Cleveland 2002; Vail & Hollands 2012). Within these MACO communities, artists/craftspeople still have extreme individualism, where they exert aesthetic autonomy from the rest of society to generate unique creative works (Kooymans & Jacobs 2015). Artists/craftspeople may be drawn together in MACO communities through a common agenda (e.g. genre of art, political or cultural alignment, or low-brow versus high-brow arts/crafts described in section 1.2), but each artist is granted autonomy to express their creative ideas (Adorno et al. 1965; Fowler 1997; Levine 2002). In this sense their approach to collectivism is to operate between individualism and collectivism in a relational state or relational autonomy (Christman 2015; Kooymans & Jacobs 2015). These communities can also form around co-located privately run art centres and galleries, as well as government run facilities (referred in this thesis as co-located MACO communities) in rural and urban areas, and are typically formed around a genre of art (based on the notions of high/low-brow), or around a lifestyle, and some cases both.

This desire by many artists/craftspeople to have aesthetic autonomy, however, comes at a cost, because they are culturally expected by other artists/craftspeople in the sector to suffer in poverty for their art (Abbing 2002; Alexander & Bowler 2014; Caust 2003). Thus, like other MSBs, many MACOs have limited financial resources (Bendixen 2010; de Monthoux 2004; Demetry et al. 2015; Jakob 2013), but often at the extreme compared to MSBs. Research has shown that artists/craftspeople often live below the poverty line (Abbing 2011; Jakob 2013; McRobbie & Forkert 2009).

Studies shows that artists/craftspeople often have a paid job to support their art/craft practice (Jakob 2013), such as to pay for art/craft studio rent and for basic resources like paint or canvas (Carey 2015). These are typically low-paying jobs within the arts/craft sector, such as working as curators/salespeople in galleries, arts marketers and arts administrators (Carey 2015), or outside the sector in low-status jobs such as...
waiters/waitresses in restaurants, night porters or cleaners (Abbing 2011). However, artists/craftspeople who make a base survival level of money will typically turn their full attention to art/craft work, since the other jobs are often just a means to an ends and referred to as the survival constraint by Thorsby (Abbing 2002). This shows the devotion artists/craftspeople have to their work, and that their main aim is to serve creativity, rather than seek economic gain (Jakob 2013). The phrase creativity-economic tension was introduced in section 1.3 to describe these aspects of the creativity working lives of artists/craftspeople.

Highly favoured high-brow artists/craftspeople can supplement their income significantly from government grants and private donations, but their low-brow counterparts are often excluded from such aid (Abbing 2002). This is even more the case in recent times due to the current economic climate where such grants have been reduced (see section 1.1), so that even successful high-brow artists/craftspeople increasingly face poverty. Among high-brow and low-brow artists/craftspeople, two groups struggle most with regards to the creativity-economic tension. The first, who mainly go on to be high-brow artists/craftspeople, are from middle class backgrounds whom attend university and accept temporary poverty for the dream of a successful career, often relying on loans (Demetry et al. 2015).

The second group is a mixture of middle class ‘drop-outs’ from school and/or those marginalised by society who live alternative lives as activists, with this group making up a significant number of artists/craftspeople in the low-brow arts/craft sector (Carlsson 2008; Demetry et al. 2015; Jakob 2013; Rowbotham 2008). Activists in particular often choose to live frugally, as a form of protest against the capitalist mode of living arising from the creativity-business tension described in section 2.2.1. They typically look outside the formal economic system to activist communities for their basic needs of housing and food so they did not require much money, and when they need to purchase something they get around their anti-capitalist stance by using discount shops (Demetry et al. 2015; Jakob 2013).

Despite the differences between these two groups, both rely on three types of strategies to get around low income (Carlsson 2008; Demetry et al. 2015):
• community, such as living with partners and roommates, or in communes, to save money and share resources;
• social network support, such as friends, family and organisations which can provide extra economic resources; and
• thriftiness, such as shopping at discount stores, repairing and building their own furniture, food scavenging like dumpster diving, and communal gardens.

From an IS perspective this means artist/craftspeople having limited IS education (see section 2.2.1) and financial resources (Garnham 2005; Greffe 2004; Marcos 2007; Todd 2010; Steiner & Schneider 2013) struggle to afford IS tools, even if they do not reject IS on philosophical grounds.

It is important to emphasise, however, that the MACO traits outlined in this section and section 2.2.1 do not mean artists/craftspeople and their MACO communities are homogeneous. For example, their desire for individuality to express values/views in their creative work results in diverse low-brow and high-brow arts/crafts (section 1.2). Artists/craftspeople in a MACO community may vary with respect to the creativity-technology tension, because their aesthetic autonomy means they may be free within their MACO communities to reject IS (section 2.2.1) if it is seen to harm their aesthetic autonomy, or to utilise IS to push aesthetic boundaries (Levine 2002).

The latter is in part being driven by a new generation of artists/craftspeople with better IS education, and by IS becoming cheaper and more accessible (Daalder 2005; Delacruz 2009; Mayo 2007; Shin 2010). With respect to the creativity-economic tension, artists/craftspeople (including those in the same MACO community) may vary from one extreme of fully embracing poverty to keep their creative integrity (Caust 2003; Demetry et al. 2015; Jakob 2013), to being entrepreneurial (Greffe 2004). MACO community members may also vary in their political/activist views. In this sense, a MACO community may comprise of artists/craftspeople whom are diverse in many ways, as well as homogeneous in other ways, depending on the shared values/norms which bring members together.

Overall, the rich culture and history of artists/craftspeople and their sector means that MACOs warrant IS research in their own right to identify new insights not apparent in the IS literature on other SME/MSB types. This is largely due to the potentially
complex interplay of creativity-technology tensions (or artists/craftspeople who reject IS/technology) and/or creativity-economic tensions (i.e. poverty at the extreme end of the MSB spectrum) possibly experienced by artists/craftspeople.

The collectivist nature of the arts/craft sector implied that the study reported in this thesis needed to explore artists/craftspeople within, and not separate from, their communities. The difficulty with operationalising this, however, was the possibility that artists/craftspeople could be members of multiple MACO communities, including informal interpersonal networks. For this reason, the study focused on co-located MACO communities centred on a physical focal point for the community (e.g. a gallery, commune, art centre) in rural and urban areas, and the use of IS within these communities. This meant it was easier to identify such MACO communities. Justification for this focus was provided in sections 1.3 and 1.4.

The next section reviews the IS literature in more detail to justify the need for research focusing on IS within co-located MACO communities.

### 2.2.3 Need for IS research on co-located MACO communities

The literature relating to MACO use of and issues with IS comes mainly from the arts management and IS academic disciplines, with other literature from government and academic domains reporting on the creative industries more generally rather than on MACOs. The MACO-related studies are limited (just like MSB studies, as noted in section 2.1) compared to SME research in the IS literature, but it is growing. There are three research perspectives dominating the literature: macro regional/economic development, MACOs or co-located entities (e.g. galleries, art centres) studied independently of communities, and to a lesser extent studies of MACO communities. Each is summarised next.

#### 2.2.3.1 Macro regional and economic development

The creative industries literature focuses on regional/economic development (e.g. Chalmers & Danson 2011; DCMS (UK) 2011; Florida 2002; Garnham 2005; Jakob 2013; Loacker 2013; Wassall 2014). Specifically, this literature reports on various aspects of global government agendas (see section 1.1) requiring MACOs to use, among other things, IS to become self-sustaining. This agenda states MACOs should join forces with more IS-intensive creative industries to become self-sustaining
(Florida 2002; Greffe 2004; Grodach & Seman 2013; Jakob 2013), resulting in artists/craftspeople having less access to government grants (Caust 2003; Cohen & Pate 2000; Creative New Zealand 2010; Pratt 2009; Win 2014). As such, the creative industry literature focuses on the economic, not the creative, aspect of MACOs when promoting the potential benefits of IS. This literature largely ignores the creativity-business and creativity-technology tensions associated with supporter experiences with appropriating community-level IS in co-located MACO communities.

2.2.3.2 MACOs or co-located entities independent of communities

Research on IS and MACOs is very limited (Bendor 2014), especially compared to IS research on SMEs generally. The limited art management and IS literature examining MACOs looks at IS use, benefits and issues from artist/craftspeople viewpoints separate from (or ignoring) their MACO communities. Articles in both disciplines report on how MACOs do or should use IS. That is, for:

- economic purposes such as art/craft marketing and sales (Anderson et al. 2015; Cardamone & Rentschler 2008; de Berranger et al. 2001; Greffe 2004; Pasquinelli & Sjoholm 2015);
- representing their (activist) values and art/craft practice online (Anderson et al. 2015; Cardamone & Rentschler 2008; de Berranger et al. 2001; Ganesh & Stohl 2010; Pasquinelli & Sjoholm 2015), with some highlighting concerns about expressing these values online due to the threat of surveillance and/or arrest by authorities (Ganesh & Stohl 2010);
- collaborating with and being supported by artists/craftspeople (Greffe 2004; Kuhn & Galloway 2015; Pasquinelli & Sjoholm 2015); and/or

The latter would not be appropriate for those artists/craftspeople concerned about creativity-technology tensions and focusing on traditional art/craft forms (Jakob 2013; Noor & Nordin 2012; Wilson 2002). As with the IS literature on MSBs, there have been studies focusing on (or addressing in part) the IS adoption decisions of artists/craftspeople, such as a lack of IS knowledge and poor Internet access in rural
areas (Anderson et al. 2015; de Berranger et al. 2001; Hairuddin et al. 2012). Overall, this limited IS research on MACOs is similar to studies on SMEs/MSBs more generally, which explores owner/managers separate from their communities and which examines similar topics dominating IS research on SMEs/MSBs.

A similar approach in the arts management (e.g. Jethani & Leorke 2013) and IS literature (e.g. Peacock et al. 2009; Swierczynska-Kaczor 2015) has involved examining co-located entities (e.g. art centres, galleries and museums) independently of their MACO communities. The studies explore IS used by these co-located entities for online sales, digital curation and/or engagement with consumers. However, these articles do not explore how the supporters in these entities experience appropriating such IS. An exception was Bendor (2014) who interviewed supporters (mostly one manager for each) of eight Australian indigenous art centres to investigate their experiences appropriating various supporter-IS used mainly for internal centre management, sales/engagement with customers and profiling the local artists/craftspeople. The main goal for IS in these co-located MACO communities was to increase the sales of Aboriginal artists’ work in response to individual (and community-wide) creativity-economic tensions. The supporter experiences related mainly to decision-making considerations when appropriating the IS, and associated benefits and problems.

This MACO literature on co-located entities points out that the entities are often SMEs in their own right. For example, Bendor found that supporters of these entities had similar constraints and concerns as other SMEs/MSBs, such as limited budgets, lack of staff IS expertise, inadequate internet connectivity, the time needed to update websites and social media. A further issue was that many customers want to view art/craft work physically before buying.

Physical spaces such as art centres and galleries can differ to other SMEs/MSBs, because artists/craftspeople often form close-knit communities or collectives around these entities (see section 2.2.2). It is therefore important to examine supporter experiences with IS appropriation within their MACO communities, but the above cited articles on co-located entities do not include information about the MACO communities. That is, the articles do not report on supporter accounts of if/how artist/craftspeople community members influence community-level IS appropriation.
within these entities. For example, Bendor did not report on the art centre communities or on how supporters experienced the influence of Aboriginal culture and MACO members on community-level IS appropriation.

The review of MACO-related studies in this section suggests it was important to explore supporter experiences with appropriating community-level IS by conducting case studies of co-located MACO communities. The next section examines the literature reporting case studies of MACO communities co-located around entities such as art centres and galleries, and the extent to which the studies report on the influence of MACO communities on supporter experiences with IS appropriation.

2.2.3.3 Co-located MACO communities

There has been limited case studies examining supporter experiences with community-level IS appropriation which take into account the influences of their MACO community. Most case studies have been undertaken in the arts management discipline, rather than in the IS discipline, and with most arts management articles providing minimal insight into community-level IS.

Arts management articles reporting on case studies of rural and urban MACO communities do not usually explore IS within such communities (e.g. Jakob 2013; Loacker 2013). Bain & McLean (2013) is a notable exception because this article describes two co-located MACO communities, but provides limited insight into IS within these communities. The first community they studied appropriated a community-level Facebook page and electronic newsletter when it lost their physical premises due to lack of funding following the GFC. Bain & McLean report no further details. The second community had a website, but Bain & McLean only provide a quote of an invitation on the website for people to attend the community’s farm and annual festival. Bain & McLean highlight that both co-located MACO communities had a social milieu with nuanced issues affecting their art/craft creativity activities. Supporters in both communities experienced creativity-economic tensions, similar to that of individual MACOs (see section 2.2.2). This required prioritising of limited funding such as whether they could afford to run co-located physical spaces. Bain & McLean therefore focused on the complex social milieu faced by supporters in the two communities, but did not explore the nuances
of community-level IS appropriation (e.g. alleviating and/or exacerbating these problems). Nonetheless, the study implied co-located MACO communities could have complex, nuanced issues influencing community-level IS appropriation.

Another notable exception in the arts management literature was Cardamone’s case studies of MACO communities, or an Indigenous art centre in rural Australia and an Indigenous performance arts centre in urban Australia (Cardamone 2007; Cardamone & Rentschler 2006). Cardamone does not report on the experiences of supporters, but she shows co-located MACO communities use community-level IS. Community-level websites were used to promote both communities to an external audience. The urban centre website included resources for centres and education institutions to run their performances, as well as information on its own productions in varying stages of development, but did not support online ticket sales. The rural art centre website initially promoted MACO member artwork to customers, and could be considered a communal-IS because Indigenous artists used the websites indirectly (i.e. supporter uploaded artwork images for them) to run their MACO practices. The rural art centre used an internal database (i.e. supporter-IS) to verify artwork authenticity.

Noor & Nordin (2012) appears to be the only study from the IS discipline relating to MACO communities, with a focus on a purely online non-co-located community (defined in section 1.4) in the early stages of development. This article focuses on website design Noor & Nordin created to enable the formation of the non-co-located community, and on the MACO member website requirements they identified. In other words, the article reports on the experiences of the authors developing the website, not supporters' appropriation of the website, and is thus better described as action research rather than a case study. MACO owner/managers engaged in traditional Batik craftwork in Malaysia were the intended members of this community because of the significant place Batik making plays in cultural heritage with its role in storytelling. The craftspeople studied were worried IS would detract from the cultural heritage of their product (i.e. creativity-technology tension), and were concerned that knowledge of traditional Batik techniques would be lost. The authors concluded that: “A relevant ICT... system for batik microenterprise will be one that supports the knowledge creation of batik either for an individual or for a community of batik makers” (Noor & Nordin 2012, p. 106). Clearly, their website
was intended to preserve traditional creativity by bring MACO members together online from various physical locations. Noor & Nordin do not report on the use of this website. This project, along with other non-co-located MACO community websites studied (Kuhn & Galloway 2015), depends on MACO members agreeing to use IS so they can participate in the online, non-co-located MACO communities.

2.2.3.4 Comparison of this thesis to prior work
The project in this thesis takes a different approach and presents case studies of co-located MACO communities, formed around a physical location, so that there is no need for members with a strong creativity-technology tension to use IS in order to join the community. Section 2.2.2 noted that (co-located) MACO communities could have members with diverse values and views about IS ranging from complete rejection (i.e. creativity-technology tension) through to more sophisticated uses. As a result, the thesis addresses a gap in knowledge identified in this section concerning the lack of case studies into IS appropriation within co-located MACO communities.

This research project is also different to prior research, and thus contributes to IS knowledge, because it does not concern IS use at the MACO level. MACO use of IS includes, for instance, artists/craftspeople establishing a website for their individual business and using personal social media (e.g. Facebook pages) to interact within their personal networks. Instead, this thesis focuses on IS used in co-located MACO communities, which are referred to as community-level IS. This includes community-level Facebook pages, electronic newsletters and websites reported in the literature on MACOs (Bain & McLean 2013; Bendor 2014; Cardamone 2007; Cardamone & Rentschler 2006). Appropriation of such IS at the community-level appears from this limited work to be different to the MACO level, because community-level IS are aimed at supporting the entire community, not just an individual artists/craftsperson and their creative practice. This means MACO members of the community can exercise their aesthetic autonomy to reject technology such as IS (section 2.2.1) due to creativity-technology tensions, but that the MACO community itself might use IS to support the community as a whole. The potential of various community-level IS applicable to co-located MACO communities was notable in the study by Bendor (2014). She found that Australian Aboriginal art centres used supporter-IS (e.g. stock
and website content management systems) not used by artists/craftspeople, and communal-IS (e.g. Facebook pages) used by artists/craftspeople.

The study reported in this thesis extends Bendor’s work by conducting detailed case studies of co-located MACO communities, and how creativity-business and creativity-economic tensions within the art/craft sector, and among community members, influenced community-level IS appropriation. Specifically, it looks at such appropriation through the experiences of the various supporters within a single co-located MACO community, and not just a single person as used by Bendor (2014).

In addition, this research contributes to IS knowledge beyond just exploring MACOs. The next section reviews the IS literature to highlight a gap in knowledge on how supporters of co-located SME/MSB communities (e.g. managers, administrators, volunteers) experience appropriating community-level IS. Co-located MACO communities thus served as an interesting example of co-located SME/MSB communities to explore the nuances involved when supporters, who aim to appropriate community-level IS, are faced with MSB owner/managers (in this thesis, artists/craftspeople) with diverse, complex and nuanced values and views.

2.3 Need for research on supporters and SME/MSB community IS

This section reviews the IS literature on SMEs/MSBs to show there is a knowledge gap concerning how supporters of co-located SME/MSB communities experience appropriating community-level IS. Section 2.3.1 shows that few IS studies involve case studies of SME/MSB communities bounded in close proximity (i.e. co-located). Section 2.3.2 shows that most research on co-located SME/MSB communities have focused on e-portals (i.e. a communal-IS) and ignored supporter-IS. Collectively, these sections argue that IS research is needed which considers a wider range of community-level IS which can support SME/MSB communities co-located around a specific physical location, and not just those separated by distance. Section 2.3.3 shows that IS research on SMEs/MSBs has focused on owner/manager viewpoints and largely ignored the experiences of supporters who help SMEs/MSBs with IS appropriation. This is especially true of supporter experiences relating to community-level IS appropriation in co-located SME/MSB communities. This review leads to the research question presented in section 2.3.4 to fill this gap in knowledge.
2.3.1 Need for IS research on co-located SME/MSB communities

There are a range of different SME/MSB communities which have been examined in by the IS literature, but not all types were directly relevant to this study focusing on co-located MACO communities. For example, there has been a long history of IS research on SMEs/MSBs in supply chains using, for instance, inter-organisational systems (e.g. Beckinsale et al. 2006; Pigni et al. 2011). These were not relevant because they focus on bilateral customer-supplier relationships, rather than SMEs/MSBs being part of a community including those in the same geographical area selling the same products/services. Other articles examine online/virtual communities where SMEs/MSBs must appropriate IS to be members, because they are separated by distance (e.g. see Avgerou & Li 2013; Brown & Lockett 2004; Nolan et al. 2007; Noor & Nordin 2012; Matlay & Martin 2009; Zaglia et al. 2015). Such communities were outside the scope of this thesis for two reasons. First, they do not relate to MACO communities where the creativity-technology tensions of artists/craftspeople mean IS appropriation should not be a condition of membership (see section 2.2.3). Co-located SME/MSB communities, by contrast, mean SME/MSB owner/managers can be members operating in the same physical location without using IS, such as by meeting face-to-face. Second, SME/MSB communities in these studies are often global, rather than being contained within a geographical area.

Other IS articles have examined IS and SME/MSB communities, business networks, clusters, etc using surveys (e.g. Carr et al. 2013; Galloway et al. 2011; MacGregor & Vrazalic 2007; Steinfeld et al. 2012) or interviews (e.g. Felzensztein et al. 2010; Mason et al. 2008) to explore the extent of IS use, and/or whether community membership affects IS use. These articles do not use community-specific case studies to explore SMEs/MSBs and community-level IS. This was important for this study, because the nature of a MACO community co-located around art centres, galleries and other locations was anticipated to have an influence on the types of community-level IS used and how supporters might experience appropriation of such IS (see sections 2.2.2 and 2.2.3.4). For this reason, it was important to examine the nuances of particular MACO (or SME/MSB) communities, which meant articles omitting the culture/history of a community did not offer the depth needed for this thesis.
IS literature relevant to the thesis were IS case studies of SME/MSB communities co-located in defined geographical areas in which supporters experienced appropriating community-level IS. Some case studies explored SMEs/MSBs in such co-located areas (e.g. Sarif & Ismail 2006; Somsuk et al. 2012), but did not examine the community-level IS they appropriated, and were therefore not relevant. Thirteen articles, which were identified using full-text searches via Google Scholar and EBSCO, reported on case studies using primary (and secondary) data relating to the appropriation of at least one community-level IS by co-located SME/MSB communities. These studies were identified using SME/MSB community terms (e.g. business networks, clusters, collectives, agglomerations) which were bounded by geographical areas (e.g. regional areas, industrial districts, business/technology parks, shopping strips). The focus was on identifying journal articles because they are typically better quality than conference papers (Parker et al. 2015), and conference papers on this topic had typically been turned into journal articles. Mason et al. (2006) and Tan & Macaulay (2011) were the only exceptions (i.e. conference papers) because this work had not been published in a journal. The search included articles from 2004 onwards as a compromise between ensuring a wide range of articles, and excluding articles which were quite dated.

Table 2.1 summarises these articles by the nature of the physical co-locations covered, the types of organisations which existed or were established to appropriate the community-level IS, the number of SME members of the community, and the staff of the organisations involved (i.e. equivalent to supporters in this study).

Table 2.1 shows that the locations in the articles listed above were often much larger in geographic scope (e.g. rural towns and surrounding areas) than the MACO communities in this thesis co-located around a gallery, art centre and similar locations. This thesis is distinguished from this prior research because it examines different types of community-level IS appropriated in co-located communities when SME/MSB members are not separated by distance, but instead meet/congregate at physical spaces such as buildings.
### Table 2.1: Summary of IS research on co-located SME/MSB communities

<table>
<thead>
<tr>
<th>Co-location</th>
<th>Type</th>
<th>Description</th>
<th>SME members</th>
<th>Staff roles/numbers and volunteers</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMEs co-located around one or two large rural towns, possibly including surrounding smaller towns in a defined geographical area (Brush &amp; McIntosh 2010; Fisher &amp; Craig 2005; Gengatharen 2008; Gengatharen &amp; Standing 2004; 2005; Gengatharen et al. 2005; Lorenzini 2014; Sellitto &amp; Burgess 2005)</td>
<td>Industry cooperative</td>
<td>Cooperative of local firms, same industry and own shares (Brush &amp; McIntosh 2010)</td>
<td>Not stated (Brush &amp; McIntosh 2010)</td>
<td>Not stated (Brush &amp; McIntosh 2010)</td>
</tr>
<tr>
<td>Cross-industry cooperative</td>
<td>Cooperative of local firms from different industries owning shares</td>
<td>Not stated (Gengatharen 2008)</td>
<td>Part-time sales consultant promoting the e-portal, other staff and volunteers unclear (Gengatharen 2008).</td>
<td></td>
</tr>
<tr>
<td>SME organisation</td>
<td>SME organisation owns/runs the e-portal</td>
<td>35 (Lorenzini 2014)</td>
<td>Owner and two part-time staff doing promotion, no mention of volunteer supporters (Lorenzini 2014).</td>
<td></td>
</tr>
<tr>
<td>Local industry association</td>
<td>Industry association of local businesses</td>
<td>13 (Sellitto &amp; Burgess 2005)</td>
<td>Not stated (Sellitto &amp; Burgess 2005)</td>
<td></td>
</tr>
<tr>
<td>Cross-industry joint venture</td>
<td>Organisation comprising: • One or two local governments • One or two business association(s) • Often a university</td>
<td>Not stated (Gengatharen 2008; Gengatharen &amp; Standing 2004; 2005; Gengatharen et al. 2005)</td>
<td>One employee (fraction, role not stated) for one case (Gengatharen 2008; Gengatharen &amp; Standing 2004; 2005; Gengatharen et al. 2005). Administrator (no fraction stated) for another case (Gengatharen &amp; Standing 2005; Gengatharen et al. 2005). Other staff unclear, but studies state volunteers were important to community success.</td>
<td></td>
</tr>
<tr>
<td>Cross-industry government organisation</td>
<td>Government owned/run organisation managing a network of SME and large firms from different industries</td>
<td>109 (Fisher &amp; Craig 2005)</td>
<td>Not stated (Fisher &amp; Craig 2005)</td>
<td></td>
</tr>
<tr>
<td>One (Tan &amp; Macaulay 2011) or multiple councils (Tatnall &amp; Burgess 2009) in a large capital city</td>
<td>Cross-industry government organisation</td>
<td>Government owned/run organisation managing a network of SME and large firms from different industries</td>
<td>180 (Tatnall &amp; Burgess 2009), 400 (Tan &amp; Macaulay 2007), 1,000 (Tan &amp; Macaulay 2011)</td>
<td>Paid facilitator for some councils (Tan &amp; Macaulay 2007), or not stated (Tan &amp; Macaulay 2011; Tatnall &amp; Burgess 2009)</td>
</tr>
<tr>
<td>Single rural/regional city or town separated from the capital city in a state/province (Galloway et al. 2004; Mason et al. 2006)</td>
<td>Cross-industry government organisation</td>
<td>Government owned/run organisation managing a network of SME and large firms from different industries</td>
<td>900 (Mason et al. 2006)</td>
<td>Managers, staff recruited SMEs and sourced e-portal content, unclear how many staff or if any volunteers helped in these organisations (Mason et al. 2006).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not stated (Galloway et al. 2004)</td>
<td>Not clear if e-portal coordinators were paid, or if there were any volunteers helping (Galloway et al. 2004).</td>
</tr>
<tr>
<td>Co-location</td>
<td>Type</td>
<td>Description</td>
<td>SME members</td>
<td>Staff roles/numbers and volunteers</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Cross-industry joint venture| Organisation comprising:     | • One or two local governments  
• One or two business association(s)  
• Often a university | Not stated (Mason et al. 2006) | One part-time staff to manage the business network, no mention of volunteers (Mason et al. 2006). |
| SME organisation            | SME organisation owns/runs the e-portal |                                                                                | Not stated (Galloway et al. 2004) | Owner with IS skilled staff. Staff numbers in rural towns not stated but likely SMEs, unclear if these community organisations had volunteers (Galloway et al. 2004). |
Despite this difference, the 13 articles were still relevant to this thesis. For example, Table 2.1 shows that most articles stated the SME/MSB communities were operated by organisations including government owned/run organisations, SME organisations and industry associations. The articles did not report on the physical places at which SME/MSB members could congregate. Nonetheless, some implied such locations existed when reporting on whether SME/MSB members attended industry breakfasts (Fisher & Craig 2005) and network meetings (Mason et al. 2006) run by these organisations. Similarly, Galloway et al. (2004) focus on rural towns with ‘buy local’ aims for their e-portals, which implied there was physical proximity among small business owner/managers in such towns. Further, (Gengatharen et al. 2005, p. 412; see also Gengatharen 2008) observed that the success of one co-located SME/MSB community could be attributed, in part, because it “… had strong offline community ties and was ‘physically isolated’ from the nearest competitors outside the region.” This meant SME/MSB members in these communities, even when they covered larger geographical areas, could meet face-to-face and did not need to adopt community-level IS to be members. In this sense there was a reasonable degree of similarity to MACO communities in this study co-located around physical buildings.

A further reason for the relevance of these articles to the thesis, as discussed next, is that supporters (e.g. managers, staff) of such organisations would likely have had experiences regarding the community-level IS appropriated by these co-located (in a broad sense) SME/MSB communities.

2.3.2 Community-level IS in co-located SME/MSB communities

The community-level IS examined in the 13 articles cited earlier (see section 2.3.1) took the form of web-based electronic portals (e-portals), which could be considered communal-IS because they were available to all SME/MSB community members. The articles typically explored:

- websites (or e-portal), traits of co-located SME/MSB communities and/or e-portal development leading to success/failure (e.g. Fisher & Craig 2005; Gengatharen & Standing 2004; 2005; Mason et al. 2006);
- the reasons why SMEs/MSBs (do not) use the e-portals (e.g. Brush & McIntosh 2010; Tatnall & Burgess 2009); and/or
• the experience of SMEs/MSBs using the e-portals (e.g. Lorenzini 2014; Tan & Macaulay 2007; 2011).

These studies show that the community-level e-portals were intended to encourage IS use by SMEs/MSBs for trading online (Brush & McIntosh 2010; Fisher & Craig 2005; Galloway et al. 2004; Gengatharen 2008; Gengatharen & Standing 2004; 2005; Gengatharen et al. 2005; Lorenzini 2014; Sellitto & Burgess 2005; Tan & Macaulay 2007; 2011; Tatnall & Burgess 2009) and/or for SME-to-SME knowledge sharing (Mason et al. 2006). These co-located communities were similar to non-co-located communities (see section 2.3.1) in that the e-portals enabled SMEs/MSBs to search and interact with one another and other stakeholders across geographical distances. The main difference is that the physical areas covered were much smaller (e.g. urban or rural/regional districts) for co-located communities, not national or global in the case of non-co-located communities. Further, even though the aim was for SMEs/MSBs in these co-located communities to appropriate IS, the SMEs/MSBs:

• were still considered to be members of the co-located community by virtue of being in the geographical area (e.g. rural town with its own close-knit culture) defined for the SME/MSB community, even if they did not use the e-portal; and
• could still potentially interact face-to-face with (many of the) SMEs/MSBs in the community because they could meet in physical locations in the town(s) within the geographically defined areas.

In the case of trade, some SME/MSB community-level e-portals mainly aimed to facilitate commerce among SMEs/MSBs within the co-located communities (Fisher & Craig 2005; Galloway et al. 2004; Tan & Macaulay 2007; 2011; Tatnall & Burgess 2009). This was because the e-portals were intended to encourage SMEs/MSBs and citizens to ‘buy local’, or to be visible locally. This was often because SMEs/MSBs in a co-located community intended to trade locally, not externally, to the community, especially in rural-located SME/MSB communities which the literature focused upon (see section 2.3.1). Other e-portals examined were intended to facilitate trade externally to the co-located communities instead (Lorenzini 2014; Sellitto & Burgess 2005), or in addition, to internal trade (Brush & McIntosh 2010; Gengatharen 2008; Gengatharen & Standing 2004; 2005;
Gengatharen et al. 2005). It is therefore not surprising that many of these latter studies found that a further advantage of the e-portals was promoting the community’s rural/regional identity (Lorenzini 2014; Gengatharen & Standing 2005; Gengatharen et al. 2005; Sellitto & Burgess 2005).

These IS studies appeared to have a strong economic (or modernity) focus similar to the majority of IS studies relating to SMEs. This meant these studies of co-located SME/MSB communities did not consider the creativity-business, creativity-technology and creativity-economic tensions that the MACO literature implied supporters and artists/craftspeople might face in co-located MACO communities.

Nonetheless, this work on e-portals used by co-located SME/MSB communities offered some insights which appeared to be relevant to MACO communities. The research on rural communities shows there are collectivist sub-cultures in countries such as Australia with individualistic national cultures (Gengatharen 2008). Some report on how communities influenced SME uptake of IS by offering each other support and/or establishing the norm that IS use is appropriate (e.g. Sellitto & Burgess 2005). This is similar to MACOs operating in collectivist sub-cultures in nations with individualistic cultures, which suggested MACO communities may influence the extent and nature of IS appropriation by individual MACO members (see section 2.2.2) and supporters. Further, these studies on co-located SME/MSB community e-portals show that face-to-face trust between owner/managers must exist before they will use e-portals for trading and knowledge sharing (e.g. Mason et al. 2006). There must also be SME/MSB owner/manager trust of the supporters running the e-portals (e.g. Brush & McIntosh 2010; Gengatharen & Standing 2005) before owner/managers will use the e-portals. For MACOs, this suggested that supporters appropriating community-level IS for their co-located MACO communities had to have the trust of artists/craftspeople, especially given the sector’s tendency to distrust technology and organisations with a strong government and profit-making values (i.e. creativity-business tension, described in section 2.2.1). Yet there has been no IS research to confirm this in the case in co-located MACO communities.

A key limitation of the 13 articles is that they do not consider other community-level IS, in addition to e-portals, which could be appropriated by co-located SME/MSB communities. As highlighted in sections 1.1 and 1.4, other potential community-level
IS include supporter-IS used by supporters in organisations (e.g. managers, administrators) to run co-located SME/MSB communities, such as IS for customer relationship management. The limited research on co-located MACO communities suggest that such supporter-IS are likely to be used (e.g. Bendor 2014). Many of the 13 case studies of co-located SME/MSB communities also predate the popularity of communal-IS such as community-level Facebook pages and other social media, but even recent studies (e.g. Lorenzini 2014; Tan & Macaulay 2011) do not report on the use of these potential communal-IS. Again, the limited work on co-located MACO communities suggested such communal-IS were potentially being used (e.g. Bendor 2014). This thesis therefore addressed the limitation of existing research by examining various community-level IS appropriated by on co-located SME/MSB communities; co-located MACO communities in the case of this thesis.

### 2.3.3 Owner/manager and firm centric IS research on SMEs/MSBs

A further limitation with the existing 13 case studies of co-located SME/MSB community use of e-portals is that seven of the 13 (i.e. half) report:

- only on owner/manager experiences and views (Brush & McIntosh 2010; Fisher & Craig 2005; Tan & Macaulay 2007; 2011); or
- predominantly on SME/MSB owner/manager experiences and views (Lorenzini 2014; Sellitto & Burgess 2005; Tatnall & Burgess 2009).

A number of these studies did involve interviews with project managers and others involved in the e-portal development (Fisher & Craig 2005; Lorenzini 2014; Sellitto & Burgess 2005; Tatnall & Burgess 2009), but such data was mainly used to identify and report on the e-portal aims and development process, rather than the nuanced experiences and challenges faced by supporters during e-portal appropriation activities. The remaining six studies (Galloway et al. 2004; Gengatharen 2008; Gengatharen & Standing 2004; 2005; Gengatharen et al. 2005; Mason et al. 2006) mainly interviewed supporters (e.g. project managers, developers, managers of organisations running the e-portals) to identify success factors with e-portal appropriation in co-located SME/MSB communities, rather than their experiences relating to how they dealt with complex issues to achieve such success.
Very few studies distinguished between and report separately on the nuanced roles and challenges experienced by each type of supporter (e.g. community manager versus administrators). The notable studies which did distinguish between some roles provided only limited insights, such as the number and/or time fraction of some staff from the organisations running the SME/MSB communities, and a brief statement of the responsibility of some of these supporters (see Table 2.1).

This review shows that the literature on co-located SME/MSB communities is very SME/MSB owner/manager centric, rather than exploring the experiences of supporters involved in appropriating community-level IS. The owner/manager centric nature of the IS literature is consistent with the more general MACO and IS literature reported earlier (section 2.2.3). Similarly, the review by Parker et al. (2015) of the IS literature on SMEs/MSBs generally found it is SME/MSB (owner/manager) centric, with few studies reporting experiences of those other than owner/managers and their individual business. This is surprising given many SMEs/MSBs depend on other parties for expertise on IS, as noted earlier for SMEs/MSBs (section 2.1) and MACOs (section 2.2.1). Instead, the IS literature has examined SME/MSB owner/manager experiences with and views of third parties (see section 2.1), with similar IS research undertaken on MACOs (see de Berranger et al. 2001). This highlights the need for IS research which explores the experiences of those beyond a single business-centric view.

There are notable exceptions by a small number of studies which have extended the SME-centric view to explore the relationship between vendor/consultants and SMEs, with a particular focus on the experiences of vendor/consultants. Specifically, these studies explore vendor/consultants experiences with compensating SMEs for their lack of IS resources (Bradshaw et al. 2013; Carey 2008), sharing/transferring IS knowledge with SME/MSB owner/managers during IS projects (Bradshaw et al. 2015) and eliciting SME business needs to develop and implement IS (Carey 2008; Chamberlain 2014). This demonstrates that little IS research has gone beyond the single SME view of IS (as opposed to an SME/MSB community view), and the experiences of SME/MSB owner/managers (as opposed to SME/MSB supporters).

This thesis is distinguishable by going beyond the owner/manager and firm-specific view in two ways. First, the thesis does not explore how single, independent MACOs
appropriate IS, as do other studies looking at how individual SMEs appropriate accounting IS (Bradshaw et al. 2013; Bradshaw et al. 2015) and websites (Carey 2008) with the help of vendor-consultants. As noted in sections 1.1 and 2.2.3, the thesis instead explores community-level IS which could be used by any MACO members in the community (communal-IS), and/or which supporters use to run MACO communities (supporter-IS). Supporter-IS are important to explore because existing research on co-located SME/MSB communities does not consider the IS appropriated to run the communities (e.g. relationship management with the SME/MSB members), and instead focuses only on the IS (i.e. e-portals or communal-IS) being used by SME owner/managers themselves. Second, existing research examines the experiences of vendor/consultants, while this thesis examines the experiences of different types of supporters internal to co-located MACO communities involved in appropriating community-level IS.

2.3.4 Research question answered by this thesis

Overall, the thesis extends IS knowledge relating to SMEs/MSBs by exploring the nuanced interplay of experiences of different types of supporters within co-located SME/MSB communities involved in appropriating community-level IS. As explained in section 1.4, it was also anticipated there would be different types of community-level IS such as communal-IS and supporter-IS (see Table 1.1), and perhaps other nuances and complexities of IS appropriation in co-located MACO communities which are not evident in the IS literature. It was anticipated that supporters could experience such appropriation due to problems associated with potential creativity-business, creativity-technology and creativity-economic tensions implied by the general literature on MACOs, as described in section 2.2.

This thesis aims to fill the gaps in IS knowledge relating to the experiences of internal supporters appropriating community-level IS in co-located SME/MSB communities more generally by answering the following research question:

**How do internal supporters experience appropriating community-level IS intended to help the art/craft creativity and economic survival of co-located MACO communities?**
The next section examines the implications of the limited IS research in this area (on co-located SME/MSB/MACO communities and their supporters’ experiences with appropriating community-level IS) for the development of a theoretical lens used to guide the empirical research needed to answer this research question.

2.4 Theoretical lens to guide the study

As stated in section 1.5, the lack of IS research relating to internal supporter experiences with appropriating community-level IS in co-located MACO communities meant it was undesirable to start using established theories to frame the data collection and then analysis. More specifically, the previous sections highlighted a lack of research on various aspects of the phenomenon of interest, such as:

- co-located MACO communities (and MACOs generally), and the impact of their tensions (e.g. creativity-economic, creativity-technology) on IS appropriation;
- co-located SME/MSB communities generally, with a fairly narrow focus on e-portals only and neglecting other forms of community-level IS; and
- the experiences of supporters outside the narrow single SME/MSB business, which in this study took the form of supporters in co-located MACO communities, since most IS research focuses on SMEs/MSBs from a single business perspective.

Established theories are often employed in quantitative and qualitative studies as lenses, with underlying concepts, to make sense of the phenomenon, such as for explanation and prediction (Creswell 2014; Gregor 2006). The author of this thesis therefore believed starting with an established theory might constrain the data collection and analysis (Creswell 2014), such as narrowing the research design to focus on preconceived notions or concepts relating to how supporters might experience appropriating MACO community-level IS. This is echoed by Mitev & Howcroft (2011, p. 297) who point out that “Observation does discipline theory, but theory disciplines observation also.” A further reason is elaborated on in section 3.10, which explains the principles for conducting interpretive research proposed by Klein & Myers (1999). The principle of dialogical reasoning highlights the need to take into account how theories/concepts may constrain the study. The limited IS research instead implied, due to these various reasons, that it was better to be as
flexible as possible rather than constraining the themes which might be discovered during the data analysis by using established theories at the start of the study.

This issue was addressed in this thesis by using an alternative approach described by Creswell (2014) for interpretive qualitative studies such as this thesis (see chapter 3 for further details). It involves developing a theoretical lens or perspective, not using an established theory, at the start of the study. Like established theory, a theoretical lens can be used to shape the participant selection, data collection, the issues to be examined, and how the participant experiences will be written in research outputs. But unlike established theories, such lenses can be based on empirical literature relating to the field of study to describe the terms needed to answer and scope the research question. It can also be less restrictive than established theories, which have not yet been applied to the phenomenon of interest, as was the case in this study due to the limited relevant research in this area. In other words, the terms used in the theoretical lens were more likely to be relevant to this study because they were based on empirical literature relating to known aspects of MACOs and their communities.

Established theories, by contrast, were not yet known to be relevant to supporter experiences with appropriating community-level IS, and the lack of research in this area meant no established theories had yet been applied directly to this area. The Honours thesis by Bendor (2014) was the closest to this thesis, but Bendor did not use established theories at any stage in her study and instead used a framework derived from the empirical literature. Further, the apparent modernity-focused nature of the general studies on co-located SME/MSB communities, which from the MACO literature appeared to be inconsistent with co-located MACO communities, meant it was not deemed appropriate to start this research based on established theories used in these SME/MSB studies. Chapter 6 summarises the established theories used in the IS literature on co-located SME/MSB communities, and shows that the decision not to use these theories appeared to be appropriate. Finally, as established in section 2.2.3, the literature on MACOs largely ignores IS and meant it was unclear if established theories used in that literature would be appropriate for this study. In view of the principle of dialogical reasoning proposed by Klein & Myers (1999), it was concluded it was better to identify such established theories after the data collection and analysis (see section 3.10.3 for further explanation of this principle).
This section therefore summarises the theoretical lens comprising broadly described terms from the research question derived from the empirical literature on MACOs. This lens guided the data collection broadly and the terms helped with reporting on the experiences of supporters, from which emerged themes concerning the complexity and nuances of the experiences with appropriating community-level IS. Chapter 3 describes the hermeneutic process used to identify these emergent themes.

The main goal of answering the research question in section 2.3.4, after conducting the data analysis to identify emergent themes, was to return to the literature to identify established theories which could be a suitable conceptual framework for making sense of these themes relating to the complex, nuanced experiences of supporters. This led to a modification of the research question to reflect the theoretical aim of the study:

How do internal supporters experience appropriating community-level IS intended to help the art/craft creativity and economic survival of co-located MACO communities, and how can this be conceptualised using an overarching framework?

In other words, the goal of this study was to identify an overarching conceptual framework, from the plethora of established theories available in the literature, which could make sense of the complex, nuanced experiences of internal supporters when appropriating community-level IS. The theoretical lens outlined below, produced from the empirical literature to guide the research design, was not adequate for that purpose. This was because the concepts were purposefully broad to reduce the restrictiveness which may have occurred had the researcher used established theories not yet been applied to exploring supporter experiences with community-level IS appropriation in co-located MACO communities.

The first set of terms for the theoretical lens listed below helped guide the selection of case studies (see chapter 3 for detail on the case selection approach):

- **Co-located MACO community** was used to specify the types of communities of MACOs being focused upon (see sections 1.1, 1.3, 2.2.2 and 2.2.3 for descriptions of such communities). In this study, co-located MACO communities had a physical location to serve as an identifiable focal point for
artist/craftspeople collectivism, such as art centres, galleries and communes. The physical location also helped with the data collection by providing a physical point of reference for identifying supporters in the community due to their connection to a physical location. The literature suggested that co-located MACO communities could be located in urban or rural areas (sections 1.3, 1.5 and 2.2.3), so that it was important in this study to select both types of communities.

- The notions of *high-brow* versus *low-brow* art/craft work (section 1.1) were used because the MACO literature frequently made such distinctions between artists/craftspeople and communities based on these types of art/craft work. It was therefore important to ensure co-located MACO communities selected for the study came from a mix of those doing high-brow and low-brow art/craft work.

- *Community-level IS* were described in sections 1.1, 1.3, 1.4 and 2.3 in terms of communal-IS and/or supporter-IS in this thesis, to distinguish community-level IS from IS used only at a single MACO, SME, or MSB level. Section 2.2.3 showed there was empirical evidence these two broad types of community-level IS appeared to be used by some co-located MACO communities. The two types were purposefully broad to capture diverse types of community-level IS and to ensure the research did not just focus on communal-IS, whereby the latter is the dominant focus in the IS literature. In other words, it was important to consider supporter-IS forms of community-level IS (i.e. used to run the community) as well as communal-IS. Case selection involved identifying co-located MACO communities which had appropriated at least one community-level IS (i.e. either a communal-IS or a supporter-IS, but ideally at least one of both types), in order to explore the experiences of supporters involved in such appropriation.

The next aspect of operationalising the data collection was clarifying who would be suitable participants or informants for this study (Creswell 2014). There were two terms which were important inclusions in the theoretical lens (see chapter 3 for a detailed description of the participant selection approach):

- *Supporters* internal to co-located MACO communities (see description in sections 1.1, 1.4 and 2.3) were the focus on this study. The description of supporters was purposefully broad, because the IS literature on MACO and SME/MSB communities offered little clarity about supporters, such as roles and
types of involvement in community-level IS appropriation in co-located MACO or SME/MSB communities. This required flexibility during data collection to identify who supporters might be, rather than pre-defining the roles and nature of their participation community-level IS appropriation.

- In view of the previous point, *appropriation* was a broad term which, in this thesis, included supporter activities and experiences relating to introducing, designing, maintaining and/or (in the case of supporter-IS) using community-level IS in their co-located MACO community. The use of this broad term provided some flexibility regarding the nature of supporter appropriation and their associated experiences. This meant that, from a data collection perspective, supporters selected for the study were those doing the types of appropriation activities listed above. It also meant that MACO community members (or artists/craftspeople) who used communal-IS, but were not involved in introducing, designing and maintaining community-level IS, were not considered to be supporters in this thesis. Instead, such individuals would be equivalent to SME/MSB owner/managers who only used communal-IS (i.e. e-portals), as identified in the IS literature on SMEs/MSBs. Section 2.3 explained these were outside the scope of this thesis. MACO members of a co-located community who introduced, designed or maintained communal-IS and/or supporter-IS (and/or used supporter-IS to run the community) were considered to be supporters.

The theoretical lens also needed to guide what issues would be the focus of the examination in this study (Creswell 2014), which is typically scoped by the research question. The research question and literature on MACOs and their communities emphasised the importance of the following terms which encapsulated the issues which were examined relating to supporter experiences with appropriating community-level IS (chapter 3 explains the data analysis further):

- *Art/craft creativity* is a broad term used to encompass the range of community creativity practices and activities. This included any aspects of community culture and relationships among members which the MACO literature suggested was an integral part of collective artist/craftspeople creative work. For example, section 2.2.1 explained that artists/craftspeople could have strong views about technology such as IS, which could then in turn affect what community-level IS
could be appropriated in their community. A key interest in this study was how supporters experienced these aspects of art/craft creativity in the communities, and how this influenced their experience with community-level IS appropriation.

- **Economic survival** is a broad term referring to the economic survival of the co-located MACO community as a whole, rather than looking narrowly at MACO-level economic survival as is typically the focus in IS literature on SME/MSBs and MACOs generally. This is because the MACO literature showed co-located MACO communities experience financial burdens (section 2.2.3), not just artists/craftspeople running their own individual practices. A key interest in this study was how supporters experienced the influence of economic survival issues on the appropriation of community-level IS, and how the IS influenced the economic survival of the co-located MACO communities.

- **Creativity-business, creativity-technology and creativity-economic tensions** (explained in sections 1.3, 2.2.1 and 2.2.2) were phrases used primarily to make the challenges, norms/views of artists/craftspeople and their communities (which were identified from the empirical literature) clear from chapter 1 onwards. The limited IS research, however, suggested it was important to explore the nuances of if/how these, and potentially other, tensions affected community-level IS appropriation in co-located MACO communities.

Creswell (2014) states that a theoretical lens can also provide the basis for determining how to write research outputs, which in this study was this thesis. Specifically, this theoretical lens was used as the basis for reporting the case study narratives in chapter 4. Answering the research question required looking at internal supporter experiences with appropriating each community-level IS, and exploring if/how it helped with art/craft creativity and/or economic survival of the co-located MACO community. For this reason, the major approach to reporting on the narratives involved describing, for each community-level IS, how the one or more supporters (individually and/or collectively) experienced appropriating that particular IS. Reporting these supporter experiences also necessitated reporting on whether these IS had helped with the art/craft creativity and/or the economic survival of the co-located MACO communities. This approach to reporting the narratives was important to ensure it was clear how the case study narratives helped answer the
research question, while also balancing this with not being too restrictive when telling supporters’ appropriation stories. This is elaborated on in chapters 3 and 4.

2.5 Conclusion

This chapter has shown there has been limited IS research relating to supporter experiences with appropriating community-level IS in co-located SME/MSB communities in general, and MACO communities in particular. It has also argued that, given this lack of research, there is a lack of certainty around which established theories would be suitable as an overarching conceptual framework for making sense of the expected nuances and complexities associated with such supporters’ experiences. The chapter therefore presented a very broad theoretical lens for guiding the research design to minimise the restrictiveness of the themes which could emerge from the study, so that these themes could be compared to established theories to identify a suitable framework.

The next chapter justifies the research perspective, overall case study method, case study and supporter selection approaches, and data collection and analysis procedures which were used based on the theoretical lens.
Chapter 3: Research Approach

3.1 Introduction

Chapter 2 revealed there has been little research on the experiences of internal supporters appropriating community-level IS in co-located SME/MSB communities in general, and co-located MACO communities in particular. The literature on MACOs implied supporters of co-located MACO communities would likely have complex, nuanced experiences with appropriating community-level IS due to various tensions, and thus warranted IS research in their own right. Chapters 1 and 2 argued that limited research in this area meant it was undesirable to start the research using established theories, because it could result in ignoring possible nuances and complexities of the supporter experiences. Instead, chapter 2 presented a theoretical lens (section 2.4) comprising broad terms derived from the empirical literature to guide the data collection, and to minimise the restrictiveness of established theories, so that themes could emerge during the data analysis. It was after the data analysis that emergent themes were compared to established theories to identify those which could serve as a suitable overarching conceptual framework. Such a framework needed to make sense of the nuances and complexities of how supporters appropriated community-level IS to help with the art/craft creativity and economic survival of co-located MACO communities.

This chapter justifies the interpretive research approach used (e.g. data collection, rich description and data analysis), and explains how these techniques were applied to examine supporter experiences, allow themes to emerge, and then to identify suitable theories which could be a suitable overarching conceptual framework.

3.2 Research aims

The aim of this research was to explore the following research question.

How do internal supporters experience appropriating community-level IS intended to help with the art/craft creativity and economic survival of co-located MACO communities, and how can this be conceptualised using an overarching framework?
Section 2.4 provided an overview of how this research question could be answered. It emphasised that at least one high-brow and one low-brow, as well as one urban and one rural, co-located MACO community needed to be studied to ensure emergent themes represented better the art/craft sector’s heterogeneity. In other words, answering the research question necessitated exploring multiple co-located MACO communities. The research question also implied that each MACO community should have appropriated at least one community-level IS (i.e. a communal-IS or a supporter-IS, but preferably both types) intended to help with the art/creativity and/or economic survival of the community. This was important because, otherwise, supporters of the co-located MACO community would not have had experiences to share regarding appropriating community-level IS.

It was important for this research to deliver a rich, holistic picture of each co-located MACO community, which required data such as supporting documents, observations of community-level IS (e.g. observing their use), and photographic images of each community’s creative events (e.g. which could involve the use of community-level IS). This was important so that the researcher understood and could record differences in how the values, beliefs and norms of supporters, and potentially MACO members, of the communities influenced the experiences of supporters when they appropriated community-level IS. These broader aspects of the communities, including their culture and history, were needed to help understand each community’s goals when supporters reflected on appropriation.

The theoretical lens in section 2.4 provided only broad descriptions of community-level IS, supporters, and what constituted appropriation for the purposes of the thesis. This was important because there has been limited IS research in these areas. In other words, answering the research question required a flexible approach when identifying the types of supporters for the study. This was because supporter roles concerning community-level IS appropriation, how these roles were enacted, and the form they took in co-located MACO communities were unknown in the literature. It was also anticipated that supporters could have differing perceptions of what, for their community, constituted community-level IS.

Answering the research question required an approach enabling the development of rich stories or accounts of how supporters in the co-located MACO communities
experienced community-level IS appropriation. This included allowing supporters to recall and describe their experiences (including concerns relating to tensions they faced) in their own words, and based on their own philosophies, values and views regarding community-level IS. The approach therefore needed to minimise control (e.g. the questions asked, how the supporters told their stories) to ensure such experiences could be explained as freely and openly as possible. This suited the exploratory goal of this study, which aimed to allow themes to emerge inductively from these stories. Supporters could be artists/craftspeople in their own right (see section 2.4), and the researcher knew from experience (see section 3.5) that such individuals prefer storytelling. This emphasised the need to allow open questioning.

It was also important to give supporters the opportunity to describe their experiences individually due to the potential personal nature of such experiences, but also to interpret these individual accounts within their involvement in the broader co-located MACO community. For instance, it was anticipated that multiple supporters within the same community could have (different) experiences with appropriating the same community-level IS, involved in different aspects of the appropriation (e.g. introduction, design, use), and/or involved individually or collectively. This further emphasised the need to examine supporter experiences within, rather than separately from, their co-located MACO community.

The next section explores the broader research perspective for this study.

3.3 Research perspective

IS research as a discipline has used both qualitative and quantitative studies to expand knowledge (Klein & Myers 1999). The qualitative paradigm suited this study because it is more appropriate when the knowledge to be gained needs to be holistic and when it is important, “...to understand how all the parts work together to form a whole” (Merriam 1988, p. 16; see also Creswell 2014). This study therefore suited a qualitative paradigm because, as outlined in section 3.2, it sought to capture the rich experiences of internal supporters appropriating community-level IS in their collocated MACO communities, and to understand these experiences within the supporters’ community milieu.
The qualitative paradigm can be undertaken through a positivist, interpretivist or critical perspective (Klein & Myers 1999). This study was consistent with an interpretivist perspective for a few reasons. First, interpretivism allows for inductive research of social worlds. This was relevant to this study because the lack of prior IS research on MACOs (section 2.2) meant it was important to allow themes to emerge inductively when exploring supporter experiences (see section 3.2). These experiences occur within the art/craft sector and MACO communities, with each level contributing to the history and culture of supporters. Second, interpretive research seeks to understand the meaning people assign to a phenomenon (Creswell 2014; Walsham 1995; 2006). In this study it was important to understand the meaning supporters assigned to community-level IS, and how the culture and history of their community and the art/craft sector more broadly shaped their appropriation experiences. This included understanding the different community-level IS appropriation roles of supporters in their MACO community, and the meaning supporters attached to these roles. Finally, it also included supporters’ views and values around what, for them, constituted art/craft creativity and economic survival.

Interpretivism sees the researcher entering the social world without having first defining highly specific dependent and independent variables with associated interrelationships (Klein & Myers 1999). As noted in section 3.2, this study did not involve such variables because the literature offered little understanding of IS appropriation by MACOs, let alone supporter experiences appropriating community-level IS in co-located MACO communities. It was for this reason that the theoretical lens in section 2.4 was quite broad and did not provide highly specific concepts from established theories prior to data collection. Instead, the main goal of this research was to understand the world of supporters, understand why/how supporters inhabited this social world (i.e. their co-located MACO community), and how this world influenced their experiences with appropriating community-level IS. The co-located MACO community world was quite novel or peculiar from an IS literature perspective (section 2.3.1), and interpretivism allowed themes to emerge inductively to fill gaps in this IS knowledge.

The next section justifies the use of multiple interpretivist cases studies.
3.4 Justifying the use of multiple interpretivist case studies

Some co-located MACO communities in New Zealand were just starting to appropriate community-level IS at the start of this study. This lent itself to the case research method because it permitted examining contemporary events (Benbasat et al. 1987; Merriam 1988). Case studies also accommodated the uniqueness of co-located MACO communities, from an IS perspective at least, by studying them in their natural setting (Creswell 2014; Guba & Lincoln 1981). Furthermore, this PhD study was restricted to six years part-time, and case study research accommodated this because such studies can occur within a bounded duration (Merriam 1988; Yin 2014). Case studies can involve using multiple data sources (Creswell 2014), which applied in this study because answering the research question required insights from supporters, observations of art/craft creativity events, and documents provided by supporters about the co-located MACO communities and external influences such as local council strategy documents (see section 3.2). This method allowed for holistic descriptions and intensive analysis (Creswell 2014) of internal supporter experiences with appropriating community-level IS intended to help with the art/craft creativity and economic survival of their co-located MACO communities.

A further advantage of the case study approach was that they not only allow the study of a single instance of a phenomenon as a social unit, but also multiple cases (Merriam 1988; Creswell 2014). As noted in section 3.2, this was important because multiple co-located MACO communities needed to be included to capture supporter experiences from different types of communities with varying influences on those experiences; that is low-brow and high-brow, and rural and urban communities. This was important because, although the literature on MACOs implied the art/craft sector has common social norms, rules and behaviours, the literature also highlighted this sector’s heterogeneity (e.g. sections 2.2.2 and 2.2.3) in how these rules are enacted. The case study method thus offered a holistic way to accommodate the heterogeneity of co-located MACO communities, and the experiences of supporters within these communities. This is because the end-product of each case study was a rich description (Merriam 1988) portraying the experiences of internal supporters in their respective communities (see section 3.9 for a description of the data analysis, and chapter 4 for the rich descriptions of supporter experiences for each case study).
The interpretivist and inductive approach (section 3.3) allowed for more immersion by the researcher (Creswell 2014) when engaging with each case study. Co-located MACO communities are milieu where kinaesthetic and emotional communication are a vital part of participation and trust building among artists/craftspeople (section 2.2.1). The researcher therefore needed to engage in higher levels of face-to-face immersion in the communities than was typical in IS research in business settings. This included attending events, sharing meals and engaging often in long interviews (see section 3.8), since supporters’ concept of time was often quite different to MSB owner/managers being portrayed in the literature as time poor (section 2.1) and therefore more focused on ‘clock’ time. One example was having preliminary discussions prior to interviews rather than just arranging them over the phone, which matched how internal supporters in co-located MACO communities, who were often artists/craftspeople in their own right, liked to develop relationships.

Such immersion is more typical of grounded theory and ethnographic studies (Creswell 2014), but these methods were not applicable to this study for a few reasons. First, the goal of these methods is usually to produce mid-range theory (Eisenhardt & Graebner 2007), which was not the aim of this thesis (see section 1.5). Instead, the aim of this study was to identify established theories which could be an overarching conceptual framework to make sense of the emergent themes resulting from the data analysis (see section 3.2). Second, ethnographic studies focus on intensive observations over long periods of time, as well as interviews, to generate data (Creswell 2014). The short timeframe of PhD study, by comparison, meant this was not viable. Answering the research question required exploring four separate case studies, rather than focusing on one, to ensure a combination of high- and low-brow, and rural and urban, co-located MACO communities were studied (section 3.2). Further, the researcher could not observe some types of community-level IS appropriation (e.g. introducing, designing) by supporters, so that supporters often reflected on their experiences during interviews rather than being observed directly.

Interpretivism also allows for, and acknowledges, that researchers can influence the phenomenon they are studying (Chen & Hirschheim 2004; Nandhakumar & Jones 1997), including in case studies (Klein & Myers 1999). For many supporters in this study, their participation was a time to tell their story and to reflect on their art/craft
practice, their MACO community, how they appropriated community-level IS, and the impact (if any) of the IS on art/craft creativity and economic survival at the community level and their own personal level.

3.5 Role of the researcher (bias versus experience)

As is common in qualitative interpretivist studies, the researcher was the instrument of data analysis (Creswell 2014). In traditional quantitative, positivist research, the concept of bias has been used to ensure researcher objectivity, and this has often shaped the concept of bias in qualitative research. However, there is also an opposing view in interpretivism which acknowledges that the researcher can never be completely objective, because they bring their own bias when interpreting participant responses (Creswell 2014; Stocking 2002). This opposing view was addressed in this study by the researcher bringing experience to data collection and analysis. The concept of researcher experience was used (Creswell 2014), instead of bias, to help bridge the world of supporters and to ensure data interpretation adequately represented the world of supporters. As such, this researcher’s experience in the art/craft sector enabled more immersion (section 3.4) in the supporters’ world. It also ensured the data more accurately reflected supporters’ experiences with community-level IS appropriation because the researcher understood this world, their art/craft forms, and the art/craft sector history and culture. This also helped gain their trust.

The researcher is an established artist/crafts person involved in the areas of painting (including genres of pop art and street art), photography, multi-media and mixed media. She has been a member of several MACO communities, and at the time of the study was a member of two communities, which were not the communities studied in this thesis. She had a leadership role with one community, which involved collaboration with other international art/craft groups. The researcher used community-level IS to help with the running of these communities, and therefore had personal experience with community-level IS appropriation which helped with understanding and interpreting supporters’ experiences with appropriation. The researcher has taken part in exhibitions and organised exhibitions, including organising artists/craftspeople and promoting events using IS.
Overall, this experience helped the researcher develop trust and discuss issues more fully with the supporters than would have been possible for IS scholars without this experience of the art/craft sector.

3.6 Interpretivist case study identification and selection

Low-brow and high-brow MACO communities were identified after ethics clearance was sought and approved (see Appendix A for a copy of the approval letter). This firstly involved the researcher networking within the art/craft sector via her personal networks and attending events (e.g. exhibition openings), and reflected the accepted interpersonal manner of the art/craft sector (section 2.2.1). She went to events in rural and urban locations because, for different cultural and creative reasons, some artists/craftspeople chose to live and work in a rural locality, while others prefer urban areas. In some instances, people recommended friends in key positions in co-located MACO communities while the researcher attended events. The researcher, at other times, contacted people directly who were outside her personal networks if those people belonged to co-located MACO communities of potential relevance.

As noted in section 1.2, new media creative organisations and their co-located clusters were not relevant because their art/craft is typically of a digital form. This study was interested in co-located MACO communities where traditional high-brow and low-brow art/craft forms were dominant, and where supporters had experiences with appropriating community-level IS mainly intended to help in communities mainly undertaking art/craft creativity of non-digital art/craft forms.

Table 3.1 below outlines the characteristics of the co-located MACO communities studied, which were selected because they met specific criteria (see section 3.2 and the theoretical lens in section 2.4), in addition to not being dominated by new (digital) media creative organisations:

- At least one form of community-level IS (i.e. either communal-IS or supporter-IS, but preferably both types) had been appropriated by at least one supporter in the co-located MACO community.
- At least one high-brow community and one low-brow community.
- At least one rural community and one urban community.
• At least one supporter who was prepared to share experiences with appropriating a community-level IS in the co-located MACO community.

Table 3.1 summarises the four co-located MACO communities which met these criteria. The researcher had been a member of Streets on the fringe of this community rather than a core member. She had been involved with Rainbow and done some photography work a Rainbow member, but was not considered a member of Rainbow. The researcher was not a member of Kete and Classic. For this reason, the researcher was not a member of these co-located MACO communities. Her personal contacts were, however, essential for securing access to some of these case studies, because artists/craftspeople value interpersonal, trusted relationships before they tend to agree to participate. It was also an important aspect of achieving immersion in the case studies (section 3.4).

Table 3.1: Characteristics of each co-located MACO community studied

<table>
<thead>
<tr>
<th>Case pseudonym</th>
<th>Type of artist</th>
<th>Locality</th>
<th>Main focus of community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kete</td>
<td>High-brow</td>
<td>Urban</td>
<td>Supporting MACO members and the broader society to engage in the arts/craft</td>
</tr>
<tr>
<td>Streets</td>
<td>Low-brow</td>
<td>Urban</td>
<td>Supporting low-brow and youth MACO members</td>
</tr>
<tr>
<td>Rainbow</td>
<td>Low-brow</td>
<td>Rural</td>
<td>Supporting MACO members and environmental sustainability</td>
</tr>
<tr>
<td>Classic</td>
<td>High-brow</td>
<td>Rural town</td>
<td>Economic success and adhering to a high-brow aesthetic standard. Supporting emergent high-brow MACO members</td>
</tr>
</tbody>
</table>

Table 3.1 shows that cases were selected for their diversity in the different areas of the art/craft sector (i.e. low-brow and high-brow), and in different locations (i.e. urban and rural). High-brow communities represented the fine art/craft work typically purchased by the ‘elite’ (see section 1.2), and typified by display in galleries and museums. Low-brow represents art/craft work which historically included Impressionists and Surrealists, but now includes controversial art/craft forms such as street art produced by the Streets community (Hawkes 2001). This highlights differences in the art/craft creativity values among high-brow and low-brow communities, which had the potential to influence how supporters experienced community-level IS appropriation. Similarly, it was anticipated that supporters from rural and urban co-located MACO communities could have different experiences with community-level IS appropriation. For example, urban locations often have better IS infrastructure (e.g. broadband) than rural locations (Anderson et al. 2015).
Overall, this heterogeneity increase the likelihood that established theories (identified after the data analysis) would be applicable to more co-located MACO communities, so that these theory/ies could offer a suitable overarching conceptual framework.

*Kete* was an urban government-run art centre. The pseudonym *Kete* (*Maori woven basket*) reflects their inclusion of management practices that recently took account of New Zealand indigenous culture in the community generally, and in its appropriation of community-level IS more specifically. *Kete* mainly had a high-brow outlook (with artists/craftspeople engaged in fine-arts work). There were, however, artists/craftspeople involved in a greater diversity of art/craft work (e.g. theatre, as well as traditional Maori art/craft) who had joined in more recent times. This centre was chosen because it had recently introduced two new community-level IS initiatives, which meant this case could explore how government legislation, funding and other related issues influenced supporter experiences when appropriating the IS.

*Streets* was an urban low-brow gallery and studio that served a community of artists/craftspeople in genres from pop to street art/craft, and included a high proportion of youth artists/craftspeople. *Streets* was selected because youth are often seen as high appropriators of IS, unlike older peers in traditional areas such as fine-arts. This suggested *Streets* supporters were likely to appropriate communal-IS. Similarly, some artists/craftspeople affiliated with *Streets*, but still considered to be community members, were also experienced with IS. This meant it was possible to explore whether this situation led to different types of community-level IS being appropriated within the community, and thus different supporter experiences.

*Rainbow* was a rural eco-intentional community\(^1\) based around a new-age spiritual culture that looked to tribal ways of living based on the MACO members’ connection to environmental and social responsibility principles. This case was selected because it had recently upgraded to broadband and had appropriated a community-level website. The case also provided the opportunity to contrast supporter experiences in this eco-sub-culture of the art/craft sector, which included community members with

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\(^1\) An intentional community, is a community that has intentionally formed to peruse a particular lifestyle, and share both activities and a physical space. These include a wide range of experimental communities from, communes, eco-villages, religious housing and residential housing (Metcalf 1995; Sargisson & Sargent 2004).
negative views about IS in society, with supporters in other co-located communities where such views among MACO members were not as extreme.

Classic represented a traditional high-brow art/craft community in a rural seaside setting which centred on a lead artist. This person was always striving to find new forms of creative expression, often coming up with new art/craft styles. He also selected artists/craftspeople to exhibit in his gallery who not only exhibited talent, but their art/craft pushed high-brow aesthetics. For this reason, Classic still represented a co-located community of artists/craftspeople, although it was a much looser community than the other three due to having less daily interactions. The case was selected because community-level IS had been appropriated to support the business side of the community (i.e. economic survival). This case study provided a contrast to the other communities because it was more commercially focused and bound by high-brow norms. It also had a history of IS appropriation and were about to upgrade to a new community-level website at the time of the study.

### 3.7 Supporter identification and selection

The process of selecting co-located MACO communities (section 3.6), which involved face-to-face interactions with supporters in the communities (section 3.4), enabled the researcher to identify initial supporters who had been involved with appropriating one or more community-level IS. Additional supporters who had a role in appropriating the same, or other, community-level IS were identified during informal discussions and formal interviews (see section 3.8) through the non-probability sampling method called ‘snowballing’. In other words, supporters “...with whom contact has already been made use their social networks to refer the researcher to other people who could potentially participate in or contribute to the study. Snowball sampling is often used to find and recruit hidden populations, that is, groups not easily accessible to researchers” (Heckathorn 2002, p. 12). The immersion of the researcher in the co-located MACO communities (section 3.4) meant she could talk informally to MACO members to determine if they had been involved with appropriating IS, whether these IS were community-level IS (see section 1.1 and 1.4), whether they were supporters (section 2.4), and then invite them to participate in the study (see section 3.8) to share their experiences if they had appropriated community-level IS.
This approach continued until either all supporters with experiences appropriating all community-level IS in each co-located MACO community had either agreed or declined to participate. Supporter identification and selection were limited to those who were members of the community (but not necessarily artists/craftspeople), as explained in sections 3.2 and 2.4. This meant those considered by internal supporters to be external to the communities, and who may have had a role in the appropriation (e.g. IS vendor-consultants, local council managers with oversight over appropriation decisions), were outside the scope of this study.

The snowballing approach meant it was possible to select potentially all supporters from each community with experiences relating to appropriating (collectively) all the community-level IS which were intended to help with the art/craft creativity and economic survival of their co-located MACO community. Supporter recruitment therefore stopped when the researcher felt all community-level IS projects in the community had been covered, and all supporters who were involved and willing to participate had been exhausted (de Laine 1997). This meant the supporters, collectively, were able to give a complete picture of the community-level IS appropriated in their MACO community. In other words, supporter recruitment (and other secondary data collection such as participation in community events) stopped when theoretical saturation (Given 2008; Patton 2002) had been reached, because no new insights could be gained, and because all supporters and community-level IS had been interviewed or had declined to participate.

The number of supporters who agreed to participate varied between the co-located MACO communities due to case study specific circumstances. With Classic, for instance, only two supporters were available for interview, but these were the main people responsible for appropriating community-level IS. At Kete, during the study there was a change of management, which meant both the past and new managers took part and had experiences appropriating some of the same community-level IS. Similarly, as new community-level IS projects emerged, other supporters involved in these projects were invited to take part. Rainbow supporters were working on new community-level IS projects, and actively approached the researcher to tell their story before the researcher asked them to participate. Further details of the supporters who participated in each case study can be found in chapter 4.
3.8 Data collection

Data collection was done sequentially, beginning with Classic, then Kete, Rainbow and lastly Streets. The primary data collection approach was open-ended interviews, because they enabled the researcher to capture experiences how the supporters wished their stories to be told about their appropriation of community-level IS, and to the level of detail necessary to answer the research question (see section 3.2). Data analysis (see section 3.9) began at the time of data collection (after each interview) and continued after interview transcription. This approach meant data remained fresh in the researcher's mind. This resulted in rich individual case studies for each co-located MACO community (based on interviews from supporters, observations and secondary data collected) which are presented in chapter 4.

The following sections elaborate on the data collection processes in more detail. The open-ended interview guidelines and stages suggested by Patton (2002) and Hollway & Jefferson (2000), which aimed to encourage storytelling by the supporters, were followed in this study and are described in separate sections below. The preparation and initiation stages occurred prior to the interviews, and then the storytelling interviews were conducted. In many cases the interview involved the collection of secondary data and researcher observations, but these types of data were also collected after the interviews. Later there were follow-up interviews.

3.8.1 Preparation

After analysing the literature (see chapter 2), the researcher prepared open-ended interview questions designed to stimulate discussion and open up narratives (Merriam 1988). Open-ended interviewing allowed supporters to tell stories, because there was limited directed provided by the researcher. In the arts/crafts sector the use of storytelling is part of the day-to-day world and creative work of supporters, who were often artists/craftspeople. As such, allowing supporters to engage in storytelling was important because they relished their creative autonomy (section 2.2.2), and often viewed the world in a visual and metaphorical manner (section 2.2.1). Many were proficient storytellers, so it was important to accommodate this approach, rather than assuming a sequential approach to answering each sub-question or imposing structure on the interview process. Literature suggests that small stories in particular
are common during conversations and formal interviews when people answer questions (Norrick 2000; Thorne et al. 2007).

Small stories also allowed the researcher to give an example from her own life to confirm if her understanding was correct, which was enabled due to her immersion (section 3.4) and experience in this sector (section 3.5). The researcher also checked her own biases and experiences, as a means to privilege the supporter’s voice to be heard rather than her own, such as understanding power relations. For instance, when interviewing Maori supporters, the researcher adopted a child-like relationship to recognise the parental teaching by supporters who were the authority in their indigenous world, which is opposed to that of the western world that the researcher generally inhabited. This was bridged, however, by the researcher having Maori family and understanding ways of communicating in the Maori tradition, which made the supporters feel more comfortable. The pre-interviews were particularly important for this, as outlined in section 3.7. Also, the researcher read about Maori spirituality and history to help understand what supporters were saying.

The storytelling approach required the researcher to understand that stories have a beginning, middle and end, and often result in catharsis where the interviewee has a revelation which helps them understand aspects of their life more clearly (Hollway & Jefferson 2000). In this study, many supporters used the interviews to reflect on the role of IS in their community and their wider lives, and thus helped empower them to take control of IS so it empowered them and their community. Furthermore, the principles of storytelling ensured the voice of the participant was heard, and that they gained therapeutic-like benefits during the study (Hollway & Jefferson 2000).

The interview questions were made as clear as possible to the world of supporters by using the language of artists/craftspeople. In the area of IS, the researcher was conscious of technical language that could alienate supporters, and so jargon common in the IS world was avoided. For instance, the word ‘technology’, rather than terms such as IT, IS or computers, were used because supporters found ‘technology’ less threatening.

The first question in the interview was a grand-tour question, or overarching question that encompassed the entire research question:
Can you tell me your story of your working life in creativity and the role of technology in this story?

Grand-tour questions are open-ended and designed to stimulate discussion and open up storytelling narratives (Merriam 1988). They are intended to elicit a response that is an entire story. This grand-tour question was linked to the research question (and the theoretical lens described in section 2.4) in the following ways:

- It enabled the supporter to describe their experiences of art/craft creativity in general, creativity-technology tensions, the role of technology in their art/craft work (if applicable), and other aspects which influenced their experiences with appropriating community-level IS. This included the goals/values framing their art/craft creativity (including their relationship with technology), and relating to broader tensions (e.g. creativity-business and creativity-economic) underpinning economic survival issues.

- Some supporters were key individuals associated with the formation and day-to-day running of their co-located MACO community, which meant the grand-tour question enabled them to describe art/craft creativity and economic survival as it related to their community. The question enabled the supporters to describe their role as a supporter, and how they enacted and perceived their role. The grand-tour question enabled them to tell the story of community-level IS they appropriated as part of their role as a supporter, and how the IS influenced the art/craft creativity and/or economic survival of their community.

- Other supporters had more specific roles in their co-located MACO community, so they had narrower stories relating to community-level IS and the link to community art/craft creativity and/or economic survival. The grand-tour question gave them the opportunity to describe their role, such as how they gained income to help with the art/craft creativity and/or economic survival of the community. The question enabled them to describe their experience with technology appropriation with respect to these goals.

Most supporters were talented storytellers and approached the interview in their own unique way, stimulated by the grand-tour question. For those supporters who were less accustomed to storytelling (e.g. supporters who were not artists/craftspeople in their own right, such as art centre managers), further open-ended prompting
questions shown in Table 3.2 were included. These questions were also used in instances where topic areas of importance to answering the research question did not naturally arise during their storytelling. The researcher tried to avoid leading questions (Patton 2002). There was no particular order, and limited structure was used for these questions, so that they could be asked in any order and adapted to blend and flow with the storytelling by the supporter.

Table 3.2: Alignment of theoretical lens and prompting questions

<table>
<thead>
<tr>
<th>Open-ended prompting questions</th>
<th>Theoretical lens</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is your identity as a creative person and how is technology used as part of your creative work?</td>
<td>• Supporter’s art/craft creativity (if applicable)</td>
</tr>
<tr>
<td>• What is creativity in your art form?</td>
<td>• Potential creativity-technology tensions</td>
</tr>
<tr>
<td>• What is creativity to you in community terms?</td>
<td>• Details of their high-brow or low-brow art/craft work</td>
</tr>
<tr>
<td>• How is creativity reflected in the community?</td>
<td>• Appropriation of technology (e.g. community-level IS)</td>
</tr>
<tr>
<td></td>
<td>• Background on co-located MACO community and its art/craft creativity</td>
</tr>
<tr>
<td>What is your work history of creativity, business and technology?</td>
<td>• Supporter’s art/craft creativity (if applicable) and role in the co-located MACO community</td>
</tr>
<tr>
<td>• Can you tell me how you work in the arts/crafts based community?</td>
<td>• Potential creativity-technology, creativity-business and creativity-economic tensions</td>
</tr>
<tr>
<td>• What are your stories of when new technology have been introduced?</td>
<td>• Community/MACO level economic survival issues</td>
</tr>
<tr>
<td>How do you use and/or manage technology on a day-to-day basis?</td>
<td>• Appropriation of technology (e.g. community-level IS)</td>
</tr>
<tr>
<td></td>
<td>Supporter role(s), appropriateness of technology including community-level IS and their link to art/craft creativity and economic survival at the community and MACO levels</td>
</tr>
<tr>
<td>What is your community’s outlook on creativity and how does this shape the way technology is managed and used in day-to-day work?</td>
<td>Supporter role(s), external influences on the co-located MACO community and creativity-business and creativity-technology tensions influencing how community-level IS was appropriated and the community’s art/craft creativity</td>
</tr>
<tr>
<td>What has been the government’s role in how technology is used in your community?</td>
<td>External influences on the co-located MACO community and creativity-business and creativity-economic tensions influencing how community-level IS was appropriated and the community’s art/craft creativity and economic survival</td>
</tr>
</tbody>
</table>

3.8.2 Initiation

For this study, the kinaesthetic and emotional nature of communication in the art sector (section 2.2.1) meant that face-to-face interactions prior to the interviews were important to establish trust. This in turn increased the willingness of supporters to be interviewed, and to give the researcher a chance to explore fully the research. In several cases, senior supporters in the communities, which in some cases included Maori participants, said this was exactly how they went about developing relationships. That is, face-to-face meetings were held before in-depth interactions, in the creative, business and personal aspects of their lives.
The interview settings included quiet meeting rooms, studios belonging to the supporters, galleries and social settings such as cafes where supporters ‘hung out’ (Werner & Schoefple 1987a; 1987b). The researcher gained consent of the supporters and explained the interview approach (see Appendix B for the plain language statement used). Care was taken to make the supporter feel safe and comfortable. The researcher communicated clearly what information was desired and why it was important during initiation and secondary data collection activities.

Tape recording and note taking were both used due to the possibility of technical difficulties, so that the notes were necessary for backup. The researcher discussed the use of the tape recorder to help the supporter feel more comfortable around the device, if they agreed to its use.

Interviews varied in length from one hour to three hours depending on the job demands or life commitments of the supporters, and on the desire by some supporters to tell their full story and gain benefits for their community and their own wellbeing. The wellbeing aspect often occurred due to the therapeutic nature of the interview, where supporters worked through IS issues they were facing. The length of the interviews also depended on the participant’s concept of time. Supporters in traditional western settings (e.g. Kete) were bound more by ‘clock’ time more so compared to supporters in non-traditional settings (e.g. Rainbow) who talked about living in Rainbow time rather than clock time. In total there were 20 interviews with supporters (see chapter 4 for overviews of the supporters).

3.8.3 Open-ended interview to elicit the storytelling narrative

The interviews began with the grand-tour question. For some supporters this was enough for them to cover the research question in sufficient depth. The supporters who were able to do this were proficient storytellers. Some supporters asked to draw during the interviews, and music was often played. Shared meals or coffee/tea breaks were had after, or in the middle of, interviews because this was culturally appropriate in the supporters’ MACO communities. For other supporters, prompting questions in Table 3.2 were needed to assist them with telling their stories about experiences with appropriating community-level IS.
Creative works and examples community-level IS such as websites and social media were shown to the researcher during the interviews. This was important due to the visual nature of art/crafts sector, such as showing how art/craft creativity was represented in such IS. The open-ended interviews therefore provided rich, in-depth data and were aided by the researcher’s understanding of the importance of art/craft cultural artefacts and ritual in the art/craft sector. This provided a greater sense of how these communities operated culturally and how supporters appropriated (and especially used) community-level IS on a day-to-day basis.

The researcher also asked confirmation questions that arose during storytelling. Toward the end of the interview the researcher asked the supporters to state the morals or points they wanted to make after their storytelling. It was also at this time the researcher asked ‘why’ questions which had not been addressed during the storytelling relating to supporters’ experiences with appropriating community-level IS. The latter approach reduced the researcher’s influence on the storytelling.

3.8.4 Interview transcription

The interview was transcribed into an electronic word-processing file for data analysis. The data analysis processes on these files are explained in section 3.9.

3.8.5 Event observations and secondary data collection

Section 3.2 explained that secondary data collection helped answer the research question because it resulted in an in-depth, holistic understanding of each co-located MACO community in which supporters had experiences with appropriating community-level IS. This secondary data took the form of observations and collection of documents at the time of the interviews and also after the interviews, based on the recommendations by Creswell (2014), and included the following:

- Supporting data, where applicable, such as advertising material, websites, social media pages, videos, newspaper articles and local council strategic plans, policies and procedures. Community-level websites and social media pages helped visualise and confirm what was being said in the interviews, such as how these IS were being used. Paper and online newspaper articles expanded the researcher’s understanding of community-level events and achievements described in the interviews, including the use of community-level IS during these events, and
confirmed the accuracy of the supporters’ recollection of these events. Examining local council documents helped confirm aspects of how supporters described the influence of plans, procedures and policies on their appropriation of some community-level IS.

- Observations of the community-level IS (e.g. websites, Facebook pages) enabled the researcher to see the features these IS, and to understand how these IS were used by supporters (and MACO members in the case of communal-IS), to gain a better understanding of the appropriation of these IS.

- Photographic images of each community’s art/craft creative events helped the researcher observe this important aspect of supporters’ creative and community life, and how community-level IS was appropriated at these events. It was also a useful way to confirm what participants had said about such events and the role of IS in these events during the interviews.

### 3.8.6 Follow-up interviews

The plain language statement in Appendix B stated that follow-up interviews with supporters were expected to be about half an hour. Follow-up interviews were intended to fill in gaps in the supporters’ stories about community-level IS appropriation which became apparent during the data analysis (see section 3.9), and to get an update on each community and their community-level IS projects.

It was found, however, that this approach was not how many supporters wanted to interact with the researcher with respect to such confirmations and updates. Supporters often travelled, which made scheduling follow-up interviews difficult. The researcher therefore let the supporters control if and when they wanted to update the researcher on changes, and confirmation queries arising during the data analysis were asked at these times. The supporters enjoyed and gained personal (as well as community) benefit from these follow-ups with the researcher. For some supporters the follow-ups comprised multiple and long conversations at various times, as they directed, during the study instead of a single half-hour follow-up.

For other supporters (e.g. at *Streets* and *Classic*) they experienced difficulties during the study, so that the researcher did not request follow-ups and allowed these supporters to decide if/when to speak with the researcher. For those who did decide
to speak further, the follow-up interviews tended to comprise small conversations at
multiple times over the course of the data analysis, as directed by these supporters.

In total, 13 of the 20 supporters participated in follow-ups with the researcher.

3.8.7 Data storage, management and security

Interview and secondary data were stored electronically in encrypted documents on a
private secure sever accessible only to the researcher. A coding paper notebook for
each supporter and case study was stored in a physical safe. Each interview was
stored within its own (electronic) case study folder, along with associated secondary
data collected from the supporters in that case study. Interviews and secondary data
within the case study folders were stored in chronological order. These folders were
used as the basis for the data analysis approach described in the next section.

3.9 Data analysis

The data analysis occurred simultaneously with data collection (Bernard 1994; Rusli &
Marshall 1995). This was undertaken by adapting the qualitative data
transformation process proposed by Wolcott (1994), involving description, analysis
and interpretation, and by applying the seven principles by Klein & Myers (1999)
72) state the first principle (or meta-principle and approach used in all interpretivist
data analysis of case studies) is the hermeneutic process, involving cycles/circles
where “… all human understanding is achieved by iterating between considering the
interdependent meaning of parts and the whole that they form”. The hermeneutic
process was the basis for the interpretation part of the qualitative data transformation
process (Wolcott 1994).

The next sections explain how Wolcott’s data transformation process was carried out
using hermeneutic circles, and how Klein & Myers’ principles were used for data
analysis and evaluation purposes.

3.9.1 Rich case study descriptions

The first stage of data analysis, based on the qualitative data transformation process
outlined by (Wolcott 1994), involved developing rich descriptions (or narratives) of
each case study based on the collective stories of supporters about their experiences
with appropriating community-level IS in their co-located MACO communities. Each case study was given equal analysis time (Stake 1995) to create the individual case study descriptions, and during the cross-case analysis explained in section 3.9.2. The theoretical lens (section 2.4) described broad terms used to structure the rich narratives for each case study, and to start the hermeneutic process. More specifically, the structure of each case study narrative included:

- A section describing the co-located MACO community and the supporters. This included summaries of the tensions (creativity-business, creativity-economic and creativity-technology), culture and history of the communities which were part of understanding supporters’ experiences with community-level IS appropriation. This allowed the researcher to address the second principle of contextualisation, by Klein & Myers (1999, p. 72), which requires “… critical reflection of the social and historical background of the research setting, so that the intended audience can see how the current situation under investigation emerged.”

- For each community-level IS, a separate section of the case study provided an account of the supporter(s) who had experiences with appropriating the IS, and explained how this IS helped with the art/craft creativity and/or economic survival in the community (i.e. a separate section on art/craft creativity and on economic survival, as applicable to the particular community-level IS). Relevant tensions arising from these experiences were drawn out in these sections.

A number of hermeneutic circles led to the creation of these case study narratives. The first hermeneutic circles involved collating quotes from supporter interviews and secondary data such as documents relating to the co-located MACO community. This information included the community’s goals, culture, history, issues of concern (in general and about IS), their management approach, the number of MACO members (and other types of members if applicable), and revenue streams. The use of multiple sources of data (i.e. interviews with multiple supporters, follow-up interviews, secondary data) enabled the researcher to triangulate the data to achieve validity when multiple sources converged (Creswell 2014). Cases of divergence were checked with supporters (e.g. followed-ups described in section 3.8.6) and using secondary data (section 3.8.5) to see if it was due to the researcher’s
misunderstanding or to differing perspectives of supporters. This approach was based on the sixth principle of multiple interpretations by Klein & Myers (1999).

Hermeneutic circles were used to produce supporter descriptions of their role(s) in the community, art/craft background (if applicable), education level, and past business role(s). Triangulation techniques similar to above were used to check for convergence on the nature of their community roles, or whether there were differing supporter perspectives on the roles enacted by other supporters. That is, the sixth principle (multiple interpretations) by Klein & Myers (1999). The hermeneutic circles examining supporter roles and perspectives also resulted in further insights about the community as a whole (and vice versa), because some supporters were the ones responsible for the formation of their co-located MACO communities. This meant that supporters’ lived experience relating to community-level IS appropriation could not be separated in terms of community and supporter levels, nor separated into sequential hermeneutic circles.

Further hermeneutic circles were used to determine the individual or collective stories (as applicable) of how supporters experienced appropriating each community-level IS. This included describing the activities involved in introducing the IS and then using it on an ongoing basis (as applicable for each supporter), the roles of each supporter as part of these activities, the difficulties they had faced (including how they felt during appropriation activities), and the successes they had enjoyed. A further consideration was identifying aspects of supporter stories which related to how each IS helped (or not) with the art/craft creativity and/or the economic survival of the community (and members too if this was applicable). The (collective) supporter stories relating to particular community-level IS were effectively themes, which included sentences, paragraphs, and even conversations that were repeated within and across the interviews and observations (de Laine 1997) relating to these community-level IS. The sixth principle (multiple interpretations) from Klein & Myers (1999) was applied to check for convergence and divergence of views among supporters (Creswell 2014).

These hermeneutic circles led to the rich stories from the supporters which were prepared as rich case study descriptions which are presented in chapter 4. The descriptions were enriched by direct quotes from supporters, and weaved together to
create a vivid picture of the social reality in which supporters lived (Bate 1997; Van Maanen 1995). This was combined with a polyphonic approach so that the uniqueness of supporter voices could be heard in the cacophony of the community they resided within.

3.9.2 Cross-case analysis

The cross-case analysis was carried out using hermeneutic circles by using the rich case study descriptions and by returning to the raw data. The main aim of this analysis was to look for patterns or themes between the case studies (Bernard 1994; Rusli & Marshall 1995; Stake 1995). The analytic tool used to determine the themes was the mind of the researcher. Analysis between the case studies was conducted by tabulating themes across the case study descriptions in spreadsheet worksheets, as suggested by Stake (1995). This included returning to the raw data to determine if emerging themes in one or more cases were evident in the other case studies, but were not captured in the original case study descriptions. If so, the case study descriptions were revised to ensure information relating to these emergent themes were incorporated. The spreadsheet analysis was used to create the cross-case tables shown in chapter 5. In other words, the cross-case tables in chapter 5 reflect the coding of the themes which were produced during the cross-case analysis.

Hermeneutic circles were also carried out, after emergent themes from the case study descriptions and raw data were exhausted, by comparing the empirical themes with the IS literature on co-located SME/MSB communities and, where applicable, the literature on SMEs/MSBs in general. This comparison process, which included the by-product of synthesising this literature (see chapter 5 for further details), resulted in identifying themes from the literature which were subsequently compared with the MACO community case studies. The new synthesis of the literature sometimes resulted in identifying new themes, which necessitated going back to the data on the MACO communities in this study to see if comparable themes were apparent.

Once the various emergent themes were identified from the cross-case analysis, and from the comparison with the empirical literature, hermeneutic circles were carried out to compare these findings with established theories in the literature from the IS and other disciplines. These hermeneutic circles determined which established
theories, and associated concepts, made sense of the emergent cross-case themes. This process identified a particular established ‘grand’ theory which served as a suitable overarching conceptual framework, because it made sense of the themes regarding supporters’ experiences with appropriating community-level IS intended to help with the art/craft creativity and economic survival of their co-located MACO communities. This comparison of empirical findings and established theories resulted in identifying other theories which complemented the overarching conceptual framework by providing richer conceptual clarity for subsets of the emergent themes.

3.10 Evaluation

The researcher was guided by the seven principles described by Klein & Myers (1999) for evaluating interpretive IS field studies such as case studies. Section 3.9 has already explained the use of the fundamental principle of hermeneutic circle, the principle of contextualisation and the principle of multiple interpretations which led to the individual case study descriptions in chapter 4. The following summarises how the remaining principles were applied in this study.

3.10.1 Principle of interaction between the researchers and the subjects

Sections 3.4, 3.5 and 3.8 provided details on the experience of the researcher and how she was the instrument of data collection and analysis. Section 3.4 stated and gave examples of how the researcher influenced the supporters. This influence was further emphasised by the use of the open-ended questions (section 3.8.1), because these questions encouraged supporters to reflect in ways they may not otherwise have done. Conversely, the supporters also influenced the researcher by, for instance, changing the language used during interviews, such as avoiding terms such as ‘computers’ and instead using ‘technology’ (section 3.8.1).

3.10.2 Principle of abstraction and generalisation

This principle was applied at the start of the research process by producing a theoretical lens describing key terms (see section 2.4) to guide the data collection (e.g. selection of cases and supporters) and the issues to be focused upon. This lens provided broad areas of interest, such as supporter experiences with appropriating community-level IS relating to art/craft creativity and economic survival for their co-located MACO community. It was also used as the starting point for developing the
case study descriptions. This approach was similar to Vaast & Walsham (2005), who applied the principles of Klein & Myers (1999) by grounding the analysis of the specifics of each case using a theoretical lens, and linking back to the lens throughout the analysis. Evidence of this can be found in chapter 4, whereby the key terms from the theoretical lens were used as the basis for structuring aspects of the case study descriptions (see also section 3.9.1), and also describing supporter experiences with appropriating the community-level IS (e.g. the three types of tensions).

The emergent themes arising from the data analysis represented abstractions (see chapter 5), and the cross-case analysis was a form of generalisation across the empirical four co-located MACO community case studies. The aim of this thesis was not to build theory from this work, but rather to compare these emergent themes with established theory to complete the process of abstraction (see section 3.9.2 for an overview, and chapter 6 for details).

3.10.3 Principle of dialogical reasoning

Klein & Myers (1999, p. 72) state that this principle:

“Requires sensitivity to possible contradictions between the theoretical preconceptions guiding the research design and actual findings (‘the story which the data tell’) with subsequent cycles of revision.”

This sensitivity to possible contradictions was one motivation for starting the research with a broad theoretical lens describing key terms, rather than starting with one or more established theories which might have narrowed the research. In other words, this approach aimed to reduce the degree to which the research design and later data analysis was constrained by preconceived concepts which might have conflicted with the empirical findings or narrowed what was explored in the study.

The possibility of this happening was emphasised in sections 1.5 and 2.4, which stated there was limited empirical research on supporter experiences with appropriating community-level IS in co-located MACO communities (and very little research on MACOs and co-located SME/MSB communities) on which to base selecting established theories. Addressing the principle of dialogical reasoning was another motivation for focusing on developing a broad theoretical lens, based on empirical research relating to MACOs, rather than starting the research using
established theories. It was only after the data analysis that the emergent findings were compared to established theories, which reduced the likelihood of contradictions between the identified established theories and the findings.

3.10.4 Principle of suspicion

Klein & Myers (1999, p. 72) state that this principle:

“Requires sensitivity to possible ‘biases’ and systematic ‘distortions’ in the narratives collected from the participants.”

This principle is based on notions within critical research. The relevance of critical research to interpretive research is debated by scholars, and for this reason it is not mandatory for IS scholars to follow the principle (Klein & Myers 1999). This principle was not applied in this study because the researcher believed it was important to allow the stories of supporters to be heard and accepted.

3.11 Conclusion

This chapter summarised the interpretivist research approach used for this study, including the data collection, analysis, creation of four rich case study descriptions, and how they were analysed to identify emergent cross-case themes. The next chapter presents the four rich case study descriptions.
Chapter 4: Multiple Case Study Findings

4.1 Introduction

Chapter 3 justified the use of four case studies of co-located MACO communities to explore how internal supporters experienced appropriating community-level IS intended to help the art/craft creativity and economic survival of each community. This chapter presents the findings separately for Kete (section 4.2), Streets (section 4.3), Rainbow (section 4.4) and Classic (section 4.5) structured using terms from theoretical lens outlined in section 2.5. Specifically, each subsection of a case study reports on the stories of supporters’ (non-)appropriation of a specific community-level IS or combination of IS (which could be a communal-IS or supporter-IS), and how the IS influenced either community-level economic survival or art/craft creativity. Each subsection reports findings of how the creativity-business, creativity-economic and/or creativity-technology tensions influenced supporters’ experiences relating to that particular community-level IS (e.g. a website, a Facebook page, an email-list) to achieve (or not) economic survival or art/craft creativity.

4.2 Kete

The next section introduces the Kete MACO community, as well as the supporters who appropriated the community-level IS and were interviewed. Subsequent sections summarise, for each (type of) community-level IS, the experiences of the relevant supporters (e.g. tensions faced) when appropriating the IS.

4.2.1 Overview of Kete and its supporters

Kete was a MACO community physically co-located around a not-for-profit art-centre run by a local council. It supported approximately 20 MACO members who were permanent residents, as well as opening up the centre to casual users from the general public such as community groups. Kete operated a gallery, as well as rentable art/craft studios and performance spaces for MACO members, and the latter were rentable by groups from the general public. Kete was operated and governed based on the Local Bodies Act of 2002, which in turn was informed by a quadruple bottom line (QBL) framework. In other words, this Act took into account not just economic
value but also cultural, societal and environmental values (i.e. quadruple values) as measures of sustainable regional development. The QBL framework helped fuel the revitalisation of *Kete* and provided the basis for selecting community-level IS to support this transformation. During this study, several new community-level IS were appropriated by internal supporters to help achieve the QBL strategies, including an events booking system (EBS, supporter-IS) and a drop-in centre with an electronic portal (e-portal) for MACO members (communal-IS).

Table 4.1 summarises the *Kete* supporters who were interviewed, their roles at *Kete*, and other background information such as their tertiary education, other business roles, and the nature of their art/craft. Table 4.1 shows that the majority of the *Kete* supporters (except *Internal-Centre-Manager2*) were MACO artists/craftspeople in their own right. In this sense, the distinction between *Kete* supporters and MACO members were blurred. The data collection and case study, however, focused only on the experiences of MACO members in their roles as supporters when appropriating community-level IS. Further, although *External-Council-Manager* was a council manager rather than a *Kete* manager, *Internal-Centre-Manager1* and *Internal-Centre-Manager2* considered him to be internal to the *Kete* community because of his active involvement within the community.

*Kete* supporters listed in Table 4.1 included a council-paid team of full-time managers (*Internal-Centre-Manager1* and *External-Council-Manager*) and part-time special functional area managers *Gallery-Curator-Craftswoman* and the new *Drop-in-Centre-Manager*. *External-Council-Manager* empowered *Kete* employees to drive community-level IS initiatives. During the study *Internal-Centre-Manager1* resigned and *Internal-Centre-Manager2* took over. There was also one paid full-time *Receptionist* who was not a resident artist at the centre, and two paid part-time staff whom were resident artists: *Receptionist-Craftswoman* and *Gallery-Curator-Craftswoman*. There were also ‘special projects’ managers like *Drop-in-Manager-Artist* (paid, part-time) and *Drop-in-Maori-Consultant-Artist* (contracted for the strategy phase) who were involved with the IS-related ‘drop-in centre’ project.
Table 4.1: Overview of *Kete* supporters

<table>
<thead>
<tr>
<th>Supporter pseudonym</th>
<th>Community role</th>
<th>Artistic role/ background</th>
<th>Tertiary education background</th>
<th>Business role(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal-Centre-Manager1</td>
<td>Manager</td>
<td>Craftswoman, Digital Stills Artist</td>
<td>Not applicable</td>
<td>Senior film and TV team leader (P), Digital Stills Gallery owner (P), Curator for Private Collection</td>
</tr>
<tr>
<td>Internal-Centre-Manager2</td>
<td>Manager</td>
<td></td>
<td>Tertiary qualified in art history and criminology</td>
<td>Receptionist/ Administrator at <em>Kete</em> (P) and IS trainer.</td>
</tr>
<tr>
<td>External-Council-Manager</td>
<td>Manager</td>
<td>Theatre producer</td>
<td>Studying Masters in public policy</td>
<td>City arts manager for the council (C)</td>
</tr>
<tr>
<td>Drop-in-Manager-Artist</td>
<td>Drop-in-centre manager</td>
<td>Performance artist</td>
<td>Not applicable</td>
<td>Community Arts worker youth (P), Government administrator for the Arts (C)</td>
</tr>
<tr>
<td>Drop-in-Maori-Consultant-Artist</td>
<td>Drop-in-centre consultant</td>
<td>Performance artist, song writer, kapahaka group manager</td>
<td>Tertiary qualified in education</td>
<td>Primary (P) and tertiary (C) teacher</td>
</tr>
<tr>
<td>Receptionist</td>
<td>Receptionist, administrator and grants team member</td>
<td>Sculptor, but not part of the <em>Kete</em> community</td>
<td>Tertiary student in anthropology</td>
<td></td>
</tr>
<tr>
<td>Receptionist-Craftswoman</td>
<td>Receptionist and administrator</td>
<td>Craftswoman, burlesque dancer, director/producer</td>
<td>Tertiary student in digital arts</td>
<td>Fairy godmother for children’s parties (P); Content designer for website</td>
</tr>
<tr>
<td>Gallery-Curator-Craftswoman</td>
<td>Gallery curator and administrator</td>
<td>Craftswoman</td>
<td>Not applicable</td>
<td>Child caregiver (P)</td>
</tr>
</tbody>
</table>

P = past job role, C = current job role

The supporters explained that revenue for *Kete* came from a mixture of art/craft space rental fees from MACO members, casual booking fees from local community groups, donations from philanthropists and corporations, grants from government, and funding from local council. Despite these various revenue sources, the supporters described the economic survival status of *Kete* as sustainable but at a low level. This is because managers at *Kete* (like other national and local government funded entities such as libraries) were required to be partially self-funding, while in the past such centres were purely government funded. Even with full funding, only minimal costs were met. Anything seen as extra like IS, as well as some paid staff positions, were not part of the annual budget, so that funding had to come from grants which they...
may or may not have received from year to year. *Kete* managers believed that, when they compared *Kete* to mainstream businesses, they could not easily allocate funding to IS projects.

Sections 4.2.2 to 4.2.9 will tell the stories of the *Kete* supporters who appropriated these, and other, community-level IS, how each (type of) IS influenced art/craft creativity and/or economic survival at *Kete*, and how MACO member norms/values (and associated tensions such as creativity-technology) affected the appropriation.

### 4.2.2 Appropriating supporter-IS (EBS) for economic survival

All three managers had a role in community-level IS appropriation at *Kete*, including supporter-IS (used by *Kete* staff rather than MACO members to run their individual practices) to improve the economic survival of the MACO community. This was complex because creativity-economic tensions (explained in section 2.2.2) at *Kete* meant the limited funds secured (e.g. government grants) were prioritised for projects with direct impact on art/craft creativity in the community. Funding initiatives such as appropriating supporter-IS, by contrast, was challenging because such IS could be perceived by supporters and MACO members as focusing on the economic survival of the community, with a (possible) indirect impact on community-level and/or individual MACO art/craft creativity. A related problem raised by *Internal-Centre-Manager1* was that she felt people in general, and especially youth, were no longer willing to volunteer. This was especially true when *Kete* sought an intern for the new drop-in-centre, where the lack of volunteers meant this had to be a new paid position, for which she needed to seek funding from council.

This creativity-economic tension was apparent when *Kete* effectively doubled the number of studios and rehearsal spaces available for MACO members to rent after it acquired another building using funds from a government grant. These additional spaces had a direct impact on art/craft creativity in the community because they enabled artists/craftspeople to operate their MACO practices within these spaces. Supporters and MACO members therefore saw a direct link between the project (additional spaces) and their creative work. As will be explained in this section, obtaining funding to introduce supporter-IS to help run the MACO community more effectively were, by comparison, more challenging and nuanced projects.
Internal-Centre-Manager1 initiated and implemented a supporter-IS, referred to in this thesis by the pseudonym events booking system (or EBS), to reduce the increased administrative work at Kete resulting from the new building, including handling bookings and rent recovery. Administrative burdens were linked to economic survival at Kete because if such problems were not addressed, more staff would have had to be hired or, since funding for paying staff was scarce, staff would have experienced increased workloads leading to reduced service levels to customers. This was significant given her observation that less people were volunteering as they had done in the past, and were more likely to expect wages for this work.

Internal-Centre-Manager1 was an ex-film and television industry worker with a background in technology, which had given her knowledge and confidence in what supporter-IS could achieve at Kete. She recalled from her experience in the film industry how they used to move around boxes filled with documents, and how spreadsheets had revolutionised administration. Internal-Centre-Manager1 said in the context of Kete: “we were dealing with lots of spreadsheets”. The level of spreadsheet use at Kete could not cope with its growth, due to expanding the number of creativity spaces. The quote suggests spreadsheet use had become unmanageable at Kete.

Internal-Centre-Manager1 experienced difficulty obtaining funding to appropriate the EBS. Specifically, Kete had limited to no funding to purchase software, train staff to use the software, and integrate the software with their financial system. External-Council-Manager, despite seeing himself as almost technophobic, played a pivotal role in solving some of these issues. He used his networking and negotiation skills to piggyback on an EBS being implemented at another council venue he also oversaw. This meant Kete could use the local council license for the EBS to avoid purchasing their own software license. Further, he negotiated for Kete staff to attend training sessions and receive ongoing training/support from the EBS vendor with staff from the other venue, thereby avoiding such costs.

The only issue which could not be resolved, due to lack of funding, was integrating the EBS with Kete’s financial system. Internal-Centre-Manager1 was sure this could have been easily fixed if they were in the business world, since she believed they would then have had the money to pay someone to write a program to integrate them.
This view illustrated how supporters such as Internal-Centre-Manager1 saw their art centre as separate, and worse off, compared to the business world. Overall, however, the networking and negotiation by External-Council-Manager resulted in reducing the economic burden of EBS appropriation at Kete.

The creativity-economic tension at Kete meant that a dominant experience among supporters involved in running the EBS was helping each other learn and use the system, mainly due to limited training opportunities. Internal-Centre-Manager1 stated that Internal-Centre-Manager2 (previously a receptionist at Kete) was: “a digital nomad... a Y generation staff member”, and was the key to the eventual success of the EBS. Internal-Centre-Manager2 had the ability to play with a new system, learn it, find out how to integrate it with the complexity of the art world, and then help teach others how to use it. Internal-Centre-Manager2 continued being the ‘go-to-person’ or ‘guru’ for the EBS, even when all members of their team were trained at the time the EBS was first introduced. The ability of Internal-Centre-Manager2 to understand the system was one major reason why she, despite being a young university graduate, became Internal-Centre-Manager2. This change occurred after Internal-Centre-Manager1 resigned during the study. The willingness and ability of supporters such as Internal-Centre-Manager2 to help other supporters to use the EBS effectively eliminated the need to pay for staff training, and thus reduced the financial burden which appropriating the EBS might have caused.

The importance of staff helping each other use the EBS was emphasised in the findings when considering the challenge experienced by a number of administrative staff at Kete with learning the EBS. The EBS was complex because the art/craft sector itself was complex. This was explained by Internal-Centre-Manager2, who was training a new financial administrator:

... we have a new administrator here, and she’s found it quite hard, as nothing here is black and white, and she’s saying, “For every rule there’s an exception, it’s so frustrating”, but I am like, “Yep, that’s how it is here”, we need to accomplish all the anomalies that happen here, you can’t just put people in a box.

And all these exceptions were put into the EBS and allowed staff to achieve other benefits such as relationship management (explained in section 4.2.3), because they
could record the different roles an individual might have at *Kete*. Other staff noted this complexity:

*I was like ‘arh’ when the EBS came on, but all of these complications have given us... more options of what we can put into the EBS to do.* [Receptionist]

*I think the EBS we have is very interesting thing, a system may be an oxymoron, it’s a tangle, like a very large overgrown garden. It’s a very specialised system, and it’s got so many options, that are changeable, so many options but some are not changeable. It’s one of those examples of how good the computer brain is in being able to learn that system.* [Receptionist-Craftswoman]

*Kete* supporters also shared experiences relating to how the EBS itself helped more directly with improving *Kete’s* economic survival by enabling staff to collect rent arrears by identifying and then reminding artists/craftspeople who had not paid. The creativity-business tension (section 2.2.1) within this community meant, however, that supporters had to be careful not to alienate artists/craftspeople. *Receptionist-Craftswoman* said: “So when I am ringing people about money, it’s about, ‘Hey we need to help the centre, we need to help ourselves, by paying’”. Specifically, this approach meant that MACO members were less likely to perceive that supporters were more interested in money (like modern capitalist businesses) rather than supporting creativity, or to perceive that the EBS was being used for surveillance. All these concerns by artists/craftspeople were part of the creativity-business tension, and had to be taken into account during the appropriation of the EBS.

As will be explained further in the next section, *Kete* supporters did not see economic survival as the primary value of the EBS. Instead it was the ability to use the EBS to help with art/craft creativity for their artists in this co-located MACO community.

### 4.2.3 Appropriating supporter-IS (EBS) for art/craft creativity

*Kete* supporters emphasised that the most valuable experience relating to appropriating the EBS (supporter-IS) was the supporters’ ability to help with art/craft creativity at *Kete*. This is because the EBS reduced their administrative work, resulting in more time for community building and relationship management. An important aspect of art/craft creativity in communities such as *Kete* is artists/craftspeople (including supporters who were mostly artists/craftspeople in
their own right) collaborating and supporting each other. Internal-Centre-Manager1 explained that this was important at Kete because it had lacked community spirit prior to the introduction of the EBS, as she reveals in the next quote:

It’s interesting about that spiritual thing, because, when I first arrived here, the community had been, for two and half years... it was very dead... it was a scurrying in and closed their doors, it was not a talking community and I worked quite hard to change that.

When Internal-Centre-Manager1 started at Kete it had a closed culture between the artists/craftspeople that rented space, between Kete staff and the public, and between artists/craftspeople and the public. She stated that prior to the EBS, the operational inefficiencies of running Kete and all the spreadsheets “…was taking away all the... face time with customers.” She explained that Internal-Centre-Manager2, displaying abundant enthusiasm for people, relationships and networking, saw that the core benefit of the EBS was its ability to track and manage relationships at the Kete.

Internal-Centre-Manager2 realised she had hit upon the reason why the EBS was important; it helped map and build relationships, which were complex in the arts/crafts world. She gave the example that someone in a poetry group may also be a philanthropist or corporate investor willing to gift money to Kete or to individual artists/craftspeople. With an individual talking to (different) staff, it was therefore easy for staff to put their “foot in it” or say the wrong thing because they were not aware of the different roles of that individual. The EBS allowed staff to map past, present and future relationships, ensure people were consistently and appropriately looked after, and stop significant miscommunication due to misunderstandings of peoples’ multiple roles in the Kete community.

Internal-Centre-Manager2 said the EBS “made it much more transparent, it’s made it much easier for people to see what each person is doing...” This was important for facilitating networking among MACO members, patrons and the public. Furthermore, unlike the supporters’ perceptions of other corporate systems, the EBS was not used for employee or artist/craftsperson surveillance (see section 4.2.2), but instead as a tool to help the people they worked with. Receptionist-Craftswoman’s approach to talking to artists/craftspeople was to build a culture of trust and community, or a sense of community spirit by artists/craftspeople, which helped Kete
staff collect rent and reduce the creativity-business and creativity-economic tensions (see section 4.2.2).

A related element of this role of Receptionist-Craftswoman and the EBS was ensuring Kete was safe and secure for all artists/craftspeople. The EBS helped Kete staff ensure that visitors to the centre were authorised. This gave artists/craftspeople an increased feeling of security and safety and, in turn, confidence that they could enjoy their freedom of expression and creativity. In this sense, the EBS helped indirectly with art/craft creativity in this MACO community.

This openness was embraced by all staff, rather than feared, including the receptionists/administrators at the ‘coal face’. The EBS helped the receptionists keep track of day-to-day operations, which freed them to spend time working with people, whereby the latter was the part of the job they enjoyed the most. The EBS helped create a warm and welcoming reception area, and also empowered staff to run Kete efficiently for artists/craftspeople. Receptionist-Craftswoman described her role as “receptionist-fairy godmother”. Similarly, other front desk staff at Kete felt their most important job was keeping networks flowing, building relationships and helping people achieve their pathway to the arts, and that the EBS made this easier. This further emphasised the important indirect role the EBS had in enabling supporters to help with art/craft creativity at Kete.

Lastly, supporters believed the success of the EBS for community building was confirmed by a survey Kete supporters sent by email to MACO members (centre users and casual users of the centre). The survey found members were satisfied that the quality of Kete’s services and support had increased significantly compared to surveys prior to the appropriation of the EBS. Section 4.2.7 explores the appropriation of community-level email in more detail.

4.2.4 Non-appropriation of communal-IS (online self-booking)

Supporter focus on art/craft creativity at Kete (including community building and relationship management) played a role when considering the appropriation of the EBS so that MACO members could self-book workspaces online. This was to be achieved using an add-on to the EBS to allow self-booking. The idea of online self-booking had been brought up by External-Council-Manager, because this was
something that the local council wanted. This made a lot of practical sense, from the council’s perspective, because the growth of the centre and the efficient running of *Kete* meant that MACO member use of rental spaces had grown significantly. This in turn had increased the time *Kete* staff needed to spend on the phone discussing with artists/craftspeople and community groups which rooms to book and on which days. The underlying motive behind the idea was therefore business-related efficiency, and thus had the potential to be linked to economic survival (e.g. reducing paid staff).

*Internal-Centre-Manager2*, a previous receptionist/administrator herself, worried that the time on the phone was very valuable to building relationships. This meant her perspective favoured art/craft creativity over business efficiency (which reflects the creativity-business tension), as she explained in the next quote:

> When they talked about this [online self-booking] a year ago, I was ‘oh I don’t want that to happen’... I would not want to be not talking to customers...

*Internal-Centre-Manager2* related how this relationship management helped build trust and security/safety with artists/craftspeople at the centre as follows:

> We rely on honesty here, as people come in after hours... We have a really, really good relationship with a lot of our customers, I think that’s why this place works, when you take away that contact, you know, use and abuse...

She also explained how this trust made people care about what happens at the centre:

> ...they care... They have got to know you and don’t want to hurt your feelings... and really want to be trusted by you, that relationship does really control their actions...

As a consequence, the decision to use online self-booking was put on hold so that more discussions with the council, who were pushing for this add-on, could be discussed. This resulted in the status-quo, where bookings were still done over the phone, and shows the creativity-business tension emphasised by *Internal-Centre-Manager2* had at least postponed appropriation of this particular community-level IS.

### 4.2.5 Non-appropriation of supporter-IS (website)

A major concern expressed by *Internal-Centre-Manager2* and *External-Council-Manager* was that *Kete* was prevented by the local council to appropriate a website. Both managers felt that *Kete* needed its own website to help patrons find them,
because the centre was ‘off the beaten track’ despite its urban location, and that a website would help more of the public to find out about Kete and visit. For this reason, the managers saw such a potential website as a supporter-IS, because it would help with Kete promotion rather than be used by MACO members for such purposes as selling their art/craft work online.

Kete had to settle, however, for having a page linked off the council’s website, which the managers saw as harmful to Kete’s ability to have its own community identity (and thus reduced its art/craft creativity). This council policy was to ensure the council received the recognition for Kete, because the council provided most of the funding for Kete and wanted recognition for this fact by having the council website as the primary place people visited for information on the art centre. Internal-Centre-Manager2 and External-Council-Manager also believed this was part of the bureaucratic control the council exerted on the centre. However, they understood the council did this to have a consistent brand with all their various facilities, including gardens and swimming pools. Further, the council had staff with professional communication and marketing skills to develop documents, from digital posters to website content, with a consistent and professional brand that the council felt would not occur if these different council-supported entities did these tasks themselves.

Overall, this tension between Kete managers and the local council highlighted the creativity-business tension, whereby Kete was being restrained by management philosophies which went against supporters’ art/craft creativity values, including their desire for greater creativity autonomy.

4.2.6 Appropriating communal-IS (computers, e-portal) for art/craft creativity

One important achievement the EBS helped Kete with was the appropriation of the IS-supported drop-in centre for artists/craftspeople (i.e. a communal-IS). The drop-in centre initially took the form of computers at Kete, and a city wide electronic portal (e-portal) developed by Kete with links to resources, for use by artists/craftspeople. Initially this was part of an e-government strategy which envisioned that creating a stronger creative community in the city could happen just by artists/craftspeople collaborating online. The project had external funding for the computers and e-portal, as well as grant funding for extra staff due to the reduced willingness among members to volunteer their time, as noted in section 4.2.2. For this reason, the
communal computers and e-portal were seen as important contributors to art/craft creativity among Kete members.

Although seen as a separate IS project to the EBS, there was an intrinsic link between the projects, as noted by Receptionist:

*But I don’t think the restructuring we had with ‘the drop-in centre’ would not have been so easy if we did not have [the] EBS first. It gave it so much more flexibility, it was a precondition of it.*

Specifically, the efficiency created by the EBS meant the receptionists had more time to run the drop-in-centre. The drop-in-centre at Kete was mainly set up to provide a dedicated space of computers for artists/craftspeople to engage online with other arts/crafts practitioners/communities and to access online resources. The goal, in turn, was to enhance art/craft creativity in the region. It was envisaged this would result in more creativity because artists/craftspeople could meet online and have more creative encounters with other artists/craftspeople. The computers were intended to be used to:

- access an e-portal created by Kete with links to important art sites in New Zealand (e.g. the Big Idea run by Creative NZ) for free
- look for job opportunities for free
- engage in e-collaboration using standard software like Skype for a fee.

Kete supporters decided to create an e-portal, rather than a community-level website, for two reasons. First, the council had not allowed them to have their own website (see section 4.2.5). For this specific drop-in centre project, however, Kete was allowed to host the e-portal off the Creative NZ website, with a link on the council website, because the e-portal was seen by the council as a regional, rather than Kete specific, electronic space. Second, the NZ government already had a website called the Big Idea, which had online regional forums for artists/craftspeople to meet. Kete supporters therefore saw that creating a website which offered similar forums for its members was redundant. Instead, they saw value in creating links to relevant parts of the Big Idea from their e-portal.

It became clear to the Kete supporters, however, that the drop-in-centre also needed complementary space for physical collaboration between artists/craftspeople, which
emphasised the importance of face-to-face time, after consultation with the Theatre community and Maori community (which was mandated by the Treaty of Waitangi in New Zealand). More specifically, the initial plan for the drop-in-centre to be purely an e-portal with computers was in conflict with Maori culture in which face-to-face communication, or to *korero*, was central to knowing the world. This was because of their belief that, historically, technology including IS had followed a mode of appropriation based on the principals of modernity where self-interest or individualism (combined with rational efficiency, calculation and control) were privileged over indigenous ways of knowing where community and spirituality were part of the ways of managing life and work. Tools like the e-portal, by their very nature, were seen as potentially harmful to a Maori way of knowing because they were viewed as a tool of the western world and imbibed with these management practices. These tools therefore needed to be managed based on traditional Maori ways of knowing so they did not harm Maori and other users, as *Drop-in-Maori-Consultant-Artist* explained using a quote from Apiranga Ngata:

> Grow oh tender child in the days of your time, may you take hold of the stick and the tools of the pakaha (Europeans), as wellbeing for your body, may your heart hold onto you teachings of your ancestors, as a top knot for your head, and may your spirit always be with atua (gods), for atua is what created all things, or relationships to all things.

*Kete* therefore used a unique Maori strategy suggested by *Drop-in-Maori-Consultant-Artist*, which he used successfully at another government-run art centre and a refugee centre, to bridge between the worlds of Maori and *Pakeha* (European). The strategy was based on Maori cultural and spiritual ways of managing spaces. This strategy saw the physical space for face-to-face communication and the virtual space brought together as one strategy so both could support the other; akin to managing the physical world and the spiritual worlds as one. *Drop-in-Maori-Consultant-Artist* saw that, although the world of IS was ever changing, the fundamental aim of the drop-in-centre was to support creativity. So he built a strategy around creativity, so that no matter what IS was introduced in future, this would be managed using the concept of creativity so the strategy would not need to change.
The next challenge was bridging the virtual space with the physical space with an all-encompassing strategy based on Maori cultural/religious beliefs. In other words, *Drop-in-Maori-Consultant-Artist* knew the virtual space should not conflict with cultural/religious beliefs. This required positioning IS within the context of Maori culture/religion. In this sense, *Drop-in-Maori-Consultant-Artist* did not reject all forms of technology, but was concerned if technology was contrary to Maori beliefs or if Western/European rules were imposed on technology management. His strategy, as will be explained next, overcame this issue by using a Maori-based (rather than Western or European based) view of this community-level IS.

Traditionally Maori *marae*2 (meeting houses) were conceived around one main god that provides a strategy, so to speak, for the community to live under. The *marae* were thus the physical embodiment of the god, with the roof spine being seen as the backbone of the god, and the rafters running off the roof as the ribs. Then down to the carved panels or *pou pou* of the *marae*, where each was given a demi-god or *auta* that characterised more what the space would be about. There was also the *marae atea* or front courtyard of the *marae* which was seen as the spiritual realm of the *marae* where the breath life is exchanged during the *hongi* (pressing of noses). This signifies we are all spiritual beings, the spirit is draw in through the nose and out through the mouth.

The e-portal, or *pakeha* tool, was seen as being used to breathe in spirit to the physical space of the drop-in-centre, so rather than alienating the Maori world view, the e-portal was transformed into a spiritual realm that interacted with the real world. The e-portal (including tools such as Skype) had the unique power to reach around the world to other creative communities and community members or ancestors who had moved away. *Drop-in-Maori-Consultant-Artist*, along with *Drop-in-Manager-Artist*, helped Maori artists/craftspeople realise that both the e-portal and physical space were about community building so that members could co-create together, both Maori and *pakeha*, or artist and members of society who had never engaged in art. So they chose the *auta* (god) *Rūaumoko* as a metaphor for Creativity as their spiritual core of the drop-in-centre: “...the core of creativity, [the] core of Te Kanga

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Maori (Maori/religion), and at the core of our [society] wellbeing...” Drop-in-Manager-Artist explained Rūaumoko (god of earthquakes) was used to represent the creative process, because it meant the drop-in-centre strategy could remain stable even when IS changed: “…With Rūaumoko it’s about shifts, earthquakes... about paradigm shifts, upheaval, sudden changes, and almost pains that involved in the creative process...” Thus, the drop-in-centre would always remain a creative centre, so that new software could be put on the terminals, or new hardware introduced in the drop-in space to run the software. Despite these changes, community-level IS would always be brought in to enhance creativity.

This approach to an outsider may have seemed in opposition to the rational deployment of IS. Nonetheless, managing IS this way became a holistic approach to support this region’s creative community development. This was a radical turnaround from the New Zealand government which had been pushing, both at national and local levels, the benefits of e-government in all aspects of communicating with wider communities and the general public. At Kete, by contrast, this saw the physical space returning and being used in harmony with the virtual space, not the virtual space removing physical space altogether.

This was consistent with the fourth dimension of QBL (see section 4.2.1) of indigenous culture and spirituality which was incorporated into Kete’s strategy. This saw the need for new funding to achieve such a radical change in the concept of the space for the drop-in centre. This was achieved with the support of the theatre community of producers who were also strong advocates for not just a virtual space, but also a physical space. This recognised that face-to-face time was important to build community, which led to creativity flowing from the meeting with other people. The two worlds of the virtual and physical became one, just as the spiritual and the physical worlds in Maori culture were intertwined. This was sealed by placing this cultural strategy on the Kete e-portal, called ‘The Map of the Bones’.

The physical space of the drop-in centre consisted of a large open plan room, with computers which artists/craftspeople could use at the far end. This computing space was seen by Kete staff as akin to an internet cafe. Like a regular café, the drop-in-centre had a physical space with comfortable couches, as well as a rectangular meeting table and chairs, a community notice board, and chalk and numerous...
blackboards for artists/craftspeople to collaborate creatively. Later, as artists/craftspeople use of the space grew, they wanted more physical resources. Consequently, bookshelves with art books and magazines were added.

Community building, and thus creativity, was therefore supported electronically by Kete’s e-portal, the NZ government Big Idea website forums, and by the drop-in centre. Artists/craftspeople were able to meet other creative people in their region on the Big Idea website forums, find creative opportunities, and link nationally and internationally with artists/craftspeople from other communities using software like Skype. The physical drop-in-centre at Kete allowed artists/craftspeople to look at art books for creative inspiration, read a creative opportunity on the community notice board (e.g. one notice advertised the ability to use a dark room for photographic film developing and processing). Community building was further enhanced by people being able to meet in a physical space, which was where stronger bonds were created as typically found in the arts/craft sector more broadly. They could engage in creative brainstorming or casually bump into someone and serendipitously discuss creative ideas and projects. Finally, IS and the physical space were also brought together, because Kete ran weekly meetings to mentor young artists, and these were recorded and podcasted on the e-portal.

4.2.7 Appropriation of supporter-IS (email) and art/craft creativity

There were a range of tensions experienced by supporters regarding appropriation of email at Kete which had a negative impact on their own, and/or the wider community’s, art/craft creativity. Email was mainly used by Kete supporters with other external parties rather than with MACO members (i.e. supporter-IS). The tensions examined next give one example (email-based surveys of Kete customers, including MACO members) which would be considered a potential communal-IS.

The first issue, related to supporter concerns about the drop-in centre computers and the e-portal, was Drop-in-Maori-Consultant’s concern about Kete’s use of email customer surveys to assess if changes like the EBS and the Drop-in-Centre were improving customers satisfaction (see section 4.2.3). Drop-in-Maori-Consultant believed the use of electronic customer surveys could be culturally offensive. In Maori, it is the spoken word (koro) which is the appropriate way to assess someone’s
work (*mahitahi*). He had experienced this problem at the other centre he worked at. He therefore believed this use of email at *Kete* could have negative implications for art/craft creativity in the community, because *Drop-in-Maori-Consultant* believed it was inconsistent with the creativity culture of many Maori artists/craftspeople at *Kete*. This was something the *Drop-in-Maori-Consultant* wanted to discuss with *Kete* managers, but he was still thinking about what had happened at the other art centre with which he had been involved. In that centre there had been a satisfactory resolution, whereby feedback surveys in regard to Maori interactions with the community would be done via word of mouth in the future. *Drop-in-Maori-Consultant* was considering making this suggestion to the *Kete* managers.

The second issue was that some *Kete* supporters had negative experiences relating to how bureaucratic control by external policies affected their appropriation of email. This was similar to the council control preventing *Kete* from having its own website (see section 4.2.5). Specifically, council management believed that *Kete* supporters represented the council, and were therefore subject to the council’s policy of monitoring *Kete* staff emails. *Internal-Centre-Manager2* experienced the effect of this policy when communicating with council colleagues. This was because the policy represented council power and control, which heightened her sensitivity to email surveillance to the point she felt she could not communicate freely when sending emails to these colleagues in the council. She compared this to when she met them face-to-face, where part of the conversation would involve personal exchange, which was a good way to build relationships and support relationship management (i.e. a core basis of art/craft creativity more broadly in the community). This personal exchange within email conversations, however, was ‘frowned upon’ by council management as part of its monitoring of email. This emphasised the creativity-business tension where business-related philosophies (i.e. employee monitoring using technology such as IS) adversely affected relationship building and interpersonal exchanges which are more highly valued by artist/craftspeople.

The third issue experienced by supporters was the faceless nature of email and how this added to feelings of alienation. *Internal-Centre-Manager1* felt that she never really got to know people well over email. She had people she had communicated with over email for a year and never met. This was considered foreign in the culture
of the art/craft sector, were face-to-face interactions were valued. **External-Council-Manager** similarly did not like the faceless nature of email, so that he preferred to use the phone to arrange meetings with people. **Internal-Centre-Manager1** felt too that many people relied too much on email within the same building, and made a point of going to talk to people face-to-face at **Kete** rather than email them so that she could keep the ‘real world’ relationships healthy.

The fourth issue experienced by supporters who appropriated or used email (among other community-level IS such as the EBS), and relating to the creativity-technology tension, was the increased workload email created for managers. For example, section 4.2.2 stated that **Internal-Centre-Manager1** resigned from **Kete** due to ‘burn-out’ issues, and the main reason was her loss of art/craft creativity because of the excessive time spent dealing with emails and other IS-based work, as she describes:

> You know, I need to retouch base with creativity and creatives. I have kind of now managed myself into the corner here. From being at the front of the place, when I first arrived getting a handle on what needed to happen to do it. In the back room, on the computer, on the technology all day long, and I am toxic from that.

Other managers associated with **Kete** had similar IS-related burn-out experiences, such as **External-Council-Manager**:

> I [have] got to say, I work on the computer quite a lot at home, like, the only way I can get my work done, I get up early, and I am developing a very negative relationship with my computer... When I use it for non-work purposes I am resistant to it, its developing a personality, an instrument of torture [laugh].

**External-Council-Manager** found email intrusive, and preferred people to contact him on his mobile phone so that he could reduce his interaction with the computer and the stress it created. **Drop-in-Manager-Artist** similarly stated using a computer was her default position at work and at home:

> I have particularly noticed on a personal level how the computer has become the default position. So I will go and sit down, you know, even when I am just going into a room and I am organizing my thoughts about what’s the next task or what do I need to do next, I will go and click something on the computer as part of that process. I will go and sit down, even I am at home I go sit on the computer, it’s my default position is the computer. This information overload, what’s it’s interfering with, in terms of my ability to develop stuff and to form relationships.
Overall, the three Kete supporters’ experience with increased workload from email resulted in reduced time they could spend on their own art/craft creativity and/or their personal time with family. Internal-Centre-Manager2, who was hired to replace Internal-Centre-Manager1 at Kete and was not an artist/craftspeople in her own right, learned from Internal-Centre-Manager1’s experience and adopted a different management approach regarding email to separate work and personal life:

*I purposely don’t get my emails updated on my phone... I don’t get them syncing... If I wanted to I could look at my emails from home, but I don’t want to... I have done it quite intentionally, I saw the previous manager, Internal-Centre-Manager1, she got really bogged down with it. I have tried to really when I am not at work I block it out.*

The main positive aspect of email appropriation, in relation to art/craft creativity at Kete, was the use of community-level email-lists to invite people to attend exhibitions. For example, email-lists were used at a new gallery space at Kete specifically for young emergent artists/craftspeople to exhibit their work. Emails sent by Kete staff often included a blurb and an image to inspire people to attend the opening, which were seen as crucial to welcoming people to the exhibitions.

4.2.8 Appropriating communal-IS (Facebook) for art/craft creativity

A recent communal-IS appropriated by Kete over time was a Facebook page, such as its event invite feature, which was used to send invites to create events. This use of the Facebook page also provided a social presence that Internal-Centre-Manager2 had previously hoped for. The main banner of the Kete Facebook page carried an artist’s impression of future plans for Kete’s buildings in bright colours.

The appropriation of the Facebook page had been slow at Kete due to a staff member in the past abusing access to Facebook, and wasting work time using Facebook for personal activities. External-Council-Manager mentioned how the local council’s IS team could monitor for such abuses, so that it was essential that any use of community-level IS such as Facebook pages were not abused by staff.

This meant that for a significant amount of time at Kete, Facebook was not seen by local council managers and Kete managers as a positive addition to the IS tools at Kete. However, Receptionist-Craftswoman, who used Facebook successfully in her own art practice, was a positive advocate for this communal-IS and took over much
of the management of Facebook, which saw its gradual appropriation take place within Kete and among supporters, MACO members and the public.

Later, Facebook was used to advertise grants, competitions, exhibitions and festival applications which were accessed by MACO members and the public. These included direct links to the grant applications or funding agency websites which MACO members could apply for to support their art/craft creativity and address their economic survival issues. This is explored further in the next section.

4.2.9 Appropriating communal-IS (digital grant applications) for economic survival

The final community-level IS appropriated by Kete was the change from paper-based to digital applications for grants provided by the city council to artists/craftspeople, which were provided as downloadable links on the council’s website and, later, the Kete Facebook page (i.e. communal-IS). One example was the grant application for use at the Kete gallery. MACO members already benefited economically at Kete because the gallery only took a 25% commission on sales it made on behalf of members, whereas commercial galleries took a 40% commission. The digital grant applications helped MACO members at Kete improve their economic survival even further if their application was successful. Nonetheless, the primary aim of Kete was to give young artists/craftspeople exposure, and thus to help them gain recognition for their creative contribution to art/craft, rather to improve their economic survival.

Internal-Centre-Manager2 found, however, that moving to digital grant applications had a negative impact on community-level economic survival because it increased the amount of paper printed out. There were two interrelated issues with digital grant applications leading to this problem. First, Internal-Centre-Manager2 felt MACO members were pushing the printing cost onto Kete, even when Kete stipulated that artists/craftspeople should print the forms, fill them out and then post/submit the paper forms. The manager believed many artists/craftspeople were opportunistic and sent them back electronically to save money. Second, the applications had to be printed because all members of the grant committee wanted to read the applications on paper during face-to-face decision making. This policy highlights a creativity-economic tension between Kete and its MACO members, where both parties were
trying to reduce their own costs by passing the application printing costs onto the other party. The perspective of Internal-Centre-Manager2 can be explained when considering that the aim of Kete was to give MACO members exposure and recognition for their art/craft work, rather than to help them reduce costs.

A related issue was that some artists/craftspeople did not have an online presence, which meant the grant committee members could not look at their art/craft work during the assessment process. This frustrated Internal-Centre-Manager2 because a physical image was often important for understanding the applicant’s art/craft work.

The position taken by Kete supporters from the council concerning the digital grant applications was later reversed. Kete subsequently got MACO members to send in grant applications by email, and supporters printed them out. If MACO members were unable to create electronic applications, Kete staff scanned them for the members. The new application forms included specific instructions on how to deal with photographic images. This meant Kete’s approach took a more member-centric view, rather than its previous centre-centric view.

4.3 Streets

The next section introduces the Streets MACO community, as well as the supporters who appropriated the community-level IS and were interviewed. Subsequent sections summarise, for each (type of) community-level IS, the experiences of the relevant supporters (e.g. tensions faced) when appropriating the IS.

4.3.1 Overview of Streets and its supporters

Table 4.2 summarises the Streets supporters who were interviewed, their roles at Streets and other background information such as their tertiary education, other business roles, and the nature of their art/craft. Table 4.2 shows that all Streets supporters were MACO artists/craftspeople in their own right. In this sense, the distinction between Streets supporters and MACO members were blurred. The data collection and case study, however, focused on the experiences of MACO members in their roles as supporters involved with appropriating community-level IS.
Table 4.2: Overview of Streets supporters

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Community role</th>
<th>Artistic role / background</th>
<th>Tertiary education background</th>
<th>Business role(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner-Artist1</td>
<td>Owner, manager</td>
<td>Artist</td>
<td>Not applicable</td>
<td>Tattooist (P), Waitress (P), Professional muralist (C)</td>
</tr>
<tr>
<td>Owner-Artist2</td>
<td>Owner, manager</td>
<td>Artist</td>
<td>Not applicable</td>
<td>IS sales business owner (C)</td>
</tr>
<tr>
<td>Technician-Video-Jockey</td>
<td>Audio visual technician</td>
<td>Video jockey, musician</td>
<td>Not applicable</td>
<td>IS business owner for corporate projection company (C), Musician (P)</td>
</tr>
<tr>
<td>Website-Advisor-Photographer</td>
<td>Website advisor</td>
<td>Web manager, Photographer, artist</td>
<td>Tertiary qualified make-up artist</td>
<td>Video (P) and Cosmetic industry worker (C)</td>
</tr>
</tbody>
</table>

P = past job role, C = current job role

*Streets* was a MACO community physically co-located around a not-for-profit community gallery and studio. It was initially set up by a couple (or life partners) *Owner-Artist1* and *Owner-Artist2* to create and sell *Owner-Artist1’s* artwork and the work of other low-brow artists who did not have galleries supporting their genre of work. *Owner-Artist2* encouraged *Owner-Artist1* to see herself as an artist and start the gallery in response to *Owner-Artist1’s* work being rejected by mainstream (or high-brow) galleries characterised as follows:

*People kept rejecting my art, in the beginning. It wasn’t exactly a pretty fruit bowl... I hate fruit bowls.*

Later other people joined to form a collective, including *Owner-Artist2’s* sons, who helped run the gallery and lived with each other. None of these other people were interviewed because their sons were under the consenting age of 18. Other supporters in the collective had moved on since the physical gallery closed (see section 4.3.7) and did not have time to be interviewed, but these individuals provided mainly operational support and generally did not appropriate (e.g. use) community-level IS.

During the study, *Streets* supported a community of low-brow and youth culture artists/craftspeople (i.e. MACO members co-located at the *Streets* gallery and studio) whose work was also rejected by high-brow/mainstream artists/ craftspeople. It also functioned as a drop-in space for youth so they could be mentored in art/craft work. The level of support varied from casual support for about 2-4 artists who would drop in to the physical gallery/studio, about 4-6 youth who would visit daily after school,
through to about 2-30 other artists who became involved with their own or group exhibitions of varying scales.

*Owner-Artist1* and *Owner-Artist2* were the driving force of this MACO community, but they involved other MACO artists/craftspeople in decisions on what the gallery would be, what exhibitions would show, and how these exhibitions would be curated. For *Streets* supporters, their view of being a sustainable community was not guided by the principles encouraged by academia or government (i.e. modern business practices and capitalism). Instead, it was guided by the principles of the street, which were more about personal relationships and creativity. Supporters perceived *Streets* to be successful in terms of social and creative sustainability because of their strong community-based approach of supporting each other and collaborating decision-making. An important aspect of art/craft creativity, as perceived by *Streets* supporters and members, was their exhibitions and opening nights, for which they were nominated for an online award for one such opening night.

This success had a positive impact on *Streets*’ economic survival, which supporters described as having been very successful since their opening. *Streets* had a community approach to profit, whereby any surplus money made by the gallery and studio was distributed among the MACO members. Operational costs associated with the gallery and studio were funded from revenue comprising 25% of MACO member art/craft work sales, commissioned mural artwork undertaken by members, and income *Owner-Artist2* earned from his direct IS sales company he operated separately from the *Streets* business. *Owner-Artist2* found that the time he spent co-running *Streets* helped him step away from the mainstream business world running his direct IS sales company, and enabled him to be part of a wider social life.

In this sense, the supporters (and their MACO members) had a strong sense of the creativity-business tension (section 2.2.1), because they aimed to operate more as a creative community (not a profit-based business) by being more like a community not-for-profit organisation. Nonetheless, they needed revenue like a business (see later sections) for economic survival. However, they rejected traditional sources of not-for-profit revenue such as government grants, which their youth work would have opened up for them, because they felt receiving such grants would constrain
how they operated. For example, in order to receive grants, their ‘edgy street style’ of management would have needed to be toned down.

*Streets* did not have paid staff. Instead, all MACO members, including the owners, volunteered their time to run the gallery to reduce operational costs. However, the supporters were not at the extreme end of the creativity-business tension, because they did not reject business approaches fully, although they did see such approaches as a means to their ‘art/craft creativity’ ends and to creating a vibrant community.

The creativity-economic tension (section 2.2.1) became strong at *Streets* after the GFC, which created challenges for obtaining revenue from MACO member artwork sales and commissioned work. At the time of this study, the co-owners perceived *Streets* to be economically unsustainable. *Streets* relied increasingly on *Owner-Artist2’s* IS sales company, which was a traditional business, to keep *Streets* going financially. *Streets* therefore used community-level IS to help lift them out from the threat of the recession (i.e. economic survival), as well as to support their community values focused on creativity, community, youth culture and other personal political views underpinning their art/craft creativity.

There was a creativity-technology tension at *Streets* because the co-owners had contrasting views on IS. *Owner-Artist2’s* experience running his direct IS sales company meant he had knowledge and a positive view about what community-level IS could do for *Streets*. *Owner-Artist1*, by contrast, was a self-taught artist and was very nervous with technology such as IS, to the point that attempting to learn and use more complex IS such as Photoshop made her cry. She did not use technology in her artwork, but as later sections show she explained how she did start to use some community-level IS to co-run *Streets* as time went on.

During the time of the study, several new community-level IS driven projects emerged. The first was a website for e-business purposes and a Facebook page to support the community and promote community creative events. Over time, some sales of clothing happened over Facebook for their famous t-shirts, sweatshirts or ‘hoodies’, hats, skate decks and stickers.
There were also MACO affiliates\(^3\) who were considered to be members in *Streets* by the co-owners (and thus internal supporters), and who had input into community-level IS appropriation at *Streets*. For example, *Technician-Video-Jockey* provided free technical help, especially for exhibition and opening nights. He did this in addition to running a successful digital projection company, with employees, for corporate clients, international music festivals and theatre productions. For this reason, he was different to others at *Streets* such as *Owner-Artist1*, because IS-based technology was an integral part of his art/craft creativity. Similarly, *Website-Advisor-Photographer* provided free advice on and helped with *Streets*’ website content, while working as a digital photographer and as a street artist in his own right. *Website-Advisor-Photographer* ran his own website to promote the artwork of street artists, as well as *Streets*’ events.

Sections 4.3.2 to 4.3.8 tell the stories of *Streets* supporters who appropriated these, and other, community-level IS, how each (type of) IS influenced art/craft creativity and/or economic survival at *Streets*, and how MACO member norms/values (and tensions such as creativity-technology, where relevant) affected the appropriation.

### 4.3.2 Appropriating communal-IS (website) for economic survival

*Streets* appropriated a community-level website which was built, introduced, maintained and used by *Owner-Artist2*. His vision was that the website would, among other aims explained in section 4.3.3, support e-business by promoting the community and its MACO members’ art/craft work, and thus leading to online sales (i.e. economic survival). It was also a resource for MACO members themselves (see section 4.3.3), which meant the website could be considered a communal-IS.

The problem was that, despite IS being central to *Owner-Artist2*’s other business, *Streets* supporters struggled to find the time and resources to develop a community-level website based on voluntary efforts of supporters. *Owner-Artist2* recalls how they decided they needed a website, and how offers of help had not worked out:

> *We did not have one for ages, then we decided, well shit we needed to get a website and I had heaps of people saying we can build you a website*

\(^3\) An affiliate had their own business and/or community, as well as being a member of an art community like *Streets*.  

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for free... A couple of people had a go at it, but it was taking forever, they were getting nowhere with it.

Appropriating a website became more urgent because, in their second year of operation, the recession hit and sales dropped, resulting in a strong creativity-economic tension (see section 4.3.1). The issue arose because Owner-Artist2 funded the Streets IS projects from income he earned from his direct IS sales company, which had reduced with the GFC. The co-owners did not want government funding, so that they had freedom on how they, and other MACO members, ran Streets. This highlights how their creativity-business tension (i.e. focus on creative autonomy) affected their ability to address the creativity-economic tension (i.e. difficulties arising from the GFC). That is, they were reluctant to let go of the art/craft creativity traditions of their sector (e.g. aesthetic autonomy, negative perceptions of the control by government/business), but found they had to reconcile this by using some business approaches (e.g. e-business via websites) to survive economically.

The challenge of establishing the website was solved when one of Owner-Artist2’s corporate customers through his IS business, over coffee, described free software she had found easy to use when setting up a website for her retail business. Twelve days later Owner-Artist2 had self-learned to use such software to create a website that gave a face to Streets on the internet, and that had an e-business shop with full retail functionality. Owner-Artist2 recalls how easy and cheap this website building software was to use, and how they had all the content already:

And so I went home and had a look at [the free software], and it was awesome... I think, we have spent 12 days on it completely... it was completely free to use, and it has... all the... bells and whistles... So at the end of the day we had this kick ass website that was flash based, which cost us my time and that is all really.

Despite the clear and user friendly layout of the website, Owner-Artist2 stated: “As far as the ecommerce thing, we have had [f**k] all sales.” As noted earlier, at the time of the interviews the recession meant money was a concern and a key reason for establishing the website, due to disposable dollars being scarce in terms of income from Owner-Artist2’s IS company and from Streets itself.

The website did produce economic benefits for the community and its MACO members by increasing the reputation of Streets. For example, Streets was contacted
by the Department of Justice, after viewing the *Streets* website, to engage with the *Streets* community to provide artists to paint murals for the rugby world cup in areas that were tagged (i.e. the graffiti names street youth painted on walls in the city). The department believed this project would discourage tagging and promote street art, and thus commissioned *Streets* (including *Owner-Artist2*, his son, *Owner-Artist1* and other MACO members) to paint the murals. This was a huge boost for *Owner-Artist2* who, due to the responsibility of running *Streets*, had stopped doing art. He felt that this project was like how they began the gallery-studio space, with everyone painting together. The project gave him back his sense of being an artist and being part of creative element of this community. They ran into problems, however, resulting from significant bureaucratic control of the murals in terms of what they should paint, constant harassment by the administrator put in charge of them, and extremely low pay. This emphasised their creativity-business tension (wanting creative autonomy without control imposed by traditional business principles) and creativity-economic tension (i.e. low pay received from their work).

Other examples where the *Streets* website resulted in economic benefits was via reputation building and activities stimulated/enabled by the website:

- The website promoted an exhibition of skate decks run by *Streets* at a national museum, in parallel with an exhibition at the *Streets* gallery. The aim of linking the two events was to gain sales from the wider exposure at the museum.
- The local council, after seeing *Streets*’ website, asked *Streets* to help teach local youth how to do higher levels of street art beyond paying artists in paint.
- *Streets* was asked to judge a street art competition and to pick artists from the *Streets* community to participate, which increased exposure for MACO members’ artwork. *Streets* was contacted by competition organisers after seeing *Streets*’ website. This was advertised on the *Streets* website, and post-competition images were posted of the event and winners.

This was quite a feat for a gallery renowned for the police being called at exhibition openings.
4.3.3 Appropriating supporter-IS (website) for art/craft creativity

Another benefit of the Streets website was how it supported community building and community culture (i.e. art/craft creativity). Owner-Artist2 received advice from Website-Advisor-Photographer, who was an affiliate of Streets, on what the content the website should include. First, the advice led to the website representing aesthetically the self-created community culture of this low-brow gallery. For example, the website allowed the supporters to create a cartoon style pop art image, with flash style objects (e.g. an image of a spray can or surfboard would act as a menu button) that could be clicked on to open areas of interest or new information. With a press of a button, website visitors could view ‘surf cams’ showing real-time surf conditions at nearby beaches, download or listen for free the music by their musicians who had appeared at Street event openings, and view the artists at Streets.

Second, Website-Advisor-Photographer suggested that the website should represent the sub-cultures supported by Streets. Owner-Artist2 not only used the website to represent and sell the work of MACO members, but also to represent all art/craft cultural groups or communities to which Owner-Artist1 and Owner-Artist2 belonged. This was because Website-Advisor-Photographer recommended that Owner-Artist2 include links to all his communities on the website, from street and pop artists, to indy and ‘hip hop’ musicians, skater, to the surfer community.

Third, the website supported community building by attracting visitors to the gallery. It also had an important role of educating new visitors about the gallery and the Streets community culture. As noted by Website-Advisor-Photographer: “I think people should go to the Streets website first...”, because for some visitors it could seem confusing if they just walked in off the street. For instance, the Streets gallery had vibrant art work, young skate kids hanging around and chatting or doing art, and music of artists booming out of stereo speakers attached to a computer.

In this sense, the website addressed aspects of the creativity-technology tension experienced by Streets supporters because they saw a direct connection between how the website could represent the various aspects of their community (i.e. creativity, culture and sub-communities). The IS knowledge of Streets supporters, such as
Owner-Artist2 and Website-Advisor-Photographer, also helped ensure Streets could take advantage of website technology to support art/craft creativity.

A further way that the Streets website helped with the art/craft creativity of the community was by providing online resources used by MACO members. Members used the website to check what latest exhibition or event was coming up, to look at their work or that of other members being promoted, and to check out new tracks by musicians and web-surf cams linked from the website. The website was thus a push technology rather than an interactive website because, at this stage when Streets only had a website, the community favoured face-to-face interactions. It was later, when Facebook was appropriated (section 4.3.5) and the community went virtual (section 4.3.7), that this culture changed to be more accepting of online interactions.

Owner-Artist1, despite her technophobia, talked with great admiration about the website developed by Owner-Artist2 for Streets. So much so, in fact, that she was inspired to create her own website using the same website building software to promote her own artistic image and to help increase her economic survival. In other words, she saw how websites could be an extension of her own creativity. Her fear of tools such as Photoshop (see section 4.3.1) suggested that her creativity-technology tension was not so much driven by a rejection of management (i.e. creativity-business tension) and associated tools, but more by her difficulties with learning such tools and how this conflicted with her creative brain and her body’s way of working. Zuboff (1988) explains this in terms of the brain of an artist/craftspeople being ‘wired’ for hands-on work, whereas the mental processes associated with learning something (such as an unfamiliar technology) uses a different part of the brain.

4.3.4 Appropriating supporter-IS (email, mobile texts) for art/craft creativity

This nature of Owner-Artist1’s creativity-technology tension was also evident in how she (as well as Owner-Artist2) appropriated supporter-IS such as email and mobile phone text-messages. An important aspect of art/craft creativity for Streets was the ongoing promotion and running of its exhibitions (see section 4.3.2). This included community-level exhibitions, as well as those run for an individual MACO member where other MACO members of Streets would help. Owner-Artist1 found email-lists and mobile phone text-messages easy to use, and perceived these as having an
important role when organising *Streets* exhibitions. This is notable in contrast to her fear of complex IS tools such as Photoshop (see section 4.3.1).

As explained in the next section, this extended to the appropriation of Facebook.

### 4.3.5 Appropriating communal-IS (Facebook, printer) for art/craft creativity

*Streets* eventually appropriated a community-level Facebook page to replace the website because Facebook was easier for *Owner-Artist2* to maintain, and because Facebook was used by their community and youth culture base. Facebook was also better at reaching their youth audience than email. Indeed, *Streets*’ young MACO members readily appropriated the community-level Facebook page from the day it was introduced for getting updates on what was happening with the community and its members, and for communication with each other. The *Streets* Facebook page was a communal-IS because the MACO members used this page to communicate with other members of the community while they were not at the physical gallery/studio of *Streets*. For this reason, the Facebook page helped maintain the interpersonal interactions of *Streets* members (i.e. part of their art/craft creativity).

Even *Owner-Artist1*, with her fear of technology, enjoyed using the combination of *Streets’* email-list and Facebook page to send out invites to exhibition openings:

> *I send a press release through email from the database... Then there is Facebook as well, I do a press release... We do these massive opening nights and its carnage...*

This quote indicates that *Owner-Artist1’s* enjoyment with appropriating email and Facebook related to her excitement of running exhibitions. As noted in section 4.3.1, *Owner-Artist1’s* creativity-technology tension related to rejecting technology for use in creating her artwork, but she saw that community-level IS could help with community art/craft creativity. Her ability to use email and Facebook, compared to difficulties with Photoshop, reflected quite a change in her views about IS over time.

*Owner-Artist2’s* enjoyment with Facebook appropriation also related to running exhibitions, but his most valued experience related to keeping ties with his community, especially once the gallery closed (see section 4.3.7). Facebook was also a natural extension of how he saw that IS could benefit the organisations he worked with to help economically. But more importantly for *Streets*, it was about helping
them creatively and communally. In this sense, Facebook and other community-level IS for both Owner-Artist1’s and Owner-Artist2 was a means to their creativity ‘ends’ at the community-level, which included running the community and its exhibitions.

Owner-Artist2, with his experience running a direct IS sales company, handled the more complex aspects of using Facebook. This included recognising the importance of managing this Facebook presence tightly by vetting posts. This was necessary to avoid the ‘beef’ (or flaming, online arguments) he observed on street art blogs, which had sometimes resulted in real-world harm to his property when people involved in the online arguments came to the Streets gallery. A further challenge for Owner-Artist2 was maintaining both the website and the Facebook sites. The success of the Facebook site meant the website rarely got updated and eventually was fully replaced by the Facebook page.

Another communal-IS which complemented Facebook to support art/craft creativity at Streets was their IS-based industrial printer used to create material insignias of their community culture by printing posters, t-shirts, hooded sweatshirts and stickers. This merchandise created by the printer represented the brand of the gallery, and helped establish the gallery beyond just a community of MACO artists, and transformed it into its own culture based on the art/craft creativity of the Streets members. As Owner-Artist1 explains, the printer contributed to community building around Streets and its artists in their local area:

\[ We \text{ don’t have to go everywhere but our stickers do, that is one of our technologies... Our massive printer... we can do, t-shirts, stickers... So I am walking through town, I see people wearing the Streets t-shirts or cars with the Streets stickers on them. } \]

Facebook and the printer enabled the community building and culture of Streets (i.e. art/craft creativity) to spread internationally, as Owner-Artist1 explains:

\[ \text{Now our Facebook has taken off, our stickers and t-shirts go around the world, people post pictures of themselves in our t-shirts on Facebook in different cities around the world...} \]

This meant the Streets supporters’ experience with appropriating the printer, as well as Facebook, was that these IS tools were consistent with art/craft creativity (rather than being a creativity-technology tension) by helping to build a larger creative
community in the form of merchandise representing their creativity. The tools helped develop greater exposure, which supported economic survival as examined next.

4.3.6 Appropriating communal-IS (Facebook, printer) for economic survival

Streets’ appropriation of Facebook and the printer supported the economic survival of this community, because both community-level IS helped Streets generate revenue from the sales of their merchandise. Specifically, people requested via the Facebook page to buy the Streets-branded merchandise such as t-shirts, and payments were processed offline so that Streets did not need the website to handle online sales.

At the time of the interviews, the printer had been damaged because Owner-Artist2 had used generic ink to reduce the costs for artists. This highlights the ongoing creativity-economic tension, or financial struggle, Streets and its MACO members had maintaining the use of IS and associated peripherals such as the printer.

A different type of economic benefit achieved using the printer (together with some photo editing software) was creating posters to support a fundraiser for the tsunami in Japan. In this way, Streets was able to raise money which went to a good social cause, rather than focusing only on their own economic survival.

4.3.7 Appropriating community-level IS so Streets could go virtual

During the course of the study, the importance of the appropriation of personal email, email-lists, mobile phones and Facebook to Streets was emphasised when, after three and half years, the Streets co-owners decided to shut the physical gallery due to growing creativity-economic tension (i.e. the cost of rent). Owner-Artist2 said:

*I was feeling down about the money... then someone said we are an icon and that is why I am keeping the gallery going... I have run a virtual company for many years from home, and I will do it again.*

Facebook enabled Owner-Artist2 to feel connected to the Streets community, which was important because he felt isolated when Streets went virtual compared to the face-to-face interactions he had enjoyed at the physical gallery. The Facebook page enabled patrons and MACO members to make posts to keep in contact with Owner-Artist2. He also included various photos from the days when the physical gallery was open, and photos of MACO artists/craftspeople who had dropped in to see him face-to-face at his house. Further, running Streets virtually resulted in the advantage that
Owner-Artist2 could be closer to nature, working in his house in a bush (forest) setting and by the sea for surfing.

Owner-Artist2 created a new virtual art gallery model using Facebook, with physical pop-up exhibitions which would be localised or affiliated to their community culture. The first pop-up exhibition was run in conjunction with an annual skate competition and this has since become an annual event. Owner-Artist2 described this as a huge success because the venue was “packed to the rafters”. This outcome was significant because Owner-Artist2 had been hospitalised after the physical gallery closed, and the event was organised via computer (email and Facebook) and a mobile phone from his hospital bed. The pop-up exhibition meant Streets had many photos to keep their Facebook page vibrant.

4.3.8 Appropriating communal-IS (member IS tools) for art/craft creativity

Technician-Video-Jockey had an important role in the success of this pop-up exhibition because Owner-Artist2 realised there was inadequate lighting. Technician-Video-Jockey ‘saved the day’ by providing for free his state-of-the-art IS-enabled lighting rig and digital projection, which therefore helped with art/craft creativity for Streets. This is another type of communal-IS available to Streets, which took the form of IS tools (and the associated skills) of one or more members (but not owned and/or managed by Streets at the community-level as with supporter-IS) to other Streets members. This highlighted that technology such as IS was able to be appropriated in a way which contributed to art/craft creativity at such events, rather than being experienced by Streets supporters as a creativity-technology tension.

Technician-Video-Jockey described another event which exemplified this type of communal-IS. Streets sponsored an affiliated ‘hip hop’ band, and used the IS-based printer to create promotional material (e.g. t-shirts, posters, flyers). Technician-Video-Jockey helped the band create their music video and provided the IS-based video projection for the band’s music release at a local bar for free, which included state-of-the-art surround video projection screens that wrapped around the venue.

Technician-Video-Jockey was happy to do this work for Streets because the Streets community recognised him as an artist in his own right (i.e. an artist of video projection). This recognition was important to Technician-Video-Jockey because he
often felt like a ‘servant’ to high-brow artists for whom he did digital projection work and often did not receive recognition as an artist, as he describes:

... whenever we were dealing with the traditional [high-brow] arts, for the first time we go anywhere... they are very snobby, like a theatre, they would look down at us... as we were video, and theirs is the true art...

In this sense it was Streets supporters seeing technology such as IS to be part of the community’s art/craft creativity (rather than a creativity-technology tension) that enabled Technician-Video-Jockey to be accepted as an artist in his own right.

4.4 Rainbow

The next section introduces the Rainbow MACO community, as well as the interviewed supporters who appropriated the community-level IS. Subsequent sections summarise, for each (type of) community-level IS, the experiences of the relevant supporters (e.g. tensions faced) when appropriating the IS.

4.4.1 Overview of Rainbow and its supporters

Rainbow was a MACO intentional-community\(^4\) physically co-located on a rented rural property, whereby members included artists/craftspeople living in harmony with nature and supporting human creativity. This philosophy saw some MACO members of Rainbow challenge the use of IS, because IS was seen to be embedded in the factory model of living which they were trying to escape. IS was therefore seen as harmful to their personal creativity, wellbeing and local community, implying a strong creativity-technology tension. Members also had a strong creativity-business tension because they also rejected modern business approaches and philosophies. Even members with IS experience (unlike those in the other communities in this study) saw that IS could be used not so much to support Rainbow’s economic survival, but more importantly their community, environmental and wider society socio-cultural values. This meant residents who used IS could join the Rainbow community despite other members rejecting much of modern living and wanting to remove IS from their lives. This is explored further in the following sections.

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\(^4\) An intentional community, is a community that has intentionally formed to pursue a particular lifestyle, and share both activities and a physical space. These include a wide range of experimental communities from, communes, eco-villages, religious housing and residential housing (Metcalf 1995; Sargisson & Sargent 2004).
All Rainbow members paid their share of the rent (e.g. from welfare payments, sale of art/craft work and cafe jobs), and shared the produce from gardening so they could live sustainably and reduce the cost of living. Rainbow did not make surplus money, and therefore a not-for-profit collective. Food grown in the communal gardens was not sold, and instead was mainly eaten by members of the community so that they did not need to buy food. Members therefore had a strong creativity-economic tension, in the sense that they aimed to live frugally to follow their environmental, social and creative values of living. This meant that Rainbow supporters perceived their community to be stable in terms of economic survival, so long as they could afford collectively to pursue their values and art/craft creativity.

Table 4.3 summarises the Rainbow supporters who were interviewed, their roles at Rainbow and other background information such as their tertiary education, other business roles, and the nature of their art/craft. Table 4.3 shows that most Rainbow supporters were MACO artists/craftspeople in their own right, except Technician. In this sense, the distinction between Rainbow supporters and MACO members were blurred. The data collection and case study, however, focused on the experiences of MACO members in their roles as supporters who were involved in appropriating community-level IS. As explained below, Technician did not help with such appropriation, but was interviewed because he had the IS skills to help.

Rainbow was run by a team of managers or, as they preferred to be called, focalisers. Focaliser-Technician-Artist, Focaliser-Photographer and Focaliser-Sound-Technician took turns managing/leading Rainbow depending on the skills needed by the community at the time. Focaliser-Technician-Artist and Focaliser-Photographer were also IS technicians. None of these were paid roles, but simply part of communal and creative living at Rainbow. For example, Focaliser-Technician-Artist helped with various activist initiatives prior to joining Rainbow relating to Maori sovereignty, care for the environment and the importance of open-source software. This included using email-lists to promote events, starting up online discussion forums and sharing these exploits on YouTube, which Focaliser-Technician-Artist felt had aided activism because they are free. He brought this experience into Rainbow to help with some IS initiatives such as the introduction of broadband into the Rainbow community over which many community-level IS were appropriated.
Table 4.3: Overview of *Rainbow* supporters

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Community role</th>
<th>Artistic role / background</th>
<th>Tertiary education background</th>
<th>Business role(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focaliser-Technician-Artist</td>
<td>Focaliser and technician</td>
<td>Performance artist</td>
<td>Studying tertiary degree in Psychology and doing a diploma in Permaculture.</td>
<td>Volunteer for Aotearoa Creative Commons team (C), Web manager and editor for independent online newspaper (C), Linux play group Manager (C) and Co-Manager of a community internet cafe (P), Student radio DJ (P).</td>
</tr>
<tr>
<td>Event-Organiser-Artist</td>
<td>Permaculture event organiser</td>
<td>Artist</td>
<td>Tertiary student in fine arts</td>
<td>Cafe waitress (C)</td>
</tr>
<tr>
<td>Focaliser-Photographer</td>
<td>Focaliser</td>
<td>Photographer</td>
<td>Tertiary diploma in digital photography</td>
<td>Care giver to her child (C), Volunteer for a bank (C)</td>
</tr>
<tr>
<td>Technician</td>
<td></td>
<td></td>
<td>Not applicable</td>
<td>Telecommunications technician (P), Mining technician (P), Volunteer for Department of Conservation (P)</td>
</tr>
<tr>
<td>Craftswoman</td>
<td>Website supporter-manager</td>
<td>Master student in environmental science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focaliser-Sound-Technician</td>
<td>Focaliser, sound technician</td>
<td>Not applicable</td>
<td>Farmer (P), Roadie (P)</td>
<td></td>
</tr>
</tbody>
</table>

P = past job role, C = current job role

*Technician* had IS skills but did not use them, and instead supported MACO community members by, for instance, constructing buildings, hunting wild meat and cooking. He had developed IS skills while doing an apprenticeship as a telecommunications worker, and also had mechanical engineering skills prior to this while in the military and working in the mining sector. He became burned out during his telecommunications training because he was constantly on call, and then lost his job due to redundancies. This resulted in a strong rejection of modern business approaches, including technology, and led him to do ecological conservation volunteer work, where he could avoid computers: “*Every time I use them... They kind of scare me.*” As a result, he did not wish to use computers when he joined *Rainbow*. This highlights that co-located MACO communities can have members with IS skills, but who do not want to use the skills due to tensions with technology.
Like Technician, Focaliser-Sound-Technician also considered his primary role at Rainbow to be a supporter of artists by looking after gardens and buildings. He had a background as a sound technician ‘roadie’ for musicians. But Focaliser-Sound-Technician used his IS skills as a focaliser of IS-based music production during Rainbow’s mini-festivals. His also used his technical prowess to learn website development skills to create Rainbow’s website with his partner Craftsman to support the community’s environmental, social and creative values of living.

During this study, Focaliser-Technician-Artist left the Rainbow community and Focaliser-Photographer had taken over as being the person in charge of the space at Rainbow, such as the lease. As a consequence of this change, Rainbow became more formalised because more families with children moved in and the community decided it was not suitable for people to just ‘crash’ there all the time and not look after their own mess. This also made it difficult for them to engage in creativity. They wanted to live more sustainably, such as growing their own food, which would allow Focaliser-Photographer to end her dependence on government welfare. These changes typified the Rainbow community, which tended to have transient members ranging from 10-15 people at the time of the study.

The increased formality in the community was also necessitated because they were trying to apply for government and private grants, but had not yet succeeded at the time of the study. Grant funding bodies in New Zealand typically required applicants to be registered organisations. This meant Rainbow had to be registered as a charitable incorporated trust to apply for these grants. Such trusts operated in NZ as an incorporated society (e.g. similar to sports and social clubs), and were authorised to operate similar to an individual person (i.e. members not personally liable for obligations and debts of the society)\(^5\). Rainbow’s fluid decision-making based on collectivism continued when they became a trust. This change resulted, however, in new obligations such as maintaining financial records and providing these annually to the Registrar of Incorporated Societies in NZ, as well as the need to lodge the community’s rules, and any changes which occurred over time, with the Registrar. Despite these changes required by the NZ government, Rainbow supporters felt they

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would not accept a grant if it harmed their creativity or way of living. This emphasised supporters’ view that art/craft creativity was more important than economic survival (i.e. creativity-economic tension).

Sections 4.4.2 to 4.4.9 tell the stories of Rainbow supporters who appropriated these, and other, community-level IS, how each (type of) IS influenced art/craft creativity and/or economic survival at Rainbow, and how MACO member norms/values (and tensions such as creativity-technology, where relevant) affected the appropriation.

4.4.2 Appropriating communal-IS (broadband) for economic survival

Focaliser-Technician-Artist, after moving into Rainbow, realised its communal internet connection needed upgrading to broadband, which he built using Linux and Wi-Fi technology. This meant Rainbow could avoid the costs of paying a company to set up the broadband connection technology for the community, which would not have been possible due to their financial frugality (i.e. creativity-economic tension) and their preference not to engage with the business world (i.e. creativity-business tension). In other words, Rainbow members preferred self-reliance and autonomy.

Rainbow supporters perceived the new broadband connection to be highly beneficial by improving aspects of the community’s economic survival. For example, Craftswoman used the broadband connection (and associated web-based information) to learn accounting from a free online course, which helped Rainbow supporters apply for grants. Broadband also allowed the community to pay rent and do other administrative tasks online, which saved MACO members time for their art/craft creativity. The only time Technician used a computer and the broadband connection was to talk to the government about his welfare benefits.

One challenge was that the bandwidth reduced considerably when the neighbours’ children came home from school and started playing online computer games via the Wi-Fi connection. Further, the broadband service was limited due to their rural location, compared to what suburbs closer to the city received.

The next sections examine how the broadband connection enabled Rainbow to appropriate IS such as a website to help with art/craft creativity at Rainbow.
4.4.3 Appropriating communal-IS (website) for art/craft creativity

Focaliser-Sound-Technician and Craftswoman used the broadband service to appropriate a community website to support Rainbow’s art/craft creativity. The website introduced and maintained by supporters, with limited use by many MACO members due to their rejection of technology (i.e. creativity-technology tension). As explained further in this section, the website was used mainly to promote the Rainbow community as a whole, but not MACO member art/craft work.

Focaliser-Sound-Technician and Craftswoman initially explored open-source software for designing the Rainbow website, because the creative-economic tension meant the community could not afford to buy software. They found, however, that no open-source packages did what they wanted. They therefore illegally downloaded a version of Dream Weaver from a peer-to-peer sharing site. With no formal training in IS, Focaliser-Sound-Technician and Craftswoman taught themselves Dream Weaver using free information on the internet. This included learning how to create a format for the website devoid of the corporate, cold and grey templates often associated with websites designed in Dream Weaver. This was important to Rainbow because they did not want their website to resemble the corporate models the supporters and MACO members wanted to reject, highlighting how the strong creativity-business tension affected website design choices. Focaliser-Sound-Technician and Craftswoman marvelled how this could all be done for free.

Focaliser-Sound-Technician and Craftswoman found that an unplanned benefit of appropriating the website was it got the Rainbow supporters and the rest of the community, including those who rejected technology, to formalise the community’s sustainability strategy (i.e. their art/craft creativity). This occurred when they created a kaupapa (mission statement) that outlined the community’s different sustainable themes to be included on the website, as Craftswoman describes:

I suppose that is one thing we are putting together the website... for us it’s a chance to focalise the mission of what we are trying to bring together, all our friends and whanau (family), to focalise our help to the wider community... our kaupapa...

One negative experience for Rainbow supporters, however, during the development of the website was finding it hard in a room away from natural light. For this reason,
they only worked on the website in the morning, and in the afternoon they worked in the garden, because they were well aware of the damage the computer work had on them physically and emotionally. This was due to the lack of natural light while working inside, plus the loss of hands-on body involvement of gardening, and the spiritual wellbeing gardening created, as Focaliser-Sound-Technician explains:

...some days I spend 10 to 12 hours on the computer... one important aspect of it is... when there is a nice sunny day, to be out in the garden and getting that connection... it’s a form of meditation...

Despite this issue, the website was still seen as consistent with Rainbow’s culture, because it was designed based on their ideas of spirituality and magic which underpinned their art/craft creativity. Focaliser-Sound-Technician and Craftswoman believed that part of the magic of living, which was the fundamental principal for their creative lives and their website, was the holistic nature of how they tried to live their lives and how everything was connected. This couple saw that the website, and the internet via their broadband connection, helped build on this innate connection. Craftswoman described the internet’s abilities as follows: “...it creates ripples through the pond of everything, it’s like magic.” Further, Focaliser-Sound-Technician felt the internet would provide the ability to interconnect human psyche until humanity evolved to do this through telepathy, as he revealed to the community the night before the interview, as recalled by Event-Organiser-Artist:

Focaliser-Sound-Technician... The other night we were talking about astral projections and telepathy, making these bridges, connecting, making technology a useless thing... having that ability yourself... so we don’t have to rely on it...

Rainbow supporters perceived that appropriating the website was part of their act of resistance against the mainstream system of modern use of IS, by using the website to support societal sustainability by sharing their lives to help wider society. Rainbow supporters saw the website like their other great passion of gardening and the environment. Focaliser-Sound-Technician said in their day-to-day lives they were about growing people and community, and ‘seed bombing’ (planting balls of seeds unofficially) around the country to grow food and trees as they travelled to festivals. Similarly, they believed the website would be, as explained by Focaliser-Sound-Technician:
“...like planting seeds in people’s minds... seeds of inspirations... It’s basically gardening on the internet...”

Craftswoman aimed to ensure their website did not dictate to people how to live, but instead showed people how the Rainbow community lived and invited people to take part or express their ways of living too. The website achieved this by providing instructions on organic gardening in a visual manner, because they realised some people could not engage with words. This was important to them because it was their way of connecting spirituality with people via the website. These Rainbow supporters spent hours determining what approach could inspire people to reconnect with nature, as Focaliser-Sound-Technician emphasises:

> With our website, that is one of the big things is the images... it may be a beautiful sunset or a huge amazing tree... to trigger people, to think... that this is amazing... to appreciate them... and support them and live among them and enjoy them.

Craftswoman believed it was important for the website to inspire people to change, in terms of social and environmental change, and to build community. Technician agreed with this view, even though he no longer used IS himself, when stating:

> ...there is a massive portion of society that is disconnected... they don’t even know where their food comes from... I am really interested in reaching out to those people...

As they explained, people were bombarded with advertising by capitalist led ideas of consumption, and they felt young people found it hard to see beyond this mirage to see what was really happening. They hoped that in some way their website would encourage people to start asking questions and then begin to make changes in their lives. Their website was therefore just a tool they used to reflect this informal mission to reach out to people and encourage change from what the supporters saw as the destructive way people live today. IS was seen to have the ability to connect, inspire and reconnect people with nature, as Craftswoman states:

> The thing with computers, is it opens your view of the world, or gives you access, you would not normally have to... [It’s] a wonderful form of magic. Unfortunately it’s not being used in a way that’s most beneficial, which is a shame...

In this sense, their appropriation of the website had a more complex, nuanced link to the creativity-business and creativity-technology tensions. On the one hand, many
members of Rainbow rejected business philosophies and approaches (i.e. creativity-business tension) and associated technology (i.e. creativity-technology tension). But they still saw technology (i.e. the website) as a platform to communicate with those external to their community (not just with youth but also those with mainstream business and technology values) to reconsider or question their views. This is an apparent paradox, but Rainbow supporters appeared both to reject and use technology based on whether the specific IS tool supported, or affected adversely, their philosophical views. The quote from Craftswoman is consistent with the views of a number of Rainbow supporters showing that they believed there were both beneficial and inappropriate ways to use technology such as websites, and the boundary between these two extremes appeared to be determined based on their strong sense of the creativity-business tension.

The website also linked to the events of other communities with which Rainbow was affiliated. In this way, Rainbow’s website created a portal of like-minded communities. For example, they put up a link to another community’s festival that used a fun and innovative YouTube video of people inviting others to the event while performing creative acts.

The website was also used by Rainbow MACO members to check what festivals or events were coming up in their wider networks. This was in addition to promoting their kaupapa (or philosophies, values) to the wider world as noted above, which provided a formal bonding of those in the community. The website was thus more of a push technology, not an interactive website where MACO members would communicate with each other internally or externally to the community. Rainbow culture was based around face-to-face experiences. The website also provided information to potential new members, such as Rainbow’s kaupapa which might attract new members, and directions to the physical space so they could meet face-to-face with existing members or make contact with them over email.

4.4.4 Appropriating supporter-IS (website) for economic survival

Despite the perceived value of the Rainbow website for art/craft creativity, it was not appropriated by supporters or their MACO members directly for economic survival. Specifically, it was not used to sell their art/craft work. The website did, however, contribute indirectly to Rainbow economic survival when used to promote its
community events, which is when their art/craft work was sold. Events were an important part of this small Rainbow community, which grew to over one hundred people when they hosted their bi-annual equinox and solstice mini-festivals at their physical location. However, it was the smaller events like the permaculture blitz (see section 4.4.5) which were intended to sell art/craft work, because artists/craftspeople could have a more personal connection with potential buyers at small events. These small events also allowed bartering to take place, not just sales using money.

Direct website selling of art/craft work was not done by Rainbow, in part because the website was about building community, transforming society and caring for the environment, through the community’s art work. The website was not intended for the capitalist aims of selling of artwork. This is consistent with the creativity-business tension, in which Rainbow members rejected traditional business principles and saw these as incompatible with their art/craft creativity. Given that the internet was perceived as the biggest and most impersonal market yet to appear, the members of this community focused on having emotional and spiritual connections with the art/craft work and with those to whom they sold the work. Event-Organiser-Artist and Focaliser-Photographer feared the spirit of their artwork, and the emotional connection for purchasers with the artwork, would be lost. This was described by Event-Organiser-Artist and agreed to by Focaliser-Photographer, who were both interviewed at the same time:

I have wanted to sell some work real quickly, in the next month, [and] the only way I feel I could make that amount of money is by using the internet. [So instead] I want to put on our [physical] exhibition, so it’s open to a broader amount of people, and interact with our exhibition... That’s the immediate effect and that’s the best way for art work to be enjoyed and consumed. But the internet, it takes that level away, it shuts that off... I don’t like it to be on that level, it’s dirty...

This implies that, in the context of their artwork, these Rainbow supporters believed there was a creativity-technology tension, because technology could have an adverse effect on the essence of their artwork. Technology used to promote the community’s events was consistent with this viewpoint, because the Rainbow website invited people to Rainbow’s physical location, where visitors then interacted with and possibly purchased the artwork. These two views of the internet were most evident during the interview with Event-Organiser-Artist, who described the internet as
“dirty” for selling artwork online above, and stating in her quote in section 4.4.3 that the internet is good for connecting like-minded people. This highlights the nuanced, complex nature of the creativity-technology tension, or in other words the relationship many Rainbow supporters and members had with technology.

4.4.5 Appropriating supporter-IS (email-lists) for art/craft creativity
Another supporter-IS which was used by Rainbow supporters to promote art/craft creativity events were community-level email-lists. For example, Focaliser-Technician-Artist, Focaliser-Photographer and Event-Organiser-Artist helped organise and run a ‘permablitz’ event using email-lists. The event was about grass roots environmentalism to help people to become self-sustaining with food.

These Rainbow supporters believed email-lists were effective because they allowed discussions to happen about important topics without people having to meet, which reduced the workloads of these community focalisers. Importantly too, many members outside Rainbow, with whom they were networking to organise the event, did not have broadband. Email was thus preferred over other software which was more ‘bandwidth hungry’ such as social media. It was for this reason that they used email-lists to invite other people to the permablitz event to learn about permaculture.

4.4.6 Appropriating supporter-IS (email-lists) for economic survival
These Rainbow supporters believed email-lists helped Rainbow with economic survival; that is, being financially frugal. This was because email-lists were cheaper and quicker than using their traditional methods, such as mail-outs and ‘phone trees’ where people called friends, who in turn called friends and so on.

There was also a potential indirect link between email-lists and Rainbow economic survival, because the Rainbow supporters who organised these events were looking to include stalls in future events where people could trade their art/craft work. This is consistent with the role of websites described in section 4.4.4.

4.4.7 Non-appropriation of communal-IS (Facebook)
Supporters did not appropriate a Rainbow (or community-level) Facebook page (i.e. communal-IS to which Rainbow members could contribute). Instead, members tended to have their own personal Facebook presences. These personal profiles had begun to be used to invite people to Rainbow events. Rainbow members stopped this,
however, after someone who did not have similar values found out about and came to the event, and then behaved inappropriately to the women present. This resulted in violence, which was unheard of in their physical place of peace, so Rainbow went back mainly to face-to-face invitations. This negative experience further reinforced the decision of Rainbow supporters not to appropriate a Rainbow Facebook page.

This experience highlighted that Rainbow supporters and members did not just perceive themselves as being outside mainstream society, but that they also could be victims of people from the society they were trying to escape. Technology such as Facebook could create, indirectly at least, a creativity-technology tension when the specific tool opened MACO communities such as Rainbow to threats.

The creativity-technology tension regarding Facebook was also evident internally to Rainbow among IS savvy supporters. Focaliser-Technician-Artist was wary of Facebook when he realised the information provided was being data mined by Facebook, the Federal Bureau of Investigations (USA) and other commercial groups, and so he withdrew from Facebook. Technician said Focaliser-Technician-Artist was “staging a coup” to stop Rainbow members and others using Facebook, and encouraging them to use alternative social networking sites run by the open-source community which did not allow government and corporate surveillance. Focaliser-Technician-Artist’s creativity-technology tension can be understood from the viewpoint that some Rainbow supporters and members were activists who perceived they were at risk of imprisonment. This shows that IS such as Facebook can cause creativity-technology tensions among co-located MACO community members.

4.4.8 Non-appropriation of communal-IS for MACO member interactions

Similar creativity-technology tensions resulted in Rainbow supporters not appropriating communal-IS for internal use among MACO members for organising Rainbow art/craft creativity events. Specifically, many Rainbow MACO members were not au fait with IS. This meant IS savvy Rainbow supporters needed to adapt their IS approach when working with these members, including while organising community events. For example, Focaliser-Technician-Artist had highly technical IS skills, and had learned his organising skills with many activist projects such as running a community internet cafe and a Linux play group. When it came to running the Rainbow mini-festivals, he was extremely cautious about how IS was used.
preferred face-to-face invitations to engage people to help and conduct meetings, because it encouraged people to find roles they liked. *Focaliser-Technician-Artist* used pen and paper, which he felt was the most effective way to organise *Rainbow* members. For instance, this included pinning the plans for the events to the kitchen door, which was a space all visitors passed through:

... *I just make these lists of things that need doing, these diagrams, mind maps, I just put them on the wall, so these are just bubbles of what needs doing, so... we have this visual map...*

*Focaliser-Technician-Artist* felt IS did not have the ability to gather people in the same way as face-to-face interaction and paper, or to motivate them and help them work out how they would like to help. His approach allowed *Rainbow* members to exercise self-autonomy, because they chose the tasks on which they would help. This paper-based planning took account of some members’ computer anxiety. IS for *Focaliser-Technician-Artist* was just another tool that a focaliser could use, and this meant at times IS was not appropriate depending on the people he worked with:

... *anything is a tool to a focaliser, from the word of mouth, to a talking stick, to the internet, to an email list, to a Facebook group, so whatever, technology works for the group of people...*  

**4.4.9 Appropriating communal-IS (member IS tools) for art/craft creativity**

*Focaliser-Sound-Technician* had a similar experience of adapting to MACO member values and preferences when offering his IS-based sound technology and skills for *Rainbow* events. For example, during the Rainbow mini-festivals he would set up a stage with the full technical IS capability of any professional outdoor event. These technology/skills were considered communal-IS, because they were available to all MACO members but were not owned/managed by *Rainbow* at the community-level.

For other art/craft creativity displays at the mini-festivals this was not appropriate. For instance, *Focaliser-Sound-Technician* had run into difficulty when he wanted to amplify tribal drumming using IS-based sound technology. Many MACO members involved in tribal drumming felt strongly they were using drums to get away from the IS world (i.e. creativity-technology tension) and did not want such unnatural amplification. *Focaliser-Sound-Technician* therefore adapted his approach to be flexible and allowed for the range of preferences among MACO members about how his IS-based sound technology and skills should (not) be used at the mini-festivals.
Overall, the experiences of Focaliser-Sound-Technician (and Focaliser-Technician-Artist in section 4.4.8) highlight the nuances and complexity associated with the creativity-technology tension, and the balancing act these IS savvy supporters needed to navigate within the Rainbow community.

4.5 Classic

The next section introduces the Classic MACO community, as well as the supporters who appropriated the community-level IS and were interviewed. Subsequent sections summarise, for each (type of) community-level IS, the experiences of the relevant supporters (e.g. tensions faced) when appropriating the IS.

4.5.1 Overview of Classic and its supporters

Classic was a MACO community physically co-located around a traditional high-brow, for-profit art dealer style gallery and bookshop situated at the seaside in a rural area. This area had residents with high incomes. Classic was established and managed by the owner and lead artist Manager-Artist, and also one paid part-time administrator in the gallery area, Graphic-Designer-Writer, who did all the computer work. Manager-Artist was the primary decision-maker at Classic.

Table 4.4 summarises the Classic supporters who were interviewed, their roles at Classic and other background information such as their tertiary education, other business roles, and the nature of their art/craft. Table 4.4 shows that all Classic supporters were MACO artists/craftspeople in their own right. In this sense, the distinction between Classic supporters and MACO members were blurred. The data collection and case study, however, focused on the experiences of these MACO members in their roles as supporters involved in appropriating community-level IS.

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<thead>
<tr>
<th>Pseudonym</th>
<th>Community role</th>
<th>Artistic role / background</th>
<th>Tertiary education background</th>
<th>Business role(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager-Artist</td>
<td>Manager</td>
<td>Artist</td>
<td>PhD in geological sciences</td>
<td>Lecturer (P)</td>
</tr>
<tr>
<td>Graphic-Designer-Writer</td>
<td>Gallery administrator</td>
<td>Graphic designer and writer, film maker</td>
<td>Degree in biological sciences</td>
<td>Secondary school teacher (C)</td>
</tr>
</tbody>
</table>
Classic was set up mainly to increase the economic survival of Manager-Artist by selling his own work. He also believed in supporting the local community and therefore included the artwork of about five other artists with whom he had formed a small collective. These other MACO members had minimal daily interactions with each other and with Manager-Artist, and did not spend much time at the gallery. For this reason, the Classic community members were not as close-knit as members at Kete, Streets and Rainbow. Manager-Artist was adamant that Classic was not just a tourist gallery, but very much a gallery based on high-brow artistic creative contribution. The primary income for Classic came from the sale of artwork and books, which included Classic receiving 40% of the sale price of MACO member artwork displayed in the gallery.

Manager-Artist described the financial status of Classic as poor since the economic recession. The recession led the Classic supporters to upgrade IS (e.g. website) and to appropriate a Facebook page, primarily to support economic survival. Manager-Artist and Graphic-Designer-Writer had contrasting views on IS, both in terms of their individual creativity and how the gallery was run. Manager-Artist believed IS should not be part of his art practice, but solely for running Classic. In this sense, Manager-Artist did not have a strong creativity-business tension, because he saw traditional business philosophies as necessary to sell artwork to potential customers. This also implies that he handled the creativity-technology tension by drawing a clear separation of the role of IS; only for business purposes and not for creativity.

Graphic-Designer-Writer, by contrast, embraced IS creatively, enjoyed using Photoshop to rejig paintings for promotional work, and used IS extensively in her own creativity outside her work at Classic; a writer and film maker. For this reason, Graphic-Designer-Writer did not experience a creativity-technology tension, because for her IS such as Photoshop were integral to her creativity. She did, however, get burned out by computers from having to do mundane tasks with IS for Classic. Nevertheless, she embraced new technologies such as Facebook for helping Classic gain exposure.

Sections 4.5.2 to 4.5.9 will tell the stories of the Classic supporters who appropriated these, and other, community-level IS, how each (type of) IS influenced art/craft...
creativity and/or economic survival at Classic, and how MACO member norms/values (and tensions such as creativity-technology) affected the appropriation.

4.5.2 Appropriating supporter-IS (Photoshop) for economic survival

Graphic-Designer-Writer appropriated a digital camera and Photoshop (supporter-IS) to create advertising material for Classic events and for artwork sales to help with the economic survival of Classic. Her use of Photoshop involved making changes to lighting grading of photographed images so the artwork appeared in the best light in advertising material. This was important because many of the MACO members at Classic created artwork that was 3D in nature, so that the artwork lost impact when photographed in 2D. This advertising material was used for mail-out promotion of events and for newspaper advertising for sales purposes (i.e. economic survival). Graphic-Designer-Writer also used the digital camera and Photoshop to collate books designed by Manager-Artist, which were then commercially printed, for promotion and sale using Classic’s community-level website and later Facebook page, as explained in later sections.

4.5.3 Appropriating supporter-IS (Photoshop) for art/craft creativity

There was an apparent creativity-technology tension between Manager-Artist and Graphic-Designer-Writer regarding Photoshop and art/craft creativity. The primary purpose of Photoshop, from Manager-Artist’s perspective, was to improve sales prospects and attendance at Classic exhibition events to generate sales (i.e. economic survival) as stated in section 4.5.2. This is consistent with Manager-Artist’s view that IS at Classic is only for business use (see section 4.5.1 relating to his creativity-technology tension) to survive the recession (i.e. creativity-economic tension), rather than seeing IS such as Photoshop as having an art/craft creativity role.

Graphic-Designer-Writer, by contrast, looked for opportunities to incorporate an art/craft creativity element to producing advertising material (see section 4.5.2). This is consistent with Graphic-Designer-Writer’s view that technology was part of her art/craft creativity process (i.e. no creativity-technology tension).

This highlights that two supporters can appropriate, and experience, the same community-level IS in quite different ways.
4.5.4 Appropriating supporter-IS (Bartercard) for economic survival

Manager-Artist had appropriated an online barter system called Bartercard since 1989, and saw Bartercard as the potential saviour for Classic as it struggled through the recession. His use of Bartercard was instigated by his tech-savvy son (who was not interviewed). Bartercard was built during the 1980’s recession as an electronic trading scheme. Bartercard was important to Classic because it opened up a new audience for the gallery; tradespeople. Bartercard allowed Manager-Artist to procure services from tradespeople using artwork rather than money. Manager-Artist used Bartercard like an Eftpos card when he went to restaurants and got his car panelled-beaten, and when he went online to get holiday accommodation and procured lino for the gallery. For this reason, Bartercard was a supporter-IS from the perspective of Manager-Artist because it was used primarily for running Classic, rather than as an IS tool used by MACO members for connecting to each other.

The effectiveness of Bartercard still relied on the skills of the Bartercard representative allocated to the gallery, as Manager-Artist explained:

Many years ago [his son’s name] got a good server [service-representative], then for 8 years we wished we never belonged to Bartercard, it was pathetic and recently we got a new one, [she is] not as good as the [first] one... but by god she is close.

Manager-Artist’s appropriation and views of Bartercard were consistent with his philosophy that IS tools were only for business (i.e. economic survival) purposes, and not for art/craft creativity. Further, it highlights that supporter-IS can provide the means for some MACO supporters to address the creativity-economic tension by offering an alternative method of trade which avoids financial transactions. In this sense, Manager-Artist’s art/craft creativity (i.e. his artwork) became a barterable (or tradable) asset which helped reduce the impact of the recession on Classic.

4.5.5 Appropriating communal-IS (website) for economic survival

The same business (or economic survival) role for community-level IS was evident with respect to Manager-Artist’s appropriation of Classic’s website, which was built using bartering on Bartercard. The website did serve as a communal-IS, as explained further in section 4.5.6, because MACO members of Classic used the website.
Manager-Artist recalled that the underlying idea of the website was to gain a new revenue stream via e-business: “We are wanting a new website, we are hoping this will help us in this recession...” Initially, the cost of having a professional website designed was very prohibitive, because Classic was struggling financially. Manager-Artist decided to use Bartercard to procure a website without financial outlay by exchanging artwork rather than paying the expected $10,000 to a professional web. As Graphic-Designer-Writer remarked: “...we did try to get a web designer through Bartercard, but it was hard...” Traditional monetary payment almost had to be used, because Bartercard did not usually have web designer as members. Finally, they secured a web designer through Bartercard and a website was rapidly designed with high-end look and functionality. Graphic-Designer-Writer’s role was to write the content for the website and update it when necessary.

The website displayed the artwork of Manager-Artist for sale, and also artwork for affiliated artists on their books, as Graphic-Designer-Writer recalled: “We... facilitate a couple of website pages for our major artists.” The website therefore provided an extra avenue to MACO members, not just Manager-Artist, because each of Classic’s main artists had a personal biography, images of their work, and the ability to sell the work through the gallery.

But the website did not yield any sales after two years. During that time, only one of Manager-Artist’s art books and one painting had been sold off the website. It had not proven to be the saviour for Classic that Manager-Artist had anticipated.

There was evidence that Manager-Artist was willing to learn about and explore better uses of the website to improve sales, but he was constrained financially. For example, he gained more knowledge about the potential of a website from a partnership with another gallery which, as Manager-Artist explains, was more IS savvy than he was:

*We collaborate with a gallery up north called [gallery name]... They use technology fantastically, better than us [laughs], they send fantastic emails and have a fantastic website. We are planning on getting the same people for us, it’s just a matter, we have to wait and see.*

Manager-Artist hoped to use the same web designer as the other gallery and copy how they did emails, but he discovered the cost was too prohibitive.
The website did result in offers to Manager-Artist to teach art in China, but he rejected them due to his view that China had a culture of mass replication of art. He therefore felt his teaching would spawn hundreds of lookalikes of his painting style.

Manager-Artist believed the internet opened up global competition, including from China, rather than Classic benefiting from being part of a global marketplace by establishing a website:

*The web has produced billions and billions of artists for you to compete with... So it’s very hard to find anything. Technology in generally speaking for any New Zealander... it’s a probably a bloody pain in the arse, it has been swamped by especially American companies, but in the art area has been swamped by the Chinese.*

Manager-Artist’s creativity-technology tension (regarding his view of technology resulting in copyright theft and competition issues) was also evident with respect to the use of personal mobile phones by visitors to Classic. (The personalised use of mobile phones by visitors were not a community-level IS in this context, but are described to highlight the creativity-technology tension experienced by Manager-Artist.) Graphic-Designer-Writer explained that mobile phones were a threat to Classic’s economic survival when recalling how one person came in and took pictures of his artwork, and then started mass-reproducing his artwork up the coast of New Zealand. Manager-Artist decided that fighting such copyright issues through the legal system was timely, costly and, thus, futile. However, he felt that the quality of his artwork, and constantly changing his painting style, ensured that his artwork stood out in terms of reputation and value compared to any illegally copied works.

4.5.6 Appropriating communal-IS (website) for art/craft creativity

The website was used by MACO members of Classic not just to promote their artwork online and through the gallery (section 4.5.5), but the personal biography and images of their work helped increase their art/craft creativity by increasing their reputation as artists. The website provided a means to look at other member’s artwork. The website was thus more of a push technology, not an interactive website supporting communication among MACO members, because members of this community favoured face-to-face experiences. The only exception was the online sales of their work via the e-business function. Wider society could also use the
website to purchase art directly, and also to find directions to the actual galleries physical location or to make contact over email or landlines.

### 4.5.7 Minimal appropriation of supporter-IS (email-list) for art/craft creativity

A further example of the creativity-technology tension experienced by Manager-Artist related to the minimal appropriation of email-lists (i.e. supporter-IS) by Classic to invite people to its events. While email-lists were used for this purpose, the main method used was traditional paper-based mail-out invitations. Manager-Artist made this decision because the older age of his customers meant many did not have email access. Further, Manager-Artist perceived high quality print-based invitations to be more consistent with the high-brow prestige of Classic, and thus warranted the extra cost of paper-based invitations. In other words, this meant cost saving by using email-list invitations (which could increase economic survival) was a lower priority than prestige, which relates more to an art/craft creativity perspective. It also implied there was a creativity-economic tension where, in this case, lower economic survival due to the cost of producing print-based invitations was preferable to compromising creative prestige.

### 4.5.8 Appropriating communal-IS (blogs) for art/craft creativity

As noted in sections 4.5.1 and 4.5.3, Graphic-Designer-Writer differed from Manager-Artist by viewing IS as part of her art/craft creativity. This included her use of a book review blog to support the book side of Classic, even though Manager-Artist considered this to be separate from the gallery. Graphic-Designer-Writer’s blog helped with her writing-related art/craft creativity, because it was an outlet for her creativity. This highlighted a further example showing that she did not experience a creativity-technology tension like Manager-Artist.

The blog also enabled her to get to know the authors of the books she reviewed, because the authors interacted online with Graphic-Designer-Writer via the blog. (Authors were not considered MACO members by Manager-Artist because he did not see the book side of Classic as part of the gallery.) She enjoyed writing the blog, as she did using Photoshop, because it enabled her to use her art/craft creativity in her role as an administrator for Classic which otherwise involved mundane tasks.
The next section shows, however, that the opportunity for Graphic-Designer-Writer to continue writing her book review blog for Classic was reduced considerably when the book side of the gallery reduced due to poor book sales. The blogs were moved to the Facebook page, which she enjoyed updating. This resulted in a creativity-economic tension, from her perspective, because reducing the bookshop meant Manager-Artist called into question the amount of time and energy she was putting into the book reviews, which she enjoyed, versus the need to focus on the art side of the gallery to generate sales. In other words, the sales focus by Manager-Artist needed to take priority over Graphic-Designer-Writer’s art/craft creativity.

4.5.9 Appropriating communal-IS (Facebook) for art/craft creativity

Designer-Graphic-Writer progressively appropriated Facebook to engage with patrons and MACO members (i.e. thus a communal-IS used for art/craft creativity). Designer-Graphic-Writer stopped using blogs in favour of posting her book reviews on the Classic Facebook page. Facebook had also been appropriated more, bit by bit, to promote Classic events to its audience. But Manager-Artist was not, in general, using Facebook and did not see its value from an art/craft creativity perspective.

Manager-Artist’s use of Facebook increased, however, when book sales had declined and he decided to redesign the gallery to reduce the size of the bookshop in favour of increasing the area for displaying artwork. He predicted the emergence of e-books would threaten the already-struggling book side of Classic’s economic survival: “...the main worry with the e-books coming in, no one will need to buy books anymore.” He explained that the gallery was located in an area with high income, so that he anticipated everybody would download e-books rather than purchase them from the store, and he believed that sales had fallen as a result. Manager-Artist had tried events such as book launches and poetry readings to keep the book side of the business going. This compounded the impact of the recession.

Facebook proved to be useful to Manager-Artist for ongoing interactions with MACO members and patrons during the renovations to the Classic gallery. Manager-Artist’s son (a plaster/builder) almost completely knocked down and rebuilt the gallery. During the renovations, his son posted weekly progress photos on Classic’s Facebook page, which helped keep the MACO community interested in
what was happening. Operating a virtual presence became very important to Manager-Artist, including publicising the reopening. This gave Manager-Artist more confidence about the role of Facebook in his business, which had allowed this naturally shy man to talk to his community directly via Facebook. Nonetheless, Graphic-Designer-Writer still did the majority of posts because Manager-Artist was not au fait with IS.

The additional appropriation of Facebook, along with maintaining the book review blog and website (and associated presences for the MACO members), meant there were tensions regarding the use of these tools for the two Classic supporters. These tensions were more pronounced for Manager-Artist due to his feeling of intimidation by IS. Graphic-Designer-Writer noted that with each new form of social media, it meant another IS that needed updating on a regular basis. Classic was a small business with limited staff and no one dedicated to this task, so that maintaining multiple IS-based online presences was overwhelming. Graphic-Designer-Writer felt this would only get worse as new social media platforms emerged:

... Facebook was introduced at work, it runs for a little while and people are enthused... but because it did not get off the ground immediately... the enthusiasm dies down, it get cuts back. So, instead of focusing on one thing, it tends to be jumping to the next thing and the next thing...

4.6 Conclusion

This chapter has presented rich case study descriptions for four co-located MACO communities, focusing on the experiences of supporters with appropriating various community-level IS intended to help with the art/craft creativity and/or economic survival of their community. The narratives were broadly structured based on the theoretical lens presented in chapter 2, by exploring the experiences and associated tensions of supporters for each community-level IS, and how each IS impacted on art/craft creativity and/or economic survival for the community.

The next chapter presents the results of the hermeneutic process used to conduct the cross-case analysis, and compares the emergent themes with the IS literature on co-located SME/MSB communities to show the contributions made to IS knowledge.
Chapter 5: Cross-Case Analysis

5.1 Introduction

Chapter 4 presented four case studies on the experiences of internal supporters appropriating community-level IS intended to help with art/craft creativity and economic survival of their co-located MACO communities. This chapter presents the outcome of the cross-case analysis involving hermeneutic cycles of identifying themes, comparing the themes to the literature on co-located SME/MSB communities (and other relevant literature), identifying additional themes based on this comparison and the literature, and re-analysing the four cases to draw out further insights (see section 3.9.2).

This chapter presents the resulting themes, and explains how these themes confirm and extend the limited IS knowledge on supporter experiences with community-level IS appropriation in co-located SME/MSB communities and, where applicable, the IS literature on SMEs/MSBs more generally. While not an objective of the thesis, an outcome of the hermeneutic process was a further contribution to IS knowledge by being the first synthesis of the 13 case study articles identified on co-located SME/MSB communities (cited in section 2.3). Of these articles, Lorenzini (2014) and Tan & Macaulay (2011) were the only ones citing more than three of the other 13 articles, including the conference versions of journal articles. Tan & Macaulay (2011) cited the most, but even then only five of the 13 articles. This means most articles do not synthesise IS knowledge, nor compare their empirical case study findings to prior research, to show how their findings extend IS knowledge. This chapter therefore contributes to IS knowledge by comparing the cross-case findings of this study with the synthesised knowledge from the 13 articles to highlight where these findings confirm and extend that newly synthesised knowledge from these IS articles.

This chapter answers the following research question progressively by presenting themes (with comparisons to the IS literature) relating to each aspect of the question:

How do supporters experience appropriating community-level IS intended to help the art/craft creativity and economic survival of co-
located MACO communities, and how can this be conceptualised using an overarching framework?

The chapter firstly introduces the characteristics of the co-located MACO communities (section 5.2), the types of community-level IS (section 5.3) and the types of supporters (section 5.4), and compares these to the synthesised literature on co-located SME/MSB communities. The description of these aspects of the research question provides the basis for making sense of the internal supporters’ experiences. The remaining sections then report the cross-case findings (compared with the IS literature) on how supporters experienced appropriating community-level IS intended to help with the economic survival (section 5.5) and art/craft creativity (section 5.6) of the co-located MACO communities. The second part of the research question, which relates to the overarching framework, is answered in chapter 6.

5.2 Characteristics of co-located MACO communities

Answering the research question first involved examining emergent cross-case themes, summarised in Table 5.1, on the types, management and financial aspects of the co-located MACO communities. As will be seen in later sections, these themes often influenced the types of supporters involved in the communities, and how they experienced community-level IS appropriation. Table 5.1 shows there was variation between the four MACO communities relating to the nature of the communities’ physical locations, financial status, ownership/governance, decision-making, income sources, profit status and staffing.

The themes in Table 5.1 emerged from a hermeneutic analysis of the case studies with a comparison of the synthesised IS literature on co-located SME/MSB communities. It was noted in section 2.3.1 that comparisons between this literature and the co-located MACO communities needed to be done with caution because the geographical areas covered were wide, rather based on buildings, for most co-located SME/MSB communities (see Table 2.1). Nonetheless, many of the articles implied or stated explicitly (see section 2.3.1) that physical proximity among SMEs/MSBs was possible, and indeed important, to the success of community-level IS (i.e. the e-portals). In this study, the co-located focal points were galleries, an art centre and a
rural property, while for the co-located SME/MSB communities there would likely be other physical premises SME/MSB owner/managers could meet face-to-face.

### Table 5.1: Organisational forms/management of MACO communities

<table>
<thead>
<tr>
<th>Form/management</th>
<th>Kete (high-brow, urban)</th>
<th>Streets (low-brow, urban)</th>
<th>Rainbow (low-brow, rural)</th>
<th>Classic (high-brow, rural)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical layout of the community</td>
<td>Physical gallery, performance spaces, art/craft studios, and drop-in centre</td>
<td>Physical gallery and studio initially, but closed and now only virtual</td>
<td>Physical rural property rented by the community</td>
<td>Physical gallery and bookshop</td>
</tr>
<tr>
<td>Financial status at time of study</td>
<td>Low - but economically sustainable</td>
<td>Poor - not economically sustainable in the short term due to the recession</td>
<td>Stable - economically sustainable</td>
<td>Poor - not economically sustainable in the long term due to the recession</td>
</tr>
<tr>
<td>Ownership structure</td>
<td>Local council owned</td>
<td>Business owned by Owner-Artist1 and Owner-Artist2</td>
<td>Informal collective</td>
<td>Business owned by Manager-Artist</td>
</tr>
<tr>
<td>Governance</td>
<td>Government policies</td>
<td>Partners had primary control</td>
<td>Fluid, shared among focalisers</td>
<td>Manager-Artist had primary control</td>
</tr>
<tr>
<td>Decision-making</td>
<td>Council-paid managers, but with input from staff, MACOs and consultants</td>
<td>Partners with input from MACO members</td>
<td>Focalisers with input from community members</td>
<td>Mainly Manager-Artist</td>
</tr>
<tr>
<td>Community-based art/craft sales method</td>
<td>MACOs sell their work in the gallery</td>
<td>Partners sold own and MACO members’ work in gallery and via website</td>
<td>MACO members sold work during community events</td>
<td>Manager-Artist sold own and MACO member work in gallery and via website</td>
</tr>
<tr>
<td>Main revenue sources</td>
<td>Studio rent and casual room booking fees, philanthropist donations, corporate donations, grants, local government revenue</td>
<td>Income from Owner-Artist2’s IS business, 20% of MACO member artwork sales, commissioned mural artwork</td>
<td>Members shared costs using income from artwork sales and/or government welfare payments, grant applications</td>
<td>40% of MACO member artwork sales, revenue from book sales, resources for the gallery gained using bartering</td>
</tr>
<tr>
<td>Profit status</td>
<td>Not-for-profit (all revenue covered operational costs and salaries)</td>
<td>Not-for-profit (all revenue covered operational costs and surplus was distributed to MACO members)</td>
<td>Not-for-profit (no surplus of money made)</td>
<td>For-profit</td>
</tr>
<tr>
<td>Paid staff (i.e. not owners)</td>
<td>Yes (8 staff)</td>
<td>No</td>
<td>No</td>
<td>Yes (1 staff)</td>
</tr>
<tr>
<td>Number of MACO members</td>
<td>Approximately 20</td>
<td>Approximately 6-30 (varied based on community events)</td>
<td>Approximately 10-15 (increased during community events)</td>
<td>Approximately 5</td>
</tr>
</tbody>
</table>

The hermeneutic data analysis lead to a synthesis of the literature relating to the governance, profit status and main income sources of each type of co-located SME/MSB community organisation (presented in Table 5.2) to assist with
comparisons with the co-located MACO communities in Table 5.1. Table 5.2 complements Table 2.1; the latter synthesised other areas such as the staffing details and number of SME members served in co-located SME/MSB communities.

**Table 5.2: SME/MSB community governance, profit status and revenues**

<table>
<thead>
<tr>
<th>Types</th>
<th>Governance</th>
<th>Profit status</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-industry government organisation</td>
<td>Executive board (Fisher &amp; Craig 2005; Mason et al. 2006), committee (Galloway et al. 2004) or not stated (Tatnall &amp; Burgess 2009)</td>
<td>Not-for-profit (Tatnall &amp; Burgess 2009) or not stated (Fisher &amp; Craig 2005; Galloway et al. 2004; Mason et al. 2006)</td>
<td>SME fees, government grants (Fisher &amp; Craig 2005) or not stated (Galloway et al. 2004; Tatnall &amp; Burgess 2009), sponsorship by large firms of networking (Mason et al. 2006)</td>
</tr>
<tr>
<td>Cross-industry cooperative</td>
<td>Executive board of members (Gengatharen 2008)</td>
<td>Not stated (Gengatharen 2008)</td>
<td>SMEs shares, government grants (Gengatharen 2008)</td>
</tr>
<tr>
<td>Industry cooperative</td>
<td>Not stated (Brush &amp; McIntosh 2010)</td>
<td>Not stated (Brush &amp; McIntosh 2010)</td>
<td>Not stated (Brush &amp; McIntosh 2010)</td>
</tr>
<tr>
<td>SME organisation</td>
<td>Owner/manager (Galloway et al. 2004; Lorenzini 2014)</td>
<td>For-profit (Galloway et al. 2004; Lorenzini 2014)</td>
<td>Sale percentage on e-portal (Lorenzini 2014), not stated (Galloway et al. 2004)</td>
</tr>
<tr>
<td>Local industry association</td>
<td>Executive board of members (Sellitto &amp; Burgess 2005)</td>
<td>Not stated (Sellitto &amp; Burgess 2005)</td>
<td>Government grants, implies members paid fees due to e-portal fees (Sellitto &amp; Burgess 2005)</td>
</tr>
</tbody>
</table>

The following sections examine different aspects of the co-located MACO community organisations, compared where relevant to co-located SME/MSB communities, from Table 5.1 (and Table 2.1 and Table 5.2) in more detail.

### 5.2.1 Types of co-located MACO community organisations

Table 5.2 suggests most co-located SME/MSB communities were managed by not-for-profit organisations with executive boards. In a few cases, a cross-industry government organisation (Mason et al. 2006), industry cooperative (Brush & McIntosh 2010) and local industry association (Sellitto & Burgess 2005) existed prior to the appropriation of community-level IS, which is similar to the co-located MACO communities in this study. For the remaining articles, the SME/MSB community organisations in Table 5.2 were created to run the community-level IS.
Table 5.1 implies that *Kete* was similar to the not-for-profit cross-industry government organisation in Table 5.2, because local government managers made decisions with input from other stakeholders regarding *Kete*'s community-level IS. (Later sections examine supporter and MACO member influence on community-level IS appropriation decisions.) The main difference between the *Kete* organisation and cross-industry government organisations running SME/MSB communities was that *Kete* was industry-specific. The findings also uncovered various revenue sources which *Kete* relied upon for its economic survival, which were similar to the revenue sources used by cross-industry government organisations (e.g. government grants, corporate sponsors and donations, and SME/MACO fees). *Kete*'s SME/MSB fee-based approach is legislated in New Zealand, whereby the government that funded *Kete* required partial self-funding (section 4.2.1). This contributes to IS knowledge because it confirms that government organisations can manage co-located MACO, not just SME/MSB, communities. It extends knowledge by identifying an industry-specific form of government organisation appropriating community-level IS, and thus introduces a new category of organisation to those listed in Table 5.2.

*Classic* was similar to the for-profit SME organisations running some co-located SME/MSB communities because ownership, governance and decision-making was dominated by the owner of *Classic*. *Classic* was also similar because *Classic* and the for-profit organisations running co-located SME/MSB communities used a percentage of SME/MACO member product/service sales for their revenue. The findings contribute to IS knowledge by confirming that for-profit SME organisations can run co-located MACO communities, not just SME/MSB communities.

*Rainbow*, by contrast, was not consistent with the categories of organisations in Table 5.2, because it was charitable incorporated trust, which it had become to apply for government and private grants (section 4.4.1). It therefore did not exist for the purposes of personal profit of an owner/manager like *Classic*. Even as an incorporated trust, *Rainbow* was run informally, with governance and decision-making shared in a fluid manner among supporters and MACO members based on collectivism. This finding is consistent with Bain & McLean (2013) who report that some co-located MACO communities have needed to become registered organisations in order to apply for government grants.
Further, *Rainbow* did not operate using a fee-based revenue mind set like SME/MSB communities, *Kete* and *Classic*, but instead used the notion of sharing costs, communal outputs (e.g. gardening for food) and donations (e.g. plants, clothes, building materials, art equipment). Members, including artists/craftspeople, contributed money from selling their artwork, doing part-time jobs (e.g. gardening, working in a cafe), and receiving government benefits (e.g. unemployment benefit, domestic purposes benefit). This reflected the strong creativity-business tension among MACO members who tended to reject modern approaches such as using fees, advertising and sponsorship and taking percentages from the sales, and instead allowed members to contribute how they could, including offering their labour.

Similarly, *Streets* did not fit neatly into the categories synthesised from the literature, because it was hybrid of the *Classic* and *Rainbow* communities. It was similar to *Classic* and other organisations running SME/MSB communities because it had owners, however they did not own the land and buildings they used. But *Streets* also had traits similar to *Rainbow* (and co-operative SME/MSB communities) such as collective input into decisions by MACO members, surplus/profits being distributed among members and revenue being reinvested back into the community.

*Rainbow* and *Streets* could therefore be viewed as informal industry-specific cooperatives. This extends the IS literature on co-located SME/MSB communities because Brush & McIntosh (2010) was the only article reporting on single-industry cooperatives involved in appropriating community-level IS, but this cooperative was international in scale and therefore very formally run due to its corporatised nature. *Rainbow* and *Streets*, by contrast, were small, informal cooperatives with few members and less member funding. Supporters and MACO members chose to operate in this form to have more power to self-determine how they operated and managed their wider lives outside traditional modernistic economic models. As will be shown in later sections, this had implications for how the supporters in these two communities experienced appropriating community-level IS.

### 5.2.2 Size of co-located MACO community organisations

This study contributes to IS knowledge by showing that co-located SME/MSB (i.e. MACO) community organisations can satisfy the common definitions in the
literature of micro, small and medium enterprises. SMEs/MSBs are typically defined based on the number of owners/managers and employed staff (see Parker et al. 2015). The IS articles on co-located SME/MSB communities did not clarify that such communities were (or could be) operated by SMEs in their own right (including supporters such as managers and staff helping with IS appropriation). This is perhaps because the articles focus on community-level IS from the perspective of SME/MSB members (see sections 1.4 and 2.3.3). Table 2.1 (section 2.3.1) showed that the literature rarely reported (clearly) the number of staff and other resources of the SME/MSB community organisations to clarify if they were also SMEs in their own right. The only study which provided clarity about the total number of staff in the community organisations was Lorenzini (2014), but it is conceivable local industry associations, cooperatives and for-profit organisations which ran the e-portals in other studies could also have fallen into one of the SME size categories.

Examining SME/MSB communities in terms of the organisations running them is important, as shown in later sections, because some supporter experiences with appropriating community-level IS may be similar to SME/MSB owner/manager experiences appropriating IS for their firm. One difference is that SME/MSB community organisations must consider member needs (Gengatharen & Standing 2005; Lorenzini 2014), while SME/MSB owner/managers of their own firm often make independent decision (Jones et al. 2014) when appropriating IS (see later sections for other differences). This emphasised the need to compare themes in the sections below with the IS literature on SMEs/MSBs in general, where relevant, to determine contributions to IS knowledge, and not just compared the themes to articles on co-located SME/MSB communities.

Table 5.1 suggests that Streets, Rainbow and Classic could be micro businesses, and Kete a small business, based purely on staff numbers. Parker et al. (2015) points out that this should not be the only consideration of size, and could include other criteria such as whether the firm is independently owned, and the use of casual labour rather than (or in addition to) paid employees. These nuances also applied to the MACO communities. For example, Kete was run and owned by a local government, and thus can be considered a subsidiary of such councils, which meant Kete may have been closer to a medium-sized business if all local government staff were included. The
review of the IS literature on SMEs/MSBs by Parker et al. (2015) showed that few articles confirm if SMEs studied included subsidiaries of larger businesses. *Streets, Rainbow* and *Classic* were closer to the SME definition, including the criteria that firms be independently owned and operated (Parker et al. 2015).

A further complication with MACO communities was their access to volunteers due to their collectivism, rather than just owner/managers and staff which appear to be more common for individualistic MSBs (e.g. see Jones et al. 2014). Similarly, some articles on co-located SME/MSB communities mentioned that volunteer support was essential to the success of community-level IS appropriation (see Table 2.1), but there was limited information provided in these articles about their role(s). Later sections examine the influence of these nuances on supporter experiences with community-level IS appropriation, including supporters who volunteered their help.

The number of SME members in co-located SME/MSB communities stated in Table 2.1 emphasise that, with the exception of Lorenzini (2014) and Sellitto & Burgess (2005), these communities were much larger than the four MACO communities in this study. As noted in section 2.3.1, this was because many SME/MSB communities covered large rural/regional or urban areas. The MACO communities in this thesis, by contrast, were smaller, close-knit collectives at a physical location (i.e. art centre, gallery or rural property), with fewer MACO members. A further difference is that, with the exception of Sellitto & Burgess (2005), all the co-located SME/MSB communities were cross-industry, while this study focused on MSBs from a specific sector. This meant the co-located SME/MSB communities could draw upon larger numbers of SMEs/MSBs within bigger geographical areas and/or from a range of industry sectors. This meant the cross-case findings had to be compared with the 13 articles on co-located SME/MSB communities with caution. But it also presented an opportunity to make a contribution to IS knowledge by determining if findings relating to MACO communities in close physical proximity had similarities to co-located SME/MSB communities covering larger areas. The implications of these and other differences for supporter experiences of community-level IS appropriation will be explored in later sections.
5.2.3 Economic survival of co-located MACO communities

Table 5.1 shows that two communities were struggling financially (Streets and Classic), one was marginally sustainable (Kete) and the last was stable (Rainbow). This is consistent with government reports (section 1.1) and literature on the art/craft sector and MACOs (e.g. sections 2.2.2 and 2.2.3.1), which report that funding levels to this sector have dropped and that MACOs are struggling financially.

The financial status of Streets and Classic, given their similarities to MSBs, appeared to be similar to findings in the literature showing that many SMEs/MSBs lack the financial resources to appropriate IS (Choudrie & Culkin 2013; Cragg et al. 2011; Eze et al. 2014; Lawrence 2010; Gottfridsson 2011; Kannabiran & Dharmalingam 2012). The main difference is that Streets and Classic worked with MACO members, rather than as an independent firm, and supported the financial viability of members by selling their artwork in the galleries. Streets went further, with their financial status perhaps being explained in part by their distribution of surpluses to MACO members (section 5.2). Overall, the insights into the financial struggles of MACO community organisations emphasise the importance of their economic survival. It will be shown in section 5.6, however, that the underlying creativity-economic tension in these communities meant that art/craft creativity was given a higher priority than economic survival overall. This is consistent with the literature which has found that some MSBs prioritise ‘lifestyle’ over economic success (section 1.3).

At first the financial stability of Rainbow was surprising since many MACO members, consistent with the literature on MACOs (section 2.2.2), were struggling financially to focus on their creativity (i.e. a strong creativity-economic tension). This can be explained, however, by the focus of this community on living in a self-sustainable manner, such as growing their own food (section 4.4.1). Similarly, the marginal sustainability of Kete appeared to be surprising given the range of income sources to which it had access, including government funding. This can be explained by its not-for-profit organisational form, the large investments it makes in creativity resources for its MACO members (e.g. workshops, drop-in centre, gallery), and its legislated requirement to be partially self-funded by providing some of its own income from studio and room rents (see section 5.2.1). This is similar to the co-located SME/MSB community organisations which had to work towards being self-
sufficient financially, even though they had access to government funding to launch community-level IS initiatives (e.g. Gengatharen & Standing 2005; Lorenzini 2014; Tatnall & Burgess 2009). Indeed, some of the articles on co-located SME/MSB communities found that the e-portal initiatives were unsuccessful because they could not achieve financial self-sufficiency before government funding ran out (e.g. Fisher & Craig 2005; Tatnall & Burgess 2009).

This chapter explores the nuances of how supporters experienced balancing art/craft creativity and economic survival goals when appropriating community-level IS. The next section presents the cross-case findings of the types of community-level IS which were appropriated in the co-located MACO communities.

5.3 Community-level IS used by the MACO communities

Answering the research question involved examining emergent cross-case themes, as summarised in Table 5.3 and Table 5.4, regarding the types of community-level IS used by co-located MACO communities. This is because supporter experiences related to the appropriation of these IS. Sections 1.1, 1.4 and 2.3.2 noted that community-level IS were distinguished from IS used and managed by MACO artists/craftspeople, including their personal or their own business-specific mobile phones, emails and Facebook pages. Community-level IS explored in this thesis, by contrast, were of two main types as reproduced here from section 1.1:

- communal-IS appropriated at the community level for use by MACO members for their own art/craft practices, such as shared broadband and software access so artists/craftspeople could run their business; and
- supporter-IS appropriated by internal supporters to manage the community (e.g. payments, member relations), but not used by MACO members in their own art/craft practices.

The next two sections present the cross-case findings relating to communal-IS and supporter-IS respectively, and compares these findings to the IS literature to highlight the contributions to IS knowledge.
5.3.1 Communal-IS used by co-located MACO communities

The cross-case analysis made a contribution to IS knowledge because, as sections 1.4 and 2.3.2 noted, prior research on co-located SME/MSB communities have only explored one type of communal-IS; web-based e-portals. The findings in Table 5.3 thus make a contribution by identifying further communal-IS which supporters had appropriated in co-located MACO communities.

Table 5.3: Communal-IS used by MACO communities

<table>
<thead>
<tr>
<th>Communal-IS</th>
<th>Kete (high-brow, urban)</th>
<th>Streets (low-brow, urban)</th>
<th>Rainbow (low-brow, rural)</th>
<th>Classic (high-brow, rural)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Website (community culture, mission, news, location, etc)</td>
<td>No – council did promotion</td>
<td>Yes – initially but now via Facebook</td>
<td>Yes</td>
<td>Yes – initially but now via Facebook</td>
</tr>
<tr>
<td>Website (community event promotion)</td>
<td>No – council did promotion</td>
<td>Yes – initially but now via Facebook</td>
<td>Yes</td>
<td>Yes – initially but now via Facebook</td>
</tr>
<tr>
<td>Website (creative resource links for artists/craftspeople)</td>
<td>Yes – e-portal hosted on third-party site</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Website (links to websites of affiliated artists/craftspeople)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Website (hosting/selling artists’/craftspeople work)</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Community-run blog</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes – for book reviews, then on Facebook</td>
</tr>
<tr>
<td>Community Facebook page (event invitations)</td>
<td>Yes – initially low use but later more than email-lists</td>
<td>Yes – initially low use but later more than email-lists and website</td>
<td>No, MACO member pages only – initially medium use but stopped after event violence</td>
<td>Yes – initially low but later used more</td>
</tr>
<tr>
<td>Community Facebook page (culture, location, news, etc)</td>
<td>Yes – initially low, but later used more</td>
<td>Yes – initially low, but later used more</td>
<td>Not applicable</td>
<td>Yes – initially low, but later used more</td>
</tr>
<tr>
<td>Community Facebook page (community-level sales)</td>
<td>No</td>
<td>Yes – promoted Streets branded-merchandise. People asked to buy and sales processed offline</td>
<td>Not applicable</td>
<td>Yes – low use, but more for selling books than artwork in the gallery</td>
</tr>
<tr>
<td>Community Facebook page (communication among MACO members)</td>
<td>Limited – occasional relies to post by society level members an/or artists</td>
<td>Yes – young members and when Streets went virtual</td>
<td>Not applicable</td>
<td>Low - but more after temporary closure</td>
</tr>
<tr>
<td>Community Facebook page (resources for members)</td>
<td>Yes – links to grants sites</td>
<td>No</td>
<td>Not applicable</td>
<td>No</td>
</tr>
<tr>
<td>Digital grant applications</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Computers/internet/printer for artist/craftspeople use</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
MACO community websites had some similar features to those found by the literature on co-located SME/MSB community e-portals, which are synthesised as follows:

- Information about the local community’s regional identity to promote it to potential physical and online visitors (Galloway et al. 2004; Lorenzini 2014; Gengatharen & Standing 2005; Gengatharen et al. 2005; Sellitto & Burgess 2005).
- Catalogue of SME/MSB member products/services (Fisher & Craig 2005; Lorenzini 2014) with online store/payments (Sellitto & Burgess 2005).
- Preferred listing of SME/MSB members in search results by those using the e-portal (Gengatharen 2008; Gengatharen & Standing 2005; Gengatharen et al. 2005).
- Request for quote facilities (Gengatharen 2008; Gengatharen & Standing 2005; Gengatharen et al. 2005).
- Links to SME/MSB member email addresses and/or websites (Galloway et al. 2004; Gengatharen 2008; Gengatharen & Standing 2005; Gengatharen et al. 2005).
- Bulletin boards or discussion forums on the e-portal (Brush & McIntosh 2010; Galloway et al. 2004; Mason et al. 2006; Tan & Macaulay 2011) and other collaborative tools (Tan & Macaulay 2007; 2011).
• Algorithm to match buyers and sellers (Brush & McIntosh 2010).
• Member-only section for SME/MSB members (Sellitto & Burgess 2005; Tatnall & Burgess 2009).
• Online resources for SME/MSB members such as industry news, weather and other information of interest (Brush & McIntosh 2010).

Table 5.3 confirms that the websites of Streets and Classic, and to a lesser extent Kete and Rainbow, had similar features to co-located SME/MSB community e-portals, such as promoting and selling member art/craft work (similar to SME/MSB product catalogues and shopping carts), listing MACO member biographies (similar to SME/MSB online directories), providing art/craft creativity resources to members (similar to resources for SMEs/MSBs), and promoting the MACO community to a broad audience (similar to SME/MSB community promotion).

Other features of co-located SME/MSB e-portals did not apply to the four MACO communities, such as buyer-seller matching and request for quote facilities (i.e. MACO community websites were not e-marketplaces). MACO members preferred, based on the views of supporters, to use the websites as tools to ensure they were recognised as artists, to view other member artists’ work, and to provide them with a sense of community and a means to keep up-to-date on community events. MACO member-to-member interactions were not the main goal of these community-level websites. This contrasts with the IS literature because SME/MSB e-portals were intended to connect SME members (and parties outside the community) to facilitate trade (see section 2.3.2), and reflects the larger scale and cross-industry nature of these e-portals. This is explored further in later sections.

Another area in which MACO community websites differed from the SME/MSB community e-portals related to who updated the majority of the content. MACO community websites were mostly maintained by supporters (e.g. details of MACO member artwork, online resources, community news). With SME/MSB e-portals some information appeared to be maintained by supporters (e.g. community information, perhaps industry news, weather, etc), although this was often not clarified in the articles. In contrast to MACO communities, however, other information on SME/MSB e-portals was maintained by SME/MSB members (e.g.
company and product/service information, participating in online forums). The differences can be explained mostly by the larger scope of the SME/MSB e-portals (e.g. often hundreds of SME/MSB members) compared to the MACO websites, which meant it was more viable for supporters in MACO communities to update member profiles. Nonetheless, the cross-case findings emphasise that with MACO communities it was important to explore supporter experiences with appropriating (including ongoing use of) community-level websites. These supporter experiences are examined further in later sections. The synthesis of the literature suggests it could also be worthwhile to explore supporter experiences with updating certain e-portal content (e.g. news items) in the case of co-located SME/MSB communities.

MACO member-to-member interactions were largely supported by community-level Facebook pages (see Table 5.3) at Kete, Streets and Classic. This contrasts with most literature on co-located SME/MSB communities, which pre-date the popularity of social media. This study extends IS knowledge by showing that MACO community-level Facebook pages complemented, and in some cases later replaced, community websites. Even recent articles on co-located SME/MSB communities (Brush & McIntosh 2010; Lorenzini 2014; Tan & Macaulay 2007; 2011) focus on the role of websites, without mention of community-level Facebook pages. With Tan & Macaulay (2007; 2011), this may be because the e-portal was launched in 2004. This confirms the findings of the limited articles on co-located MACO communities (e.g. Bain & McLean 2013; Bendor 2014) showing that community-level Facebook pages are used. This study also confirms the IS literature by showing that SMEs in general are increasingly using Facebook (see section 2.1). Section 5.6.6 examines the case studies in terms community-level use of IS such as Facebook among artists/craftspeople in the MACO communities in more detail.

The cross-case findings extend IS knowledge relating to co-located SME/MSB communities by identifying other forms of communal-IS which were used by co-located MACO communities, in addition to websites and Facebook. These generally took the form of IS-related resources being made available collectively to MACO members interested in using them. The resources were provided by the community organisation (e.g. digital grant applications, computers and printers), or provided by MACO members to support the community in the form of IS tools and skills. The
literature on co-located SME/MSB communities have tended to overlook these forms of community-level IS, but some report the importance of IS services being available such as technical support, internet access and website development services and training (Fisher & Craig 2005; Galloway et al. 2004; Gengatharen & Standing 2005; Gengatharen et al. 2005). Interestingly, these articles found that it was primarily SMEs which already had e-business readiness which used the e-portals, so that services such as technical support and training were often not needed. As will be explored in later sections, this was not always the situation in the four MACO community case studies, because IS-based services of volunteers were often needed.

Further, these findings extend the limited literature on co-located MACO communities (see Bain & McLean 2013; Bendor 2014) which have overlooked (or not identified) such communal-IS. The findings emphasise how these co-located communities help MACO members overcome, to some extent, the creativity-economic tension they face (described in section 2.2.2) by providing communal IS resources to reduce the cost of accessing IS-related resources and expertise. For these communities, sharing resources were part of an alternative economic model to artist/craftspeople for reducing their dependence on the capitalist model of living. Later sections will explore, however, the nuances associated with supporter experiences in providing these communal-IS to MACO members which extend this literature on co-located SME/MSB, and MACO, communities.

The cross-case findings on these additional communal-IS also provide further depth of IS knowledge concerning SMEs/MSBs in general and how they access IS resources. SMEs in this study took the form of MACOs and their community organisations. The IS literature emphasises that limited internal SME/MSB resources (e.g. finance, personnel, etc) mean owner/managers often depend on external parties for assistance (section 2.1). The literature suggests external help primarily takes the form of education about IS to increase owner/manager knowledge (section 2.2.1), and/or help from vendor/consultants (section 2.3.3). The cross-case findings in later sections show that, at least in the case of co-located MACO communities, access by MACO members and MACO community organisation to IS resources is more nuanced and complex than is implied by this IS literature.
5.3.2 Supporter-IS used by co-located MACO communities

The cross-case analysis made a contribution to IS knowledge because, as sections 1.4 and 2.3.2 noted, IS articles on co-located SME/MSB communities have ignored the role of supporter-IS. Table 5.4 summarises supporter-IS identified across the cases, which varied from IS used only by supporters for internal community organisation purposes (i.e. EBS and Photoshop), or for communication with external parties (i.e. email-lists to invite people to community events, and the Bartercard marketplace for procuring resources).

Table 5.4: Supporter-IS used by MACO communities

<table>
<thead>
<tr>
<th>Supporter-IS</th>
<th>Kete (high-brow, urban)</th>
<th>Streets (low-brow, urban)</th>
<th>Rainbow (low-brow, rural)</th>
<th>Classic (high-brow, rural)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community email list</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Community event booking system (EBS)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Photoshop</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Third-party run marketplace</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes – Bartercard</td>
</tr>
</tbody>
</table>

These findings confirm the limited art management literature exploring IS at the community-level, where only Bendor (2014) and Cardamone & Rentschler (2006) reported on supporter-IS used at co-located MACO community organisations (e.g. art centres). For example, Bendor found that some art centres used IS to manage stock and customer relationships (e.g. emailing invitations and newsletters). All except stock management IS were confirmed by the cross-case findings. The findings of this study extend the work of Bendor by identifying other supporter-IS (e.g. Photoshop, the Bartercard marketplace) used at Classic. This thesis also extends knowledge in this area by reporting on supporter experiences relating to appropriating these alternative communal-IS, as explored in the next sections.

5.4 Supporter roles and IS skill levels

The previous sections helped answer the research question by introducing the types of co-located MACO community organisations and types of community-level IS appropriated. This section presents a cross-case analysis to introduce the types of supporters who were involved in appropriating community-level IS. This section and later sections examine progressively how these various supporters experienced appropriating these community-level IS which were intended to help with economic
survival (examined in section 5.5) and art/craft creativity (examined in section 5.6) in the co-located MACO communities.

Table 5.5 shows that supporters appropriating community-level IS had a variety of roles which sometimes overlapped: managers, technicians, administrators and consultants. These supporters ranged from being tech-savvy to technophobic, with technicians being at the extreme end of tech-savvy as expected. These supporter roles and IS skill levels influenced how they experienced appropriating the community-level IS. It should be noted that Table 5.5 includes supporters who were not interviewed (e.g. unavailable) in order to provide a clearer picture of the level of IS skills across the four case studies (see the footnotes stating ‘Not interviewed’).

**Table 5.5: MACO community supporters and their IS skills**

<table>
<thead>
<tr>
<th>IS/technical skill level</th>
<th>Kete (high-brow, urban)</th>
<th>Streets (low-brow, urban)</th>
<th>Rainbow (low-brow, rural)</th>
<th>Classic (high-brow, rural)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tech-savvy managers</td>
<td>Internal-Centre-Manager1, Internal-Centre-Manager2, Drop-in-Manager-Artist</td>
<td>Owner-Artist2</td>
<td>Event-Organiser-Artist, Craftswoman, Focaliser-Photographer</td>
<td></td>
</tr>
<tr>
<td>Manager and technician role combined</td>
<td></td>
<td></td>
<td>Focaliser-Technician-Artist, Focaliser-Sound-Technician</td>
<td></td>
</tr>
<tr>
<td>Technophobic managers</td>
<td>External-Council-Manager</td>
<td>Owner-Artist1</td>
<td>Manager-Artist</td>
<td></td>
</tr>
<tr>
<td>Technophobic consultants</td>
<td>Drop-in-Maori-Consultant-Artist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tech-savvy administrators</td>
<td>Receptionist-Craftswoman, Gallery-Curator-Craftswoman</td>
<td></td>
<td>Graphic-Designer-Writer (Manager-Artist’s daughter)</td>
<td></td>
</tr>
<tr>
<td>Technophobic administrators</td>
<td>Receptionist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pure technicians</td>
<td>Drop-in-Web-Designer&lt;sup&gt;66&lt;/sup&gt;</td>
<td>Technician-Video-Jockey, Website-Advisor-Photographer</td>
<td>Technician</td>
<td></td>
</tr>
</tbody>
</table>

Table 2.1 showed that the literature on co-located SME/MSB communities acknowledges the existence of supporters such as managers and other staff in community organisations. The Table 5.5 findings, elaborated on next, contribute to this IS knowledge because the thesis is one of few IS studies to explore the experiences of supporters (differentiated by roles) appropriating community-level IS

<sup>66</sup> Not interviewed
(section 2.3.3). Galloway et al. (2004) was the only study to report explicitly on the IS skills of some supporters but, with the exception of e-portal managers, offered little distinction between the IS skills of different supporter types. Gengatharen & Standing (2005) state supporters need IS competencies to appropriate community-level IS, but did not examine the competencies by supporter type, how they worked together or the challenges/issues experienced. Sections 1.4 and 2.3.3 noted that this lack of supporter perspective is also dominant in the IS literature on SMEs/MSBs. The sections in the remainder of this chapter therefore extend IS knowledge by exploring the complex nuances of how supporters of different types, with varying IS skills levels, experienced appropriating community-level IS.

5.4.1 Managers/consultants appropriating community-level IS

Table 5.5 shows that an emergent theme was that three MACO communities had at least one tech-savvy/technician manager. A distinction was made between managers who were tech-savvy, and those who were technicians. Technicians had hands-on and advanced skills such as programming and building IS infrastructure, such as Focaliser-Technician-Artist and Focaliser-Sound-Technician at Rainbow. Tech-savvy managers, by contrast, tended to have higher-level management skills from prior work experience involving the use of IS developed by others (e.g. Internal-Centre-Manager1, section 4.2.2). In Rainbow, the role of manager and technician was often handled by the same person, while with the other three case studies manager and technician roles were performed by different people, although many of the managers were tech-savvy rather than being technicians.

The primary role of tech-savvy and technician managers at Kete, Rainbow and Streets was to provide the vision for, develop and lead community-level IS initiatives (e.g. Internal-Center-Manager1 section 4.2.2, Owner-Artist2 section 4.3.1 and 4.3.2, Focaliser-Sound-Technician section 4.4.2). These managers helped overcome the concerns of technophobic managers (i.e. creativity-technology tension) through dialogue or by demonstrating what IS could achieve in communities. This is consistent with the IS literature on SME/MSB revealing that owner-managers, as the main decision-makers, who have IS skills and/or perceptions of benefits are often more inclined to adopt IS (e.g. Cragg et al. 2011; Jones et al. 2014; Peltier et al. 2009). Nonetheless, the MACO communities differed from typical small/micro
businesses studied in the literature because decision-making was group-based rather than dominated by an owner-manager (see section 5.2), and because such decision-making required sensitivity to member needs (see section 5.6.1 later for more detail).

With Classic, in contrast to the other case studies, there were no tech-savvy or technician managers. As noted in section 5.2, Classic was closer to a typical MSB with a dominate owner-manager making decisions for this community. Nonetheless, this technophobic manager, with a strong creativity-technology tension, still decided to use IS when there was a perceived business necessity such as economic survival (e.g. section 4.5.5). He achieved this by hiring Graphic-Designer-Writer (a part-time administrator, and his daughter) as a technician in the area of graphic design to oversee the adoption and maintenance of Classic’s website and Facebook page. His tech-savvy son instigated Manager-Artist’s use of Bartercard (section 4.5.3). This is consistent with the IS literature on SMEs/MSBs which shows that staff/family with IS knowledge/skills can help enable IS adoption/use (e.g. Parker & Castleman 2009), and that adoption/use can occur if owner/managers perceive a competitive or economic necessity (e.g. Eze et al. 2014; Peltier et al. 2009; Wymer & Regan 2011).

The cross-case findings show that technophobic managers/consultants, despite their creativity-technology tensions, found they were able to help with community-level IS initiatives. For example, External-Council-Manager at Kete (section 4.2.2) felt he had little to contribute to IS projects, but provided negotiation and financial management skills which were essential to the success of the EBS project. This highlights the complementary roles played by tech-savvy and technophobic managers. Furthermore, tech-savvy and technophobic managers/consultants had the ability to work in a consensual manner by sharing power and listening to the fears of artist/craftspeople when introducing IS projects (see section 5.6.1 for further details).

A related emergent theme was that the nature of technophobia in managers/consultants was nuanced, which can be seen when comparing two supporters with different forms of technophobia:

- **Drop-in-Maori-Consultant-Artist’s (Kete)** technophobia took the form of what the thesis researcher refers to as cultural technophobia. This related to Maori resistance to modernity tools which historically impose Western rules on the
management of technology. He otherwise accepted technology if it was not 
imbibed with such Westernised business principles (see section 4.2.6). This form 
of technophobia was also common among Maori MACO community members, 
and influenced if/how community-level IS were appropriated, as explored further 
in section 5.6.3.

• Owner-Artist1 (Streets, section 4.3.1), by contrast, feared and rejected IS, 
including in her own artwork (i.e. strong creativity-technology tension). She 
gradually started to use some supporter-IS and communal-IS after overcoming 
these fears and seeing the role of these IS in art/craft creativity (especially at the 
community-level use).

These subtle distinctions are important because technophobia driven by fear 
appeared to be addressed with increased knowledge about IS and experience with 
use, while cultural technophobia was driven by indigenous/religious concerns which 
were more complex to address (section 5.6.3 examines this further). This challenges 
the current understanding of the role of IS knowledge in SMEs/MSBs stated in the IS 
literature, which sees that providing/supplementing IS knowledge will provide a 
positive and on-going change in the mind-set of managers (see section 2.2.1).

The cross-case findings in next sections show that community-level IS appropriation 
is quite nuanced and non-trivial even for tech-savvy and technician supporters.

5.4.2 Administrators appropriating community-level IS

Table 5.2 shows that the high-brow MACO communities (i.e. Kete and Classic) were 
the only ones with administrators. These administrators had important roles in 
appropriating (especially using) community-level IS (particularly supporter-IS). In 
the context of IS skills, the cross-case findings show that both communities had 
administrators who were tech-savvy, and were often employed on the basis of these 
skills. This observation is explored further in section 5.5.1 relating to resourcing 
community-level IS appropriation.

The findings from Kete emphasised that tech-savviness did not necessarily mean it 
was easy for administrators to learn and use community-level IS (section 4.2.2). In 
their case, the complexities of the art/craft sector meant their community-level EBS 
was difficult to learn, but the findings suggested overall that once learned the
benefits made this worthwhile. Similarly, *Graphic-Designer-Writer* (*Classic*, section 4.5.8), who was another tech-savvy administrator, found it difficult to maintain the various community-level IS. The *Kete* case highlights that these challenges can be addressed if tech-savvy administrators (as well as other supporter types) can help others to learn these complex IS. As noted in section 5.4.1, this is consistent with the literature on SMEs/MSBs which emphasise the importance of IS knowledge/skills of staff in helping with appropriation (including use) of IS internal to such businesses. This further emphasises the importance that IS research on co-located SME/MSB communities explore the experiences of supporters, and not just SME/MSB members, when it comes to the appropriation of community-level IS.

### 5.4.3 Technicians helping with appropriating community-level IS

Section 5.3.1 highlighted that technicians (including those who combined this role with a managing role) were important in the low-brow MACO communities (i.e. *Streets* and *Rainbow*) with community-level IS appropriation. They had roles such as offering IS tools/skills to support art/craft creativity events (see Table 5.3), and helping design community-level websites (e.g. *Focaliser-Sound-Technician*, *Rainbow* section 4.4.3 and *Website-Designer-Photographer*, *Streets* section 4.3.3).

A cross-case theme emerging in this study was that many of the technicians in low-brow communities were trying to escape modernity. *Focaliser-Sound-Technician* and *Focaliser-Technician-Artist* had joined *Rainbow* to escape modernity, and found their skills could further the creativity goals of the community and that they were recognised as artists/craftspeople (sections 4.4.1, 4.4.9). *Technician-Video-Jockey*, who worked as a digital projectionist for corporations, had similarly enjoyed the temporary escape from modernity by helping *Streets* with community events, and being recognised as an artist in his own right (section 4.3.8).

An interesting juxtaposition to this role played by technicians in community-level IS appropriation was *Technician* from *Rainbow*. He had IS skills but was not in the mental position to offer these to the MACO community (section 4.4.1). *Technician*, who was not an artist/craftsperson, had experienced ‘burn out’ from mainstream business employment as a technician. Despite not being an artist/craftsperson, he found that *Rainbow* was a place for him to escape from modernity, or the business
world focus on efficiency and worker control. This is consistent with the literature on MACOs about artists/craftspeople rejecting modernity (section 2.2.1).

Overall, technicians participated in the low-brow communities to escape modernity to varying degrees (i.e. emphasising creativity-business tensions), and these experiences had nuanced influences on their ability to help with community-level IS appropriation. In some cases, their role in the appropriation of community-level IS lead to positive experiences from their community participation.

The high-brow communities, by contrast, relied more on tech-savvy managers and/or vendor/consultants external to the community, rather than technicians from the community with more advanced IS skills. For example, Kete relied upon the EBS (i.e. supporter-IS) vendor to provide initial support/training (section 4.2.2) and Classic got its website (i.e. communal-IS) developed by an external developer (section 4.5.5). Further detail about this and similar contrasts between the low-brow and high-brow MACO communities are explored in sections 5.5.1 and 5.6.1. The start of section 5.4 (and section 2.3.3) highlighted that the IS literature on co-located SME/MSB communities provides limited insight into supporter experiences with community-level IS appropriation. The synthesis of this literature in Table 5.6 shows that there was greater insight into the organisations, including external ones, as found for Kete and Classic, which helped with community-level IS appropriation. Most SME/MSB community organisations outsourced e-portal, just like Classic.

The IS literature synthesised in Table 5.6 also implies that an advantage for cross-industry joint venture organisations (i.e. comprising local government, business associations and/or universities) and cross-industry government organisations is that their collective resources mean they can provide training/advice to SME/MSB members. Kete findings revealed similar evidence of the benefit of collective IS resources, whereby IS staff from the local council handled the management of community-level IS such as email (section 4.2.7). Of particular interest was that collective IS resources also resulted in a disadvantage, because it prevented Kete from having its own website (section 4.2.5). These nuances at Kete highlight the importance of examining supporters of co-located SME/MSB communities, including the role of external entities, to reveal whether similar nuances and complexities are apparent for co-located SME/MSB communities generally.
Table 5.6: Organisations which supported SME/MSB community-level IS

<table>
<thead>
<tr>
<th>Types</th>
<th>E-portal developers</th>
<th>Recruiting SMEs</th>
<th>IS support for SMEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-industry joint venture</td>
<td>External IS firm (Gengatharen 2008; Gengatharen &amp; Standing 2004; 2005; Gengatharen et al. 2005), university (Tan &amp; Macaulay 2007; 2011) or not stated (Mason et al. 2006)</td>
<td>Community organisation (Mason et al. 2006; Gengatharen 2008; Gengatharen &amp; Standing 2005; Gengatharen et al. 2005), local government (Tan &amp; Macaulay 2007; 2011), not stated (Gengatharen &amp; Standing 2004)</td>
<td>Community organisation in one case (Gengatharen &amp; Standing 2005; Gengatharen et al. 2005), planned for external IS firm to provide but did not eventuate in another case (Gengatharen &amp; Standing 2004), university (Tan &amp; Macaulay 2007; 2011), or not stated (Gengatharen 2008; Mason et al. 2006)</td>
</tr>
<tr>
<td>Cross-industry government organisation</td>
<td>External IS firm (Fisher &amp; Craig 2005; Galloway et al. 2004; Tatnall &amp; Burgess 2009) or not stated (Mason et al. 2006)</td>
<td>Community organisation (Fisher &amp; Craig 2005; Galloway et al. 2004; Mason et al. 2006; Tatnall &amp; Burgess 2009)</td>
<td>Community organisation provided IS training and advice (Fisher &amp; Craig 2005; Galloway et al. 2004), IS/IT students from a university (Tatnall &amp; Burgess 2009) or not stated (Mason et al. 2006)</td>
</tr>
<tr>
<td>Cross-industry cooperative</td>
<td>Not stated (Gengatharen 2008)</td>
<td>Cooperative (Gengatharen 2008)</td>
<td>Not stated (Gengatharen 2008)</td>
</tr>
<tr>
<td>Industry cooperative</td>
<td>Not stated (Brush &amp; McIntosh 2010)</td>
<td>Not stated (Brush &amp; McIntosh 2010)</td>
<td>Not stated (Brush &amp; McIntosh 2010)</td>
</tr>
<tr>
<td>SME organisation</td>
<td>External IS firm (Galloway et al. 2004; Lorenzini 2014)</td>
<td>Bank, university and SME members (Lorenzini 2014), SME organisation (Galloway et al. 2004)</td>
<td>SME organisation staff provide IS training and website building help (Galloway et al. 2004) or not stated (Lorenzini 2014)</td>
</tr>
</tbody>
</table>

5.4.4 Summary of contribution to IS knowledge

Overall, the cross-case findings in the preceding sections extend the limited IS knowledge on the nature of IS competencies and skills needed by co-located SME/MSB community organisations, as implied mainly by Galloway et al. (2004) and Gengatharen & Standing (2005). This study has drawn out the roles differentiated by supporter types when it comes to community-level IS appropriation in co-located MACO communities. It highlights that supporters with different IS skill levels can complement each other to facilitate community-level IS appropriation in co-located MACO communities.

As noted in section 5.4.1, the cross-case findings on the IS skills of the various supporter types emphasise the importance of examining co-located SME/MSB community in terms of organisations, since they need access to personnel resources with IS competencies. The next sections extend IS knowledge further by examining how supporters (of different types where applicable) experienced appropriating the...
various community-level IS to help with economic survival and art/craft creativity (respectively) of their co-located MACO communities. These sections show that accessing personnel, and other resources, are non-trivial for these communities. Further, it shows that having such skills does not result in unproblematic appropriation of community-level IS in these communities.

5.5 **Supporter experiences appropriating community-level IS for the economic survival of co-located MACO communities**

This section answers the research question by exploring the nuances and complexities of supporter experiences when appropriating community-level IS to help with the economic survival of their co-located MACO communities. Section 5.2.3 has already showed that economic survival was important to the MACO communities, although section 5.6 later will show that art/craft creativity was a higher priority. Section 5.5.1 explores how supporters (especially managers) experienced gaining access to personnel and financial resources to appropriate the community-level IS. Section 5.5.2 reports on supporters’ experiences using community-level IS to reduce the costs and/or increase the efficiencies of running their communities, which were linked to economic survival.

5.5.1 **Manager experiences obtaining resources to appropriate IS**

The supporters who obtained financial and personnel resources to appropriate community-level IS in co-located MACO communities were mainly community organisation owner/managers. Table 5.7 summarises the resources the managers obtained, including paid staff and consultants (who were also often MACO members), to help with the appropriation, as well as internal or external funding to pay for the community-level IS.
### Table 5.7: Resources for MACO community-level IS appropriation

<table>
<thead>
<tr>
<th>Resources</th>
<th>Kete (high-brow, urban)</th>
<th>Streets (low-brow, urban)</th>
<th>Rainbow (low-brow, rural)</th>
<th>Classic (high-brow, rural)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paid staff (i.e. not owners)</td>
<td>3 full-time: Internal-Centre-Manager1 replaced by Internal-Centre-Manager2; External-Council-Manager; Receptionist 5 part-time; Receptionist-Craftswoman; Gallery-Curator-Craftswoman; Drop-in-Manager-Artist; Drop-in-Assistant7; Grant-Assistant8</td>
<td>No</td>
<td>No</td>
<td>1 part-time: Graphic-Designer-Writer</td>
</tr>
<tr>
<td>Consultants paid contractually</td>
<td>2 consultants: Drop-in-Maori-Consultant-Artist; Drop-in-Web-Designer9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volunteers (not owners)</td>
<td>No</td>
<td>11 = Technician-Video-Jockey and Website-Advisor-Photographer, plus 9 other volunteers</td>
<td>10 = Focaliser-Technician-Artist, Manager-Sound Technician and Craftswoman, plus 7 other volunteers.</td>
<td>No</td>
</tr>
<tr>
<td>IS appropriated for free</td>
<td>Facebook (free)</td>
<td>Website (free software/advice), Facebook (free), email (free)</td>
<td>Website (illegal software), Facebook (free), email (free)</td>
<td>Blog (free), Facebook (free), email (free)</td>
</tr>
<tr>
<td>IS appropriated using funding</td>
<td>EBS and email (external funding negotiated by council), Drop-in centre and e-portal (government grant), digital grant applications (links provided by council)</td>
<td>Printer (internal funding sources)</td>
<td>Broadband (funded by community members)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>IS appropriated using bartering</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Website (barter)</td>
</tr>
</tbody>
</table>

The cross-case analysis revealed differences in how high-brow and low-brow communities handled their economic constraints with respect to securing personnel resources to appropriate community-level IS. These differences between the two types of communities, and the manager experiences, are examined further next.

The low-brow community managers of *Rainbow* and *Streets* had creativity-economic tensions, especially for *Streets* after the GFC (sections 4.3.1 and 4.3.2). *Rainbow* focalisers and members were more accustomed to creativity-economic tensions because they aimed to live frugally so they could focus on art/craft creativity (section

---

7 Not interviewed  
8 Not interviewed  
9 Not interviewed
This also meant Rainbow focalisers and members could be as self-sufficient as possible, and thereby reduce their need to engage in modern business revenue raising practices they rejected (i.e. creativity-business tension). This is consistent with Streets owners stating they avoided external funding to avoid being constrained by third parties, and to exercise aesthetic autonomy (section 4.3.2). The Rainbow focalisers’ and Streets owners’ experiences with appropriating community-level IS suggest that revenue from external sources and from MACO members (section 5.2.1) were viewed mainly as communal resources. At Rainbow this gave them access to shared spaces to engage in artwork and gardening. At Streets these resources gave them access to shared spaces to congregate and engage in artwork, and a gallery for selling their artwork. In both cases it gave them access to communal-IS which offered community-wide benefits (see sections 5.5.2 and 5.6 next).

It is therefore not surprising that the main experiences described by these supporters were about how they obtained free resources via free community-IS (see Table 5.7) and MACO member volunteerism (see sections 5.4.1 and 5.4.3). The supporter stories highlighted the struggles with building websites for free (Owner-Artist2 from Streets, section 4.3.2 and Focaliser-Sound-Technician and Craftswoman from Rainbow, section 4.4.3), and the challenges of running communal-IS (e.g. the printer expenses at Streets, section 4.3.6). The stories of their experiences building websites also emphasised their desire to solve these challenges themselves without external help, such as by self-learning the required skills and/or gaining advice from their wider social networks (e.g. Streets section 4.3.2, Rainbow section 4.4.3). Even the external business at Streets, which helped to fund the appropriation of communal-IS (e.g. the printer) and on-going costs, was owned by a supporter. Supporters did not mandate volunteer help, but community spirit meant that technicians (some of whom were also managers) were happy to offer communal-IS (i.e. IS tools/skills) because it enabled them to escape modernity and to be recognised as artists (section 5.4.3).

This meant that the Rainbow and Streets low-brow communities relied almost entirely on internal personnel and free resources to appropriate community-level IS. This finding contrasts with the IS literature on co-located SME/MSB communities. First, Table 5.6 suggests the supporters of co-located SME/MSB communities relied mostly on external parties for e-portal development, and the collective resources of
various organisations which collaborated as joint ventures. Second, further synthesis of this literature (see Table 5.8) shows that e-portal appropriation was funded mainly from large grants from governments. The funding was intended to initiate the development of the e-portals, with the expectation that the communities and associated staffing would become self-funding (e.g. Gengatharen & Standing 2005). These differences are perhaps not surprising given the larger scales of the co-located SME/MSB communities (section 5.2.2), which meant the e-portals would be larger projects than the community-IS appropriated by communities such as Rainbow and Streets. Given how dated most articles on co-located SME/MSB communities are now (i.e. pre-dating the GFC), it would be interesting to see if such wide-scale, extensively funded initiatives are still common today, or whether they are smaller-scale, cheaper initiatives such as the type reported by Lorenzini (2014).

<table>
<thead>
<tr>
<th>Organisation types</th>
<th>E-portal development funding</th>
<th>E-portal personnel funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-industry government organisation</td>
<td>State government grant (Fisher &amp; Craig 2005; Tatnall &amp; Burgess 2009) or not stated (Galloway et al. 2004; Mason et al. 2006)</td>
<td>Not stated what staff or how funded (Fisher &amp; Craig 2005; Galloway et al. 2004; Mason et al. 2006; Tatnall &amp; Burgess 2009)</td>
</tr>
<tr>
<td>Cross-industry cooperative</td>
<td>National/state government grants (Gengatharen 2008)</td>
<td>Not stated what staff or how funded (Gengatharen 2008)</td>
</tr>
<tr>
<td>Industry cooperative</td>
<td>Not stated (Brush &amp; McIntosh 2010)</td>
<td>Not stated what staff or how funded (Brush &amp; McIntosh 2010)</td>
</tr>
<tr>
<td>SME organisation</td>
<td>Not stated (Galloway et al. 2004; Lorenzini 2014)</td>
<td>Source of funding for manager and two part-time staff not stated, but internal funding implied (Lorenzini 2014), or not stated (Galloway et al. 2004)</td>
</tr>
<tr>
<td>Industry association</td>
<td>State government grant (Sellitto &amp; Burgess 2005)</td>
<td>Not stated what staff or how funded (Sellitto &amp; Burgess 2005)</td>
</tr>
</tbody>
</table>

The finding that the low-brow MACO community supporters focused on internal resources is consistent with IS literature on SMEs/MSBs generally finding that some owner/managers rely on family/friends (i.e. part of internal/personal networks) for help with IS appropriation (section 2.1). For SME/MSB owner/managers it is often due to the cost of IS vendors/consultants. The thesis extends this IS knowledge by identifying alternative reasons, such as the desire by supporters to be independent of government funding which constrained their art/craft creativity (e.g. Streets section
4.3.2). This was important to the managers (and MACO members) because they wanted the freedom to pursue their creativity or aesthetic autonomy, which is consistent with the literature on MACOs (section 2.2.2). It also reflected the experiences of supporters and members relating to concerns about government and corporate surveillance noted in the literature, section 2.2.1. These concerns were due to activism (e.g. Facebook concerns at Rainbow, section 4.4.7), and strained relationships with authorities such as police due to the nature of the art/craft work (e.g. Streets section 4.3.2). The complex creativity-business and creativity-technology tensions experienced by supporters and members of these low-brow MACO communities discouraged reliance on external parties, so they preferred instead independence and connections with trusted people within their tight-knit communities. The Rainbow case study suggests this could change, because they had formed a charitable trust to apply for government and private grants. This change had already resulted in new modernity-related obligations such as maintaining financial records and providing these to the Registrar of Incorporated Societies in NZ (section 4.4.1). Nonetheless, supporters stated they would not accept a grant if it harmed their creativity or way of living (e.g. if the grant stipulated requirements or limitations), which included maintaining their independence.

These experiences relating to obtaining resources to appropriate community-level IS was less of an issue for the managers of the two high-brow communities Kete and Classic. The managers of these communities used revenues to pay for tech-savvy managers and/or administrators (e.g. Graphic-Designer-Writer’s position at Classic, and the positions held by Internal-Centre-Manager2 and Receptionist-Craftswoman at Kete). These positions were funded using the revenue streams summarised in section 5.2.1, such as fees and sales percentages from MACO members. This suggests these communities had some similarities to prior (dated) IS articles on co-located SME/MSB communities (see Table 5.8), because they paid costs and secure large government grants (compared to low-brow communities) for community-level IS (Kete’s drop-in centre, section 4.2.6), or were prepared to use external parties to develop their website (Classic section 4.5.5).

The cross-case findings suggest the supporters of high-brow MACO communities were more inclined than low-brow MACO communities to engage with government
and commercial businesses for support. Nonetheless, the Kete and Classic manager experiences still revealed difficulties with obtaining funding for community-level IS, which resulted in slightly unconventional methods of funding such as shared IS with external parties (Kete section 4.2.2) and bartering to procure IS solutions (Classic section 4.5.5). There was a subtle difference, however, between the manager stories between the high-brow and low-brow communities. Rainbow and Streets managers preferred less reliance on these external parties, while the Kete and Classic managers desired greater financial support from these parties but struggled to obtain it due to such reasons as the reduced post-GFC funding. In the case of Kete, managers were willing to engage with the local government, which provided a large portion of their funding, to find low-cost alternatives to resourcing community-level IS such as the shared license for the EBS (section 4.2.2). The difference between Kete and Classic was that Kete managers struggled to run many art/craft spaces with large operating expenses, similar to medium-sized enterprises, while Manager-Artist at Classic was similar to other for-profit MSBs reported in the literature who struggled financially to appropriate IS (see section 2.1).

It was similarly interesting that Kete and Classic managers did not describe accounts of volunteers helping with community-level IS appropriation (including MACO members offering communal-IS in the form of IS tools/resources), as found at Rainbow and Streets. Internal-Centre-Manager1 explained this was due to a change in youth expectations of being paid rather than volunteering (section 4.2.2). The cross-case findings of other communities which had attracted volunteers suggests there were other nuanced reasons at Kete such as local council bureaucratic control over Kete’s community-level IS appropriation (e.g. section 4.2.5) and the difficulties experienced by Kete managers in establishing a community spirit among MACO members (section 4.2.1). At Classic this may have been due to the minimal daily interactions among MACO members which resulted in a reduced level of community spirit (section 4.5.1). This appeared to have the effect that, when community-level IS appropriation could not be handled using internal personnel and financial resources, the managers of both these high-brow communities had little choice but to seek help from external parties. In this sense, their experiences are similar to owner/managers of SMEs/MSBs who often rely on external parties for IS solutions (section 2.1) when they lack internal expertise or the help of family/friends. External parties such as
government require business cases, and businesses require payments, so that the financial constraints experienced by managers then result in challenges such as bureaucratic control by government and difficulties finding money for IS vendors.

The common experience of all managers of the four MACO community organisations concerning limited financial resources meant it was perhaps not surprising they favoured free community-level IS, as shown in Table 5.7. The main contribution to IS knowledge is providing insights into the nuanced differences in how supporters (especially managers) experienced financial constraints which led to the appropriation of such community-level IS. It fills the gap in knowledge concerning such supporter experiences (section 2.3.3), and shows that these nuanced experiences can result in different motivations and paths to the appropriation of similar community-level IS such as websites and Facebook pages, and not just differences in the types of community-level IS which are appropriated.

The next section examines supporter experiences regarding if/how the various community-level IS delivered benefits which helped with the economic survival of their co-located MACO communities.

5.5.2 Supporter experiences using MACO community-level IS for economic survival

Supporters had experiences relating to if/how community-level IS offered business (i.e. modernity) benefits that helped the economic survival of their MACO communities. Table 5.9 summarises two emergent themes from the cross-case analysis relating to how community-level IS enabled and threatened this economic survival. The first theme concerned whether the IS helped reduce costs and/or increase efficiencies internally to the MACO community organisation, and the second theme related to whether the IS helped increase revenue to the community and/or individual MACO members.
Table 5.9: MACO community-level IS enabling/harming economic survival

<table>
<thead>
<tr>
<th>Objective</th>
<th>Enabling economic survival</th>
<th>Harming economic survival</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community-level IS to reduce costs and/or increase efficiencies in the MACO community organisation</td>
<td><em>Kete</em> administrators used the EBS to achieve internal efficiencies by replacing paper and many spreadsheets (section 4.2.2 and 4.2.3). It resulted in efficiencies that made it easier to run the drop-in centre (section 4.2.6). <em>Kete</em> managers felt that community-level IS resulted in higher workloads (section 4.2.7). <em>Kete</em> managers found that digital grant applications added expense because committee members wanted printed applications. The committee found many MACO members did not have a website showcasing their work. <em>Kete</em> wanted MACO members to print and submit, but found MACOs would submit applications electronically to avoid printing costs (section 4.2.9).</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Kete</em> managers provided grant application forms online for MACO members to reduce printing costs. Grant committee members preferred applicants to have websites so they could view artwork to make a decision more efficiently/easily (section 4.2.9).</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Rainbow</em> supporters used its broadband connection to do administration tasks (e.g. pay rent) quicker and easier (section 4.4.2).</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Kete</em> managers felt that community-level IS resulted in higher workloads (section 4.2.7).</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Kete</em> managers found that digital grant applications added expense because committee members wanted printed applications. The committee found many MACO members did not have a website showcasing their work. <em>Kete</em> wanted MACO members to print and submit, but found MACOs would submit applications electronically to avoid printing costs (section 4.2.9).</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Rainbow</em> administrators used the EBS to find out which MACO members owed rent (section 4.2.2-3). Staff told MACO members rent collection was to support <em>Kete’s</em> economic survival so members did not feel they were being monitored or seen as revenue sources.</td>
<td></td>
</tr>
<tr>
<td>Community-level IS used to increase revenue to the community and/or MACO members</td>
<td><em>Streets</em> (section 4.3.2) and <em>Classic</em> (section 4.5.5) supporters established websites to sell MACO member artwork. <em>Streets</em> website led to (low) paid work for MACO members (section 4.3.2). <em>Streets</em> (section 4.3.2) and <em>Classic</em> (section 4.5.5) websites generated limited online sales. It mainly led to unwanted teaching job offers at <em>Classic</em> (section 4.5.5). Resulted in wasted community time setting it up. <em>Classic</em> owner felt the Internet and smartphones had opened the industry to cheap, low-quality, copied artwork and global competition, and <em>Classic</em> could not succeed against this threat (section 4.5.5). He also felt e-books threatened sales in his book trade (section 4.5.8).</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Streets</em> supporters used IS-based printer to create merchandise for sale, promoted globally via Facebook. They were also used to raise funds for a charity (section 4.3.6). <em>Classic</em> owner felt the Internet and smartphones had opened the industry to cheap, low-quality, copied artwork and global competition, and <em>Classic</em> could not succeed against this threat (section 4.5.5). He also felt e-books threatened sales in his book trade (section 4.5.8). <em>Streets</em> supporters found the IS-based printer expensive to run. Led to using cheap inputs (e.g. ink) resulting in printer failure (section 4.3.6).</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Graphic-Designer-Writer</em> at <em>Classic</em> used a digital camera and Photoshop to design books, which were printed commercially, to promote and sell online globally via website and then Facebook (section 4.5.2). <em>Classic</em> owner felt the Internet and smartphones had opened the industry to cheap, low-quality, copied artwork and global competition, and <em>Classic</em> could not succeed against this threat (section 4.5.5). He also felt e-books threatened sales in his book trade (section 4.5.8).</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Kete</em> administrators used the EBS to find out which MACO members owed rent (section 4.2.2-3). Staff told MACO members rent collection was to support <em>Kete’s</em> economic survival so members did not feel they were being monitored or seen as revenue sources.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>A Rainbow</em> supporter learned accounting online to help the community apply for grants via the <em>Rainbow’s</em> broadband connection (section 4.4.2).</td>
<td></td>
</tr>
</tbody>
</table>

The two themes emerged based on a hermeneutic analysis of the 13 articles on co-located SME/MSB communities, which were compared to the cross-case findings. This article analysis led to a synthesis of the articles relating to economic survival benefits. Unsurprisingly, the SME/MSB centric nature of this research (section 2.3.3) meant the economic benefits reported were primarily from the SME/MSB
owner/manager perspective, not supporter or community perspectives. Some articles only looked at e-portal adoption barriers and/or motivations (Gengatharen 2008; Tan & Macaulay 2007; 2011), anticipated rather than achieved benefits (Galloway et al. 2004), or reported on one or more case studies where benefits were not realised (Fisher & Craig 2005; Gengatharen & Standing 2005; Tatnall & Burgess 2009). The only articles reporting achieved benefits by SME/MSB members, which were consistent with the two major types of benefits found in this study, were as follows:

- **Reduced costs and/or increased efficiencies for SME/MSB members** from:
  - lowering search, communication, advertising and/or transportation costs and/or time (Brush & McIntosh 2010; Gengatharen & Standing 2005; Gengatharen et al. 2005; Sellitto & Burgess 2005),
  - removing third parties from the supply chain which added costs to improve (direct) customer relations (Brush & McIntosh 2010), and
  - lowering costs due to service aggregation to SME/MSB members (Lorenzini 2014).

- **Revenue for SME/MSB members** from increased sales and/or new markets opening up (Brush & McIntosh 2010; Lorenzini 2014; Mason et al. 2006; Sellitto & Burgess 2005), or from improved rural/regional community profile (Gengatharen et al. 2005) leading to visitors to the area and then physical sales (Sellitto & Burgess 2005).

It was important to compare the cross-case findings to this literature, despite their differing scales, because MACOs and their communities often did not privilege economic benefits over art/craft creativity. This was apparent in the literature on MACOs showing that the pursuit of economic benefits is associated with modernity, and that artists/craftspeople often reject modernity and prioritise creativity at the expense of financial gain (sections 2.2.1 and 2.2.2). The findings in this section will be juxtaposed with those in section 5.6 later, which reports on supporter experiences with community-level IS helping with art/craft creativity.

The first theme in Table 5.9 shows that supporters at *Kete* and *Rainbow* used community-level IS (EBS and broadband respectively) to achieve efficiency/cost
benefits, and that not all supporters experienced such outcomes. *Kete* administrators, *Rainbow* supporters and the *Classic* owner shared positive experiences with disparate efficiency/cost reduction benefits from various community-level IS (e.g. EBS and the bartering system were supporter-IS, broadband and associated tools at *Rainbow* were communal-IS). *Kete* managers, however, had negative experiences such as increased workload from supporter-IS such as email, and not receiving cost savings from providing grant application forms online to MACO members (communal-IS).

These findings suggest that co-located MACO communities can seek modernity-related efficiency/cost benefits, but the link to modernity was nuanced and varied between the case studies. For *Kete*, their cost reductions were the result of modernity-driven local councils imposing modernity on MACO communities by requiring them to be partially self-funding (sections 5.2.1 and 5.2.3). This pressure then resulted in *Kete* managers being concerned that MACO members were lowering their costs by passing these costs onto *Kete* (see Table 5.9). For *Rainbow*, by contrast, supporters focused on time-saving rather than cost reductions by completing tasks online, which was more consistent with their rejection of modernity. The experience of the *Kete* managers perhaps emphasises further why *Rainbow* and *Streets* supporters wanted to avoid modernity-related pressures which could occur if they accessed external revenue with ‘strings attached’ (section 5.5.1).

The efficiency/cost benefits theme extends IS knowledge because previous IS research (sections 5.2.1 and 5.2.2) tends not to view co-located SME/MSB communities as organisations which can use IS for efficiency/cost benefits, and instead focuses on the SME/MSB perspective. The cross-case findings imply there is merit in viewing MACO community organisations as SMEs/MSBs in their own right (section 5.2.2). This may also be important for SME/MSB community organisations which could require supporter-IS to manage the much larger numbers of SME/MSB members (and other community stakeholders) efficiently and cost effectively.

There also appears to be merit in comparing supporters’ nuanced experiences with those of SME/MSB owner/managers using IS for efficiency/cost benefits in their independently-operated firms. The IS literature on SMEs/MSBs more generally examines such benefits (and challenges) extensively from the owner/manager perspective (e.g. Barnes et al. 2012; Bidan et al. 2012; Cragg et al. 2011; Eikebrokk
The main difference between the viewpoints of community organisation supporters and SME/MSB owner/managers is that MACO community supporters are trying to help members with art/craft creativity, not their own business needs. Further, MACO communities create nuances regarding IS used for efficiency/cost benefits, such as the tension between creativity (aesthetic autonomy) and traditional business (modernity) goals.

The second theme in Table 5.9 reveals that supporters in co-located MACO communities can appropriate community-level IS to increase revenue for the community (e.g. rent arrears, community merchandise) and/or for MACO members (e.g. artwork sales). The latter is consistent with the literature on revenue (modernity) benefits from SME/MSB use of e-portals (see examples listed above). It is also consistent with the literature on SMEs/MSBs in general, which use IS such as websites for promotion and sales (section 2.1). Interestingly, however, the cross-case findings revealed that direct sales of artwork online was not achieved by MACO members via community-level IS such as websites (Table 5.9). The findings instead confirm the few MACO studies (e.g. Pasquinelli & Sjöholm 2015) finding that art/craft work sales are instead mainly achieved face-to-face at locations such as galleries and during events such as exhibitions and festivals. Manager-Artist’s (Classic) belief that the internet increases access to large quantities of cheap and low-quality artwork, which is consistent with the limited IS-related MACO studies (Jakob 2013), may help explain this. The preference of some supporters for buyers to view artwork face-to-face adds another nuanced dimension (e.g. Event-Organiser-Artist, Rainbow section 4.4.4).

The cross-case findings in Table 5.9 show that supporters from Kete, Streets and Rainbow all had some positive experiences with using community-level IS to increase community-related revenue, but in quite different ways. Again, this finding extends IS knowledge which largely ignores the co-located SME/MSB (MACO) community level, and focuses on the individual SME/MSB level. Nonetheless, a few articles reported that e-portals in co-located SME/MSB communities were intended to facilitate ‘buy local’ purchasing (see section 2.3.2), which is a community-related benefit. A further example of this community spirit was Streets supporters describing how they raised funds for a charity. Section 5.6.5 explores this community-based
view further when examining supporters’ experiences using community-level IS to promote events, which can then result in physical sales during traditional art/craft community approaches. This is similar to the findings of Sellitto & Burgess (2005) regarding the use of an e-portal by a rural wine district of Australia.

The cross-case findings also extend IS knowledge relating to co-located SME/MSB communities by showing nuanced issues associated with appropriating community-level IS for revenue raising. Supporter experiences at Kete showed they had to be careful using their event booking system (EBS) to collect rent arrears, because MACO member concerns over IS-based monitoring meant there was a delicate balance to ensure members did not react negatively to such appropriation, while at the same time achieving economic survival outcomes. The owner/manager perspective focus in the literature on co-located SME/MSB communities meant it is unclear if such nuances are relevant when operating such community organisations.

The next section shows that supporters tend to focus more on art/craft creativity outcomes when appropriating community-level IS in co-located MACO communities, whereby creativity has a higher priority than economic survival.

5.6 Supporter experiences appropriating community-level IS to help with art/craft creativity in co-located MACO communities

This section answers the research question by exploring supporters’ experiences when appropriating community-level IS to help with the art/craft creativity of their co-located MACO communities. The multi-faceted nature of art/craft creativity in these communities is examined progressively in the next sections to examine the nuances of how supporters experienced community-level IS appropriation. The first two sections summarise how the supporters’ (section 5.6.1) and MACO members’ (section 5.6.2) art/craft creativity shaped supporters’ appropriation (especially use) of community-level IS, as well as which community-level IS were appropriated and how. Section 5.6.3 extends this by reporting how supporters reinterpreted some community-level IS so that the IS were acceptable to MACO members holding creativity-related cultural beliefs. Supporters also shared their experiences with appropriating community-level IS to promote their communities’ creative culture (section 5.6.4) and events (section 5.6.5). The final section explores supporter
experiences regarding if/how MACO members used community-level IS for communication among each other (section 5.6.6).

5.6.1 Supporters’ creativity and appropriation of MACO community-level IS

Supporter experiences regarding community-level IS appropriation in their respective MACO communities showed most supporters were artists/craftspeople. Table 5.10 summarises the types of supporters from section 5.4 and shows that, with the exception of Internal-Centre-Manager2, all supporters interviewed were artists/craftspeople with their own MACO practices. This implied the majority of the supporters involved in appropriating community-level IS (both supporter-IS, and communal-IS for use by other MACO members) had knowledge of the views, expectations and fears of other artists/craftspeople in their communities.

Table 5.10: Art/craft background of MACO community supporters

<table>
<thead>
<tr>
<th>Resources</th>
<th>Kete (high-brow, urban)</th>
<th>Streets (low-brow, urban)</th>
<th>Rainbow (low-brow, rural)</th>
<th>Classic (high-brow, rural)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers had MACO practices</td>
<td>All except Internal-Centre-Manager2</td>
<td>Yes, but Owner-Artist2 stopped to run the community</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>IS technicians had MACO practices</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Administrators had MACO practices</td>
<td>Yes</td>
<td>No administrators</td>
<td>No administrators</td>
<td>Yes</td>
</tr>
<tr>
<td>Consultants had MACO practices</td>
<td>Yes</td>
<td>No consultants</td>
<td>No consultants</td>
<td>No consultants</td>
</tr>
</tbody>
</table>

The cross-case findings revealed there were differences between high-brow and low-brow communities in terms of how supporters experienced the opportunity to exercise their creativity when appropriating community-level IS. For the supporters in high-brow MACO communities, they found that their paid positions often resulted in limited opportunities to use their creativity. Kete managers and administrators, for instance, found that the council controlled community-level IS, such as not allowing Kete to have its own websites or to use IS to create advertising (see section 4.2.5), which were two areas supporters such as Receptionist, Receptionist-Craftswoman and Drop-in-Manager-Artist (Kete section 4.2.1) could have exercised their creativity. Instead, they were restricted to using the EBS for routine tasks such as bookings and payments. Graphic-Designer-Writer (Classic section 4.5.1) found she had more opportunities than Kete counterparts to use her creativity when producing...
advertising brochures and maintaining the *Classic* website. But other outlets for her primary art/craft interest of writing were limited because these aspects of *Classic’s* business (book reviews, the bookshop) were reduced (section 4.5.8). In both case studies, supporters found they experienced limited personal autonomy, such as the ability to be creative, when appropriating community-level IS. The findings suggest managers at high-brow case studies (i.e. council managers at *Kete*, and *Manager-Artist at Classic*) had a reasonably high degree of control over supporters, including managers at *Kete* (by the council) and administrators in both MACO communities.

The manager and/or technician supporters in low-brow MACO communities, by contrast, who volunteered skills to help appropriate community-level IS were given greater creative license to design (e.g. *Focaliser-Sound-Technician at Rainbow* section 4.4.3), advise on and influence the design (*Website-Designer-Photographer at Streets* section 4.3.3) of community-level websites. Similarly, *Technician-Video-Jockey at Streets* section 4.3.8) had creative license regarding how to use IS-based technology he loaned to help with community-based creative events.

The willingness of focalisers/technicians at *Rainbow* to volunteer their IS skills may reflect that they were closer to the extreme example noted in the literature (section 2.2.2) of artists/craftspeople who gave up financial security for creativity. As noted in section 5.4.3, they were happy to do this because they were recognised in these MACO communities as artists/craftspeople in their own right, and it enabled them to escape modernity. In contrast to the supporters of the two high-brow communities, supporters in low-brow communities such as *Focaliser-Sound-Technician* and *Craftswoman* had creative autonomy over the website of the low-brow *Rainbow* community (section 4.4.3), and could balance this around their other creative and personal interests. The cross-case findings suggest their volunteer roles, in part at least, may help explain why they had full autonomy compared to their counterparts in the high-brow communities. In other words, they were allowed to exercise their creative autonomy because they volunteered.

The cross-case findings suggest, however, that some supporters in high-brow and low-brow communities had similar negative experiences regarding community-level IS appropriation, specifically relating to the increase in workload due in part to these IS. Specifically, some managers found their use of community-level IS led, in part, to
them giving up their own creativity as artists/craftspeople. Owner-Artist2 (Streets section 4.3.2) gave up being an artist because he could not manage artwork while running his IS business to fund Streets (IS) initiatives, and maintain the community-level IS (mainly communal-IS). Similarly, Internal-Centre-Manager1 (Kete section 4.2.7) found the workload associated with the supporter-IS (e.g. email) too much, and resigned to focus on her creative pursuits. This is because such IS resulted in managers being more contactable and expected to work from any location, including home. This shows that community-level IS appropriation can be a partial reason for supporters not pursuing their creativity. Other managers at Kete (External-Council-Manager and Drop-in-Manager-Artist) found using community-level IS (primarily supporter-IS) had become more part of their daily life (section 4.2.7), thus reducing the time they could spend on creative pursuits. In other words, it did not stop them being artists/craftspeople, but it reduced time for this work. A nuanced variation of such negative experiences from community-level IS appropriation was how Rainbow focalisers found it difficult being indoors away from sunlight and gardening while designing the Rainbow website (section 4.4.3). This was a significant issue, because these supporters’ creativity was connected to nature, and appropriating (designing, maintaining) community-level IS reduced this opportunity. This would also have been a concern to them while using community-level IS for other tasks.

Overall, these findings emphasise that supporters in co-located MACO communities found that appropriating community-level IS could come at a creative cost to those in management and administrative roles, due to increased workload and/or reduced creative time and autonomy. This is significant for artists/craftspeople whom rely on paid positions in high-brow communities to be able to fund creative work, as emphasised by the creativity-economic tension in the literature (section 2.2.2). This extends IS knowledge by showing that appropriating communal-IS and supporter-IS is not a trivial matter for supporters such as managers and administrators who use/maintain community-level IS in co-located MACO communities. The lack of IS research on supporter experiences in co-located SME/MSB communities (section 2.3.3) means it is unclear if they have similar issues with appropriating community-level IS. Brief comments in some articles suggest this may be the case. For example, some articles (Gengatharen 2008; Gengatharen & Standing 2005; Gengatharen et al. 2005) reported that some supporters spent more time than their paid hours to help run
an e-portal in one co-located SME community (although their roles and difficulties were not reported). This implies that workload issues may have played a role, and may be an issue in co-located SME/MSB (not just MACO) communities.

These findings also highlight a potential contribution to IS knowledge which can be made regarding IS appropriation in SMEs/MSBs more generally, since co-located MACO communities appeared to be SMEs in their own right. For example, the review of the IS literature on SMEs/MSBs by Parker et al. (2015) found there was limited research on the day-to-day use of IS by SME/MSB staff. For instance, there is a need for research, such as the study presented in this thesis, examining the cultural-historical context which can affect post-implementation use of IS, including how such contexts influence if/how IS become ‘invisible’ or part of the day-to-day use of IS. The findings of this study suggest, for example, that certain community-level IS may have the potential to become a valued part of a supporter’s day-to-day activities if there are opportunities for them to exercise their creative autonomy when using such IS. The findings imply there is value in IS scholars exploring the impact of IS (including community-level IS) on the workload of SME staff to investigate if internal cost reductions and efficiencies by some IS are outweighed by an increase in workload by other IS, and/or whether these difficulties are disproportionate among SME staff. This would require more IS studies to go beyond data collection which focuses on the perspectives of SME owner/managers (section 2.3.3) to include other staff within these organisations, even for MSBs with very few staff.

5.6.2 MACO member influences on MACO community-level IS appropriation

Section 5.6.1 highlights that most supporters involved in appropriating community-level IS in co-located MACO communities had good knowledge of MACO member concerns regarding IS, because the supporters were artists/craftspeople. The cross-case findings suggest supporters used this knowledge to ensure member concerns were addressed when determining if/how to appropriate community-level IS. There was evidence that supporters in most of the case studies involved MACO members in IS appropriation decisions. For example:

- **Streets** owner/managers involved MACO members in decision-making relating to the community, which included community-level IS (section 4.3.1).
• *Drop-in-Maori-Consultant-Artist* and *Drop-in-Manager-Artist* at *Kete* engaged in community consultation that changed the direction of the drop-in centre project (section 4.2.6; section 5.6.3 explores this further).

• *Focaliser-Technician-Artist* at *Rainbow* (section 4.4.8) respected MACO members’ cultural technophobia (section 5.4.1) by avoiding IS use when organising community events (sections 5.6.3 and 5.6.6 explore this further). *Focaliser-Sound-Technician* at *Rainbow* stopped appropriating community-level IS (e.g. his IS tools/skills) for community events when he realised this did not suit the tribal values of some MACO members (section 4.4.9).

Even *Internal-Centre-Manager2* at *Kete* (who was not an artist/craftsperson) ensured MACO member concerns were addressed when convincing the council not to require MACO members to use the EBS for online bookings (section 4.2.4). There was less evidence of MACO member involvement at *Classic*. This could be explained by *Manager-Artist’s* decision-making dominance (section 5.4.1), and the low degree of interaction among MACO members at *Classic* (section 5.5.1) compared to the other three MACO communities (section 4.5).

The cross-case findings are consistent with the synthesis of the fragmented 13 articles on co-located SME/MSB communities. The analysis of the literature implies successful e-portals tended to be those developed/run by (and/or with the involvement of) SME/MSB members (among other success factors). Specifically:

• Articles reporting on unsuccessful e-portals found SME/MSB consultation was limited or low, and/or that representation on steering committees do not reflect local SME/MSB interests (Fisher & Craig 2005; Gengatharen & Standing 2004).

• Articles reporting on successful e-portals revealed there was SME/MSB input into the project (Lorenzini 2014), and/or SMEs/MSBs were involved in running the project due to membership of participating industry/business associations and therefore had strong offline communities already (Gengatharen 2008; Gengatharen & Standing 2005; Gengatharen et al. 2005; Mason et al. 2006; Sellitto & Burgess 2005).

• Other articles did not report on the level of SME/MSB involvement for unsuccessful e-portals (Gengatharen 2008; Gengatharen & Standing 2005;
Gengatharen et al. 2005; Tan & Macaulay 2007; 2011; Tatnall & Burgess 2009), but other failure reasons (e.g. not meeting SME/MSB needs, lack of offline community among SMEs/MSBs) implied lack of SME/MSB involvement. In other cases the e-portals were too new to determine whether they were successful (Galloway et al. 2004).

- One article did not report on the extent of e-portal use or SME/MSB involvement (Brush & McIntosh 2010).

A related experience of some supporters was reinterpreting the nature of community-level IS so they became acceptable to MACO members with indigenous (Maori) and spirituality values and culture, as explained in the next section.

### 5.6.3 Reinterpreting community-level IS to fit MACO community culture

Supporters of two communities (Kete and Rainbow) reinterpreted community-level IS to ensure consistency with the religious/tribal beliefs of MACO members. This was important because members would otherwise view IS as being harmful to their community and their own (creative) values. These cultural values related to privileging the spoken word (Kete section 4.2.7 and Rainbow section 4.4.8) and technology-free connections with nature (Rainbow section 4.4.3). In Maori culture these values included rejection of technology such as IS which was imbibed with Western culture (Kete section 4.2.6). Members of the Rainbow community were influenced not just by Maori culture, but also traditional Western/European tribal beliefs. Supporters described different aspects of this reinterpretation of community-level IS based on their experiences in their communities:

- **Kete** Maori consultants (especially Drop-in-Maori-Consultant-Artist) explained their experience with developing a strategy to liken IS to breathing in spirit into the physical drop-in centre. This meant IS did not conflict with Maori religion when used for collaboration online with distant MACO members and family (section 4.2.6).

- **Focaliser-Sound-Technician** and **Craftswoman** at Rainbow described their experience of aligning the Internet with their spirituality and belief that everything is connected and that the Internet would suffice until everyone could talk telepathically (section 4.4.3).
Despite these differences, supporters at *Kete* and *Rainbow* recognised that community-level IS was appropriate for communication with those separated from their physical location (i.e. the *Rainbow* community’s physical location, and the *Kete* art centre). MACO members who were physically co-located, by contrast, preferred face-to-face interaction. This tension between community-level IS and religion/tribal beliefs was not as applicable to *Streets* and *Classic* because the culture of these two MACO communities was not defined based on religion/tribal beliefs, but rather on low-brow (*Streets*) or high-brow (*Classic*) art/craft work. Nonetheless, face-to-face communication in these communities was valued because this was preferred and the norm in the arts/craft sector. Further, the broader creativity-technology tension among many MACO members meant IS-enabled communication was not always considered acceptable (section 2.2.1).

These beliefs had implications for how *Kete* and *Rainbow* supporters experienced (non-)appropriating various community-level IS. For example, *Focaliser-Sound-Technician* (*Rainbow*, section 4.4.9) and *Focaliser-Technician-Artist* (*Rainbow*, section 4.4.7) did not appropriate IS-based audio tools and IS for internal communications among MACO members (respectively) to recognise member tribal beliefs. Similarly, *Drop-in-Maori-Consultant-Artist* (*Kete*, section 4.2.7) had concerns about the use of electronic customer surveys used by *Kete* managers due to this approach conflicting with Maori culture, but had not voiced this concern at the time of the study. These examples highlight the balancing act supporters face with community-level IS appropriation when it comes to religious/tribal beliefs.

These findings contribute to IS knowledge because it appears to be the first study to examine tensions between religion/tribal beliefs and IS in co-located SME/MSB communities. None of the 13 articles had explored communities with strong religious/tribal influences, which means these articles did not need to consider how supporters dealt with such tensions when appropriating e-portals. Even articles on non-co-located SME/MSB (Avgerou & Li 2013) and MACO (Kuhn & Galloway 2015; Kuhn et al. 2016; Nolan et al. 2007; Noor & Nordin 2012) online communities do not consider the tensions between religion/tribal beliefs and IS. The closest was Noor & Nordin, who report on an action research project to develop an e-portal for MACOs to share knowledge and preserve Batik art/craft traditions. But these authors...
do not report on how MACO religion/tribal beliefs affected if/how MACOs would use the e-portal, nor the religious/cultural significance of maintaining Batik traditions using IS. Similarly, articles on co-located MACO communities (Bain & McLean 2013; Bendor 2014) have not considered the impact of religious or indigenous culture on the appropriation of IS. The closest was Cardamone & Rentschler (2006) who found evidence of how Australian Aboriginal culture influenced the content of a co-located MACO community website (see section 2.2.3.3).

This study also contributes to the general IS literature on SMEs/MSBs, and specifically to the limited, but growing, studies on ethnic minority SMEs/MSBs embedded in Western developed countries, and their decisions to adopt IS (e.g. Beckinsale et al. 2011; Daniel & Anwar 2014; Elbeltagi et al. 2013; Middleton & Byus 2010; Middleton & Chambers 2010; Zhang et al. 2008). This is because Kete, Streets and Rainbow had ethnic Maori members within their MACO communities embedded in New Zealand. This literature notes that some ethnic cultures (e.g. Chinese, India, parts of the United Arab Emirates) favour face-to-face interaction over IS-enabled communication within their close-knit social networks. The findings of this study confirm this prior research by showing that traditional ethnic Maori culture (i.e. in Kete) also emphasised face-to-face interaction, particularly to support creativity and community. These prior IS studies, however, provide very limited insights into the nuances of these tensions. Instead, they mainly report that such cultural norms are among many barriers leading to non-adoption of IS by ethnic SMEs/MSBs. The thesis extends this IS knowledge by showing how this barrier was overcome through reinterpretation of IS based on Maori religious principles.

This thesis also extends the IS literature on ethnic SMEs/MSBs by showing that such tensions between culture and IS can apply in the case of tribal spirituality (including tribal ideas of Europeans) which, in the case of Rainbow, emphasised values such as ecology over technology. This study also extends IS knowledge by exploring the tension between SME/MSB cultures and IS in more depth and by providing insights into reinterpretations of the role of IS so that it does not conflict with religious/tribal beliefs. Further, this study focuses on how supporters experienced community-level IS appropriation and associated decision-making, rather than the experiences/decisions of SME/MSB owner-managers concerned only with IS appropriation in
their business. The findings of this study emphasise that community-level decisions can be more complex because there is a need to address a range of MACO needs, and not just those of an individual business.

The next section expands on how supporters experienced community culture (i.e. relating to religion, spirituality, and broader art/craft culture) by exploring how they appropriated particular community-level IS to promote these cultures online.

5.6.4 Supporter experiences promoting MACO culture using community-level IS

Supporters of the low-brow communities Rainbow and Streets described their experiences using community-level IS to educate the broader public about their community culture so people could understand it better. Specifically, Rainbow (section 4.4.3) and Streets (section 4.3.3) used websites (and Facebook in the case of Streets, section 4.3.5) to promote their community cultures. This is similar to co-located SME/MSB communities using e-portals to promote to people outside the community about the community’s rural/regional locations (see section 2.3.2), except that MACO community promotion related to the community’s culture specifically, rather than attributes of a rural/regional location. These findings therefore contrast with other literature on co-located SME/MSB communities which found that the e-portals were intended mainly to encourage ‘buy local’ activities within rural/regional areas (see section 2.3.2). In other words, the community-level IS such as websites and Facebook were more external (outside the community), rather than internal (within the community), focused when it came to promoting community culture. The findings imply, despite the large scale of many co-located SME/MSB communities compared to the MACO communities, there are similarities in some instances regarding IS appropriation aimed at promoting externally the community.

This study also extends IS knowledge by showing there were nuanced differences in how the two low-brow case studies used community-level IS to promote their culture. Rainbow supporters aimed to encourage people to rethink the way they live, so that their website was intended to provide educational material to encourage people to question their lives and make changes. Streets supporters, by contrast, were more focused on education so that people external to the community understood their culture. Streets also used its MACO community art/craft culture as a brand and
promoted this via Facebook, which had started to generate revenue for the community (see section 5.5.2). The stories of Streets supporters suggested, however, the main motive for this promotion was to share their creative and cultural passion, more so than gaining financial benefit from merchandise and art/craft work sales.

This study also extends IS knowledge by identifying further nuances associated with the challenges of using community-level IS for such external promotional purposes. For instance, Rainbow had difficulty finding a website template which matched its tribal and modernity rejection values (i.e. creativity-business tension), since most templates they found had a corporate look. Further, Kete supporters described their frustration with their local council not allowing Kete to have its own website (section 4.2.5), which meant supporters were prevented from promoting the Maori culture of some MACO members. It is thus possible that, if such a restriction was not in place, Kete supporters may well have appropriated community-level IS in a similar manner to Rainbow and Streets. Classic was the only case study which did not promote its community culture online, because its website was more focused on selling artwork.

The limited reporting of supporter experiences in the 13 articles on co-located SME/MSB communities meant it was unclear if similar/alternative nuanced issues influenced aspects such as the design of the e-portals for community promotion. These studies often report on success factors, which show e-portal projects are complex due to competing stakeholder interests. The larger scale of these projects mean complexities and nuances would likely be greater in co-located SME/MSB, than MACO, communities. It is thus surprising the articles do not report on supporter experiences dealing with change management and competing stakeholder interests.

5.6.5 Supporter experiences appropriating community-level IS to promote events

All MACO communities had supporters who recalled experiences with appropriating various community-level IS to promote creativity events run by their communities. In the case of Streets, this included promoting community-level events online once the physical gallery was closed. Kete (section 4.2.7), Streets (section 4.3.4), Rainbow (section 4.4.5) and Classic (section 4.5.7) supporters all described their experiences with appropriating community-owned email-lists to invite people to community events/exhibitions.
Similarly, all communities except Rainbow had supporters who appropriated community-level Facebook pages in part to promote events (i.e. Kete section 4.2.8, Streets section 4.3.5, Classic section 4.5.9). Rainbow supporters explained how physical violence at an event after individual MACO members used their personal Facebook pages to send invites. This resulted in Facebook not being used for this purpose, which highlights the risks artists/craftspeople can face appropriating IS (section 4.4.7). Facebook pages typically replaced websites at Kete, Streets and Classic for promoting events, because they found Facebook to be more effective. A further reason was that Classic (section 4.5.8) and Streets (section 4.3.5) supporters found maintaining multiple IS (e.g. website, Facebook and blogs) too difficult. The important role of Facebook was further highlighted by the experiences of Streets (section 4.3.7) and Classic supporters (section 4.5.9) when they ran their galleries virtually when they had to close permanently and temporarily (respectively).

Overall, these findings relating to appropriating community-level IS to promote community events is consistent with the IS literature on e-portal appropriation by co-located SME/MSB communities being used to facilitate trade external to the community (section 2.3.2). This is because MACO members in the four communities tended to sell art/craft work at such events such as exhibitions (Pasquinelli & Sjoholm 2015), as found in some IS articles on co-located SME/MSB communities (section 5.5.2). This is further supported by the finding that Streets and Classic introduced community-level websites to promote and sell the art/craft work of MACO members (section 5.5.2). MACO websites in this sense were similar to the e-portals appropriated by co-located SME/MSB communities reported in IS articles, because the aim was to connect with and promote/sell to an audience online. A key contribution of this study to the IS literature was identifying a range of community-level IS, in addition to e-portals (i.e. websites), which can be used for this purpose such as Facebook pages and email-lists.

The findings extend the IS literature by revealing nuances associated with supporter experiences with using these IS to promote community events. Specifically, the interactions among people and the celebration of art/craft creativity appear to be the primary benefit of the events, more so than art/craft sales (i.e. economic survival). For example, the account by Owner-Artist1 (Streets section 4.3.5) describing the
“massive opening nights and it’s carnage” implies events are more than occasions to sell art/craft work. The events were about the community spirit, face-to-face interactions and art/craft creativity. This was also apparent from the accounts of Owner-Artist2 (Streets section 4.3.7) and Manager-Artist (Classic section 4.5.9) when the MACO communities went virtual and they lost their connections with MACO members and others in their creative community. Rainbow supporters had similar experiences, where events were an opportunity for them to share their love of nature or the environment with like-minded people (sections 4.4.3 and 4.4.5).

The large scale of co-located SME/MSB communities, and SME/MSB trade focus of e-portals, may mean supporter experiences could be different than in this study. Supporter experiences in co-located MACO communities may be closer to MSB owner/managers enjoying interpersonal connections with customers (e.g. Castleman 2004) than to supporters running SME/MSB communities. Nonetheless, some of the 13 articles on co-located SME/MSB communities report on community-level IS supporting business networks, which often include regular meetings (e.g. Mason et al. 2006). It is plausible that supporters of such communities could enjoy these events, and could perceive community-level IS appropriation as a means to a social end. The limited IS research on supporter experiences, however, means there is a lack of knowledge about these nuanced aspects of their appropriation experiences.

This study extends IS knowledge by providing further nuanced insights into the potential harm/tensions supporters of co-located SME/MSB (MACO) communities can face when using community-level IS. This included, as stated earlier, event violence in the case of Rainbow, and the difficulties some supporters had maintaining multiple community-level IS. Another nuance was Manager-Artist’s (Classic section 4.5.7) view that his patrons preferred paper-based invitations and that community-level IS such as email did not portray the prestige image for the Classic art gallery. Patrons preferred paper-based invitations, even when the gallery closed for renovations, because they tended to be older patrons who were less comfortable with IS, and because it was part of their high-brow art experience. At Rainbow there were tensions between supporters and Rainbow members on whether to replace some IS (e.g. Facebook) with alternatives which were less likely to be monitored by authorities (section 4.4.7). There were tensions between Kete supporters and the local
council, because *Kete* supporters found their reliance on council funding meant they could not have their own website for promoting events. This was because the council wanted the recognition for the gallery and the control over the production of (online) advertising material (section 4.2.5).

Overall, the cross-case findings emphasise that community-level IS can result in potential MACO community problems and not just positive outcomes when the IS are appropriated to promote community events. This was also highlighted in section 5.6.3, which examined tensions between IS and community-level religious/tribal beliefs at *Kete* and *Rainbow*, due to MACO member concerns that IS would replace face-to-face communication. Further implications of these findings are explored next.

**5.6.6 Supporter experiences with community-level IS appropriated among MACO community members**

The review of the literature on co-located SME/MSB communities shows that e-portals were primarily used to facilitate trade among SMEs/MSBs (section 2.3.2) which, by extension, involved online interaction among SME/MSB members. These e-portals were also often used for communication with stakeholders external to the SME/MSB communities. The cross-case findings on community-level IS appropriated by the four co-located MACO communities (section 5.3.1, Table 5.3), by contrast, suggests most IS were not used among MACO members for communication within the communities. Table 5.3 shows that MACO members at *Streets* and *Classic* used community-level Facebook pages, but primarily after the communities closed permanently and temporarily (respectively). The only exception was young MACO members who used the *Streets* Facebook page to keep in contact with each other when not at the physical gallery (section 4.3.5). Sections 5.6.4 and 5.6.5 showed that community-level IS were mainly used for communication with stakeholders external to the co-located MACO communities, including MACO members keeping in contact with artists/craftspeople who were not in close proximity, which was more consistent with the SME/MSB community literature.

This study, in contrast to most of the articles on co-located SME/MSB communities, shows community-level IS are not always suitable/desirable for communication or information exchange among SME/MSB members in some co-located communities.
(i.e. MACO communities). Lorenzini (2014) and Sellitto & Burgess (2005) were exceptions, which also found that community-level IS (e-portals) were only for promotion and trade/communication with parties external to the community, and not used by SME members to communicate with each other. The contrast in findings can be explained in part because the co-located SME/MSB communities explored in the IS literature often covered larger physical areas (section 2.3.1) than the co-located MACO communities in this study. However, the fact that young members used Streets’ Facebook page when they were not at the gallery shows that community-level IS can be used even when members co-locate in the same building or property.

The cross-case findings showed that various nuanced issues contributed to why community-level IS tended not to be used among MACO members, including their religious/tribal beliefs privileging face-to-face communication (section 5.6.3), concerns about being monitored using community-level IS (section 5.5.1), technophobia and anxiety about IS (section 5.4.1), and/or rejection of technology imbibed with business principles (Rainbow, sections 4.4.1 and 4.4.8). The experience of Owner-Artist2 (Streets, section 4.3.5) vetting Facebook posts to protect MACO members from ‘beefing’ (flaming, online arguments) highlights a further nuanced challenge. In other words, MACO members often desired or needed protection online because they can become targets of abuse due to their marginalisation in mainstream society. This was also noted in the case of violence at an event at Rainbow following Facebook invitations (section 5.6.5), and how Kete supporters used their internal EBS to secure the gallery against unauthorised access so MACO members felt free and safe to express themselves and their art/craft creativity (section 4.2.2 and 4.2.3). These examples highlight that, for MACO community supporters and members, face-to-face interactions were safer and not necessarily about personal preference.

Overall, the dominant method for communication among members in co-located MACO communities was face-to-face (section 5.6.3). This was emphasised further by supporters’ experience with appropriating community-level IS to increase operational efficiencies of running the co-located MACO communities so members, including supporters, could focus on their art/craft creativity (section 5.5.2).
5.7 Conclusion

In conclusion, the cross-case analysis revealed complex, nuanced aspects to and influences on internal supporters’ experiences with appropriating community-level IS intended to help with the art/craft creativity and economic survival of their co-located MACO communities. The analysis showed that supporters had experiences at different levels. There were macro-level influences in some communities, such as those in elite circles (especially supporters in high-brow communities), local councils and grant funding bodies influencing if/how supporters could appropriate community-level IS. For supporters in low-brow communities, the macro-level influences included escaping modernity (i.e. the business world) to focus on art/craft creativity. At the community-level, there were differences between low-brow and high-brow communities influencing supporter experiences, as well as experiences with some commonality between these communities. The religious/tribal cultures of MACO members in some communities (such as privileging face-to-face interaction and rejecting IS uses imbibed with Western/business values) also had a significant influence on the experiences of supporters concerning if/how community-level IS were appropriated. At the individual supporter-level there were also experiences with community-level IS appropriation, such as increased workload resulting from the use of multiple community-level IS and reduced time for their own art/craft creativity.

The cross-case findings suggest that an overriding aspect of supporter experiences with appropriating community-level IS was how such IS contributed to (or harmed) the art/craft creativity pursuits of supporters themselves, and their MACO community members. Such considerations often took precedence over whether community-level IS were appropriated to improve the economic survival of the communities. In this sense, the day-to-day creative lives of supporters and their MACO members had an influence on appropriation experiences.

The next chapter reviews established theories used in the IS and other disciplines to identify those which offered potential as an overarching conceptual framework for making sense of these complex, nuanced aspects of supporter experiences with appropriating community-level IS in their co-located MACO communities.
Chapter 6: Theory discussion

6.1 Introduction

This thesis has explored internal supporter experiences appropriating community-level IS intended to help with the art/craft creativity and economic survival of co-located MACO communities. Chapters 1 and 2 stated that most IS literature on SMEs focuses on owner/manager experiences, including the 13 articles found which examine e-portal appropriation by co-located SME/MSB communities. Chapter 2 also showed there has been limited IS research on MACOs generally, and that the arts management literature mostly overlooks the role of IS in MACOs and their communities. This lack of research meant it was not desirable to start the study using established theories which could narrow the research design and the emergent themes about nuanced and complex supporter experiences with MACO community-level IS appropriation. Instead, chapter 2 presented a theoretical lens in the form of descriptions of broad terms based on the research question and the empirical (non-theoretical) literature on MACOs to reduce the restrictiveness of the research design.

Emergent complex, nuanced themes associated with supporters’ experiences were explored in chapters 4 and 5. Specifically, chapter 4 presented the stories of how supporters in four case studies (or co-located MACO communities) experienced appropriating community-level IS. Chapter 5 reported on various themes which emerged from a hermeneutic process involving cycles of identifying cross-case themes, comparing these with the literature and identifying new themes from the literature, and re-analysing the cases. This resulted in emergent themes relating to the experiences of supporters appropriating community-level IS, and tensions between art/craft creativity (e.g. art/craft work, member relationships, community culture) and economic survival, in their co-located MACO communities.

The aim of this chapter is to answer the second part of the research question relating to the need to identify an overarching conceptual framework:

How do internal supporters experience appropriating community-level IS intended to help the art/craft creativity and economic survival of co-
located MACO communities, and how can this be conceptualised using an overarching framework?

Specifically, this chapter justifies why Bourdieu’s theory of practice was a suitable overarching conceptual framework (or ‘grand’ theory) which made sense of the cross-case themes presented in chapter 5, and which can be integrated with other established theories making sense of other specific themes found during this study. The chapter starts by reviewing theory used by the 13 articles on e-portal appropriation in co-located SME/MSB communities (section 6.2), due to the *prima facie* similarities to co-located MACO communities, and arguing these theories were not adequate as an overarching framework for co-located MACO communities. Section 6.3 then explains why Bourdieu’s theory of practice was able to make sense of the complex, nuanced experiences of supporters involved in appropriating community-level IS intended to help with the art/craft creativity and economic survival of co-located MACO communities. The chapter also gives examples of other established theories which can be integrated with Bourdieu’s theory of practice (see sections 6.3.6 and 6.4) to provide finer-grained conceptual richness for making sense of specific cross-case themes reported in chapter 5.

### 6.2 Theories used to study co-located SME/MSB communities

The theories used by the 13 articles examining co-located SME/MSB communities and their appropriation of e-portals varied widely. Some articles make minimal use of theory (Galloway et al. 2004; Sellitto & Burgess 2005), or briefly mentioned actor network theory (Tatnall & Burgess 2009). Brush & McIntosh (2010) used the technology-organisation-environment (TOE), and Tan & Macaulay (2007; 2011) used diffusion of innovation (DOI) theory by Rogers (2003), to examine the factors influencing why SME/MSB owner/managers (did not) use an e-portal. Some articles used social capital theory to make sense of how SME owner/managers experienced gaining competitive advantage from collaboration when appropriating e-portals (Lorenzini 2014; Mason et al. 2006). Others used the stages of portal development to examine the failure and success of e-portals (Fisher & Craig 2005; Gengatharen et al. 2005). Gengatharen (2008) used Hofstede’s dimensions of national culture to explore collectivism and individualism associated with e-portal success and failure, and Gengatharen & Standing (2004) extended DeLone & McClean’s IS success model.
Gengatharen & Standing (2005) were notable because they integrated various theories (e.g. DOI theory, resource-based theory, theory of planned behaviour (TPB), technology acceptance model (TAM), institutional theory) into a framework for exploring e-portals success factors. The breadth of theories listed here are also consistent with those used in the IS literature on SMEs/MSBs in general (e.g. see the review by Parker & Castleman 2009).

This raised the question of which of these established theories could offer a suitable overarching conceptual framework for making sense of the emergent cross-case themes in chapter 5. It is beyond the scope of this thesis to review every theory, but the brief examples next are indicative of why the theories used to make sense of e-portal appropriation in co-located SME/MSB communities had limitations as overarching conceptual frameworks for co-located MACO communities and the experiences of internal supporters appropriating community-level IS:

- Theories such as TPB and TAM (and the underlying theory of reasoned action, integrated versions such as unified theory of acceptance and use of technology) are intended to make sense of adoption intentions of individuals (Parker & Castleman 2009). But these theories are not suitable for making sense of community environments and complex nuances associated with IS appropriation faced in SMEs (Parker & Castleman 2009), which also applied in this thesis.

- Resource-based theory (RBT) has some relevance, such as theorising IS competencies within SMEs/MSBs and between SMEs/MSBs and external parties (see Cragg et al. 2011). For example, IS technicians had skills/tools (or resources) which they made available to the co-located MACO community to compensate for the lack of skills by supporters and MACO members (section 5.4). This theory, however, focuses on resources being used for competitive advantage (Cragg et al. 2011; Parker & Castleman 2009). This had limited relevance to supporters’ experience with community-level IS appropriation because many rejected such business philosophies (i.e. the creativity-business tension). Instead, community-level IS were appropriated to enable art/craft creativity. Even community-level IS intended to increase economic survival (e.g. efficiencies, cost savings) were ultimately trying to provide the means by which supporters and/or MACO members could engage in art/craft creativity. Similar
issues apply to Porter’s five forces model, the value chain and generic strategies, which also emphasise competitive advantage when being applied to IS appropriation by SMEs/MSBs in general (Parker & Castleman 2009).

- Actor network theory (ANT) had some relevance because it includes concepts for making sense of why focal actors (or change agents) succeed/fail in changing the practices of other actors (Tatnall & Burgess 2009). The focal actors in the context of this study included internal supporters. One reason why ANT was not suitable for making sense of supporters’ experiences appropriating community-level IS in co-located MACO communities was that ANT treats two types of actors – human (e.g. supporters, MACO members) and non-human (e.g. community-level IS) – as equal (Tatnall & Burgess 2009). The cross-case findings showed that supporters and MACO members often rejected technology and/or privileged interpersonal connections (i.e. creativity-technology tension), so that it would have been inappropriate to conceptualise IS as equal to human actors.

- Social capital theory had some relevance because it includes concepts for making sense of the resources available to members (e.g. SME owner/managers) of a social group (e.g. co-located SME/MSB community) which can be shared and result in collective value (Lorenzini 2014; Mason et al. 2006). For example, the cross-case findings showed that communities benefited from the combined IS skills available among diverse supporters, which enabled community-level IS appropriation (section 5.4). This theory does not, however, provide concepts for making sense of how wider macro issues (e.g. government funding, local council issues) influenced supporter experiences. Section 6.3.6 shows that social capital can instead be part of a broader theory which does provide an overarching conceptual framework for making sense of the cross-case findings in this thesis.

- Institutional theory had some relevance because it includes concepts, such as regulatory, normative and cultural-cognitive pillars (Scott 2008), for making sense of the macro-level issues which impacted on supporters’ experiences with appropriating community-level IS. For instance, the regulatory pillar includes the rules, regulations, policies and procedures which institutions such as government and organisations can introduce to shape the behaviour of members of a social system (Scott 2008). An example of this in the cross-case findings was how Kete supporters experienced the negative aspects of the control of local council over
its appropriation of community-level IS (sections 5.5.1 and 5.5.2). The cultural-cognitive pillar includes the shared beliefs, norms and practices within a social system (Scott 2008), which in the context of this thesis can relate to shared norms and practices relating to art/craft creativity among MACO members. This theory was less useful than alternatives at making sense of the nuances of the day-to-day practices of supporters and MACO members, and how these practices influenced (and were in turned influenced by) their appropriation of community-level IS. It was also less effective at explaining the differences in the cross-case findings between high-brow and low-brow MACO communities compared to the theory identified and explained in section 6.3.

- DOI theory is concerned with how innovations diffuse through a social system, which was not relevant to this thesis. Nonetheless, DOI theory concepts proposed by Rogers (2003) make sense of individual and organisational level appropriation decisions (Parker & Castleman 2009), which is relevant. For instance, characteristics of innovations can make sense of challenges faced by supporters, such as the complexity of some community-level IS resulting in use/learning difficulties (section 5.4.2), and compatibility issues between some IS and their day-to-day work and home life (section 5.5.2), and between the IS and MACO culture (section 5.6.3). The concepts of opinion leaders, homophily and heterophily also appeared to be relevant. For example, supporters were often artists/craftspeople in their own right (section 5.6.1) and sensitive to MACO member concerns (e.g. section 5.6.3), so that they had a homophilous relationship with MACO members, and were often recognised as opinion leaders. But as with institutional theory, DOI theory was less useful than alternatives for making sense of the differences between high-brow and low-brow MACO communities. In addition, appropriation in this thesis included nuances and issues encountered by supporters when they used community-level IS, not just the DOI theory focus on adoption and implementation (Parker & Castleman 2009).

Overall, this brief overview of established theory used in the IS literature to examine e-portal appropriation in co-located SME/MSB communities suggested that an overarching conceptual framework is needed to address various aspects of supporter experiences in the context of co-located MACO communities. As summarised in section 5.7, a suitable theory needed to offer concepts to make sense of the macro-
level context of these communities, community-level differences between high-brow and low-brow communities and the tensions between supporters and MACO members, and the interactions of these levels. The framework needed concepts for making sense of the day-to-day practices of supporters (see section 5.7) and MACO members which shaped (and were in turned shaped by) the appropriation of community-level IS. It needed to make sense of the issues which supporters faced in making appropriation decisions, in addition to their use of supporter-IS.

This thesis does not argue that the theories listed above (and other established theories) are unsuitable for making sense of some aspects of the cross-case findings. Instead, the aim of the thesis, and the next section in particular, is to justify why Bourdieu’s theory offers a potential overarching conceptual framework which makes sense of the macro, community and practice levels of co-located MACO communities, and how these levels influenced supporter experiences with appropriating community-level IS. The argument in this thesis is that some other established theories could make sense of particular aspects of the cross-case findings within the broader conceptual framework offered by Bourdieu.

6.3 Bourdieu’s theory of practice as an overarching conceptual framework

The researcher reviewed the literature in IS and other disciplines for theories which satisfied these various requirements for an overarching conceptual framework. It is beyond the scope of this thesis to review all these theories, but a few brief examples are indicative of the reasons why many established theories were not suitable as an overarching conceptual framework. For example, social construction of technology (SCOT) and social shaping of technology (McGovern & Hicks 2004; Oni & Papazafeiropoulou 2014) do not offer concepts for making sense of the nuanced, complex aspects of the macro-level context of technology appropriation (Howcroft & Light 2010), such as the differences in findings between high-brow and low-brow MACO communities. (Section 6.4 discusses how SCOT can complement the overarching conceptual framework with a focus on community-level IS design.)

Similarly, section 6.2 highlighted the important role of MACO practices influencing supporter experiences with community-level IS appropriation, which suggested that
practice-based theories might be suitable. These theories tend to conceptualise practices and the social structure in which these practices are undertaken as being inseparable. This appeared to be promising, but these theories conceptualised practices and broader social structures in different ways (Nicolini 2012), which meant not all practice-based theories were applicable to co-located MACO communities and internal supporter experiences with appropriating community-level IS in particular. For instance, ANT is a practice-based theory which was not considered suitable as an overarching conceptual framework for the reasons stated in section 6.2. Activity theory (Nicolini 2012) focuses on day-to-day activities including IS appropriation (i.e. an activity is the unit of analysis), and does not offer concepts for making sense of the broader macro-level or differences between low-brow and high-brow MACO communities.

Of all the practice-based theories summarised by Nicolini (2012), Bourdieu’s theory of practice had concepts which helped make sense of the cross-case findings, and therefore had the most potential as an overarching conceptual framework. A key advantage of Bourdieu’s theory is that it offered concepts for making sense of the macro-level (or social structure) of artist/craftspeople practices, including the differences between high-brow and low-brow MACO communities. It also offered concepts for making sense of the practices in which artists/craftspeople engaged. This provided the overarching conceptual framework for making sense of supporters’ experiences with appropriating community-level IS intended to help with art/craft creativity and economic survival of co-located MACO communities.

The next section examines how Bourdieu’s theory has been used by the IS literature to justify the theoretical contribution made by this thesis (section 6.3.1). This is followed by sections introducing the concepts comprising this theory and how they make sense of the cross-case themes in chapter 5 relating to how supporters experience appropriating community-level IS intended to help with art/craft creativity and economic survival in co-located MACO communities. The concepts applied in this thesis and in the IS literature, and summarised in Figure 6.1, are fields (section 6.3.2), habitus and doxas (section 6.3.3), and four forms of capital referred to by Bourdieu as economic capital (section 6.3.4), cultural capital (section 6.3.5), social capital (section 6.3.6) and symbolic capital (section 6.3.7).
6.3.1 Bourdieu’s practice theory used by the IS literature

The approach to identify IS articles using Bourdieu was similar to the approach used to identify articles on co-located SME/MSB communities (see section 2.3.1). The full-text search for IS literature, using “information systems” and terms such as “Bourdieu”, “practice theory”, “habitus” and “doxa” in Google Scholar and EBSCO, identified 30 articles in IS articles which applied one or more concepts from Bourdieu’s theory of practice. The focus was on identifying journal articles, but conference papers were included if they had not been subsequently published in a journal, as used to identify IS articles on co-located SME/MSB communities.

Nineteen of the 30 articles made minimal use of Bourdieu’s theory and associated concepts. Nine articles referred to one or more concepts from Bourdieu’s theory but: used another theory instead (Chu & Robey 2008; de Vaujany 2008; Thompson 2012); discussed or compared practice theories in general (Cox 2012; Feldman & Orlikowski 2011; Vaast & Walsham 2005); or used the concepts minimally, if at all, to interpret findings (Hsieh et al. 2011; Scifleet & Williams 2011; Thinyane 2013). Another ten articles only used the concepts of field and habitus (Fayard & Weeks 2014; Radoll 2009; Richardson 2009; Richardson & Howcroft 2006)\(^\text{10}\), or primarily

\(^{10}\) Note that the co-author, Helen Richardson, in two articles using Bourdieu’s theory (Richardson 2009; Richardson & Howcroft 2006) is not the researcher/author of this thesis.
used only one (Dudezert & Leidner 2011; Kleine et al. 2012; Kvasny 2005; Kvasny & Keil 2006; Lu et al. 2015) or two (Levina 2005) forms of capital.

A synthesis of the remaining 11 articles is presented in Table 6.1 to summarise and comment on the concept(s) used from Bourdieu’s theory. That is, these articles used at least three forms of capital and/or the concept of doxa. Table 6.1 shows that the IS literature generally does not apply all of the concepts identified in Figure 6.1 from Bourdieu’s theory in the one study. The only studies which came close were Gopal et al. (2006) and Newman et al. (2016). Newman et al. (2016) applied all four types of capital to make sense of the barriers and enablers of access to the Internet by young people with disabilities using assistive technologies. While Newman et al. (2016) mention the concept of doxa, they do not use it to make sense of the inequities faced by those with disabilities (versus those without) leading to barriers. Gopal et al. (2006) used the concept of doxa to make sense of the interplay between students and staff regarding practices involving laptops and computer networks, but they did not use the concept of social capital.

Table 6.1: Concepts from Bourdieu’s theory of practice in the IS literature

<table>
<thead>
<tr>
<th>Article &amp; outlet</th>
<th>Habitus/field</th>
<th>Capital</th>
<th>Doxa</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levina &amp; Arriaga (2014) ISR</td>
<td>Yes</td>
<td>Economic Cultural Symbolic Social</td>
<td>No</td>
<td>Applies and differentiates between concepts to practices of users in user-generated content platforms. It is a conceptual (not empirical) paper.</td>
</tr>
<tr>
<td>Ellway &amp; Walsham (2015) ISJ</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Applies concepts to practices after an IS implementation in a call centre.</td>
</tr>
<tr>
<td>Gopal et al. (2006) HICSS</td>
<td>Yes</td>
<td>Economic Cultural Symbolic Social</td>
<td>Yes</td>
<td>Applies concepts to changes in MBA student practices from a mandatory laptop program. Separate findings reporting using three forms of capital.</td>
</tr>
<tr>
<td>Ijab et al. (2012) AMCIS and (2011) ACIS</td>
<td>Yes</td>
<td>Economic Cultural Symbolic Social</td>
<td>No</td>
<td>Examines green IS practices in organisations using some of Bourdieu’s concepts. Does not use separate forms of capital when reporting findings.</td>
</tr>
<tr>
<td>Levina &amp; Vaast (2008) MISQ</td>
<td>Does not mention habitus</td>
<td>Economic Cultural Symbolic Social</td>
<td>No</td>
<td>Examines IS-based offshoring collaborations. Separate reporting of findings using all the forms of capital.</td>
</tr>
<tr>
<td>Newman et al. (2016) ISJ</td>
<td>Does not mention habitus</td>
<td>Economic Cultural Symbolic Social</td>
<td>Brief</td>
<td>Examines the exclusion of people with disabilities through an intervention. Separate reporting of findings using all the forms of capital.</td>
</tr>
</tbody>
</table>
Further, none of the studies in Table 6.1 have applied Bourdieu’s theoretical concepts to an SME/MSB context. This included the limited studies of MACOs and IS (see section 2.2.3), which do not use Bourdieu’s theoretical concepts to make sense of their empirical findings. The literature analysis shows that this thesis makes a contribution to theory, at least within the IS discipline, by determining if all of the concepts in Table 6.1 could be used to make sense of an IS-related phenomenon. The phenomena explored in this thesis was supporter experiences appropriating community-level IS to help with the art/craft creativity and economic survival in co-located MACO communities.

The next sections explain the concepts underpinning Bourdieu’s theory and why they provided an overarching conceptual framework. The first of these sections outlines how Bourdieu’s concept of fields helps make sense of the macro-level context in which artists/craftspeople operate which give rise, for instance, to their creativity-business and creativity-economic tensions. This macro-level in turn influences aspects of supporter experiences with appropriating community-level IS to help with art/craft creativity and economic survival in their co-located MACO communities.

### 6.3.2 Art/craft sector tensions with other sectors: concept of fields

According to Bourdieu (1993), *fields* are groups in society with different norms than other fields. Fields are often broad in nature such as education, politics, business and religion fields (Ellway & Walsham 2015) and, in the case of this thesis, the arts/crafts field (or sector). But fields can also occur at lower levels of granularity, such as work teams in call centres (Ellway & Walsham 2015; Richardson & Howcroft 2006). Each field has its own values and established ways of conducting and organising work and other practices (Ellway & Walsham 2015). Fields engage in power plays or ‘position-taking’ for resources shared among fields (Bourdieu 1993). A field comprises individuals, groups and institutions engaging in position-taking to
secure resources and standing in their field (Ijab et al. 2012; Schultze & Boland 2000). The tensions in a field are understood using the concepts of *habitus* and *doxa* (see section 6.3.3), while this section focuses on the tensions between fields.

The government and academic literature on the art/craft sector (see sections 1.1 and 2.2) shows there can be tensions between the art/craft field and the government and business fields. The global financial crisis (GFC) faced within the New Zealand economy at the time of this study meant various fields (e.g. education, health, business, art/craft, etc) competed for reduced government funding and policy initiatives. At this macro level, government policy in Western countries such as New Zealand can often favour the business field, and/or require other fields to follow norms/values based on business-related philosophies and capitalist ideologies of the business field. For instance, section 2.2.3.1 showed that government literature had a strong business/capitalist orientation and emphasised the need for increased self-sufficiency of the art/craft field, including significantly reduced dependence on government funding. As will be shown in section 6.3.3, these norms/values and approaches within government and business fields influenced the norms/values and tensions among individuals (e.g. supporters and MACO members), groups and institutions in the art/craft field.

The concept of fields, and position-taking between fields for resources, should not be confused with the concept of competitive advantage associated with established theories such as RBT and Porter’s five forces model (see section 6.2). Bourdieu’s notion of position-taking is broader and makes sense of how some fields exert their power (including their view of what constitutes appropriate ‘competition’ for resources) over other fields (Bourdieu 2004). The concept of fields therefore makes sense of how, for instance, capitalist-oriented business/government fields in various countries influence what constitutes legitimate approaches to access resources, such as government revenue. For instance, these fields privilege competitive advantage based on principles such as profit maximisation, business cases and other similar management philosophies (see Parker & Castleman 2009). This reinforces their power over other fields, such as the art/craft field, which do not privilege such philosophies. This notion of position-taking and power between these fields helps make sense of the creativity-business and creativity-economic tensions experienced
by artists/craftspeople, including those in MACO communities. Such position-taking is at the core of Bourdieu’s theory, because it makes sense of the power struggles between fields, such as the political or business fields of modernity against the arts/crafts field, and also tensions within a given field (see section 6.3.3).

The concept of fields thus provided a useful overarching basis for making sense of supporters’ experiences with appropriating community-level IS in co-located MACO communities in the art/craft field. For instance, the cross-case findings suggested that tensions resulted from the interplay between the art/craft field and the government/business fields. For example, the local council (government field) had control over what community-level IS the Kete supporters could appropriate, such as not allowing them to have a website (e.g. section 5.5.2). The local council required partial self-funding by Kete based on business principles, which made sense of tensions between Kete managers and MACO members regarding who pays for printing digital grant application forms (section 5.5.2). Another tension was surveillance of MACO members in art/craft field by authorities from the government field, such as the experience of Rainbow and Streets supporters (section 5.5.1). Further, Rainbow supporters found they had to form a charitable trust (i.e. an organisational form) to apply for grants, even though many members rejected business related principles from business/government fields (section 5.2.1). Bourdieu’s concept of fields (Bourdieu 1993) help make sense of these tensions, whereby business/government fields exerted power over the art/craft field.

A related issue evident in the cross-case findings concerned the added complexity that some co-located MACO communities were influenced by fields in addition to the business and government fields; that is, religious/tribal fields. For example, the cross-case findings (e.g. section 5.6.3) stated that some individual artists/craftspeople in some communities, as well as entire communities of MACOs (i.e. Rainbow), had religious (i.e. Maori at Kete, Streets and Rainbow) or tribal beliefs (i.e. Rainbow). These individuals and communities in the art/craft field were also members of broader religion field(s) with their own values/norms and traditional practices, such as strong connections with nature/ecology as part of Maori and tribal beliefs. Similarly, Streets artists/craftspeople were members of the art/craft field, but also members of ‘hip hop’, street art, surfing, skating, ‘goth’ and ‘punk’ field(s) with their
own norms/values and practices. It was the common interest in art/craft among these artists/craftspeople which connected these fields to the art/craft field, whereby surfing and skating and other interests often had communities in their own right not focused on art/craft. The cross-case findings therefore highlight the interconnections between fields at various levels of granularity, from society level (e.g. government, business and religious fields) to smaller sub-communities.

The cross-case findings (section 5.6.3) suggested there were tensions between the government/business fields, religious field and the art/craft field. For instance, the local council at Kete wanted to design a drop-in-centre with only computers without considering Maori beliefs (e.g. the importance of the spoken word compared to IS-based communication). MACO members and supporters with these beliefs took a position which led to the drop-in centre strategy changing to preserve and support such beliefs and traditional religious/tribal practices (section 5.6.3). This example highlights how complex interplays between various fields can be understood using Bourdieu’s broad conceptual framework.

This section has looked at position-taking between fields. Position-taking within the arts/craft field can be explained using the concepts of habitus and doxa, as described next. These concepts help make sense of the tensions and differences between low-brow and high-brow MACO communities, and their supporters’ experiences with appropriating community-level IS.

### 6.3.3 Low-brow vs high-brow MACO communities: habitus and doxa concepts

**Habitus** refers to the knowledge and rules that are taken for granted within a particular field (Bourdieu 1993); the art/craft field in the case of this thesis. Habitus “...is a system of unconscious schemes of thought and perception or dispositions which act as mediation between [social] structures and practice...” (Bourdieu 1973, p. 72). Habitus is a circular relationship between social structures and day-to-day practices by individuals/groups. That is, day-to-day practices are enacted based on internalising the social structures within the field (e.g. norms, laws, etc), and these social structures are in turn reinforced by those in the field continuing to engage in practices based on those structures within the habitus (Ellway & Walsham 2015; Richardson & Howcroft 2006). For example, the social structure of the business field
includes such principles as competition and profit maximisation which are internalised by managers and staff. These principles influence what are considered to be important, normal day-to-day practices when working in a business, such as analysing competitors, producing business cases and being efficient. These practices in turn reinforce the social structure that competitiveness and profit maximisation are important business principles. This example highlights the circular relationship between the social structures and day-to-day practices in the business field.

The habitus is shaped by the class systems that operate within a field, which is captured by the concept of doxa (see Figure 6.1). These two concepts explain the power plays in a field where, unlike the rules of the field which all members follow in their practices (i.e. the ‘ undisputed’ area in Figure 6.1 ), habitus allows competing doxa to exist in a field resulting in heterodoxy and orthodoxy. Those in the heterodoxy challenge the social structures and practices of the orthodoxy. This means that, while circular social structure and practice relationship in a habitus makes sense of why day-to-day practices remain unchanged, the concept of doxa makes sense of how practices and social structures can change (often slowly) over time.

What constitutes heterodoxy and orthodoxy depends on the field. The work of Bourdieu (1973) on the development of doxa in Algeria, for instance, focused on environmental sustainable practices and the resistance by woman in the habitus of this agrarian society. In this case, the orthodoxy was the male genealogy used to denote family descent, while the heterodoxy was the female genealogy which women reverted to when men were absent. The two opposing poles, representing the heterodoxy and orthodoxy, in the art/craft field are as follows (Bourdieu 1993):

- Heterodoxy where art/craft is done by an artist/craftsperson purely to fulfil their creative pursuits in which aesthetic autonomy is at its highest. Bourdieu (1993) uses the term ‘art for art sake’ or the creative pole). Artists/craftspersons in low-brow communities are often closer to this pole, and typically reject modernity or modern business philosophies and associated technology (represented by the government and business fields) as described in section 2.2.

- The orthodoxy pole is termed ‘economic success’ and is where an artist/craftsperson achieves commercial success from their art/craft work (Bourdieu 1993). However, it also often marks the ‘death of the artist’, because they are
forced to give up their aesthetic autonomy (or creativity) of the ‘art for art sake’ pole to reproduce continually the art/craft work for which they became famous (Bourdieu 1993). Artists/craftspeople who aspire to achieve commercial success are often from high-brow communities, and produce art/craft work desired by those in ‘elite social circles’ (see section 1.1) whose money often comes from government/business fields.

Doxa in the art/craft field is controlled by the consecrated institutions of the art/craft field such as museums and high-brow galleries, and whose purpose is to reinforce the control of art/craft which is created for customers in elite social circles. The money of the elite, at least in developed countries such as New Zealand, typically comes from individuals and organisations from the business and government fields. It is providing financial resources which, among other factors, gives these two fields power over the art/craft field. Artists/craftspeople (i.e. MACOs producing high-brow arts/crafts), groups (e.g. high-brow communities) and consecrated institutions work to maintain the doxa or orthodoxy by ensuring that new art movements operating outside the doxa (and seen as heterodoxy) are restricted in their ability to obtain the scarce resources (e.g. funding from government and patrons) available to the orthodoxy (Gajdosova 2008).

An example of heterodoxy was Streets (section 4.3, low-brow community), which was formed because members were excluded from exhibiting in mainstream galleries and government institutions (i.e. orthodoxy) such as museums (see Figure 6.2). Classic (section 4.5) was an example of an orthodoxy community because it focused on fine arts consecrated by museums and fine-art galleries (see Figure 6.2). The other two MACO communities, Rainbow (section 4.4) and Kete (section 4.2), operated between these two extremes between heterodoxy and orthodoxy in terms of the type of art/craft work they undertook. That is, consecrated art/craft work is that which the artists/craftspeople and their communities of the orthodoxy try to maintain as the only ‘acceptable’ form of art/craft work. This view may be driven by what those in business/government fields view as accepted art/craft work, but the art/craft orthodoxy would also aim to ensure views by those in the business/government fields remain unchanged so that their status in the art/craft field is maintained.

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The position of co-located MACO communities across the continuum in Figure 6.2 did not, however, guarantee their access to resources from the business/government fields. For example, section 5.2.3 explained that both Classic and Streets were not financially sustainable, despite being at opposing ends of the continuum. But Classic supporters did not recount the same extreme experiences as those in Streets, such as MACO members at Streets often receiving low pay for work commissioned by governments arising from community-based promotion on its website (section 4.3.2). This is perhaps most likely explained by Classic supporters receiving comparatively high payments for its consecrated artwork when it was finally sold, even though there were challenges in selling the artwork. An added nuance was that Streets supporters resisted applying for government grants to avoid their reliance on (and influence by) the government field (section 5.5.1).

A further example of how the communities’ positions on the heterodoxy-orthodoxy continuum did not necessarily result in greater access to financial resources was seen when comparing Classic and Kete, but Bourdieu’s concept of fields helps explain this. Specifically, Kete had much greater access to resources, despite not being as orthodox as Classic, but this was perhaps explained by Kete being operated by a local council operating within the government field. The local council, based on broader government policy, recognised that art/craft forms in addition to consecrated...
fine arts should be supported. In this sense the government field still exercised power over the art/craft field, including orthodoxy art/craft communities, to control what funding was made available and to what areas of the art/craft habitus. This included whether to make funding available for the appropriation of community-level IS.

The concepts of habitus and doxa also helped make sense of the differences found between the low-brow and high-brow MACO communities when it came to supporter experiences with appropriating community-level IS. Specifically:

- Section 5.5.1 explained that Streets and Rainbow (low-brow communities) mostly relied on supporters internal to the community to appropriate various community-level IS. This can be understood in part by their heterodoxy whereby supporters were accustomed to a lack of access to resources and the need for self-reliance. Kete and Classic (high-brow communities) supporters, by contrast, were more likely to use external resources to appropriate community-level IS (e.g. website developers in the case of Classic), which was possible because they were more accustomed to accessing external resources from other fields.

- The low-brow communities relied on volunteers for community-level IS appropriation, while high-brow communities often had paid staff who appropriated community-level IS (section 5.5.1). As with the previous point, the concept of doxa can help make sense of this since the heterodoxy (low-brow communities) were seen by supporters as having less access to resources. The orthodoxy supporters were more accustomed, by comparison, to having access to resources from the government and business fields to pay for staff. The financial struggles of the supporters from the orthodoxy communities were at lower levels than that experienced by supporters of the heterodoxy communities.

- Section 5.6.1 showed that the paid positions of Kete and Classic supporters appeared to reduce their opportunities to use their creativity when appropriating (e.g. using) community-level IS, while Streets and Rainbow supporters (i.e. volunteers) were more likely given greater aesthetic autonomy to express their creativity when appropriating community-level IS. This is consistent with their voluntary (heterodoxy, low-brow community) and paid (orthodoxy, high-brow community) roles noted in the previous point. It may also reflect that Classic and Kete were more likely to follow norms of the business/government fields (e.g.
that staff are employed to do specific tasks) from which they received resources. Supporters at Streets and Rainbow resisted these norms and privileged art/craft creativity and autonomy, and this appeared to extend to volunteerism.

- The previous points also relate to the differences in how IS technicians were treated. Streets and Rainbow supporters treated IS technicians as artists/craftspeople in their own right, and provided them with temporary or permanent sanctuary from modernity (section 5.4.3). Kete and Classic supporters’ use of external IS resources was consistent with viewing IS technicians as separate from the art/craft creative process. This was also consistent with the literature suggesting that artists/craftspeople in high-brow areas (orthodoxy) often view IS technicians as separate (section 2.2.1). Supporters (who were artists/craftspeople) from the orthodoxy appeared to see IS technicians as subservient, and viewed their own art/craft work as more legitimate, while viewing the IS technicians’ digital work as a heterodoxy art/craft form.

Bourdieu’s theory, as originally developed and applied some time ago in the art field in Paris, found there were two clear poles (Bourdieu 1993). These poles had arisen due to there being classical art, and also a new doxa which had emerged as a result of cultural changes (or art movements). The differences between the high-brow and low-brow MACO communities support this distinction, but a deeper analysis of the four communities suggests there are more nuanced, complex issues occurring than implied by these two poles. As noted in section 6.3.2, this can be explained using Bourdieu’s concepts when recognising the communities (Kete, Rainbow and especially Streets) were influenced by more than just the business/government fields. Other fields applicable to these communities meant there were other potential poles operating within the habitus of the broader arts/craft sector.

For example, the concepts of habitus and doxa helped make sense of the nuances of some co-located MACO communities relating to community-level IS appropriation arising because of the religious/tribal beliefs and values of MACO supporters and/or members at Kete and Rainbow. As explained in section 6.3.2, religion/tribal customs can be considered part of a religious field. This field can have orthodoxy and heterodoxy (e.g. heresy at the extreme) poles in its own right (Berlinerblau 2001), which can include the rejection of technology such as IS. For instance, the orthodoxy
at *Rainbow* related to environmental sustainability, or living holistically without technology. For Maori members at *Kete*, their religious orthodoxy rejected Western ideologies and associated technology, and privileged the spoken word. There were thus some similarities between the art/craft field and the religious field (and Maori and tribal values) in this respect, because both fields involved rejecting technology, but for different socio-historical reasons. Despite these similarities, the religious and art/craft fields are not interchangeable, because individuals who were not artists/craftspeople could also follow such orthodoxy norms of rejecting technology.

This overlapping of fields at *Kete* and *Rainbow* had an influence on supporter experiences relating to ensuring any community-level IS appropriated did not contravene orthodoxy religious/tribal beliefs of the religious field. For instance, the cross-case findings in section 5.6.3 suggest that MACO members who were more orthodox in their religious/tribal beliefs had a degree of power within the government field which resulted in the drop-in centre project at *Kete* being changed significantly. Nonetheless, the two communities did not prevent supporters and MACO members from appropriating community-level IS entirely, but rather only those IS which impacted negatively on orthodox members. At *Kete* this can be explained in part because not all supporters and MACO members were Maori, so that the government field (via the local council) required members to co-exist in order to benefit from the resources provided. But there were additional nuances (e.g. the desire by supporters at *Kete* to maintain personal relationships) which implied the need for other concepts offered by Bourdieu’s theory of practice to make richer sense of the various issues affecting supporter experiences with such appropriation. Further concepts also appeared to be necessary to make sense of the nuanced reasons behind why community-level IS could still be appropriated by supporters at *Rainbow* despite their tribal views rejecting modern business approaches such as IS.

Overall, this suggests that Bourdieu’s concepts of fields, habitus and doxa can be used to make sense of the sub-cultures within co-located MACO communities and power plays within fields and co-located MACO communities, which can influence supporter experiences with appropriating community-level IS. But there are further nuances associated with supporter experiences which can be understood using other concepts from Bourdieu’s theory of practice; that is, the four types of capital:
cultural, social, economic and symbolic. These forms of capital make further sense of the position-taking activities, because these capitals relate to the types of resources which desired by particular individuals and groups (e.g. co-located MACO communities) within the field. Each type of capital is examined next to explore how they helped make sense of supporters’ experiences with appropriating community-level IS to help with the art/craft creativity and economic survival of co-located MACO communities.

6.3.4 Economic capital and supporter experiences appropriating community-level IS

Economic capital has been of much interest to IS scholars, and includes the financial resources, time and assets available to individuals, groups and organisations (Levina & Vaast 2005; Newman et al. 2016). Reviews of IS articles on SMEs/MSBs (e.g. Haddara & Zach 2012; Parker et al. 2015), including those on KM (e.g. Cerchione et al. 2016; Durst & Edvardsson 2012; Massaro et al. 2016), show that most articles focus on economic capital by exploring the success and challenges owner/managers with using IS to achieve strategic and/or operational (e.g. cost savings, efficiencies) goals (see also section 2.1). These are largely driven by the business field.

This is mirrored in the literature on co-located SME/MSB communities, whereby e-portals were introduced to stimulate trade within and external to their local communities (section 2.3.2); that is, increasing economic capital. As noted in section 6.2, this focus is consistent with the choice of theories that IS scholars use, such as strategy-oriented theories. Alternatively, they use adoption-related theories (e.g. DOI theory, TRA/TPB/TAM) to explore why SMEs/MSBs do not adopt IS such as e-portals to increase economic capital. The macro-level literature on the arts/crafts sector (section 2.2.3.1) suggests the government field argues the arts/craft field can survive, with reduced government funding, by using IS to increase economic capital.

The literature on MACOs highlighted that artists/craftspeople often reject this focus on economic capital by the business/government fields, and that this often resulted in artists/craftspeople struggling financially as they gave up modernity for their art/craft creativity (section 2.2.2). The cross-case findings showed that such challenges were faced by the wider co-located MACO communities, with most having difficulties
with respect to economic survival (section 5.2.3). Bourdieu (1993) explains that it is the accumulation of economic capital (at least sufficient to survive) which provides the freedom to engage in creativity in the art/craft habitus.

Supporters of the four co-located MACO communities had mixed experiences with regards to appropriating community-level IS to help with economic survival of the community and its MACO members. For example, the cross-case findings revealed that supporters’ experience with appropriating websites, based on the business field’s norms of selling art/craft work online, was not successful (section 5.5.2). Instead, the owner of Classic had some success with community-level IS by using an online barter system to obtain resources, and even its community-level website. Streets supporters had success selling community-level merchandise representing its culture via its community-level Facebook page, which did generate some revenue. It also had some success getting commissioned work from its community-level website, but the supporter experiences showed that the domination of the business/government fields over the art/craft field (and especially the heterodoxy pole in the case of Streets) meant they believed they were inadequately paid for this work. Most increases in economic capital from community-level IS, based on supporter experiences, was indirect. Supporters at all communities had positive experiences with using community-level IS such as Facebook, email lists and/or websites to promote art/craft creativity events, which is when sales were more likely to occur.

The cross-case findings also showed that supporters of the communities experienced difficulty with appropriating many community-level IS due to problems with gaining economic capital. This led to practices such as sharing licenses with other parties and using free or illegally downloaded software (section 5.5.1). The former in particular meant Kete supporters experienced negative impacts from relying on the government field for economic capital, because it restricted what community-level IS they could use (e.g. no website) and influenced how it used other IS (e.g. email monitoring). Economic capital problems also played out in other ways, such as Kete managers finding that members passed the cost of printing grant applications onto Kete, and Streets supporters revealing how their attempts to reduce the running costs of its printer led to it malfunctioning.
Overall, Bourdieu’s concepts of fields and economic capital help make sense of the nuanced, complex nature of supporters’ experiences with appropriating community-level IS. For example, it provides terminology for describing the nuanced interplay between the government and arts/crafts fields, and the tensions resulting from (and differing priorities given to) economic capital. The concepts of doxa and economic capital helped make sense of the differences between high-brow and low-brow communities. For instance, high-brow communities were more likely to have the economic capital to pay for staff as noted earlier in section 6.3.3.

The cross-case findings emphasised, however, that the experiences of supporters were more nuanced and complex than implied by a pursuit of economic capital alone when appropriating community-level IS. The next sections explain that the other forms of capital underpinning Bourdieu’s theory of practice (and the concepts of fields, habitus and doxa) helped make sense of our aspects of supporter experiences with appropriating community-level IS, particularly with respect to helping with the art/craft creativity in their co-located MACO communities.

6.3.5 Cultural capital and supporter experiences appropriating community-level IS

Cultural capital, from the perspective of Bourdieu’s theory of practice, “... takes three forms: institutionalised, through educational qualifications; objectified, through an appreciation of material goods; and embodied, through dispositions and practices” (Newman et al. 2016, p. 7). Each of these are examined further to explore how they made sense of cross-case findings concerning the experiences of supporters when appropriating community-level IS in their communities.

6.3.5.1 Institutionalised cultural capital

Institutionalised cultural capital includes skills, competencies and knowledge offered by educational institutions, whereby the dominant group (orthodoxy) determines what skills/knowledge are the most valuable (Kvasny & Keil 2006). The study in this thesis was concerned with the IS skills/knowledge of supporters relating to their experiences with appropriating community-level IS (see section 5.4). The cross-case findings showed there was a mixture of IS tech-savvy (in some cases even IS technicians) and technophobic supporters with (often) complementary roles during
community-level IS appropriation. Supporters in high-brow (orthodoxy) MACO communities, especially managers, relied mainly on external expertise or hiring staff with the expertise in order to appropriate many community-level IS (section 5.4). Similarly, supporters from low-brow (heterodoxy) MACO communities with ownership or focaliser roles taught themselves IS, had IS expertise they developed in the business world, and/or relied on IS technicians to volunteer their IS tools/skills.

Overall, the cross-case findings implied managers relied on external parties or other supporters with IS skills, more than institutionalised IS or art/craft education. Evidence of this included supporter overview tables in chapter 4 showing almost no supporters with IS-related qualifications (i.e. only Receptionist-Craftswoman at Kete was a digital arts tertiary student, and Focaliser-Photographer at Rainbow had a diploma in digital photography). These programs focused more on digital art/craft work rather than community-level IS used to manage MACO communities. Those with arts/craft qualifications believed they were not exposed to IS during their studies (Internal-Centre-Manager2 at Kete had a degree in art history/criminology, Website-Advisor-Photographer at Streets was a qualified make-up artist and Event-Organiser-Artist at Rainbow was a tertiary fine-arts student). Other supporters had qualifications in areas such as the sciences, psychology, education, public policy and anthropology which provided no/little exposure to community-level IS they could use for their MACOs. Still other supporters were not tertiary qualified.

The apparent lack of community-level IS coverage in many supporters’ arts/crafts tertiary education be explained by the literature on MACOs. For instance, artists/craftspeople (including some supporters in this study) in the art/craft field to reject technology such as IS because it is imbibed with modernity (or business values and approaches) from the business/government (see section 2.2.1). For this reason, artists/craftspeople with such views, and who develop curricula, would not see IS was not part of institutionalised cultural capital in the art/craft field. The finding in this study that some supporters were doing digital arts/craft programs is consistent with the literature suggesting that IS-related content has starting to be included in education for artists (who could then become supporters of co-located MACO communities). The decision of whether to include IS-related content in curricula is typically undertaken by those in the orthodoxy (see section 2.2.1).
In the context of this thesis, embodied cultural capital relates to the predispositions and day-to-day practices of artists/craftspeople in the art/craft field. The predispositions in the case of artists/craftspeople can relate to rejecting modernity and associated tools such as IS if they conflict with the practices which are deemed to be accepted by those in the field (section 2.2.1), and especially the orthodoxy. The cross-case findings suggest these dispositions and practices focused on art/craft creativity (section 5.6). In other words, the day-to-day practices which artists/craftspeople viewed as their dominant predispositions involved, for instance, creating art/craft work, promoting and participating in exhibitions, and connecting with other artists/craftspeople.

These activities appeared to be consistent regardless of the poles of the art/craft doxa between which MACO members and communities were positioned. This applied to supporters too, since all but one supporter interviewed in this study was an artist/craftsperson in their own right (section 5.6.1). Even paid supporters in high-brow communities worked as a means to their creativity ends, or to obtain income to support their economic survival so that they could engage in art/craft creativity. Rainbow supporters were slightly different to the other community supporters because their embodied cultural capital focused on their connection with the physical environment (or nature) through such practices as gardening, and their art/craft creativity enabled them to express and explore such connections. This reflected how the Rainbow community represented the connection between the religious (or tribal) field and the art/craft field, as described in section 6.3.3.

The experiences of supporters when appropriating community-level IS therefore impacted on this embodied cultural capital to varying degrees. The cross-case findings revealed evidence of some community-level IS becoming integral to supporters’ embodied cultural capital within their MACO communities. For instance, supporters across all MACO communities, including some technophobic supporters, had positive experiences appropriating community-level IS such as Facebook pages and/or email-lists to promote creative exhibitions/events (section 5.6.5). Community-level IS such as Facebook pages and websites had also become part of promoting MACO community creative culture (section 5.6.4). For some IS technicians, their
day-to-day practices (e.g. in the business world, or when assisting communities) involved using IS (section 5.4.3), so IS was part of their embodied cultural capital. In this sense, these community-level IS help supporters accumulate embodied cultural capital which, for many, was linked directly to their art/craft creativity practices.

The concept of embodied cultural capital can help make sense of some differences between low-brow and high-brow community supporters regarding their experiences with appropriating community-level IS. For example, the cross-case findings revealed that supporters in low-brow (heterodoxy) communities had more autonomy to use their creativity when appropriating community-level IS such as websites, so that such appropriation became part of the embodied cultural capital of such communities (section 6.3.3). In other words, the community-level IS provided opportunities for them to use and explore their embodied cultural capital. This was generally not the experience of supporters from the high-brow (orthodoxy) communities, who were often using community-level IS for more mundane tasks which did not offer opportunities to use/explore their embodied cultural capital.

There were also cross-case findings showing that community-level IS sometimes caused harm to some supporters’ embodied cultural capital. For example, some found that their day-to-day workload increase as a result of using IS, especially in the case of supporters managing MACO communities, meant they lost time for their art/craft creativity (section 5.6.1). A related issue was the time-constraints some supporters had trying to maintain multiple community-level IS (section 5.4.2). Other supporters, especially in Rainbow, found that appropriating (e.g. designing, using) community-level IS reduced the time they could spend gardening and enjoying the sunlight, which were important to their embodied cultural capital (section 5.6.1). This tension between community-level IS and embodied cultural capital can make sense of supporter experiences such as ‘burn-out’ from using such IS because, for instance, they could not focus on using/accumulating embodied cultural capital.

6.3.5.3 Objectified cultural capital

For artists/craftspeople in the art/craft field, their objectified cultural capital, or appreciation of material goods (Newman et al. 2016), for many supporters and MACO members, took the form their physical art/craft work. In the context of this thesis, the literature on MACOs suggests many artists/craftspeople do not embed IS
within their art/craft work because it is imbibed with the ethos of the business world of modernity (i.e. the business/government fields). In other words, they often see the appropriation of IS in their work as enforcing the values of efficiency, calculability, control and surveillance, which they believe eliminate creativity from their work (section 2.2.1). In this study, this was most evident with technophobic supporters and most tech-savvy supporters when it came to producing art/craft work. But the nuances in the cross-case findings suggest these same supporters saw value in appropriating community-level IS when it was consistent with their embodied cultural capital, while other forms of IS appropriation was rejected for being inconsistent with their objectified cultural capital. In other words, the concept of cultural capital and its different forms helps make sense of how supporters could reject IS for some purposes and yet accept it for other purposes, while holding to their rejection of modernity.

The supporters who typically saw IS being part of their objectified cultural capital were IS technicians (section 5.4.3). But this caused tension because supporters from high-brow MACO communities (orthodoxy) typically did not see IS as being part of the objectified cultural capital of the art/craft field, as noted section 6.3.3. This is consistent with the literature on MACOs relating to the difficulty of getting high-brow art educators to consider the legitimacy of digital artwork and including this in curricula (section 2.2.1). The cross-case findings imply it was low-brow community supporters who, due to their heterodoxy position in the art/craft field, were more likely to accept IS as being part of objectified cultural capital, at least in the art/craft work of IS technicians. The findings suggest it was the openness of supporters to IS technicians (and their digital art/craft form), and what constituted legitimate objectified cultural capital, which led to IS technicians being accepted and willing to help low-brow communities with their community-level IS tools/skills.

6.3.6 Social capital and supporter experiences appropriating community-level IS

Social capital is another concept associated within Bourdieu’s theory of practice which helped make sense of other apparent contradictions in how supporters (and MACO members) could reject IS as part of modernity, and yet appropriate community-level IS for other purposes. This form of capital relates to the resources to which individuals and groups have access through their wider group or social
network memberships (Levina & Vaast 2005; Newman et al. 2016). The goal of increasing social capital is often linked to SME/MSB appropriation of KM approaches and IS tools, but as noted in section 6.3.4 the reviews of IS articles in this area shows that the main motivation or focus in such KM articles is on how social capital can lead to increased economic capital.

Nahapiet & Ghoshal (1998), who draw upon the work of Bourdieu and others, developed the concept of social capital further by describing three interrelated (i.e. not distinct) dimensions: structural, relational and cognitive. In the context of IS research on co-located SME/MSB communities, only two studies used the concept of social capital (Lorenzini 2014; Mason et al. 2006), but they did not distinguish between these three dimensions. These dimensions are explained next in terms of how each applied to the co-located MACO communities. Then these dimensions are used collectively to make sense of the cross-case findings concerning supporters’ experiences appropriating community-level IS, because Nahapiet & Ghoshal (1998) emphasise the dimensions are interconnected and not discrete analytical lenses for making sense of social networks.

Nahapiet & Ghoshal (1998, p. 244) describe the structural dimension of social capital as “... the overall pattern of connections between actors—that is, who you reach and how you reach them...” Two concepts associated with the structural dimension which were useful in the context of this thesis were network ties (i.e. who knows who) and network configuration (i.e. how the network ties are arranged in a social network). In terms of network ties, the cross-case findings showed the co-located MACO communities were quite small with between five to 30 MACO members (section 5.2, Table 5.1). This meant it was easier for members to know other members compared to the co-located SME/MSB communities explored in the literature with large numbers of SME/MSB members (section 5.2.2). The supporters in the four MACO communities tended to be the focal point for network configurations. For example, Streets and Classic owners were the individuals who drew other MACO members together (at least initially). Administrators and managers tried to building and maintain the network configuration at Kete. Similar roles were undertaken by the focalisers at Rainbow, although these supporter roles were more fluid than in the other three MACO communities.
The relational dimension of social capital refers to the nature of the relationships people have with respect to their network ties and network organisation, which are described by Nahapiet & Ghoshal (1998) in terms of trust, norms, obligations, expectations and other aspects of these relationships. The cross-case findings (e.g. section 5.6.6) suggest MACO members in the communities were close-knit (especially Streets and Rainbow with their strong volunteerism, section 5.5.1), had strong and trusted face-to-face connections, followed various norms associated with the art/craft habitus and/or doxa (heterodoxy or orthodoxy) and respected the values/beliefs of others (e.g. section 5.6.3). It must be emphasised, however, that this study only explored the supporter perspectives, so that it was not possible to determine MACO member perspectives of how they perceived the closeness of network ties among those in the communities.

These close relationships were enabled by the cognitive dimension of social capital, relating to shared language, codes and narratives (Nahapiet & Ghoshal 1998). The supporters and the broader MACO members had shared language, understanding and stories due to their common interest in art/craft practice and art/craft work they produced as objectified cultural capital (section 6.3.5.3), shared embodied cultural capital (section 6.3.5.2). This sometimes included common views/beliefs about rejecting modernity (e.g. section 5.5.2) and/or Western influences (e.g. section 5.6.3).

It was found that these social capital dimensions could be used to make sense of the cross-case themes relating to supporters’ experiences appropriating community-level IS. For example, the supporters’ focal position in the communities (i.e. network organisation) and their apparent trusted relationships with other MACO members (i.e. relational dimension and network ties) meant that they had positive experiences appropriating many community-level IS, because they understood the norms (i.e. cognitive dimension) within these communities. This included supporter experiences choosing not to appropriate community-level IS if the IS were to have a negative impact on MACO members (e.g. sections 5.6.2 and 5.6.3).

The cross-case findings imply the trusted network ties (i.e. structural and relational dimension) among supporters in the low-brow heterodoxy communities made sense of how IS technician tools/skills became embedded cultural capital available to these communities (section 5.5.1). The IS technicians volunteered their cultural capital...
because of the reciprocal benefits they received, such as being recognised as artists/craftspeople in their own right and the opportunity to escape modernity (section 5.4.3). Social capital suggests that IS technicians may have felt a desire to return the kindness and acceptance extended to them. In other words, it was the mutual accumulation of social capital valued by supporters (i.e. help from IS technicians with their tools/skills at events) and IS technicians (i.e. recognition as artists/craftspeople, an escape from modernity) which resulted in win-win benefits.

6.3.7 Symbolic capital and supporter experiences appropriating community-level IS

Symbolic capital is the combination of the other three types of capital which others in the habitus view as legitimate, prestigious or important (Bourdieu 1989). For example, an individual’s collection of educational credentials (institutionalised cultural capital), fame and recognition within and external to their social networks (social capital) and financial reward (economic capital) can be given weight or importance, and these comprise the individual’s symbolic capital (Bourdieu 1989).

Symbolic capital had implications for supporters’ experience with appropriating community-level IS. For instance, most supporters and their community MACO members did not view community-level IS as legitimate for communication among members in close physical proximity (i.e. social capital) for various reasons (see section 5.6.6). In other words, appropriation of IS for such communication (i.e. social capital with these networks) was not seen as legitimate in terms of what it means to be an artist/craftsperson (e.g. due to such uses of IS being inconsistent with embodied cultural capital), and therefore did not contribute to symbolic capital within the art/craft habitus. It was only when artists/craftspeople could not meet face-to-face that community-level (and personal) IS was deemed legitimate for communication (i.e. maintaining their social capital). But even then, supporter experiences implied this use of community-level IS was a means to an art/craft creativity end by enabling trusted face-to-face communications to continue when they were not together. That is, such appropriation of IS was not deemed necessary or important to be an artist/craftsperson by those in the art/craft habitus (i.e. symbolic capital), but such uses were seen as acceptable if it supported what was deemed important and legitimate in the habitus (e.g. face-to-face communications).
Symbolic capital appeared to vary between the heterodoxy and orthodoxy in the art/craft field’s doxa, because this capital can represent what, in the views of the orthodoxy, it means to be a legitimate artists/craftspeople. This was most evident when *Classic* owner (orthodoxy, high-brow) continued using paper-based invitations in preference to email-lists, because of the perception that his patrons believed this was part of the art experience (i.e. embodied cultural capital), and thus the prestige of his art gallery from the perspective of elite circles (with economic capital) being targeted (section 5.6.5). In other words, he perceived that his patrons saw paper-based invites as legitimate (i.e. symbolic capital) and part of the art/craft experience.

Such prestige was not as important in the other communities, however, perhaps because supporters in these communities believed it was more critical to appropriate community-level IS to promote their community culture (i.e. increase embodied cultural capital) and events (see sections 5.6.4 and 5.6.5). This was especially so with the low-brow communities (*Streets* and *Rainbow*), where social capital and embodied cultural capital appeared to be legitimised and valued (i.e. symbolic capital) the most by supporters and their MACO members. Some community-level IS (e.g. website at *Rainbow* and Facebook at *Streets*) therefore increased symbolic capital since appropriation of such IS was legitimised, mainly because it served to increase the social capital and embodied cultural capital of these communities.

These forms of capital were perceived by supporters (especially at *Streets* and *Rainbow*) as being more important than the potential of community-level IS to increase economic capital, even though economic capital was needed to run the communities (see section 6.3.4). A further reason for the apparent legitimisation of social capital and embodied cultural capital from community-level IS appropriation may be that these heterodoxy communities did not have access to mainstream (orthodoxy) art/craft creativity promotion channels used by high-brow individuals and communities, such as critics, museums and high-brow dealer art/craft galleries consecrated by the business/government fields and run by high-brow institutions. The experience of *Street* supporters in particular was that community-level IS such as their website and, later, their Facebook page enabled them to bypass traditional orthodoxy promotional channels.
Overall, these cross-case examples show that IS can be a powerful tool for crossing orthodoxy, especially when social barriers (understood in terms of symbolic capital) have traditionally limited new art movements and their communities from gaining consecration. However, this takes a slower route compared to the traditional ideas about eBusiness that economic capital can be gained directly and quickly via online sales. In the case of the heterodoxy low-brow MACO communities, by contrast, social capital and cultural capital leads to symbolic capital (over time), which then gets transformed into economic capital at much slower rates. For example, it took time for external parties such as governments to recognise Streets’ symbolic capital (e.g. artistic legitimacy of their objectified cultural capital or art/craft work) before the community-level website led to economic capital, such as commissioned murals.

### 6.4 Complementing Bourdieu’s conceptual framework with the social construction of technology

Bourdieu’s theory of practice is broad and, as explained in section 6.3, provides a suitable overarching conceptual framework for making sense of the macro-level, and aspects of the day-to-day practices of MACO members and their communities, which influence supporter experiences with community-level IS appropriation. Section 6.3.6 showed Bourdieu’s theory can be further enriched conceptually by extending social capital with the dimensions developed by Nahapiet & Ghoshal (1998) when making sense of supporter experiences. This raises the question of whether other established theories might also offer some value as well.

It is beyond the scope of this thesis to explore other various established theories and how they might complement Bourdieu’s theory to help make sense of supporter experiences. Section 6.2 and the start of section 6.3 provides insights into possible ways that other established theories could add conceptual richness, even though they were not suitable as overarching conceptual frameworks. Their value is instead, potentially, in offering further concepts for enriching Bourdieu’s theory when making sense of some finer-grained nuances associated with supporter experiences with appropriating community-level IS in their co-located MACO communities. This could include concepts relating the characteristics of innovations such as IS from DOI theory, and concepts from activity theory to make sense of a particular or appropriation activity undertaken by supporters.
One established theory which had merit, and is explored further here, is the social construction of technology (SCOT). Bourdieu’s theory helps make sense of how the practices and social structures of artists/craftspeople can influence what community-level IS are appropriated and how, but the theory does not fully conceptualised the experiences of supporters at Rainbow, Streets and Classic who built websites. This is because website development tended to have more once-only challenges which were not necessarily the same as ongoing practices of using the websites. With website development, supporters described such issues as obtaining finances (e.g. free/pirated development software at Streets and Rainbow, and bartering in the case of Classic), accessing website development skills (e.g. self-taught at Rainbow, existing skill at Streets, and using a website developer at Classic) and determining how to design the website (e.g. representing community culture at Streets and Rainbow). Ongoing use of IS including websites, by contrast, included experiences of supporters relating more to day-to-day practice issues such as increased workload at Kete, and difficulties maintaining multiple community-level IS at Streets and Classic. This implied it would be useful to identify an established theory which could complement Bourdieu’s theory by making sense of website development.

Social construction of technology (SCOT) offers concepts for making sense of IS development. McGovern & Hicks (2004) and Oni & Papazafeiropoulou (2014) are among few IS studies which apply SCOT to SME/MSB appropriation of IS. Combining Bourdieu’s theory and SCOT appeared to be useful because Howcroft & Light (2010) argue that SCOT is often criticised for not considering the broader social structures, and suggest using a power perspective. Section 6.3 showed that a key tenet of Bourdieu’s theory is power and position-taking within broader social structures, which implied the two theories may complement each other. IS articles using Bourdieu’s theory (see Table 6.1) have not used SCOT, but this is understandable because those articles do not look at IS development.

The underlying concepts of SCOT proposed by Pinch & Bijker (1984) are as follows, including how Bourdieu’s theory can offer a broader basis for making sense of the social structures and practices relating to SCOT concepts:

- There can often be different relevant social groups, where each group comprises members “... who share the same set of meanings attached to a specific artefact”
such as IS (Oni & Papazafeiropoulou 2014, p. 733). SCOT theorists in the IS literature tend not to link SCOT with Bourdieu’s theory of practice, but the cross-case findings interpreted using Bourdieu’s theory in section 6.3 suggest his concepts could help make sense of the broader socio-historical contexts of these relevant social groups. This would include the nature and historical genesis of each group’s shared meanings and norms, whether different groups emerge due to doxa within a habitus, whether each group values different forms of capital, and the types of day-to-day practices they enact within these social structures.

- There is often 
  interpretive flexibility 
  among the different social groups regarding “... how people [and their group] think of or interpret artefacts [and] ... how artefacts are designed” (Oni & Papazafeiropoulou 2014, p. 733). This includes how each group views the ability of the artefact to be designed to address problems of importance to that group. Interpretive flexibility would be informed based on each group’s meanings, norms and day-to-day practices, which can be explained further using concepts from Bourdieu’s theory (at least in a co-located MACO community context as explored in this thesis).

- Closure and stabilisation of the artefact can occur repeatedly during its history of development. Closure is when groups believe problems with the design are solved and stabilisation is a period when the artefact does not undergo design changes. In SCOT, closure and stabilisation is understood based on interpretive flexibility and the different relevant social groups, in much the same way it can be understood potentially using Bourdieu’s concepts. Further, Bourdieu’s theory helps make sense of day-to-day practices and their interaction with social structures, which would be particularly the case during stabilisation when artefacts such as community-level IS are used on a day-to-day basis.

The potential value of using concepts from Bourdieu’s theory and SCOT together can be illustrated by using them to make sense of the Streets supporters’ experiences with designing its website. Supporters were primary members of one social group with a stake in the website (i.e. the Streets community and its MACO members). But Owner-Artist2 belonged to another social group from the business field in terms of his day-to-day practices (i.e. running his direct IS sales business), which had an impact on the website design. For instance, Owner-Artist2’s participation in his business-related social group made sense of his meaning or view that websites could...
sell art/craft work. This resulted in such features being part of the design of the website, but which were found to be unsuccessful.

*Streets* supporters and MACO members also had broader norms, values and practices in their social group around sharing sub-cultures (i.e. embodied cultural capital, and as an element of their symbolic capital) within like-minded communities worldwide and the public. This influenced the meaning they attached to the website and its design; that is, communicating and promoting the sub-cultures.

Closure regarding the website design (i.e. structure and features) was reached when both relevant social groups agreed it could achieve their goals. This resulted in stabilisation of the website design for a temporary period of time. During that time, the website was used/maintained as part of the day-to-day practices of some supporters within *Streets*; particularly *Owner-Artist2*. In other words, the day-to-day maintenance (or practices) of supporters focused on incorporating new content within the overall website design, within the website structure and set of features which had been reached at the point of closure.

This stabilisation remained until *Streets* supporters appropriated a community-level Facebook page. They gradually realised the website did not solve all the problems which the Facebook page achieved, such as achieving high levels of interaction with those interested in their sub-cultures from around the world. The addition of the Facebook page also resulted in workload issues in their day-to-day practices. This led to the destabilisation of the website design over time, and eventually to the point where the website was replaced by Facebook.

Overall, the value of SCOT to Bourdieu’s theory is to offer terminology for making sense of changes to IS artefact design over time, through the notions of closure and (de)stabilisation. The concepts from Bourdieu’s theory, as a broader framework, offers various terms for making sense of the wider macro-level and community-level influences on the relevant social groups and their respective interpretive flexibility.

### 6.5 Conclusion

This chapter revisiting the literature to find established theories which could be a suitable overarching conceptual framework for making sense of how internal
supporters experienced appropriating community-level IS in the co-located MACO communities. The theoretical analysis in this chapter led to the conclusion that:

- established theories used commonly in the IS literature on SMEs/MSBs generally and co-located SME/MSB communities in particular were not suitable;
- various concepts from Bourdieu’s theory of practice, which are generally not used in combination in the IS literature, does appear to have potential as a suitable overarching conceptual framework; and
- Bourdieu’s theory of practice can be complemented with other established theories to extend the conceptual richness regarding some aspects of supporters’ experiences with appropriating community-level IS.

The next chapter summarises the contributions made by this thesis to theory (especially in the context of the IS discipline), IS knowledge and practice. It also provides an overview of the major limitations of this study and the opportunities these present for future research.
Chapter 7: Conclusion

7.1 Introduction

This chapter concludes the thesis by summarising the major contributions to IS knowledge and theory (section 7.2) made by this study of supporter experiences with appropriating community-level IS to help with art/craft creativity and economic survival of co-located communities of micro arts and crafts organisations (MACOs). It then outlines contributions to practice (section 7.3) arising from the study, followed by a summary of the limitations of the study and recommended future research which can address these limitations (section 7.4).

This study aimed to answer the following research question:

How do internal supporters experience appropriating community-level IS intended to help the art/craft creativity and economic survival of co-located MACO communities, and how can this be conceptualised using an overarching framework?

The thesis answered this question by conducting interviews with supporters (e.g. managers, administrators, technicians, volunteers) in co-located MACO communities (i.e. art/craft galleries and centres, seaside and semi-farming properties) who told stories of experiences with appropriating (e.g. introducing, using) different types of community-level IS (e.g. websites, Facebook pages, software for managing the community). These community-level IS were intended to help with community-level (and sometimes MACO-level) art/craft creativity and/or economic survival. The thesis focused on co-located MACO communities because artists/craftspeople who run MACOs typically form collectives around physical colocations, often because they struggle financially to pursue their art/craft creativity and can support one another in communities. These collectives also often comprise of artists/craftspeople with interests in similar types of art/craft work. The focus on supporter experiences with appropriating community-level IS recognised that artists/craftspeople often reject technology such as IS, so that it was beneficial to explore instead the roles and experiences of supporters who could appropriate IS to help artists/craftspeople.
MACO communities can often be distinguished based on whether they engage in high-brow art/craft (e.g. paintings, sculpture, performance arts) for customers from elite social circles, or in low-brow art/craft (e.g. street art, tattoo art) from popular culture. Similarly, MACO communities can be co-located in rural and urban areas. This emphasised the importance of conducting four case studies to capture supporter experiences from two high-brow and two low-brow co-located MACO communities, as well as two in rural and two urban areas. It was anticipated supporters in each community could have different experiences with appropriating community-level IS.

The case studies were chosen from a creative region of New Zealand including co-located MACO communities meeting these criteria. This region was appropriate for answering the research question because the New Zealand government had reduced funding to the arts/craft sector (and other creative sectors) when the global financial crisis (GFC) started in 2008. This meant co-located MACO communities and their members were under pressure to find ways of supporting their art/craft creativity and economic survival. The government had been promoting IS (e.g. online art/craft sales) as one method by which MACO communities (and individual MACOs) could become more self-sustaining. The MACO communities in New Zealand were therefore good candidates for exploring the experiences of supporters who appropriated community-level IS intended to help with the art/craft creativity and economic survival of co-located MACO communities.

Answering this research question also involved identifying an overarching conceptual framework for making sense of findings of this study resulting from a hermeneutic process involving cycles of identifying cross-case themes, comparing these with the literature, identifying new themes from the literature, and re-analysing the cases. Chapter 2 argued that starting the data collection with pre-selected established theories to frame this work was undesirable due to the lack of relevant IS research. Specifically, using established theories and their concepts at the start had the potential to narrow the themes which may have emerged regarding the nuances and complexities of supporter experiences with community-level IS appropriation. For this reason, a theoretical lens with purposefully broad terms based on the empirical literature on MACOs was presented in chapter 2 to scope the study (e.g. case study and supporter selection). It was only after the data collection and cross-case analysis was completed that established theories were examined to determine
which could be a suitable overarching conceptual framework or ‘grand theory’ making sense of the emergent findings. An established theory was identified as a suitable overarching conceptual framework, and other established theories more specific in nature were identified which could complement the ‘grand theory’.

The next section summarises the main contributions of the thesis to theory in the context of the IS discipline, and to IS knowledge by extending the literature.

### 7.2 Significance and contributions of this thesis

The following is a summary of the main contributions of the thesis:

1. The thesis contributes to theory by showing that theories typically used in the IS literature to explore IS appropriation by SMEs/MSBs, and co-located SME/MSB communities in particular offered some value. They were inadequate, however, as overarching conceptual frameworks for making sense of supporter experiences appropriating community-level IS to help with the art/craft creativity and economic survival of co-located MACO communities. For example:

   a. The findings of this study suggested that theories focusing on individual intentions or perceptions relating to IS appropriation (e.g. theories of planned behaviour and reasoned action, and the technology acceptance model) tended to over-simplify the complex, nuanced issues encountered by supporters when they appropriated community-level IS for use by supporters themselves and/or by MACO community members. This included a lack of concepts for making sense of the broader macro-level, not just the supporter-level, issues associated with such appropriation.

   b. Theories such as resource-based theory and Porter’s five forces model emphasise competitive advantage, but the goal of most supporters and members of co-located MACO communities often did not relate to competitive advantage. Further, the concepts underpinning these theories did not make sense of complex, nuanced issues at the macro-level (e.g. broader financial struggles of the art/craft sector due to reduced government spending), and the community-level (e.g. differences
between high-brow and low-brow communities). Concepts for making sense of these levels, in addition to the supporter-level, were important to take into account the rich historical and cultural basis on which supporters experienced appropriating community-level IS.

c. Theories of a broader nature such as diffusion of innovation theory, institutional theory, actor network theory and activity theory had concepts at a more macro-level, but they did not make sense of nuanced differences between high-brow and low-brow co-located MACO communities.

2. The thesis makes a theoretical contribution by showing that Bourdieu’s theory of practice has various concepts for making sense of macro-level and supporter-level aspects of how they experienced appropriating community-level IS to help with art/craft creativity and economic survival of co-located MACO communities. For this reason, it appeared to be suitable as an overarching conceptual framework for this context. The following points elaborate on why this is a theoretical contribution:

a. The limited IS literature using Bourdieu’s theory has not combined various concepts from this theory: fields, habitus, doxa, economic capital, cultural capital (and its three forms of institutionalised, embodied and objectified), social capital and symbolic capital. Using these concepts in combination was important, at least in this study, because they provided useful terminology for making sense of complex and nuanced historical/cultural influences on supporters experiences with appropriating community-level IS. They also made sense of these supporter’s day-to-day level experiences relating to their art/craft practices and running co-located MACO communities, which included day-to-day uses of community-level IS. The next points elaborate further.

b. The concept of fields helped make sense of tensions between supporters within the art/craft field, and the more dominant business/government fields. For example, supporters’ appropriation of community-level IS at
*Kete* was heavily influenced by their local council (i.e. government field) by not being allowed to have a website. Similarly, supporters (and MACO members) at *Kete, Streets* and *Rainbow* tended to moderate their use of community-level IS such as email and Facebook pages due to concerns about government/authority surveillance. This concept made sense of the rejection of modernity (i.e. the business field and its principles) among supporters in communities such as *Streets* and *Rainbow*. It helped explain nuances in the cross-case findings relating to supporters at *Rainbow* and *Kete* needing to be sensitive to Maori religious or tribal principles (i.e. the religious field) when determining what community-level IS to appropriate and how they should be appropriated within the communities.

c. The concepts of *habitus* (knowledge/rules taken for granted in a field) and *doxa* (dominance of orthodoxy groups in a field over groups considered to be the heterodoxy) helped make sense of the differences in experiences of supporters in the high-brow versus low-brow communities. The concept of doxa is rarely used in the IS literature applying Bourdieu’s theory, but was quite useful in this study. Orthodoxy groups (high-brow MACO communities such as *Classic* and *Kete*) aimed to ensure their art/craft work was ‘consecrated’ so they received resources (e.g. sales, funding) from the business and government fields. Heterodoxy groups (low-brow communities such as *Rainbow* and *Streets*) did art/craft for its own sake, even though financial reward from business and government fields was harder to obtain. The cross-case findings showed that supporters in high-brow communities tended to use external organisations and pay staff (who were also supporters) to assist with community-level IS appropriation, which reflected their greater access to resources from the business/government fields. Supporters in low-brow communities, by contrast, relied on volunteers (also supporters), gave them creative license with community-level IS appropriation, and saw volunteers as artists/craftspeople in their own right. This was consistent with the supporters’ experience in low-brow heterodoxy communities of needing/wanting to be self-reliant financially, and of appreciating various art/craft forms.
Many IS studies on SMEs/MSBs focus on *economic capital* (e.g. competitive advantage, market reach, cost savings, efficiencies) and *social capital* (e.g. IS-based knowledge management). This study found that community-level IS could increase economic capital, and thus help communities with economic survival. It contributes to knowledge by showing that all four types of capital (including *cultural capital* and *symbolic capital*) made sense of the nuanced, complex supporter experiences with appropriating community-level IS. Supporters often attached legitimacy (i.e. symbolic capital) to community-level IS used to increase cultural capital. Specifically, the embodied cultural capital of supporters and their MACO members related to creating art/craft work, promoting/taking part in exhibitions, and networking with like-minded artists/craftspeople. Community-level IS used for such purposes were thus valued. Some supporters found that IS artefacts (including IS only used by supporters) could be rejected by MACO members if they felt the IS was used for economic capital purposes (e.g. collecting rent). The study found that websites did not generate sales. Community-level IS at low-brow communities were instead better at building social and cultural capital, which formed symbolic capital (e.g. recognition by business, government and art/craft fields) resulting in long term economic capital (e.g. cultural merchandise sales, commissioned work, sales at events).

3. The thesis shows Bourdieu’s theory of practice is a suitable overarching conceptual framework. It also makes a theoretical contribution by demonstrating that other established theories offered additional concepts to add richness to making sense of the supporter experiences with appropriating community-level IS. Specifically:

   a. The IS literature which has used Bourdieu’s theory of practice have not complemented the concept of social capital by using the three dimensions by Nahapiet & Ghoshal (1998): structural, relational and cognitive. These dimensions added further conceptual richness for making sense of the
cross-case themes on supporter experiences. For example, some supporters had focal community positions (i.e. structural dimension) and trusted relationships with MACO members (i.e. relational dimension) due to their shared understandings and norms (i.e. cognitive dimension). This meant these supporters often had the sensitivity needed to understand what community-level IS would (not) be suitable, and to ensure the IS were appropriated (e.g. designed, used) to respect these sensitivities.

b. Bourdieu’s theory does not explicitly deal with technology, but rather sees this as part of the enactment of day-to-day practices. The thesis shows that additional concepts from social construction of technology (SCOT) by Pinch & Bijker (1984) were useful for making sense of the cross-case findings relating to the design of community-level IS such as websites. Some SCOT concepts are similar to Bourdieu’s such as relevant social groups with their norms/practices (c.f. fields, habitus and doxa), with each group having interpretive flexibility regarding the meaning of IS (c.f. four types of capital). The findings suggest supporters from different social groups have their own interpretations about websites, such as online art/work sales features (business groups/field) and content promoting community culture (art/craft groups/field). The contribution of SCOT to Bourdieu’s theory is the concepts of closure and stabilisation, which made sense of how website designs evolve over time. Once social groups settle on website structure/features (i.e. closure), stabilisation of the design relates to day-to-day supporter practices (e.g. updating content in the design), which can be understood using Bourdieu’s concepts.

4. The thesis contributes to IS knowledge by providing empirical evidence of the importance of IS scholars posing and answering new research questions in future research. Chapter 2 shows the IS literature predominantly asks why SME (and to a lesser extent MSB) owner/managers do (not) appropriate IS for their business, including e-portals in the context of co-located SME/MSB communities. This study emphasises that it is worthwhile for IS scholars to complement these issues by exploring new research questions on how supporters appropriate IS to help
SME/MSB owner/managers, including IS used by supporters and not by the MSB owner/managers. This is important in contexts where MSB owner/managers have legitimate reasons for not appropriating IS (e.g. co-located MACO communities in this thesis), but who can benefit indirectly by being helped by supporters who appropriate IS. Such an approach has the advantage of not taking a technology deterministic view that all MSB owner/managers (including artists/craftspeople running MACOs) should appropriate IS.

New research questions relating to MSBs in particular could be informed by Bourdieu’s theory of practice. This study emphasises the importance of using new concepts and theories which do not privilege economic capital, and instead consider the role of IS for MSBs which may instead increase other forms of capital. For example, studies on MSBs have found that some owner/managers seek other forms of success and/or have other priorities than increasing economic capital (e.g. Wach et al. 2015; Walker & Brown 2004). This suggests that the role of IS appropriation in MSB owner/manager practices can be understood based on whether the IS helps them spend more time with family by running their business at home (e.g. embodied cultural capital), or to focus more on the enjoyment of producing artefacts (e.g. objectified cultural capital) such as carpentry in the case of carpenter. This study suggests that a more holistic understanding of the values, practices and associated nature of IS (non-)appropriation may require new research questions using alternative theoretical concepts which do not assume increasing economic capital is the primary goal of an MSB.

5. The thesis contributes to IS knowledge by extending three streams of research within the broader IS literature on SMEs:

   a. The thesis extends the limited literature on, and heeds the call for more, research concerning MSBs (section 2.1), which this thesis fills by focusing on a specific type of MSB (i.e. MACOs) when exploring supporter experiences with appropriating community-level IS in co-located MACO communities. MACOs and their communities warranted
IS research in their own right, because their historical/cultural values of rejecting modern business practices (including IS), and facing poverty for the sake of their art/craft, is more extreme among the art/craft sector compared to other MSB business sectors. The findings of this thesis highlight that this tradition, together with other norms/practices in such communities, resulted in nuanced and complex issues for supporters when appropriating community-level IS aimed at helping with the art/craft creativity and economic survival of their communities.

b. The thesis contributes to IS knowledge relating to community-level IS (i.e. mainly e-portals) appropriated by co-located SME/MSB communities more generally by presenting what appears to be the first synthesis of 13 case study articles from the IS literature. The thesis confirms some themes from this synthesis relating to SME/MSB communities with themes associated with the MACO communities. It extends knowledge by outlining the nuances and complexities of supporter experiences with IS appropriation in co-located MACO communities which were not apparent in the synthesised themes from articles on SME/MSB community.

c. This study heeds the call for IS scholars to consider contexts other than firm-centric and owner-manager-centric experiences which is dominant in the IS literature on SMEs (section 2.3.3). Section 2.3.3 notes that even the case studies on co-located SME/MSB communities tend to focus on owner-managers experiences with e-portals, rather than other perspectives such as supporters who were involved in introducing and running the e-portals. The thesis contributes to IS knowledge by adding to the few studies examining the experiences of other stakeholders. In particular, the thesis focuses on supporter experiences with appropriating community-level IS in co-located MACO communities.
7.3 Contributions to practice

The study offers contributions to practice for supporters and their co-located MACO communities, as well as for governments allocating limited funds to the arts/crafts sector. These are summarised next:

1. Practical contributions of the findings from this study for governments supporting MACOs and their communities include the following:

   a. The findings from Kete in particular, with Maori artists/craftspeople, provide insights into potential strategies for reinterpreting community-level IS so that it is acceptable to artists/craftspeople. This strategy may be applicable in other countries where artists/craftspeople in co-located MACO communities have similar beliefs about privileging the spoken word, rather than using IS for communications.

   b. The findings suggest that governments providing funding for IS to support co-located MACOs communities might be ineffective if they target projects focusing on online art/craft work sales. Instead, supporter experiences in this study suggest it may be better to fund projects which enable community supporters and MACO members to spend more time on their art/craft creativity, and promote art/craft creativity events and their community culture. Governments requiring co-located MACO communities to register/operate as businesses to receive funding should ensure these requirements do not conflict with the anti-modernity values of any emerging (low-brow) art/craft communities being funded. This may include introducing approaches similar to contribution 1a such as reinterpreting business requirements in a way which reflect or are consistent with the culture of such MACO communities.

2. Practical contributions of the findings of this study for co-located MACO communities and their supporters include the following:
a. The findings suggest community-level IS such as websites, Facebook pages, and community management IS can enable community building, relationship management among community members, and promotion of community culture to wider society. This includes some community-level IS being able to help supporters, especially administrators, reduce their workload so they can spend more time maintaining relationships and good will in the co-located MACO communities. Supporter experiences in some communities suggest that bonding resulting from community-level IS used for member management (but not used by MACO members themselves) can help collect money from members for services offered, so long as community benefit is emphasised rather than money collection.

b. There was evidence in this study that community-level IS can become a shared resource within co-located MACO communities to reduce the financial burden on MACO members who might struggle to afford their own IS (e.g. broadband access, IS-based printers). This does, however, increase the financial burden at the community-level, which can be addressed to some extent by MACO members paying for usage on an as-needs basis. Members with IS tools/skills can be a valuable resource, especially if these IS technicians are accepted into the community as artists/craftspeople in their own right. Supporters from high-brow communities, who may view IS technicians as subservient, could find this cheaper because acceptance might lead technicians to volunteer help rather than supporters having to pay external parties for these services.

c. The findings suggest that supporters in co-located MACO communities can find ways of reducing the costs of community-level IS appropriation, such as using free software (e.g. Facebook pages, email), sharing licenses of commercial IS with parties (especially in government-run communities), and even using online bartering communities to get community-level IS built for the community.
This study found that managers in high-brow MACO communities such as art centres were being harmed by the long term use of community-level IS due to increased workload, including at home. This suggests that supporters themselves, or those managing other supporters, must address work-life balance practices, including offering IS training on how to handle IS appropriation, to lessen the detrimental effects on managers.

e. There was evidence in this study that even in co-located MACO communities where members had strong views about rejecting modern business practices, including IS, there was still scope to appropriate some forms of community-level IS without adversely affecting their (e.g. tribal, religious) views. This includes reinterpreting the very nature of IS and identifying uses which are consistent with those views, while also ensuring that other IS are not appropriated to respect these views.

7.4 Limitations and future research opportunities

This research study has several important limitations which highlight the need for future research.

First, the study focused on co-located MACO communities within a single arts/craft region in New Zealand, which means that the findings from this study may reflect peculiarities of this area and may not apply to co-located MACO communities in other countries. In addition, the focus was on selecting case studies which could best represent low-brow versus high-brow, and urban versus rural, communities. This means the findings might be peculiar to the communities in this study, and thus not generalisable to other co-located MACO communities. Nonetheless, this is the first in-depth study of supporter experiences with appropriating community-level IS intended to help with art/craft creativity and economic survival of co-located MACO communities. This thesis therefore provides a useful starting point for similar studies in other countries, which can potentially use Bourdieu’s theory of practice as an overarching conceptual framework.

Second, the study focused on supporters who were internal to co-located MACO communities and did not include external supporters, such as vendor-consultants,
governments and other bodies which might fund such communities, and art dealerships. This can be addressed in future research, similar to the approach used by Bradshaw et al. (2015) and Carey (2008), by interviewing internal and external stakeholders to explore their differing perceptions and experiences with community-level IS appropriation. This type of future research may provide greater insights into the business/government fields to make sense of how their stakeholders may enact the types of power and position-taking based on Bourdieus’s theory of practice.

Third, the primary data collection methods in this study were interviews, observations and secondary documents. This meant that the researcher was often not able to observe all aspects of community-level IS appropriation (e.g. day-to-day use, the design process) and relied on supporter recall and storytelling. This could be addressed in future research using ethnography, whereby the researcher is immersed into the day-to-day lives of supporters on a continuous, longitudinal basis. Nonetheless, the researcher did engage in observations of art/craft creativity events and other activities of supporters when possible to minimise this limitation.

Fourth, the study examines supporter experiences with appropriating community-level IS within the context of a specific co-located MACO community. It did not take into account that supporters, who can be artists/craftspeople in their own right, can be members of multiple communities of different types (e.g. co-located, dispersed physically, temporal events). It is therefore possible that some community-level IS such as a Facebook page may support more communities than just the co-located MACO community around which such IS were created. This can be addressed in future research by broadening the scope of the types of communities investigated.
Appendix A  Ethics clearance letter

2 December 2009

Dear Helen,

BL-EC 61/09 – The conflict of the strategic management of technology for business profitability and the need for creativity for workers.

Thank you for submitting the above project for consideration by the Faculty Human Ethics Advisory Group (HEAG). The HEAG recognised that the project complies with the National Statement on Ethical Conduct in Research Involving Humans (2007) and has approved it. You may commence the project upon receipt of this communication.

The approval period is for three years. It is your responsibility to contact the Faculty HEAG immediately should any of the following occur:

- Serious or unexpected adverse effects on the participants
- Any proposed changes in the protocol, including extensions of time
- Any changes to the research team or changes to contact details
- Any events which might affect the continuing ethical acceptability of the project
- The project is discontinued before the expected date of completion

You will be required to submit an annual report giving details of the progress of your research. Failure to do so may result in the termination of the project. Once the project is completed, you will be required to submit a final report informing the HEAG of its completion.

Please ensure that the Deakin logo is on the Plain Language Statement and Consent Forms. You should also ensure that the project ID is inserted in the complaints clause on the Plain Language Statement, and be reminded that the project number must always be quoted in any communication with the HEAG to avoid delays. All communication should be directed to katrina.fleming@deakin.edu.au

The Faculty HEAG and/or Deakin University Human Research Ethics Committee (HREC) may need to audit this project as part of the requirements for monitoring set out in the National Statement on Ethical Conduct in Research Involving Humans (2007).

If you have any queries in the future, please do not hesitate to contact me.

We wish you well with your research.

Kind regards,

Katrina
Appendix B  Supporter invitations

PLAIN LANGUAGE STATEMENT AND CONSENT FORM: Interviews

Deakin University Human Research Ethics Committee

DEAKIN UNIVERSITY
PLAIN LANGUAGE STATEMENT AND CONSENT FORM

TO: 'Participant'

Plain Language Statement

Date: 11/24/2009

Full Project Title: The Conflict of the Strategic Management of Technology for Business Profitability and the need for Creativity for Workers
Principal Researcher: Darryl Coulthard
Student Researcher: Helen Richardson

You are invited to take part in this research project.

The purpose of this project is to explore the relationship between worker creativity and how technology is managed. This will involve comparing how technology is managed in traditional profit based businesses with other arts based industries and communities. I, Helen Richardson and my supervisor Darryl Coulthard will be involved in the research. This research is a student project and is for the purposes of my PhD (doctorate) in Information Systems.

You are invited to participate in this research project because you have nominated yourself or have been identified by your management team or your collective or community group, as being able speak about the role of technology in your workplace or collective/community. You are under no obligation to participate in the study. Your interview and your decision to participate (or not) in the study will not be discussed with your employer or work group. All information collected in the interviews will remain confidential.

Participation in this project will involve: a 1 hour interview (depending on their work/community commitments) and then later a half hour follow up interview. You may of course decide to stop the interview at any point. You may also ask up to the time of publication that any information collected at your interview be destroyed at not used for the research. Indicative interview questions include:

Can you tell me about your working/volunteer life and the role of creativity and technology in this story?
Can you describe a typical day and how you use technology as part of your work?

How are computers and information technology used to assist the management of work?

What are your stories of when new technology has been introduced?

We wish to voice record the interview. If you do not wish this to occur, we will take handwritten notes of the interview.

There are no foreseeable risks to you and no direct benefits to you from participating in the study, however we may better understand your use and/or management of technology and its role in your overall life.

To comply with Australian government requirements all data will be stored securely for a period of a minimum of 6 years after final publication. It will then be destroyed. Any information obtained in connection with this project and that can identify you or your organisation will remain confidential. It will only be disclosed with your permission, subject to legal requirements.

If you decide to withdraw from this project, simply notify a member of the research team.

The research will be monitored by Deakin University's ethics committee (Melbourne, Australia) and Deakin Faculty of Business and Law.

Approval to undertake this research project have been given by the Human Research Ethics Committee of Deakin University. If you have any complaints about any aspect of the project, the way it is being conducted or any questions about your rights as a research participant, then you may contact: The Manager, Office of Research Integrity, Deakin University, 221 Burwood Highway, Burwood Victoria 3125, Telephone: 9251 7129, Facsimile: 9244 6581; research-ethics@deakin.edu.au.

Please quote project number BL-EC 61/09.

If you require further information or if you have any problems concerning this project, you can contact either of the principal researchers. The researchers responsible for this project are:

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<th>Helen Richardson</th>
<th>Darryl Coulthard</th>
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References


de Berranger, P., Tucker, D. and Jones, L. (2001) Internet diffusion in creative micro-businesses: identifying change agent characteristics as critical success


