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The Contribution of Domestication Research to In-Home Computing and Media Consumption

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This article deals with the contribution made by domestication research to our understanding of information and communication technologies (ICTs) in everyday life, especially in the home. It first provides a sense of the diversity of research in this tradition and how this is evolving. The article then reflects upon and illustrates different elements of research in this tradition, providing examples of how these help to explain patterns of ICT experience, the way people evaluate that experience and what bearing it has on their lives. To contextualise domestication research further, it considers overlaps with other traditions of research before moving on to the core, and range, of methodologies that have been employed. Finally, the article examines some of the general insights from domestication research, as well as more specific applications to the commercial and policy fields.

The scope of domestication research

Domestication as a concept originated in large part from anthropology and consumption studies as well as from a move in media studies to consider the contexts in which ICTs were experienced. This framework looks beyond the adoption and use of ICTs (as well as gratifications or benefits) to ask what the technologies and services mean to people, how they experience them and the roles that these technologies can come to play in their lives. In fact, the term itself evokes a sense of ‘taming the wild’, and we see in many domestication studies the processes at work as people, both individually and in households, encounter ICTs and deal with them, sometimes rejecting the technologies at other times working out how exactly to fit them into their everyday routines.

Outlines of the domestication framework first emerged at the start of the 1990s (Silverstone et al, 1992; Silverstone 1994b; Silverstone and Haddon, 1996). In that early phase, Norwegian researchers, in Trondheim¹ in particular, also helped to develop the concept. It subsequently reached a wider European audience² partly through the European academic networks in this field that were emerging in the 1990s before being taken up further afield in Australia, North America and Asia³

The very first British research focused on nuclear families (e.g. Hirsch, 1992). But in subsequent studies other family structures were considered, such as single-parent households (Haddon and Silverstone, 1995b; see also Russo Lemor, 2005, on American single parents). In later empirical work, the groups studied have been identified by their work situation, such as teleworkers (Haddon and Silverstone, 1993, 1995a), homeworkers (Ward, 2005b) and Small and Medium Sized Enterprises (Pierson, 2005). Finally, some groups were chosen because of their age (the young elderly of the 60-75 age group, in Haddon and Silverstone, 1996; young adults, in Hartmann, 2005a), social classes (professional and managerial, in Silverstone and

¹ For Norwegian examples, see Sørensen (1994), Berg (1997) and the collection by Lie and Sørensen (1996a).

² Dutch examples include Bergman and van Zoonen (1999) Frissen (2000) and Rommes (2002). Belgian examples include Punie (1997, 2005) and Hartmann (2005a). Ward (2005a) provides an Irish example.

³ Lally (2002) in Australia, Bakardjieva and Smith (2001) and Barkardjieva (2005a) in Canada, Russo Lemor (2005) in the US, and Lim (2005) in China have also drawn upon this approach.

Haddon, 1996) or because of central activities in their lives, such as being computer hackers (Håpnes, 1996). There have even been studies of individuals (Berg, 1997).

Many of the earliest domestication studies had taken a holistic view, examining a range of ICTs in the home as an ensemble. But others had focused on particular technologies, such as the telephone (Bergman, 1994; Frissen, 1994), Cable TV (Silverstone and Haddon, 1996), CD-i (Silverstone and Haddon, 1993), the home computer (Aune, 1996; Lally, 2002), the Internet (Bergman and van Zoonen, 1999; Haddon, 1999; Ward, 2005a) and the mobile phone (Haddon, 2003).

In addition to variation in the target groups and specific technologies that were studied, there have always been some differences within this tradition of research as well as shifts over time. How exactly the concept of domestication has been employed in particular analyses and with what emphases has depended both upon the researcher and the particular goals of the project. For example, while some of earliest British research stressed the collective identity of households or families (Hirsch, 1992), others have focused on ICTs in relation to an individual sense of identity (e.g. Berg 1997; Hartmann, 2005a). In contrast, the whole question of identity has had less prominence in my own contributions over the years.

Meanwhile, researchers working with the domestication framework have discussed the ways in which the approach has been, or could be, extended (Silverstone, 2005a; Haddon, 2004) or whether some of its elements and goals could indeed be challenged. To illustrate the latter, there are debates as to whether it would be better to focus on the 'home' or 'household' (Bakardjieva, 2005b; Silverstone, 2005b). Elsewhere it has been pointed out how one of the origins of the domestication framework within media studies lay in a desire to move beyond a focus solely on textual analysis (e.g. in TV studies) by considering the context of ICT consumption. However, subsequent domestication studies have failed to return to the question of how context has a bearing on people's interpretation of actual (and particular) texts and one challenge would be to return to this question (Hartmann, 2005b). In general, the Berker et al (2005) collection, taking stock of the domestication approach, is particularly interesting in terms of highlighting such reflections. Some examples of how this framework might be extended are provided below.

Many of very first, and most cited, discussions and examples relating to domestication referred to the period around the initial acquisition of ICTs. These expositions of the framework noted that although technologies come pre-formed with meanings through the influence of advertising, design and all the media discourses surrounding them, both households and individuals then invest them with their own personal meanings and significance. Such domestication processes include the effort before acquisition to imagine how technologies might find a place in the home and a role in people's lives. They include any household discussions, where relevant, about the decision to acquire these ICTs or not. After acquisition, the effort continues in terms of locating these ICTs in domestic routines and spaces. If this was the initial starting point of the domestication framework, later work in this tradition went on to examine the later careers of ICTs and how our relationship to them changed in the longer term. Hence, this work emphasised a point noted from the very start - how domestication entailed ongoing processes rather than being a one-off event (Lie and Sørensen, 1996a; Haddon, 2004).

To take a second example, much of the British research in general, as well as the majority of other studies, focused mainly on what happened in the home. However, it was always clear that this was not the only place where meaning was given to ICTs and where practices evolved. In the 1980s, schools, computer clubs and gaming arcades were, for instance, significant sites for the development of young boys' early interest in computers and interactive games (Haddon 1992). Norwegian writers identifying themselves with the domestication tradition also argued the case for looking beyond the home (Lie and Sørensen, 1996b), as exemplified in a study covering the places where computer hackers met and where their individual and collective domestication strategies emerged (Håpnes, 1996). More recently, others have once again argued for looking at sites of domestication beyond the home, such as in introductory Internet courses. Experience here can have a bearing upon whether people decide to find a place for these technologies in their lives – or reject them (Hynes and Rommes, 2005). In addition, several later studies paid more attention to communications and relations with wider social networks, especially once communication by the Internet became of interest (e.g. Lally, 2002; Ward, 2005a). Meanwhile, the growth in portable ICTs, particularly the mobile phone, required those working in this tradition to think more about how the domestication framework could be expanded to consider interactions with these wider social networks outside the home (Haddon, 2003, 2004).

Another extension of domestication is into the world of work. In his study of SMEs, Pierson (2005) draws attention, as do the other domestication studies of telework and homework, to the mixed personal and work motives for acquiring and using ICTs in home-based work. Like those other studies, he also notes the influence of the context where people are trying to manage boundaries between home and work. Going beyond this, however, Pierson argues for, and illustrates, the study of 'professional domestication', whereby new ICTs can be fitted into (or fail to find a place within) existing work arrangements.

Finally, we have the cross-cultural dimension, which has started to be noted, for example, in studies of different parental child-rearing styles even within a European context (Pasquier et al, 1998). To take an example of domestication analysis applied further afield, one study of Chinese middle-class households observed how a particular national one-child policy meant that the lack of sibling interaction around ICTs was the norm in this country. This study discussed the, arguably, more distinct traditional division of roles in Chinese families (compared to that in many European countries) where the father had a stronger disciplinarian role. This had a bearing upon the experience of ICTs in a context where father-child distance exists. Meanwhile, the particularly high value placed upon education not only affected the desire for ICTs but also the growth of after-school education, and hence the time structures within which children operated. A final example relates to the material culture of interest within the consumption literature. The small size of Chinese apartments, and the lack of any bedroom culture as described in some Western studies (Bovill and Livingstone, 2001) can itself have a bearing upon ICT use. In the Chinese study, if children were doing homework in the living room, some parents abstained from TV watching because of the potential noise, preferring to use more silent technologies. Clearly this research begins to illustrate the scope for exploring domestication processes in very different cultural contexts.

Elements of the domestication framework

In addition to the processes relating to the adoption of ICTs, domestication analysis has also examined issues around non-adoption. For example, various studies have explored the very different reasons lying behind the decision not to adopt, such as the past generational experiences of people who constituted the young elderly in 1990s Britain. These experiences helped to shape views of many of this generation that some technologies were not for them (Haddon and Silverstone, 1996). Other reasons for non-adoption have included the financial constraints and other pressures experienced by poor single parents, such that some ICTs such as PCs were beyond the horizon of what was even considered (Haddon and Silverstone, 1996). Even those actually interested in ICTs such as the Internet have nevertheless failed to adopt because they lacked the support of appropriate social networks. Or else they adopted, but then use was limited because of that same lack of supporting networks (Haddon, 2004).

As noted earlier, in many domestication studies the household was the unit of analysis. In which case, to understand both adoption and use we need to appreciate the negotiation and interaction between household members and the politics of the home that lie behind conflicts and tensions on the one hand and the formation of areas of consensus on the other. Any understandings, or even formal 'rules', about appropriate use of ICTs that emerge from this process usually have some bearing on what people do with the technologies and services. In other words, individuals do act, but they do so within the constraints of domestic, as well as other, social contexts.

At the same time, domestication research has demonstrated time and again that both individuals and household develop strategies to control technologies, both in the sense of controlling the use by others and controlling the place of technologies in one's own life. This, in turn, relates to the type of life, and indeed identity, to which people aspire. Such considerations also lie behind the figures for adoption and usage.

If we turn now to more detailed examples of the specific processes to which domestication researchers have been sensitised, some can be traced back to the earliest writings on the subject. One strand concerns questions of time, originally discussed in relation to 'incorporation' (Silverstone et al, 1992). As will be demonstrated below, usage (and even adoption) has to be understood within the time structures in which, as well as the time constraints under which, people operate. Some of these constraints themselves arise from people's longer-term social commitments, including commitments to other people. Moreover, the question is not just one of the amount of free disposable time available to use ICTs, but how that very time is organised. For example, how fragmented that 'free' time is can have a bearing upon what can be achieved. There is, of course, also a subjective dimension to time, as exemplified by how people experience time pressures and the 'quality' of their time (Haddon, 2004).

Questions of space are also pertinent, and originally discussed in terms of 'objectification'. ICTs can be located in some places rather than others for aesthetic reasons. But the choice can relate to relations between household members – as when the phones, TVs or PCs are located in relatively 'public' places in the home so that parents can monitor children's usage. As in the case of time structures, space

constraints can also change. For instance, the location of telework, and hence the related ICTs supporting this work, can move around the home over time, as children grow older and require more space for themselves (Haddon and Silverstone, 1993, 1995a). Such an example reminds us of the earlier point about the longer-term dynamics surrounding ICTs and how people often have to rethink the place of technologies in the home.

If we are to appreciate fully the symbolic dimensions of ICTs, we need to take into account aspects of consumption such as how technologies are talked about and displayed, originally discussed in terms of ‘conversion’. For example, some teleworkers in the study cited above intentionally made their high-tech equipment very visible as proof that they were really working even if based at home, (as opposed to being perceived as unemployed or ‘just a housewife’). Other forms of impression management involved setting up rules about the volume of sound in the home, because of the image the teleworkers were trying to convey to their clients about their convivial working conditions. In other words, there are clearly activities taking place here beyond ‘use’. Meanwhile, the desire to control the image one gives out can also be a factor in non-adoption. Some, mainly middle class households resisted large screen TVs or satellite dishes because of the potential message it would give to outsiders: *‘They’d think we’re the type of people who watch TV all day!’*

Perhaps less developed than questions of how people react to, and what they do with, ICTs, there has also been some interest in what has changed in people’s lives (or indeed, what they miss out on). Ultimately there is a two-way process taking place, a form of mutuality, in that people shape the place and use of technology in their lives but that technology can in turn influence their experiences (Silverstone, 2005a). In this respect, there have been calls for domestication analysts to pay more attention to the social consequences of ICTs (Bakardjieva, 2005b). One can argue that that has already taken place in terms of considering what it means to be media-rich and poor, which is relevant to the digital divide policy debates discussed below. Meanwhile, some other researchers have looked specifically at how domestication can throw insights upon the gendering process, both in terms of people’s gendered identities and the gender connotations of technologies (e.g. Berg, 1997; Bergman, 1994; Bergman and van Zoonen, 1999).

At another level, some reflections on social consequences have been embedded, even implicitly, in the accounts generated by empirical studies. For example, one common sentiment across British studies was a sense of people’s dependency on technologies (like the original fixed-line phone, but increasingly the mobile phone and email). Once people have adjusted their behaviour over time to assume the availability of certain ICTs, these technologies can become sufficiently integrated in people’s lives that it is difficult for them to imagine going back to a stage without them. The people are ‘locked in’ to the ICTs, in much the same way as we can become locked into car transportation. In which case, to be without some ICTs can be perceived as a form of deprivation, a shock, as when something goes wrong and people lose technological access – such as when telecommunications systems or local connections fail.

Within domestication studies there have been efforts to explore in more detail what it can mean to be empowered by technology. For example, this can be in terms of enabling us to reach our goals, express ourselves in new forms for new purposes or

experience greater spontaneity by reducing waiting time (Bakardjieva, 2005a: 47, 62-3, 65). While these have been conceptualised as ‘amplifications’, when ICTs sometimes allow us to reach out to and operate over a few greater realm (*ibid*, 61), those same ICTs can also lead to ‘reductions’ (*ibid*, 65-66). In other words, there are trade-offs between what we gain and what we lose.

Overlap with other research traditions

When applying the domestication framework to the analysis of a particular topic or group this does not necessarily preclude combining it with other forms or levels of analysis if these provide additional insights. For example, several of the British studies contextualised their subjects by borrowing from the literature analysing the social construction of childhood (e.g. James and Prout, 1997). These studies reflected upon such things as recent historical developments in work practices, in legislation, in media representations and in financial circumstances. Based on this they could ask what it meant to be a teleworker, a lone parent or a young elderly person in 1990s Britain in terms of options, perceptions, expectations, constraints, etc. Another example, and another form of contextualisation, involved considering the biographies of our subjects, in particular as cohorts of people born at a certain time and sharing certain experiences over the course of their lives.

Later studies looked at how the contributions of theoretical frameworks such as Bourdieu’s work on social and cultural capital could be emphasised within a broader domestication analysis, (Hynes and Rommes, 2005). Bourdieu’s concept of ‘capital’ was used to examine the different resources people that bring with them to computer and Internet courses, which in turn can have a bearing upon their experience there and through this on whether these ICTs ever find a place in their lives. One final example is the concept of ‘little behaviour genres’⁴ from the linguistic insights of Voloshinov (Bakardieva, 2005a: 29-31). This approach was used to reconceptualise certain typical situations in people’s lives (e.g. of isolation in various forms, of relocation, of globally spread social and family networks) and hence define the associated patterns of Internet use as ‘use genres’ (*ibid*, 117-36).

A second point to make about overlaps is that some researchers who would not consider themselves to be operating within the domestication tradition, nevertheless ask similar questions and provide related insights. For example, French research published in the journal *Réseaux* has often covered similar ground, both at a theoretical level and in empirical studies (e.g. of the implications for communications patterns of major life changes, Haddon, 2004). To take another example, one Irish study of Internet use (Ward, 2005a) was by no means unique in pointing out ways in which the online world changes communications and relations with social networks (in terms of enabling reunions, keeping contact). But often there can be new inflections in making these points. In this case, the study considered what it means within households to maintain wider family relationships – how this is incorporated into their new practices and how it changes perceptions of the wider family.

⁴ Little behaviour genre refers typical styles of linguistic interaction appropriate for certain situations e.g. the casual conversation of the drawing room

The final observation of this section concerns the link between the social shaping of technology and domestication traditions. Some of the early examples of domestication analysts exploring this link were Sørensen (1994; see also Sørensen, 2005), Lie and Sørensen (1996b) and Silverstone and Haddon (1996). Later examples include Rommes (2002), Punie (2005) and Bakardieva (2005a). In general, those making a connection between traditions sees domestication as addressing the issue of how the social shaping continues after ICTs have started to be taken up, a theme also now being examined by analysts who were previously more involved in the design phases (Mallard, 2005).

Methodological issues

The main methodologies used by domestication have been qualitative in nature, which is understandable given the interest in the meaning and significance of ICTs to people, as well as their ambiguities and contradictions (Silverstone, 2005a).

This can mean paying attention to fine nuances and detail, such as carefully examining what people say when they present themselves (e.g. Hartmann, 2005a), or how they construct boundaries in their lives and around their identities (Pichault, et al. 2005).

In Britain the earliest studies had been more ethnographic in the sense of developing an in-depth knowledge of the particular households through a variety of methods. These initially included participant observation (alongside interviews and time use dairies) and subsequently a raft of other methods (constructing mental maps of the home, drawing diagrams of social networks, talking about family albums, making technology inventories, mapping media use, analysing family budgeting, etc.) in order to build up a more comprehensive overview of the families concerned (Silverstone et al, 1991). This takes a good deal of time and money, and hence later British work relied more on the interview, dairy and some observations, although the move away from ethnography contributed to a declining ability to address some questions, such as engagement with media texts (Hartmann, 2005b).

In later work within this domestication tradition there has been some experimentation with other methodological approaches, for example, using self-interviews and semi-structured interviews⁵ (Hartmann, 2005a). New additions, especially relating to new techniques in Internet research, include the use of on-line research tools, web-based content analysis, and an online survey – in combination with face-to-face interviews (Ward's research, described in Pichault, et al. 2005). One novel approach entailed using insights from the domestication framework in order to assess a report, which in practice involved reflections on the existing research that had been assembled (Punie's research, described in Pichault, et al. 2005).

Finally, apart from arguing how this qualitative work can complement quantitative methodologies (Silverstone, 2005a), some standard surveys have been carried out by domestication researchers themselves, such as Belgian research on non-adoption (Punie, 1997) and on SMEs (Pierson, 2005). If we take the latter case, within a general discussion of 'professional domestication', statistics were used in connection

⁵ This research required students to conduct one self-interview and interviews with 6 others – generating 550 semi-structured interviews. A subset of these were selected for more detailed analysis.

with discussions of how purchase decisions are made. They were used to underline the boundaries, or lack of boundaries, between home and work as well as to demonstrate the mixed personal and professional use of ICTs such as mobile phones and the Internet.

If we consider another example, early British domestication studies had examined the ways in which people sometimes developed strategies to control their communications. They usually did this either because of the costs of outgoing calls or the disruptiveness of incoming ones, especially if the latter occurred at certain inconvenient times. Hence, a section of a European five-country survey (Haddon, 1998) explored the generalisability of such issues and strategies, which, while not being unique, was also not so common in more traditional surveys of ICTs. However, the complementarity of methods was clear in that the qualitative material showed the range of experiences that lie behind concepts like 'control strategies' as well as the degrees of success and sophistication in implementing them.

The contributions of domestication analysis

On the whole, and in part reflecting its emphasis on qualitative research, domestication analysis tends not to try to prove the existence of social trends in ICT consumption and lifestyle, such as the extent to which people's time use is altering, changes in their ability to range over space, the way they maintain social relationships, etc. Studies more dedicated to such topics are better able to do that, although we can in domestication studies see how such changes in everyday life are lived out, as is shown through people's reflections upon developments in their lives over the longer term (over even the shorter term, in the case of phenomenon such as mobile phone texting).

However, domestication analysis suggests that it is often best to think of changes as evolutionary rather than revolutionary (Silverstone, 1995; Lie and Sørensen, 1996b) because of the time scales involved, because of the overall significance of the change, but also because of continuities. In keeping with French research (Jouet, 2000), uses of new ICTs are often built upon existing practices, which they then supplement. For example, one study was critical of the utopianism of some earlier writers who had stressed how much change the Internet can produce, underlining endless possibilities. In contrast, this study showed how Internet use was very firmly grounded in the everyday interests of households by focusing on how the things that its members already do influences interest in and use of the Net (Ward, 2005a).

Silverstone (2005a) has argued that scepticism tends to be built into the domestication approach. One can appreciate this in the challenges to claims celebrating the revolutionary nature of technology noted above. However, it is also revealed in challenges to populist discourses, as in Hartmann's (2005a) critical approach to claims about a new 'net-generation'. She portrays a mixed picture of young adults who in some ways embraced ICTs, but at other moments were hesitant about them, if not rejecting technologies at least controlling the place that these technologies had in their in lives.

Apart from contributing to academic debates and questioning claims made in the popular press by various commentators, domestication studies sponsored by

companies have tried to provide relevant insights for commercial purposes. These have challenged industry assumptions, pointing out implications of decisions when developing new ICTs and even suggesting design considerations. This is not to say that this feedback could not have reached through other research approaches, but the point is that domestication analysis can be useful in a commercial context.

For example, in the UK, the staff of a cable operator wanted to understand the low take up of their cable service by social class AB: managers and professionals (Silverstone and Haddon, 1996). One contribution of this study was that it drew attention to this group's time schedules. Not only did these ABs have little disposable time overall for watching TV, but the time slots for doing so in midweek were often fragmented, and not long enough for watching films. Therefore, for many, cable could not be justified. This research took place at a time when cable companies were not only promoting films as a major selling point, but were selling packages all of which included films. The industry subsequently offered some cheaper packages that did not include films⁶.

A second UK commercial project arose when the firm developing a consulting service for its banking clients was interested in the future of electronic commerce and the Internet more generally, given this was the early period of its growth as a mass-market phenomenon (Haddon, 1999). However, people's evaluations of the online world in part depended upon expectations, as demonstrated through the cross-cultural comparative element to this particular research. Where people had gained familiarity with the online world through work the Internet was more of a mundane, known quantity. This contrasted with people who had learnt about it through marketing and the media, which had created high expectations but also disappointments and frustrations. As in the earlier discussion of social networks, some people were hindered in their ability both to go online and develop their uses through lack of appropriate social networks. Such findings could help to generate advice for companies about managing expectations and developing routes to reach and support potential users. Finally, it became clear how the time structures in which many people operated provided important constraints on usage. This challenged contemporary speculations within the industry about how substantially on-line time could be increased.

A final example was a survey conducted for a telecom operator. It was striking how much the costs of telecoms was an issue within the European countries studied, across the social spectrum, and how much this affected interactions within households – e.g. in terms of complaints about other household members use of the phone and attempts to limit this use. Subsequent research suggested that this was also the case later for mobile phones (Haddon and Vincent, 2005). Although the telecom operator staff did not request advice on the implications of this study, this finding would underline the limits to how costly new services can be as operators attempt to diversify their revenue.

As regards informing policy, domestication researchers have first of all contributed to this field in a general sense, in the same way as totally different traditions of research

⁶ However, we do not know if that related in any way to our recommendations – one of the common problems of commercial research is not knowing when happens once the report is handed over.

have done. Policy is itself swayed by numerous influences, including the above noted discourse about and visions of ICT futures. By engaging with these through detailed argument and evidence concerning people's actual experiences in everyday life the aim has been to produce a more sanguine, reflective assessment of technological futures. This is perhaps best illustrated by research questioning the degree of change that will be brought about through ICTs while at the same time showing due concern about their consequences.

In addition, we have the work specifically funded by policy-making bodies, one clear example being the EC funded EMTEL II programme, and the subsequent book on European research (Silverstone, 2005a), chapters from which have been used in this review. These often address policy at both more general and specific levels. In its introduction, the book is described as engaging with the European Information Society, arguing that we all, including policy makers, must take into account the perspective of potential consumers, citizens and workers through a detailed investigation of 'quality and character' of everyday life – and indicating how the chapters provide examples of how this can be achieved. Hence, for example, such work is needed to challenge the presumptions of rationality and efficiency within discourses of consumer needs (Silverstone, 2005a). Others emphasise how we can contrast existing policy interests in what the information society might do with the things that people actually do with the technologies in practice and what they are interested in doing with them (Ward, 2005a).

In addition to such general arguments, there have from time to time been more specific recommendations. One example from the research on young adults would be the need to pay attention to the entertainment dimension in learning (Hartmann, 2005a). Meanwhile, researchers examining computer and Internet courses have argued that the designers of such course could benefit from taking into account insights from this tradition of research (Hynes and Rommes, 2005).

Lastly, over the years there have been other outputs from domestication research that, while not being funded by policy bodies, have nevertheless contributed to public debates, perhaps the best example being that of social exclusion or the digital divide (Silverstone, 1995; Punie, 1997; Haddon, 2000, 2004). Through domestication research it was possible to explore what the presence and absence of ICTs meant to people in everyday life, the possibilities they opened up or closed down. For example, what implications did it have to be 'media-rich' or 'media-poor'? At the same time, these studies highlighted some of the ambiguities felt about ICTs, even well established ones like the TV and phone, and showed why people might not always choose to embrace new technologies.

Conclusion

This paper has attempted both to provide an introduction to domestication research and to comment on the current state of play. It started with scoping exercise, showing the extent of the European origins and base of this research tradition, but how it has also started to be taken up further a field. This article showed the range of technologies considered and the social groups researched. To use the metaphor of the church, domestication research can clearly be seen as ecumenical, embracing research and researchers with slightly different agendas. But this exercise also indicated that

there were healthy debates among domestication researchers, including about ways of extending the framework beyond much if its early focus on the home and domestic life.

Next, the article outlined key elements of domestication analysis for those less familiar with this tradition, before addressing contemporary discussions as to how the framework has been, and could be, used to address questions about the social consequences of ICTs.

Out of a wariness of over-claiming what any particular research approach can offer, the following section really addressed two issues: uniqueness and comprehensiveness. It is important to stress that there is overlap with the insights from researchers who would not particular consider themselves to be within a domestication tradition, and therefore there is always scope for a dialogue, for mutual borrowing of and engaging with ideas, arguments and evidence. Meanwhile, while the domestication framework brings with it certain understandings of its own, this section tried to demonstrate how this form of analysis can be, and has been, combined to good effect with other traditions of research.

It was important to make some comment about methodology because of strong emphasis on qualitative research. This perhaps relates to why domestication has been so strongly associated with Europe, given the importance of quantitative approaches in North America and Asia. There was an, albeit brief, discussion of why qualitative methods have an affinity with this issues that the domestication approach hopes to explore. That said, the methods themselves are not static, and there is some ongoing methodological exploration. Moreover, in principle combined qualitative and quantitative approaches have been welcomed and this section demonstrated some examples of the use of quantitative methods within domestication analysis

Lastly, the article dealt with the applicability of domestication analysis beyond academia. Like other scholarly research, it has tried to engage with a range of widespread, and indeed important, claims about how society is developing. It has been applied in the commercial world, which is important not just because it may lead to a 'better' design or 'better' products in some sense, but because industry has funded some of the research that later entered the public domain. Finally, its relevance for policy was indicated, which is significant given that policy initiatives, especially around ICTs, may have a bearing on all our lives and so it is in principle desirable that such initiatives be as informed as possible.

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