Applying Domestication: How the Internet Found Its Place in the Home

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ABSTRACT

The concept of the domestication of media technologies has been developed to describe and analyse the processes of technology's acceptance, rejection and use. The concept is both theoretical and conceptual but proves to be valuable when applied to everyday life scenarios. This paper employs the Silverstone model of domestication (1989, 1992) as a structural and analytical framework to achieve an empirical understanding of domestication from the viewpoint of the domestic user of the internet. A model of re-domestication is offered to comprehend the process of domestication through the eyes of everyday users.

INTRODUCTION AND BACKGROUND

The field of technology acceptance and adoption has its roots in information systems and in systems of innovation disciplines. Everett Rogers' S curve adoption model (1995) and the TAM are widely used by researchers wishing to predict user acceptance of information technologies. With such technology focused treatments of the process of adoption and use very little is known about how the user experiences the social processes through which technologies undergo in order to become accepted and used in everyday life. In order to bridge this knowledge gap, this paper will present findings from a study of domestic internet users on their personal experiences of how internet technologies become part of their everyday life – in other words, how technologies are domesticated.

The dominant technology-led models (Negroponte, 1996, Kelly 1999) provide an inadequate explanation of how ICTs are incorporated into the household. In fact, these technological determinist accounts completely ignore the role of the user in the process. Such models suggest that ICTs come into the household as completed or self-contained artefacts, with fixed interpretations and meanings. This ignores the role of users in shaping or reshaping technologies in many important respects. Users of technology are generally (and too easily) conceptualised as relatively passive end users and are thus overlooked or taken for granted. Technological artefacts are treated as 'black boxes', and users are denied agency to choose, use and experience them in different and varying ways. This, in turn, denies them a role in the active construction of meaning.

This paper will focus on the human side of the relationship between users and computers/internet. The domestication process is essentially about how relationships between humans and technologies are constructed, maintained and modified. Domestication is, above all, sensitive to the social factors (age, gender, class to name but a few) that are central to how both the user and the technology are mutually shaped in this process. Domestication is one of the more accepted conceptual frameworks used to analyse ICT users and their relationship to technologies they use. Domestication was deemed more suitable than alternative adoption of technology models (for instance, Rogers 1995) as it signifies the ability of individuals, families, households and other institutions to make new technologies and services their own; to integrate them into everyday lives. In a dialectical process, skills and practices interact with and underpin the construction of meaning around the use of ICTs.

The concept of domestication was first formulated to deal with the appropriation and use of mature media technologies, such as television (Silverstone *et al*., 1992). This produced a 4-stage model of domestication aimed at making sense of the process whereby people come into possession of a new technology, for whatever reason, and where they subject the technology to social processes in order to 'tame' or 'integrate' the technology into their lives, and into the moral economy of the household.

The domestication concept, as expressed and employed here, is very much a European construct. First developed in the UK by researchers at Brunel University to explore the relationship between media and households (Silverstone *et al*., 1989, 1992), it was later applied by Norwegian researchers and other technologies such as cars and smart houses (Lie & Sørensen 1996, Berg 1999). Domestication more recently has been extended and applied to organisational contexts (Pierson, 2006) and to educational contexts (Hynes & Rommes, 2006) where humans seek to eke out a place for technology in their daily routines of both learning and work.

In this paper, domestication will be applied as a tool which helps in analyzing the process through which the user makes the technology 'one's own', a process in which both the technology and its user are changed. This process takes place through various phases or dimensions in which the artefact is fitted into the routines and practices of the everyday life of its user (Silverstone et al., 1992; Lie and Sørensen, 1996; Aune, 1996; Mansell and Silverstone, 1996; Frissen, 1997; Mackay, 1997). The product of the application of domestication in this way provides an ethnography of how users themselves experienced the process of how the internet became a part of their everyday lives.

THE FOUR PHASES OF DOMESTICATION

n the **appropriation** phase, possession and ownership are central. The acquisition of the technology is the main activity or concern. A technology gets appropriated as it is sold and then owned or possessed by a household. That is the point at which a commodity crosses the threshold between public and private, beginning its new life as a domestic object. **Objectification** tries to capture how values, tastes or styles are expressed through the display of the new technology. It involves both a spatial aspect (where it is placed in the house), and a temporal aspect (how it is fitted in the time structure). However, the spatial aspect is more central in this phase, '…physical artefacts, in their arrangement and display, as well as…in the creation of the environment for their display, provide an objectification of the values, the aesthetic and…cognitive universe, of those who feel comfortable or identify with them' (Silverstone *et al*., 1992:22–23). The **incorporation** phase emphasises how ICTs are used, and the temporal aspect is more central in this phase. Silverstone *et al*. (1992) suggest that for an artefact to be incorporated it has to be actively used, such as in the performance of a task. The **conversion** phase is concerned with the relations between the households' internal affairs and the public domain or outside world. This phase is also concerned with how users speak and articulate their relationship with technology.

This model, however, is posited as a paradigmatic process with abstract phases relating to user experiences. The Silverstone approach, in some ways, lacks a real sense of *user* experiences. In some respects, it can also appear rigid in the ways phases are entered into – these become blurred when applied to new media technologies (especially the computer and internet). The challenge of this paper, then, is to empirically apply the Silverstone domestication model and assess whether this process can be transferable to new ICTs.

METHODS AND APPLICATION

The empirical dataset is drawn from small-scale qualitative study of 16 households as part of a wider doctoral research analysing the use and consumption of new media technologies in the household setting in Dublin, Ireland (Hynes, 2005). The households were drawn from middle class and working class suburban areas and were of varied composition. Instead of a survey of a representative sample of the population to provide a package of easily managed figures and statistics,

this paper will strive to eliminate objectivity in order to achieve subjectivity. Subjectivity, in this case, represents individual domestication experiences and narratives of user's internet consumption.

A number of research techniques were carried out to provide a rich picture of the nature of internet consumption. In-depth interviewing formed the main research instrument. To complement the interviews, the respondents were asked to complete a time-use diary describing their overall media use in order to gain a complete picture of how the internet fitted into their portfolio of media use. A small amount of participant observation was also employed.

To understand the domestication process from the viewpoint of the user, I shall present a version of domestication gained through an analysis of the empirical data. The 4-stage approach proposed by Silverstone *et al.* (1989) underpinned my study, providing a theoretical framework and a tool by which to analyse the process of domestication. However, it became apparent that the user's *own* interpretation of how and why they consumed the technologies was not adequately described by the Silverstone approach. In fact, the results and findings from my study might be understood as the *product* of the application of Silverstone's model which evolved into an alternative 3-stage model. This alternative model aims to advance the concept of domestication, in order to portray the lived realities of domestic users as they experience domestication of internet technologies in their own homes.

RESULTS

In carrying out this research, I have applied the domestication process as offered and developed by Silverstone *et al.* (1989, 1992). In a sense, I have used Silverstone's concept as an 'ideal model', through which the findings were filtered about the domestic consumption practices and experiences of the users. Silverstone's model has both informed the way I gathered the data and the way I have interpreted the data, essentially meaning that the domestication concept has provided me with an analytical tool. The Silverstone version proved to be more appropriate than the competing, alternative theories and concepts of ICT integration into everyday life (Lie & Sørensen, 1996) or even diffusion models of uptake (Rogers, 1995). The Silverstone model proved useful in the ways it highlighted certain phases or aspects of the social processes through which domestic users experience a level of meaning and significance, embedding the artefact into 'everyday life' and the household.

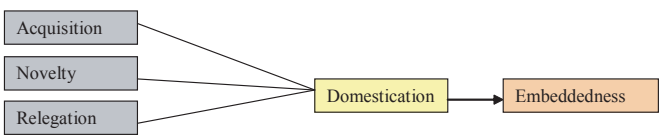
However, despite my extensive use of Silverstone's domestication concept, it should only be thought of as a theoretical apparatus, or empirical check-list employed to make sense of the experiences of users. While I have retained the terminology offered by the Silverstone's approach to domestication, my analysis of domestic use suggests that the process of domestication can be understood in another way, one which stems from my rich, in-depth research of domestic users.

I propose a user-based model which makes sense of users' experiences. These processes are not fixed or linear, but can be experienced at different stages during use. The 3-stage model below describes the processes that occur *before* the actual acquisition of the technology to the changes the user and technology undergo during subsequent social processes (Figure 1). Although this schema begins with 'acquisition', I propose that the processes that occur before the technology actually enters the home form a crucial element of the acquisition phase.

ACQUISITION PHASE: THE HOME'S NEW ARRIVAL

The Silverstone 4-stage model suggests domestication begins when the technology enters the home; however, my empirical analysis suggests that users experience earlier stages/aspects *before* the technology even reaches the home or even before it is used in any real meaningful way in the domestic domain.

Figure 1. 3-stage model



The findings indicate the following phases of acquisition:

- First/previous encounter(s) sets the scene/shape of use
- Interest, motivation and skills
- Justification for purchase
- Research
- Actual purchase experience
- Entrance of the technology
- Location in the household
- Early use
- Learning, training, and teaching skills to other family members.

My findings suggest that what goes on before the entrance of the technologies to the home is just as important as what goes on once they have entered the domestic space. In this study, the users or 'informed' non-users shape their experiences typically on their first encounters with the technology – such as in a school, university and college or work – and this shapes the way users approach the acquisition of the technology.

Interest, motivation and skills also prove to be crucial factors in the ways respondents shape their experiences when coming into possession of the technology. Respondents see skills and abilities to operate the technology as crucial to the type of machine acquired, how they perceive the technology, and where this technology is to be located. If the technology is seen as another part of the entertainment network and used mainly for entertainment or communication purposes, it tended to be located in the communal living space. When the technology is seen as an information resource, in the same way as a set of encyclopaedias, it tended to be located in a bedroom or study location.

The justification for purchase, and the research that the respondents conducted prior to the purchase of the actual equipment, was associated with a high level of significance for respondents. This sub-phase of acquisition was important in that it informed what kind of technology was best suited to their needs and financial status.

The technology then enters the home and remains in the acquisition stage whilst the user realises the actuality of consumption. Once the technology achieves a level of familiarity, and the user overcomes the difficult stage of becoming acquainted with it and its functions, the process enters the next stage.

NOVELTY PHASE: 'I COULDN'T TURN IT OFF!'

The second phase, which I have termed the novelty phase, is experienced after the early stages of meaning association and value attribution have assigned a certain level of significance to the technology. This phase is concerned with meaning and use. All respondents testify to experiencing this stage during their domestic use. For example, a female respondent explains how she experienced the 'novelty phase':

It took a couple of nights, when we had it first, we had it on all the time - the novelty of it - just surfing through it, finding out how things worked, what goes where, and what you can do with it. It was a bit of a buzz at first, but it soon wears off. (Female, 38)

This phase has an unfixed timeframe and is entirely dependent on the individual user. The time it takes for the 'freshness' or novelty to abate is determined by what functions the users themselves have discovered. Significantly, it is also possible to re-experience this phase, along with the acquisition phase, throughout the process as a whole, as new uses and functions are constantly discovered and the technology is reshaped, and as new items of hardware and software are added. Once this happens, the user will undergo the process again and experience yet another novelty phase.

RELEGATION PHASE: HOW THE TECHNOLOGY LOST ITS CHARM

The third phase in this empirical model is the relegation phase. Once the period of novelty has abated users' patterns of use change as the technology fits into the everyday routines of their lifestyles. After the initial acquisition and novelty periods, the attraction of the technology begins to dissipate and the technology

slowly begins to achieve a level of embeddedness and integration. The technology comes to be regarded as just 'being there', relegated to just 'another machine for the home', in the same sense as the television, radio or telephone. The testimonies below illustrate how the technology loses its charm:

Even though when you buy something, within weeks – because you have worked for it and you have bought it and are delighted with it. Suddenly it loses its novelty like everything does. I found the computer still lost the novelty of being a wonderful thing (Female 33).

When I first got it, I would have considered it a special type of machine. I was very much careful because it was so expensive, so it was packaged and only taken out if I wanted to do something specific. But now, because I have it for so long, it is part of the home. I'd come in and put on the television and computer (internet) automatically (Female 24).

No, to us it is part and parcel of the household like the television (Female 48).

However, as stated before, even though the technology may appear to be in the relegation phase, if new functions or uses are discovered, the user re-enters the two initial phases. The model I propose should not be considered as a linear process, because overlapping and entwining of all stages is possible, unlike the Silverstone model.

CONCLUSIONS

This paper argues that when the Silverstone model is applied to the domestication of the internet, several issues become problematic. First, the process needs to become more fluid and dynamic than the initial conception of the model, due to the increased functionality of new media technologies. It is rarely the case that new media technologies are dedicated to one purpose or function; instead they can converge with or assume the role of mature media uses. Closure of meaning becomes problematic because of the increased functionality and utility of new media, in the ways that the internet can mean different things to different users, sometimes simultaneously (as an information resource, communication medium, or entertainment station).

Transfer of meaning and interest across the different functions of new media may also occur. This multiplicity of functions brings with it an added problem of new skills and practices required to operate the technology and make use of it to its fullest capacity. Renegotiations of meanings and uses are possible and common in relation to new media technologies. For instance, meanings are renegotiated when novel aspects of new technologies are discovered by users. This ensures the process of domestication of new media technologies is not harmonious, linear, or complete, but is in constant flux and transformation, resulting in heterogeneous and unfixed outcomes of domestication. Some of the factors making domestication problematic when applied to new media technologies are:

New Technologies

Users experience the domestication process, more often than not, when the technology is newly acquired, or when it is first encountered in external environments. However, in the case of new media technologies, peripheral devices are often bought to complement the existing artefact (printers, scanners, digital cameras etc). This brings about a new domestication experience, and sometimes a relocation of the artefact, which further enhances the user's experience of the technology. New technologies and peripheral devices open new negotiations in ways not possible with mature or traditional media.

Software

Users can explore and discover new aspects to the technology brought about by new software. New software also carries baggage in the shape of new skills required to negotiate and navigate the new experience.

Shift of Focus

When users discover alternative uses and functions of the technology, their experience is again enhanced. For instance, if the primary function of the internet was to surf for information, but the user discovers email, chat-rooms and/or message boards, their interest, skills and conception of the artefact is developed and extended. This brings about a re-negotiation of meaning and significance of the technology in their everyday life.

While the model I propose gives an understanding of the lived reality and user experience of the domestication process, it is essential to place it within the context of my sample, as a working application of Silverstone's model. It must be viewed as an empirical, rather than a theoretical model. It is only through practical application that such a model can further our understanding of the complex processes of domestication, that is the ways users acquire, use and consume and make sense of the technologies within their own 'everyday' reality.

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