The domestication of online technologies by smaller businesses and the 'busy day'

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Abstract

Despite the institutional push for all businesses to embrace new forms of Information & Communication Technologies (ICTs) and 'get online', it is evident that take-up amongst businesses has been highly uneven, with some cautious in their adoption and others not adopting, with the possibilities offered not being exploited. To understand this, a multi-method approach has been used to provide different lenses through which to observe the online practices of a specific group of practitioners. Analysis was performed using a modified version of Silverstone's (1992) domestication framework. It is proposed that users embed (internalise) online technologies within their 'busy-day' – which often requires much effort and involves configuration and learning (learning by trying). It is concluded that the apparently deterministic institutional view of the benefit of online technologies and the imperative that they are fully exploited to give competitive advantage, can be at odds with the locally contingent and diverse nature of online practices.

Keywords Domestication, Social Shaping of Technology, tourism, online technology, e-commerce,

1. Introduction

In January 2007, a senior Scottish Government official involved with tourism asked the question:

> we would like to better understand…. why do so few businesses adopt 'innovative online practices'… given that this is clearly the future for tourism. We would indeed like all businesses to have web sites and create/use as many channels as is consistent with their marketing objectives to promote themselves.
>
> (Scottish Government Official, 2007)

An important question, it suggests a view of online technologies that they are inevitable, predictable and beneficial. Further, it could be implied that there is something wrong with those who do not take up these new technologies: "non-use or lack of access is a deficiency to be remedied underlies much policy discussion about the Internet" (Wyatt, 2003: 68). However, as recognised by Wyatt, some people voluntarily reject technologies, which she illustrates with the example of car ownership.

This raises the question whether there is an alternative and equally valid view of the uptake of online technologies: that people make decisions, which might be apparently irrational to an observer, but make sense to the decision-maker and does lead to the uptake of technologies, but in a manner that is not inevitable or predictable. This is aside from any economic argument about whether benefits (tangible / intangible) outweigh costs (direct / indirect).

If this latter view is valid, then this raises the question how this view can be explained. Instead of assuming a homogenous approach to the uptake and use of online technologies, it is argued that users each develop their own idiosyncratic approaches to uptake and use, within the bounds of their situation, and that this denotes that they have a degree of ownership for how they take up and use online technologies. This invokes a process of acquisition and internalisation. Attention focuses upon the user, with the acquisition of the technology merely being the starting point in the useful life of the technology (McLaughlin et al., 1999). It is proposed that the concept of 'domestication' presented by Silverstone et al (1992) and developed by others (e.g. Aune, 1996; McLaughlin et al, 1999; Sorensen et al, 2000; Ward, 2006; Pierson, 2006) provides an explanatory framework which helps us to understand this process. In doing so, it helps to explain why technologies are not adopted in the manner expected by the senior Scottish Government official.

The aim of this paper is to study the exploitation of online technologies using the concept of 'domestication', focusing upon a specific group of smaller businesses that can be expected to benefit from online technologies by virtue of the increased contact they provide with their customers: serviced accommodation providers (the term 'hotelier' will be used to denote 'serviced accommodation provider' for the remainder of the paper). Smaller businesses are examined as it is assumed that larger organisations are both more likely to exploit online technologies to their fullest and will have the capability to do so. Attention focuses upon the mundane act of booking accommodation, since this appears to offer a lot of opportunity to engage with potential customers if exploited online. Indeed, the Scottish Executive claims that the provision of an online booking facility is increasingly required by visitors and, further, it will enable businesses to "work smarter" (Scottish Executive, 2006: 31). Nevertheless, only 9% of the serviced accommodation inventory (3,521 properties) on the national tourism website (visitscotland.com) used its online booking facilities (Harwood, 2007). This inconsistency invites investigation. Why is it that so few hoteliers used these online booking facilities? More generally, why is

it that hoteliers tend to have limited uptake of online technologies. What is the process by which online technologies are domesticated and what are the specific challenges in fitting online booking facilities within existing practices?

The remainder of this paper is structured in five parts. The first part presents the concept of 'domestication' and how it has been viewed by analysts. The second presents an outline of the research methodology. There follows an analysis of interviews with hoteliers using the concept of domestication to frame the analysis. The discussion section examines how the concept of domestication and the notion of the 'busy' day has usefully framed observations of online practices. Consideration is given to whether online practices are a substitute for or supplementary to previous practices. The conclusion highlights the importance of understanding the heterogeneous nature of the user practices.

2. Conceptual framework

Whilst technology is a ubiquitous feature of everyday life, if people are asked to define it, they have difficulty and perhaps make reference to some object used to achieve some outcome. To many, it is a black box created in a laboratory, mass-produced in factories and rolled-out for people to use. Its uptake and use is inevitable, though variable with some refusing to engage with it. Indeed, if it does not work the way expected, then there is something wrong with the technology. ICTs are perhaps a good example of this.

This view is perhaps widely held, including by those who engage in the analysis and conceptualisation of technology. Indeed, an examination of empirical research into the uptake of ICTs and online technologies reinforces the argument that this view is held: much attention focuses upon measuring levels and types of uptake and benefits (e.g. Main, 1995; Daniel & Grimshaw, 2002; Daniel & Wilson, 2002; Lituchy & Rail, 2000; Buhalis & Deimezi, 2004), perhaps identifying different categories of users (e.g. Martin, 2005) or establishing changes in use over time (e.g. Cooper & Burges, 2000; Rao et al, 2003; Daniel, Wilson & Myers, 2002). There may be an attempt to establish reasons for non-adoption or uptake (e.g. Whitaker, 1987; Main, 1995; Corrocher, 2002). A few may examine contextual issues such as the role of the public sector in their support and encouragement of uptake (e.g. Fuller & Southern, 1999). The technology itself is rendered almost invisible as attention focuses upon the user. Indeed, the descriptive nature of much of this research has been commented

upon by its reviewers (e.g. Orlikowski & Baroudi, 1991; O'Connor & Murphy, 2004). There has been little attempt to open up the black box and examine the complex relations between the technology and the user. Moreover, early deterministic views of technology have been criticised for their attention to the social impact of the black box rather than investigating how the black box comes into being and works (Edge, 1995: 14). Opening up the black box becomes important if the relationship between people and technology and also the problems of development, uptake and use, are to be understood.

A variety of approaches to examine the black box have emerged under the Science and Technology Studies umbrella. The underlying tenet is that technology is not a self-determining entity detached from the social processes in which it is created and used. Instead, meaning is given to a technology, through the manner in which it comes into being, is diffused, used, modified, re-used and brought to an end. Pinch & Bijker's (1984) Social Construction of Technology (SCOT) is illustrative. The flexibility in the interpretation of a technology leads to various social groups emerging, each holding their own views about the problems and their solutions. This emerging re-conceptualisation of technology recognises the interplay between the material artefact and people, with a more sophisticated description of technology (e.g. Fleck & Howell's 'Technology Complex', 2001) revealing the difference facets of social associations with the artefact. This notion that they are configurations of different elements (both artefactual and social), has led to their depiction as heterogeneous assemblages (Larkin, 1969; Landstrom, 2000) socio-technical ensembles (Bijker (1995: 269), sociotechnical constituencies (Molina, 1990, 1997) and sociomaterial assemblages (Orlikowski & Scott, 2008a, b).

With this re-conceptualisation of technology has emerged a deeper understanding of how technologies come into being, are adopted, used and change over time. The distinction between the active producer of a technology and the passive user is challenged. Technology does not merely diffuse from innovator / producer to user as suggested by Rogers' diffusion model (1995). Nevertheless, Rogers (1995) recognised that the user is an active innovator, which has been examined by Fleck ('innofusion', 1988) and von Hippel (2005). Indeed, interest in the user has focused attention upon a particular category of user, the end-user or 'consumer' and how these users embed or 'domesticate' (Silverstone et al, 1992) technology into their daily lives. Use is locally situated and conditioned, though involves a variety of social processes, which include negotiating about possibilities and learning to make the technology work. Acquisition is merely the starting point of usage (McLaughlin et al., 1999).

2.1. The Concept of Domestication

Various accounts reveal how the concept of domestication has developed over time (Berker et al, 2006; Silverstone, 2006; Sorensen, 2006; Haddon, 2006, 2007). Two specific developmental streams have emerged, that from within Media Studies and the other from Technology Studies.

2.2. Media Studies origins

The first, within the domain of media studies, originates in the work of Silverstone and co-workers in the 1990s (Haddon, 2006), who derive insights from anthropology (Berker et al, 2006), with its emphasis upon the symbolic dimensions (Morley, 2006). Domestication, presented as a 'framework' to understand the internalisation of information and communication technologies (ICTs) (e.g. television, radio, telephone, personal computer) within the household (Silverstone et al, 1992), reveals how these technologies (e.g. a television) becomes part of the daily life of the household.

Domestication describes a process which is perhaps most clearly articulated by Silverstone & Haddon (1996: 60) that it involves "quite literally a taming of the wild and a cultivation of the tame". In other words, it is a process in which a technology becomes embedded within a local context of use. This process unpacks to reveal "four non-discrete elements or phases" (Silverstone et al, 1992: 20): appropriation, objectification, incorporation and conversion. During the process of domestication within a household, technologies are "appropriated" (transferred into ownership), "objectified" (through use, display and, thereby, embedding within the household, the technology portrays the household's identity, values etc.), "incorporated" (focuses upon the functionality of the technology and it's role-fit within the daily routine, i.e. its usage) and give rise to "conversion" (the transformation of "the relationship between the household and the outside world" (Silverstone et al, 1992: 25) as the technology assumes a presence both materially and in conversations within these relationships and also within new relationships rising from this presence. The technology becomes an outward symbol to the community of the household's status).

However, rather than view this embedding as the end of all that happens with this technology Silverstone et al (1992) present the notion developed by Kopytoff that "things have biographies" (Kopytoff, 1986: 66). In other

words, an object (technology) has its own life-cycle. It comes into being and undergoes changes (e.g. change in use or being passed into a new household) with these changes revealing "the changing qualities of the shaping environments through which they pass" (Silverstone et al, 1992: 17).

Moreover, Silverstone et al (1992) characterize ICTs as particularly problematic because they are 'doubly articulated'; they serve as both material object, located within a specific 'spatio-temporal setting' and medium, in other words as "texts or symbolic messages located within the flows of particular socio-cultural discourses" (Livingstone, 2007: 18). This has presented an ongoing analytical challenge (Livingstone, 2007). With regard to studies of the internet, Livingston states that "the challenge remains to sustain a subtle analysis of both the domestic context of use and the semiotic richness of the online world that people engage in" (Livingstone, 2007: 19).

2.3. The Technology Studies lens

The second stream was developed from a Technology Studies perspective, drawing not only upon the work of Silverstone et al (1992), but also Actor Network Theory, which presented the concept of intent being inscribed into designs which users could contest (Sorensen, 2006). For Sorensen "domestication ... is a co-production of the social and the technical" (Sorensen, 2006: 46), which is revealed during the analysis of use. However, Sorensen (2006) emphasises that whilst there are compatibilities between this technology studies perspective and that of media studies, there are also important dissimilarities. First, the emphasis expands beyond the household to consider technologies in everyday use at other sites. Second, the technology studies perspective explicitly distinguishes three dimensions: the practical (i.e. usage), symbolic (i.e. constructing meaning) and cognitive (i.e. learning about practice and meaning).

Sorensen embeds this notion of learning within the concept of social learning: "domestication is a way of describing social learning about technologies" (Sorensen, 2006: 14). He recognises different learning strategies (e.g. 'learning by doing' (Arrow, 1962); 'learning by using' (Rosenberg, 1982)), drawing attention to the different interactions between user and producer in the process of making a technology work ('learning by interacting' (Lundvall, 1998)). Fleck (1994) makes the important distinction between Rosenberg's users 'using' a working technology and users trying to get the technology to work in the first place. Learning is about the "struggle" to make configurational technologies work (Fleck, 1994: 638), which involves improving/modifying

the component elements to enable the configuration to "work as an integrated entity" (Fleck, 1994: 638). Furthermore, this act of trying to get the technology to work will involve some degree of innovation and lead to "new viable configurations" (Fleck, 1994: 649), though without necessarily achieving a solution that works as desired. Furthermore, this 'failure' to achieve a working solution is itself a learning opportunity (Leonard-Barton, 1988).

2.4. Domestication as a 'messy process' of 'fitting' into the 'everyday'

Domestication can be viewed as the user stage of the complex "dynamics of innovation" (Silverstone and Haddon, 1996: 44) involving an interplay between design and domestication. It draws attention to how designer embedded intent is taken up in the use of specific technologies, or whether users discover alternative uses – how meaning is attached to technologies. However, conceptually, domestication can be viewed as "fundamentally a conservative process" (Silverstone & Haddon, 1996: 60) or as a "conservative response to the challenge of technological change" (Silverstone, 2006: 246). This view implies that the stability of the everyday is preserved. The 'wild' and 'strange' is tamed and embedded within the familiar, becoming familiar. It is cultivated, developing and changing (Silverstone & Haddon, 1996). However, Silverstone notes that domestication may neutralise "the potential for real change and real engagements" (Silverstone, 2006: 246). It may stifle user innovation during the attempt to make things work or as new uses are found. This view interestingly contrasts with Leonard-Barton's (1988) statement that "implementation is innovation", a view also expressed by Cragg & Zinatelli (1995) and Graham et al (1996). Leonard-Barton (1988: 265) argues that "technology will never exactly fit user environment" and thus, adjustments (large-scale or minor) will be required: "that change in both technology and user environment is more beneficial than holding one constant and changing the other" (Leonard-Barton, 1988: 265). From a technology studies perspective, the notion of user innovation is perhaps encapsulated in the view that "domestication... is a co-production of the social and the technical" (Sorensen, 2006: 46), tacitly invoking that during co-production new possibilities may arise. Moreover, domestication need not be "smooth, frictionless and precise" (Ward: 152), nor "necessarily harmonious, linear or complete" (Ward: 150), instead is a 'struggle' with stages melting together and is "sometimes unsuccessful" (Ward: 149).

Aune (1996) draws attention to the negotiations within the household regarding use, whereby, as a collective feature of domestication, norms may emerge regarding use (e.g. accepted use of the mobile phone) (Sorensen: 2006). Indeed, Sorensen et al (2000: 240) state that "to domesticate an artefact is to negotiate its meaning and practice in a dynamic and interactive manner", though these negotiations be difficult (Bakardjieva, 2006), tense and conflictual (Silverstone & Haddon, 1996).

Possibilities for use, however, are perhaps shaped by how the boundaries of the social context of use are defined, as revealed in Aune's (1996) study of the embedding of the personal computer within the 'everyday life' of the household, denoting both a temporal and spatial boundary. An alternative distinction is made by Bakardjieva (2006) who replaces the notion of household with that of 'home' to denote "a protected space... the container of interpersonal relationships" (Bakardjieva: 68), a location in which there is "a feeling of safety, trust, freedom and control over one's own affairs" (Bakardjieva, 68). It is in Ward's (2006) study of the home-worker and computer use, that attention is drawn the 'boundary work' required to maintain the 'work and 'home' distinction. In contrast, Pierson's (2006) study of the uptake of ICT in very small businesses, draws attention to the blurred boundary between public and private usage; the transition from an open public to a closed private context. The boundary over which appropriated items must cross for the micro-business, with its informal mode of operating, becomes blurred as the home-work, private-public demarcation dissolves, in contrast to large organisations with their relatively clear demarcation between work and home. Silverstone (2006) also examines the public-private domains in terms of how digital technologies are redefining the boundaries between private and public. A change has occurred, whereby the private viewing of public performances has been complemented with the rise of private conversations in public spaces (e.g. mobile phones in supermarkets, public transport).

2.5. The conceptualisation of online technologies

The nature of online technologies introduces conceptual challenges. What is the artefact? Orlikowski & Iacono (2001) reveal the quagmire that the 'IT artefact' can be conceived in a multitude of ways; as a tool, indirectly through surrogate indicators, as an ensemble, as a computational device or as something that is 'nominally' there whilst attention is elsewhere. Furthermore, they offer, through their five premises, insight into the nature of the IT artefact: that they are "designed constructed and used", are "embedded in some time, place, discourse, and community", are 'made up' or assembled-configured, yet are dynamic and impermanent and "emerge from ongoing social and economic practices" (Orlikowski & Iacono, 2001: 131). This has ready application to online

technologies, which, in their classification as ICTs (Information and Communication Technologies), adds to the notion of computation, that of 'communication' and the role of medium (Silverstone et al, 1992).

Indeed, it is perhaps their role as a medium that establishes the specific character of online technologies. As a medium, their physical features are rendered invisible merging into the 'background' (Thrift 2004: 584), becoming visible when problems arise (cf. 'infrastructure inversion' - Bowker, 1994: 10). Instead, attention focuses upon the non-physical, upon "the symbolic dimensions" (Yoneyama, 1997: 105). Moreover, technological developments have rendered these symbolic dimensions as effectively device independent, accentuating this symbolic dimension and associated practices, typified by the exchange of information and money.

These practices take place within the operational domain of language (Winograd & Flores, 1987), which suggests that the metaphor of the 'text' is an appropriate device to examine ICTs. Indeed, the metaphor of the text focuses attention upon the production (writing) and communication of meaning embedded in this symbolic dimension (Lytje, 1996; Yoneyama, 1997). For Yoneyama, "the symbolic dimensions of computer systems may be addressed as if they were texts" (Yoneyama, 1997: 105). The text metaphor focuses attention upon the dynamics of the computer system use, how it is read and the associated production of meaning; computer systems become "spaces of action possibilities" (Yoneyama, 1997: 114). This is reminiscent of Winograd & Flores (1987: 7) whose basic argument is that new technologies can shape practices which, in turn, can shape language (e.g. new terms), which, in turn, "generates the space of possibilities for action" (e.g. new practices). Attention is upon the generation of meaning. Meaning translates into the practices associated with the uptake and use of online technologies. The reader of a promotional website will send an email enquiring about accommodation. The recipient will check bookings and confirm availability. One assumption is that what is produced is authentic (e.g. the website presents a valid portrait) and implies trust on behalf of both writer and reader. Furthermore, tacit codes of behaviour arise (e.g. emails are replied to immediately, online bookings are checked). It is through the enactment of the technology that the 'technology complex' (Fleck & Howells, 2001) is revealed. Until then, the technology remains speculation; the 'technology' is merely an artefact.

The potential of online technologies is perhaps revealed by considering the interplay between the computer, practices and language (Winograd & Flores, 1987). New technologies allow new possibilities for action (e.g.

automated online booking) and new possibilities for expression (e.g. new words, website). Perhaps it is the attraction of new 'possibilities for action' that leads to rhetorical claims of the benefits and the need for uptake. However, this disregards or overlooks an integral feature of technology implementation - that of embedding it in "time, place, discourse, and community" (Orlikowski & Iacono, 2001). Enactment is achieved through the embedding into practices, though this is only part of the process of enactment.

2.6. Re-conceptualising the internalisation of online technologies

Domestication, whether presented by Silverstone et al (1992) or Sorensen et al (2000), offers a useful device to examine the uptake of online technologies, though raises the issue of how it can be used. Both authors depict domestication as a four phase dynamic in which the artefact is acquired, integrated into daily usage and given symbolic status. However, whilst both conceptually explain the nature of this dynamic, Sorensen's explicit focus upon the act of interpretation (the production of meaning) is, from an observer's perspective, problematic in terms of how to recognise and describe. Indeed, interpretation can be argued to be an intrinsic feature of acquisition and integration into daily usage: meaning manifests in their enactment. Nevertheless, Sorensen's technology studies perspective expands the notion of domestication to make explicit the learning associated with making the artefact work and the meaning ascribed to the artefact by those within the household as well as those outside, for example, in the local community. In contrast, Silverstone's explanation places emphasis upon this enactment, identifying four phases, which, from an observer's perspective, provides a set of conceptual instruments (Scott, 1990) which facilitates the description of what takes place during domestication.

However, the non-material/non-physical nature of online technologies does not fit easily with this interpretation of domestication. Indeed, the notion of the invisible material and the privileging of symbolic content draws attention to Silverstone et al's 'double articulation' of the object and medium, which characterises ICTs and the challenge of its 'subtle analysis' as raised by Livingston (2007).

The symbolic value and meaning of online technologies pertains to their functionality and content. The functionality affords possibilities for action, whilst the reading of the content presents opportunities for action. The material aspect of online technologies tends to be invisible, as long as they function. Unlike an artefact which can be placed into and integrated with a social setting, an online presence involves configuration and embedding, though this may be an integrated, iterative and evolving process. Content and functionality are an

outcome of the specific configuration of the online technologies and its evolution over time. This configuration is embedded in practices, but practice is only one aspect of the embedment, positioning or placement. Silverstone's 'objectification' reveals how the artefact takes on and portrays the household's identity. Identity is an important feature of an online presence, but results from the configuration of the online presence. Likewise 'conversion' concerns "the relationship between the household and the outside world" (Silverstone et al, 1992: 25). This translates into a more focused definition relating to the manner in which people engage with the hotelier's online presence, in particular, how online visitors are converted into actual visitors. The visible evidence from an hotelier's perspective is the impact this presence has in terms of enquiries, bookings and feedback about the website. This amendment to the framework retains four elements, but substitutes 'configuration' for 'objectification' and modifies the emphasis of the others:

- appropriation – acquisition of configurational technologies – services; involves establishing need and how need is to be met, identifying the right suppliers and going about sourcing each element;
- configuration – involves the configuration of hardware, software, content and services, perhaps in unique ways; configurational technologies are ascribed value, purpose, role and identity (website image) to meet intentions and are configured accordingly;
- incorporation – less to do with the physical and symbolic domains than placement within the domain of existing practice as a complement to or substitute for existing practice; involves the development of routines; and
- conversion – the transformation of relationships / behaviours due to the embedding of the technologies but, in this case, a more focused emphasis is upon how online visitors are converted into actual visitors and how this is assessed.

The 'configuration' and 'incorporation' phases relate to the struggle or 'learning' involved in configuring online technologies in a manner which reflects the idiosyncrasies of the actor ('identity') and allows their embedding into the disparate "locations" of the spatial, temporal and cognitive domains. Conversion can relate to the manner in which the embedded online technologies meet expectations with regard to engagement with the outside (e.g. the conversion of visitors to a website into accommodation bookings) leading to a decision to retain or dispose of their use. This very simplistic model invokes linearity and disguises its

inherent messiness. It is coarse and invites refinement. Nevertheless it serves as a conceptual instrument to examine the domestication of online technologies by hoteliers.

3. Methodology

The study reported here is part of a project spanning 2003 to 2009, which examines the online practices of Scottish serviced accommodation providers within the context of Scottish Government activity to support tourism. The project involved a mixed methodology to provide a rich insight into the interplay between the big picture of government policy and national trends and the microscopic detail of practices.

The focus has been upon understanding views and practices, achieved through semi-structured interviews during 2006 and 2007 with both serviced accommodation providers and other stakeholders with an interest in the use of online technologies within tourism. Corporate providers (i.e. internationally branded) were excluded on the grounds that they would exploit online technologies as an integral feature of their ICT strategy. Attention thus focused upon the smaller accommodation providers. Respondents were drawn from contrasting localities. These included Edinburgh, characterised by its high density of tourists, and the Scottish islands, on the basis of difficulty of access. In all locations, initial contact was made by email, contact details having been gathered during the initial database compilation. For each island location, the population of serviced accommodation providers was more rigorously established, drawing upon a more extensive range of online sources, the number with website and email address determined and those with emails targeted. Response rates varied, with a 35% response rate being achieved for one island location. Of the 95 respondents, 54% had 3 or less rooms and 21% had over 7 rooms, with the largest provider having 38 rooms. Furthermore, 27 were not VisitScotland graded so were excluded from using VisitScotland's online services. Only eleven respondents used VisitScotland's online booking facilities and 12 respondents were seasonal (open between 7 and 9 months of the year).

Interviews were predominantly by telephone, with a few face-to-face. In total, 95 interviews were conducted using one or other approach, with 85 being taped. A further nine were conducted by email at the start of the interview process but this was discontinued due to the poor quality of responses. The interviews (guided by a template) allowed unexpected issues to be raised and explored in depth. The advantage of telephone interviews is that it allowed the simultaneous use of an Internet connected laptop to investigate issues raised and the

prompting of further questions. Indeed, issues raised during interviews prompted further investigation of online sources and the compilation of statistics about usage.

Due to the large number of interviews, 30 of the more interesting interviews were fully transcribed.. The coding of the data was conducted in three stages. First the material was organised into general themes, using NVivo software. The interviews had revealed a variety of themes which were used to preliminary categorise the data. These related to:

1. the process of having one's own online presence (internalisation),
2. the use of online intermediary services for promoting the business (commercial and government agency),
3. the influence of third parties in the decision to take up these technologies,
4. the specific use of these technologies for purchasing,
5. the take-up of governmental initiatives (e.g. the Public Internet Access Programme),
6. the participation in local collaborative initiatives (e.g. tourism action groups) to promote the locality online, which was further organised on a locality basis.

For the next two stages, the paper transcripts output from the first stage were marked up to categorise the data and identify common practices (and exemplars of these practices) and issues of interest or controversy. The second stage involved the categorisation of the transcripts using the four phases of the domestication framework for the first two themes. The third stage was a detailed and iterative scrutiny of the transcripts to establish the range of categories and sub-categories, with those relevant to this paper including:

- context of the 'busy day',
- motivation for going online
- getting started
- getting online by doing it yourself (DIY),
    - actor – configurator
    - configurational dimensions,
    - embedding dimensions,
- getting online using external expertise,
- portrayal (identity) of the business
- process of taking a booking
    - conventional,

  - using email,
  - using online booking facilities
- impact of uptake of online technologies
- learning

The analysis has adopted an interpretivistic (constructivist) stance, drawing upon the Social Shaping of Technology conceptual domain. The notion of domestication developed by Silverstone et al (1992) has provided a conceptual framework to guide the analysis and explain findings.

The aim is a rich empirical account of the online practices of serviced accommodation providers, which blends the big picture of policies, initiatives and trends with the micro-detail of practice.

The data suggested that there were three themes to the uptake and use of online technologies in this study. These three themes were firstly, the 'internalisation' of online practices, second, the use of online 'intermediation' services and thirdly, the development of 'localisation' activities relating to the collective efforts of local tourism groups. The account presented here focuses exclusively upon the 'internalisation' theme.

4. Analysis

The essence of the argument presented here is that the traditional manner of a hotelier taking a room booking,, despite its apparent simplicity and mundanity, contains a level of complexity which only surfaces when efforts are made to exploit online booking facilities. This section is organised into four parts. The first provides an insight into the booking process. This is then followed by an insight into the context in which a booking takes place – the 'busy day'. This illustrates a feature of Silverstone et al's 'double articulation', that in privileging the symbolic, the object is rendered invisible. This provides the stimulus for a modification of Silverstone et al's conceptualisation of domestication, which is then used to examine how online technologies are domesticated. This is followed by a brief analysis of the issues affecting the uptake on online booking facilities.

4.1. Practice – old and new ways of doing things

The booking process traditionally involves a customer making contact with the hotelier, establishing whether requirements can be met, and negotiating the terms of the visit and closing it with a payment, often at the end of the stay. Deposits can be taken by cheque or by credit card if the hotelier has acquired these facilities from its bank. Contact would be by telephone, letter or, if in the locality, by 'calling in' (face-to-face). The hotelier's main device for handling this process is the 'reservations book' (figure 1). This image is that of the reservations book of a six bedroom Guest House from the east coast of Scotland.

FIGURE ONE HERE

The importance of the reservations book is that it acts as an inventory management system. The inventory comprises the rooms and beds. The reservations book provides the record of bookings highlighting unsold stock (rooms and beds). Any other records need to be reconciled with this "master" record. The 'reservations book' is an off-the-shelf item, acquired from a well-stocked stationers. Its pages are marked with a standard template suitable for smaller hoteliers. The image reveals both the manner of its use and the wealth of data contained. Heavy duty tape binds it together suggesting wear and tear which has come from sustained use. Opening up the front cover reveals a mosaic of 'useful' information including rates, contact details and also a variety of small doodles. The inside of the back cover contains an even more cluttered mosaic of contact details, including two business cards. Opening up a bookings page reveals the experience based reconfiguration of the layout to meet requirements, in this case for six rooms. In addition to the allocation of names/numbers to the rooms, we can identify the liberal application of white marker to blank out details and allow new details to be entered. Below the room details is space to record booking details; names, contact details, arrival times, deposits received calculations and other notes, as well as the ubiquitous small doodles. These doodles suggest a protracted discussion over the telephone involving more than the exchange of basic booking details. Discussed in more depth later, it can be noted that the reservations book offers a variety of "affordances" (Sellen and Harper, 2002: 17) which allow different uses (e.g. to have things written on it, to "hold" letters between its pages or to be carried about).

ICTs potentially transform this rather archaic way of taking bookings by providing alternatives to the brochure, letter and telephone. Now, people can gather information from the property's website and make contact by email. It potentially offers, through online booking facilities, a substitute for the reservations book, with

availability and rates visible on the hotelier's website and all booking details being captured faithfully and stored electronically on a local internet connected computer. Deposits or full payment can be mediated using a third party online payment facility (e.g. PayPal). Associated with this are administrative issues (e.g. content management, record keeping - analysis, verification of transaction status and process performance). Furthermore, the transaction will take place within a regulatory environment (e.g. Disability Discrimination Act 1995), which the hotelier needs to be aware of. Other issues will include security of stored and transmitted data and the terms relating to using a third party online payment facility (e.g. fees/charges, delay before actual receipt of payment and the handling of fraudulent transactions).

This contrast between the old and new suggests that the new can make the booking process far easier for both the hotelier and the customer. The hotelier no longer needs to interact directly, instead consults, when convenient, the electronic records to find out who is arriving and when, so that everything is ready. The customer has access to details about the hotelier and can book accommodation around the clock. In principle, this idealised image of online technologies offers an enhanced means to make a booking.

The seeming advantages and the rhetoric of the 'imperative', that being on-line is good, appear to be at odds with practice. The actual online booking process embraces a lot of' 'taken-for-granted' or 'invisible' detail. This is not visible in the 'imperative' related rhetoric about online booking or in decontextualised and abstracted descriptions of the process. The invisible has a bearing upon how we take up new technologies, assuming their availability. This invisible detail is embedded in the 'busy' day. The following section provides an insight into what constitutes a 'busy' day.

4.2. The 'busy' day

The 'busy' day is a concept introduced to reflect that an hotelier engages in a full day of both routine and non-routine activity involving both private and business (public) matters. An insight into the 'busy' day is provided by the response from the wife of a couple who runs a seven roomed guest house [EH9-1] to a follow-up request to discuss her online practices. "I honestly have no information I can give you". There is the perception here that there is nothing to contribute to discussions on online practices, despite the property having its own website, an email address and utilising the visitscotland.com online booking engine. This reveals a high degree of engagement with online technologies, but which have been successfully embedded or domesticated. They are

part and parcel of daily life; they have been 'tamed'. Her response provides a unique insight into what might be a common feature of a family run business:

> at this time of year [early August] I barely have time to think - running guest house (a 24/7 job in itself), 2 young children off school, cooking, cleaning, ironing, etc.,etc.,etc!

Her distancing between online technologies and the running of the business is revealed in the absence of activities relating to their effective exploitation:

> I don't keep records of who I advertise with. It's always a surprise to me when I get an invoice for advertising! I don't ask my guests where they heard about us. I am totally disorganised when it comes to the computer. I have 3 standard signatures set up for my email enquiries, nothing else. I don't know how many enquiries I get or where they come from or how many turn into actual business. I don't ask my enquirers why they decided not to book with me. I don't ask guests why they have chosen me over someone else etc, etc…. I have no interest in computers or the internet and I'm quite happy pottering about as I am. I don't start getting much free time until the end of November/beginning of December.

Whilst no information was provided about what was done to support online practices one gets a sense that whatever online related activity was pursued, it had become almost invisible within the context of the day-to-day routine, this being exacerbated by the total absence ("no") of an "interest in computers or the internet". Indeed, it could be argued that online technologies had the same status as, say, a vacuum cleaner or washing machine within the domesticated world of this business. Both are rendered invisible with attention focusing upon the actions they enable – cleaning, washing. Online technologies had been totally absorbed into the busy local context of a business, with the material being rendered invisible and attention focusing upon the discourses enabled by the material. The symbolic aspects of online technologies take prominence.

4.3. The practices in the domestication of online technologies

When user practices are examined using the conceptual instrument of domestication, this reveals the potential for a myriad of possibilities each of which is locally contingent and practical, though with particular patterns of practices perhaps being more prevalent than others.

4.3.1. Appropriation

One motivation to appropriate online technologies is illustrated with the comment from the owner of a ten room guest house: "I realised that the Internet really was the way to go" [EH16-7]. Aligned with the dogmatic 'imperative' of the Government official, this suggests a blind faith in the power of the Internet and the 'promise' that it will deliver benefit. This is underpinned by the view that technology is beneficial and each new rendition is progress. In contrast, this owner viewed local competition as "too old-fashioned" because they do not do more online. They are entrenched in an old way of doing business, of tourists passing by and dropping in. This is ascribed to a lack of understanding of online technologies, their benefits and the increasing number of potential customers online; that they fail to appreciate that the Internet is the future for tourism.

It was incidental that one of these competitors [EH16-6], who had only three rooms, revealed a completely contrasting view. Online technologies were viewed as "the logical extension for marketing", a view which had been pursued, with a website presence dating back four years and more recent exploitation of an online booking functionality through a third party website, incidentally not visible to the former respondent. Moreover there is a practical focus revealed in the comment: "it's just not viable for me to spend huge amounts of time and money developing".

Online technologies offer benefits, but there is a cost aspect that cannot be ignored. Despite reports of the increase in online buying (Yeoman & McMahon-Beattie, 2006), few hoteliers provided online booking facilities (Harwood, 2007), even through third party facilities. Indeed, a number of hoteliers were critical of automated online booking facilities:

> I prefer to speak personally to people and very often they need directions and clarification of where they are coming to… you would be surprised at how many people will book.. you will take the booking and .. ten minutes.. half an hour later .. they will ring up and say 'oh I am sorry I didn't realise you are an island..' its that kind of thing… at the moment I prefer to speak personally to people [O1].

> within reason you can sort of suss out a person quite quickly as to whether they are going to enjoy their holiday with you or not.. I think that's very common [M11].

> I do not like it [online booking] because we are in the hospitality industry which is all about giving people a good welcome, looking after their needs and... [I2].

Central is the notion that online booking facilities lack the variety to convey the requisite information and are impersonal, inanimate and unwelcoming. Moreover, interaction through conversation is viewed as important to assess and inform the visitor.

Take-up can be by establishing a presence on a third party (intermediary) online directory. However, the challenge is how to find the right intermediary of the many that are to be found and avoid blind enrolment. Junk emails entice, but against the backdrop of scams to extract money. Whilst warnings can be found online (e.g. www.stopecg.org (last accessed 16th January 2010)), they need to be 'found'. Within Scotland there is a national online forum and alert service, which does inform about scams, but it is membership based (Scottish Accommodation Providers Alert Scheme (SAPAS)[i]. Some intermediaries appear to acquire details without the knowledge of the hotelier:

> Are we? I have no idea about that… there are lots of websites that simply choose to grab our information and put them on their sites in order to gain credibility… I've never had a single enquiry come [X1]

One concern is the provision of out-dated details by these intermediaries. The better known intermediaries used by the larger hoteliers tend to be expensive as illustrated by this small hotelier's comment:

> WELL-KNOWN-COMPANY.com want something like 25% -30% commission, you know, and with small businesses like us...I do not really know why they are asking so much, but maybe it is because they think they can get away with it. I think it is rubbish. I actively, you know, broken out of contracts... because I find it is too much. But if you say I can only offer you 20%… I can only offer you 15%… and they laugh "Come on, nobody deals with us who gives us less than 25% [EH16-7].

The illusion that they are relatively inexpensive is shattered when the cumulative costs of multiple subscriptions is calculated. Furthermore, they may be forgotten about, becoming invisible, since there is rarely any indication that it has prompted an enquiry, until an invoice is received a year later to renew the subscription. Moreover, experiences can be unpleasant:

> there was one site we advertised with for a couple of years called.. and the guy was incredibly aggressive... he phoned to say our subscription was due and I said that it was not really very convenient to talk to you.. he said, I'll phone back next week... and he did... so I said no we're not going to advertise with you any more because we've had nothing from you…. and he said "how do you know".. and he was so aggressive... I couldn't believe it... I ended up hanging up on him [EH15-1].

In the absence of knowing what is out there, reason may prevail, with innovative ploys including the use of Google search engine to find out which intermediaries have a high ranking:

> it is really common sense. You can look through the Internet and then find out which ones are working and which ones are not... the only search engine that really matters is Google. That is my experience that... there is no competitor really [M16].

Furthermore, intuition is developed through the experience of trying them out:

> every year it is sort of...we try this one and we drop that one, you know. You just kind of… you get a feel for it and you just decide what you think is working and what you think is not [M16].

Likewise, learning from other and word-of-mouth recommendation within the local network can be important:

> you cannot be on them all... we're not stupid... we talk to other B&B owners and try and glean as much information from them as to how they've progressed and... the bulk of the people here that do bed and breakfast have been doing it for a long time and are quite experienced in it and so we've been able... and give really of their advice... so it is a fairly small community so everybody tends to help each other out and information is passed freely to which they would advise are the better sites [M14].

What might appear to be a straightforward task of appropriating an online presence through an online intermediary is fraught with risk and uncertainty due to ignorance about what is 'out there'.

The alternative is to 'do-it-yourself' (DIY). The DIY option is a learning experience which depends upon background. One elderly hotelier who was not familiar with online technologies, reveals a relatively proactive approach:

> I used to take {computer} magazines, but I found that after a while that I didn't have time to read them and I simply just watch what's going and try to understand as much as possible about the new possibilities but obviously there are an awful lot of gimmicky things there that might look terribly attractive but at the end of the day are not necessarily going to add to the bottom line... Magazines... computer magazines... they're talking a language that I can no longer keep up with… the terminology is becoming more and more difficult for me to understand and I'm not sure that I want to spend that amount of time... if what I am doing is bringing in business then I am happy .. if maybe not bringing in as much business as it might do if I was more clued up and could do more.. but given the nature of our business which is a wee bit laid back, I think I am quite happy with what we are doing [AR4].

This reveals a complex dynamic. The hotelier is running a busy business. Online technologies are constantly changing and, more importantly, the language describing – explaining these developments is becoming more complex and distant from day-to-day language. Whilst these newer technologies "look terribly attractive", their appraisal is based upon the criteria "to add to the bottom line". The lack of perceived business benefit of the newer technologies is perhaps diminishing interest in technological developments. The initial goal of getting a presence to meet a business need has been "satisfactorily" met. The way the business is run determines the need, "is a wee bit laid back". There is no desire to optimise the business and thus, there is no requirement to optimise the online presence. This is exacerbated by the growing gap between the language about new technologies and the capable level of knowledge of the hotelier. Thus, even if the newer technologies can offer relatively effortless benefit, the hotelier has no way of knowing this – there is a language barrier. Learning becomes more difficult. As the language barrier grew, the communication channel became less interesting and eventually was severed. This reveals the growing gap between the constantly developing domain of specialist knowledge and what can be understood by the amateur. Learning in a formal setting (e.g. a local college) is impractical for reasons of time and access. This creates a role for a third party expert who can be consulted.

The third party expert, who offers a website design and hosting service, allows the hotelier to delegate the development of an online presence, for reasons of time or lack of knowledge, but at a cost. However, there is an issue of trust:

> consultants who come in and who want to keep you in…. and they don't do the job completely , and you can't do it because you don't know how, then they get busy, then there are questions you want to

> ask… and they are not there and they are making money doing something else and… nothing is happening to your website [EH22].

The challenge is how to find the right partner. Again, word-of-mouth recommendation draws upon the hotelier's network of contacts and obviates the need to understand the technicalities of what is being sought.

Whichever approach is adopted, appropriation is not straightforward. Moreover, the collection of artefacts (e.g. hardware), tools (e.g. installation manuals, software) and imagery-text leads to their configuration into practices which are incorporated into all that goes on within the 'busy day' or whatever is the relevant bounded sphere of experience. Which configuration and incorporation are analytically distinguished, they will intertwined in enactment.

4.3.2. Configuration

The configuration of the different elements involves not just the assembly of artefacts (e.g. work-station) but also the set-up of applications (e.g. email, online payment facilities) and connections (e.g. wireless hub, hyperlinks), use of tools (e.g. digital camera, web-page design software) and the creation of an online identity, though the composition of sound, imagery and text (e.g. web-pages). Moreover, this will involve the configuration of practices appropriate to on-going use as the ensemble is 'made-to-function'.

For example, the creation of a website to promote the business is a configurational activity. The website's content comprises of a configuration of text, image and sound, which not only provides information about the hotelier and the locality, but also presents a constructed image or identity which is designed to attract visitors to the property:

> people still come for The [XXXX] experience just based on the pictures. I spent a lot of money getting the photographs done right [EH16-7].

The photographs provide composed images that are calculated to interest the viewer and that include positioned snapshots of rooms, property exterior, proprietors, views from bedrooms and the locality. The attention given to photographs, 'spending a lot of money', reveals the value attached to these photographs in creating this image. The use of a professional photographer underlines this need to get it right: "we got a photographer to take proper photographs last Autumn…" [BI1].

Alternatively, the view might be held that others cannot take photographs 'as I want it'; it can only be done by 'myself'. 'This is the gaze I want others to see.' Acquisition of a digital camera opens up the opportunity for the hotelier to capture this gaze:

> I want to get some new photographs on there because I have recently got a digital camera so I can take photographs of my own to replace some of the older ones that are on there and some of the ones I am not happy with... and maybe change or add to some of the text [SK10].

The digital camera offers the opportunity to take an unlimited number of snapshots, which can be downloaded onto the computer and edited or 'made-over', creating the desired view or image. Furthermore, these photographs are organised alongside other images (e.g. maps, icons), carefully formulated text and various interactive devices within a laid-out web-page or website. The visual impact, includes the use of colour which may be aligned to the current fashion: "the colours that are in at the moment are this and this" [M16]. This may be complemented with the use of sound, perhaps a thematic piece of music in the background, which starts when the web-page is displayed on the viewer's screen.

The actors carrying out the configuration may be third party, with specialist expertise but also at a cost. However, they are also likely to be the hoteliers themselves or friends or family who have the requisite knowledge. The location of these family members is not an issue "[my] son set it up. See he works with computers and he did it… he did it from America" [DG1]. The closeness of the relationship can transcend the spatial distance – the Internet enables instantaneous communication and the transfer of files, irrespective of distance.

For hoteliers, this tends to be a learning experience, with learning being informal, unstructured and unsupported and of a practical nature – to solve a problem, through the act of trying to make the technology work:

> I just went through the manual and learned as I was doing it… I used MicroSoft FrontPage which is quite a simple programme... I didn't really find any problems... I have to say that I've forgotten a lot of what I learned at that time... I'm not sure that I could actually do it again [AR4].

Learning ceases upon closure to the problem and the knowledge gained is forgotten. The complexity involved in configuration has been recognised by suppliers of online services, who provide set-up 'Wizards', which, through their prompts, provide a degree of customisation.

Configuration can also be ongoing, with changes arising through the experience of use. For example, the evolutionary nature of one particular online presence is revealed by a DIY hotelier:

> its been an evolving picture.. you are constantly learning and thinking and accepting new ways of thinking about things [AR4].

DG2 recounts about the development of his website. Initially there was: "A very simple one page site. Unattractive and basic" [DG2]. Mid-2003, a local web design company was found:

> ...and got funding with Scottish Enterprise to update site…. updated to a four page site, more appealing yet simple and more info. Introduced an e-mail reply system to notify and confirm bookings or answer any enquiries… [but] soon realised that our information was not user friendly DG2].

In late 2004 the site was updated:

> Updated the site again to 11 pages. More specific information, new techniques with 360 degree room views, comments page, enquiry page etc, and even more appealing [DG2].

This brief insight reveals a development trajectory which progresses from simple to complex. In this case it is suggested that the motivation to upgrade from the first one page site to a four page site may have been the availability of financial support. However, the developed website was not 'user friendly' raising questions about the design process and how the issue of being user friendly was considered. Recognition of the unfriendly nature of the information provided is assumed to be due to feedback from site visitors:

> A site needs to be easily navigable for someone to quickly find the specific information they require [DG2].

'Navigation' concerns the clarity of the signposting on the site for site viewers to correctly and easily locate the required information. The image/identity presented is undermined by 'poor navigation'. It invites the question of whether the frustration in dealing with the site translates into a perceived frustration in dealing with the hotelier. We are familiar with the signs in our dealings with people. However, signposting in the online domain is a new phenomenon, which raises questions about how much is understand about it.

The development trajectory is likely to be unplanned. The hotelier [M13] who developed his own online booking engine had no vision as to how it would unfold:

> it has just grown… it's now about thirty pages… if we think it is going to be useful to us I do it… it is, as I said before, something of a labour of love... most B&Bs would say that they couldn't possibly justify a thirty page website with online bookings… and nor could I if I was paying for it [M13].

Enthusiasm and interest in online technologies allowed developments which would otherwise have not been considered. The explanation given for developing the booking engine was: "because it works, it makes life very easy…people book" [M13]. The spontaneity of "is it going to be useful?" then doing it, underpinned by the desire to make it work, has driven development. Learning was an integral feature of this:

> it has been a labour of love really... I enjoy doing it and I've been learning how to do it at the same time as... I've learned how to do something then done it… it's full of PHP and Java-Script and you name it – there is no flash… and I haven't got around to AJAX yet, but it will come [M13].

The development trajectory is also a learning trajectory. Learning is 'to make it work'. As more knowledge and experience is gained, it becomes possible to recognise more possibilities and develop better solutions. Learning and development are intertwined.

4.3.3. Incorporation

The incorporation, fitting or embedding of the configured solution within existing practices entails the development of routines and organisation of time, whereby online practices are 'made-to-work' with the context of everything else that goes on. For example, routines are embedded into both everyday practices and the schedule of the 'busy' day. However, these are but two of the numerous locations that need to be considered for placement. Furthermore, this embedding is likely to involve (re)configuration within each of the placement locations.

The most obvious location is the embedding is within the process of taking a booking. This is illustrated with the embedding of an online booking facility developed by the hotelier himself. The essential device is:

> basically the diary... when somebody books online it generates an email which is sent to the person booking and a copy comes to us so we get a notification by email and we basically copy that into the diary… we keep a hard copy because we have to deal with telephone bookings as well… and I haven't found a really good way for paralleling that up… if somebody rings up and books then I have to go

> online and take it off the website because obviously the telephone does not do that automatically [M13].

The old practice of the diary is retained and is not displaced by the new online booking facility. The technological barrier is the updating of the online database directly from telephone enquiries. Instead, online bookings share with telephone bookings the diary. Further a new discipline is imposed when taking a telephone booking in that, in addition to the details being entered in the diary, the online database is also updated. The inability to integrate the online booking engine with telephone-sourced bookings raises introduces the risk of a double booking. To obviate this risk, a workaround was created"...and I do make it clear to people booking online that the booking isn't good until they get confirmation and that is really the only way I can cover it" [M13]. The online booking was only provisional until the hotelier sends a confirmation.

Another insight is provided by the elderly owner of an eight bedroom small hotel who reveals the initial anxiety and reluctance about taking up the online booking facilities of visitscotland.com, but recognised the need to persevere to make it work:

> I was absolutely certain at the beginning that this was something I really didn't want to do... because it is going to take up an awful lot of my time… as it happens as time went on …by the time we got into the really busy time I could do it quite quickly and it wasn't really a problem…
>
> I was very nervous at first because I thought something awful could happen here…I could have double bookings all over the place… but it didn't happen that way .. simply because I would go into it at all times of day and night… I don't do it now… initially spending a lot of time double checking and making quite sure that I didn't end up with any embarrassments... it wasn't just checking my allocation I was trying to get a feel for the whole of the system .. so very often if I went in to check .. I would be doing something else at the same time… working what rooms are available.. .. trying to work out how I could take advantage of the last minute reductions which I have used… they have actually produced a lot.. there is a lot of working out … .. putting a time scale on would be very difficult… I am nearly 65 years old I cannot do things as fast as youngsters would...
>
> it is probably not the most user friendly book in the world and in the initial stages I thought I was going to give it up… because it was quite difficult…. but I've learnt to use it... and I can use it ok...

> I was advised by someone who had long experience of online bookings to make sure that you held back a couple of rooms that were never touched by the online system just in case… It's a safe-guard…. [AR4].

Reluctance and anxiety were dissolved as the hotelier became more comfortable with the "whole of the system", that it was not going to do something unacceptable. A self-imposed disciple to check and reassure was imposed, perhaps reflecting the caution that went with the hotelier's age. Moreover, the system was not fully trusted, that a "safe-guard" was established. As it started to lose its unfriendly demeanour, the hotelier started to shape it, a bit at a time:

> I revise it every week... I make changes… I put in offers… I tweak it here and there… just to make it a wee bit more attractive... not an awful lot of time… probably... evening it out, probably spend about half an hour a week [AR4].

However, there are other domains within which online practices need to be embedded. For the small business there is the blend between the private world of the family and home-life and the public world of the business and work. Emails provide a welcome alternative to the telephone, being less intrusive into the private world. Whilst the intrusive telephone call cannot be ignored for fear of lost business, the email can be kept waiting out of sight, though involves the inconvenience of going to the computer and switching on / logging in. Nevertheless, there is the challenge of how email is embedded to minimise its intrusion.

The need to update the website introduces the temporal domain within which the DIYer can choose when to schedule maintenance, a option that is perhaps constrained when relying upon a third party:

> The web designer that I use, I've told him on a number of occasions we need to have it on the web and it is not on the bloody web yet [EH22].

The failure to embed into the temporal domain can be frustrating if not problematical.

Embedding can be extended to other domains. In the 'virtual domain' is the need to be found by search engines – the embedding with the search domains of these search engines. Likewise the desire to be associated with the 'right people' also extends to this domain – embedding within the websites of others (e.g. local attractions). The

desire for on-line payments requires the embedding in online domains that are secure. The visible online offerings of competition, local or more distant can offer ideas about how to improve one's online presence, leading to embedding relative to competition.

This brief consideration of the domains within which embedding takes place suggests that there are likely to be more which are tacitly dealt with, but only raise their profile when they require explicit attention.

4.3.4. Conversion

Conversion is about the transformation of the relationship with outside. From the hotelier's perspective, the underlying reason for an online presence is that people engage with it. The desire is that online visits to a website are converted into actual visits. That email enquiries convert to bookings. The visible evidence from an hotelier's perspective is the impact that this presence has in terms of enquiries, bookings and feedback about the website. However, it is not always clear where the visitor's enquiry has come from. Furthermore, what works for one business need not work for another, Likewise, specific channels will have their moment of popularity, before fading into relative obscurity.

Examination of the manner in which engagement with customers and others (e.g. tourism intermediaries) has been affected by an online presence reveals that it is varied. A guest house owner [A1] notes the change:

> because people are finding us by going online… and so they don't phone up for the brochure and therefore I am not writing all the letters and sending out the brochure… so it has actually given me more time… having said that you are then getting more emails… we live in an age of instant gratification... people want answers yesterday... not the day after tomorrow… [A1].

Social changes in behaviour brought on by the Internet are invoked. People have become impatient. Websites displace traditional and time-consuming forms of promotion and provide information on demand. Emails proliferate and hoteliers are expected to respond immediately. The faster mode of communications is countered by slow responses. For those that have sought to provide online booking facilities, some have benefited, though this is not inevitable.

A unique instance of unintended engagement with the public is provided with the installation of a web-cam. A web-cam can be viewed as a 'bolt-on' technology that provides additional functionality. It allows visitors to gaze into the hotelier's locale in real time and perhaps briefly enter into this locale: "they look at the web-cam and they go, Wow! and then they book…" [S3]. The facility informs and persuades. Unintended, it also attracts other observers who may intrude if their gaze is disrupted:

> ...we have e-mails saying a sheep is sitting in front of it. Will you please go and shoo it away, and the oil-fields, the XXX and XXX oil-fields use it, because we are only about [XXX] miles from XXX Airport where the oil helicopters come in and when the weather is bad in the winter, they check our web-cam to see if it really is [S3].

The website performs the role intended by the hotelier but also has been assigned an unintended role by online 'visitors'. It enacts the role of a window into the local weather.

The manner of engagement with customers is perhaps summed up with the following respondent's comments:

> Perceived advantages: Faster communication; Website is a central base for all information; Cheaper; Less personal (some people prefer that)
>
> Disadvantages: Slow response – because you have not spoken physically to someone it's too easy for the response to be slow and excuses to be made; Spam – the possibility of information being lost in the millions; Lack personal Touch – relationships are not built [DG2].

The faster communications offered by the Internet is countered by slower responses to enquiries. The picking up of emails at times convenient to the hotelier, obviates the desire of the sender to get an immediate response. However, there is another phenomenon, 'spam'. The inundation of spam and the configuration of filters in email packages to filter out spam gives rise to emails not being 'picked-up'. The telephone is intrusive, but ensures contact and gives the accommodation seeker immediate responses to a series of unstructured questions, which may be prompted by the response. The website provides a cheap information portal visible to all, but like email, lacks the "personal touch" which is important in the context of developing a relationship between the accommodation seeker and the hotelier. This raises the notion of the type of relationship sought by hoteliers. For some hoteliers, the personal touch is important, for others anonymity is preferable. This creates a challenge for serviced accommodation in that they need to provide for all types of accommodation seeker and in doing so, exploit the opportunities of the available online configurational technologies in such a way that fits in with their

way of doing things. The mere act of taking a booking is, in practice, embedded in the complexity of the hotelier's world, the virtual online world and the accommodation seeker's world.

5. Discussion

The focus of the study has been upon understanding online practices of hoteliers, i.e. what is done, rather than upon the reasons underpinning practices. This reveals the complex nature of the uptake and use of online technologies, which contrasts with perhaps taken-for-granted views that this is relatively simple and straightforward. Indeed, the analysis draws attention to two specific issues. The first relates to the manner in which the conceptualisation of the uptake of online technologies, through the lens of domestication, sheds light upon this complexity, though in itself does not have the fine resolution to penetrate this complexity. The second concerns the contextual practicalities of taking up online technologies and the challenge of how to accommodate this contextual domain within our understanding of take-up practices, for which the notion of the 'busy day' is presented.

5.1. The conceptualisation of online technologies through the domestication lens

Whilst domestication is demonstrated to be a useful guiding analytical framework, the data reveals that this oversimplifies and disguises a complex of factors distinguishable at a very detailed level. Domestication recognises that users of technology have an active role in both its usage and the construction of both 'meaning and identity' that the artefact evokes (Sorensen, 2006: 46). It allows the manner in which technologies are internalised to be unpacked. Whereas Silverstone et al (1992) focus upon the household, for Lie & Sorensen (1996) the user's struggle to incorporate acquired technologies into everyday life, takes place within any socially bounded space (e.g. the work place). Moreover, domestication involves a learning experience, but not in a formal sense. However, the analysis presented reveals that domestication, as a framework, lacks resolution to capture the variety of possible experiences or practices that can be observed.

To compound this, online technologies are not denoted as a single artefact, but have a variety of characterisations as presented by Orlikowski & Iacono (2001). Indeed, their configurational nature adds to this complexity by magnifying the factors at the detailed level. In other words, online technologies tend not to be 'plug and play' technologies passively received and used. They require configuration to make them work and

further configuration to personalise. The configured solution is then embedded into what exists in terms of practice, the 'busy' day and also within the virtual domain. The assumption that online technologies can be readily taken-up appears to take for granted the complexity inherent in this rather unassuming and perhaps 'every-day' activity.

The artefact, through use, is both fitted into everyday routines and practices and is positioned both spatially and temporally. However, this can be interpreted as emphasising the physical aspects of the artefact: it is physically placed, it is physically used, it is physically symbolic, it is physically displayed to the outside world. This resonates in Silverstone et al's (1992) 'objectification', i.e. the process whereby the artefact assumes a symbolic status through positioning or use to provide insight into the identity of the household. However, online technologies are configured by users to personalise them as well as make them work. 'Objectification' is not just about positioning and using the artefact. 'Configuration' is an essential feature. There may be configuration of physical components of particular specifications (e.g. flat-screen monitor, wireless mouse and keyboard, external hard drive, wireless router). However, much attention is likely to centre upon the non-physical or 'symbolic': the set-up parameters of email, the configuration of the website. Indeed, for the hotelier, the identity of the business assumes an important aspect of this online presence. Identity is part of the online promotion. It presents the challenge of how the business 'self' is portrayed online. Moreover, practices are configured which relate to these symbolic elements, to be able to use them, to correctly interpret and act upon messages received. Instructions are composed to allow others to correctly respond to emails. The outcome is a configured solution to the task of making the technologies work in a desired way, to interact with content as appropriate and in a timely manner. The user is not a passive user of technology, but shapes the way in which it functions, though within the constraints imposed by the technology and also by other factors (e.g. legal compliance so as not to misrepresent). In short, the user configures the technology but, in turn, is configured by the technology.

Complementing configuration is 'incorporation', in other words, embedding the configured solution within all that constitutes the 'busy' day. Embedding is necessary; otherwise this solution is unlikely to happen, the solution being regarded as an awkward intervention rather than an integral feature. This 'all' is itself a configuration, which implies that it needs re-configuration, some parts more than others. It takes place both spatially and temporally and also, both in the real and virtual domains. In the real domain there is fit within the detail of practice, but also within the demands of the day and within the public and private domains.

Furthermore, there is placement within the virtual domain in order to be found, up-to-date (current), secure, connected to the right websites and be positioned more favourably relative to competitors.

Whilst conceptually, configuration and incorporation are distinct, pragmatically they are likely to be inter-twined. Furthermore, as noted by Aune (1996) with regard to domestication, they are not merely acts of getting online technologies to work, but are ongoing processes making adjustments when new configurational elements become available or when changes are made to some aspect of the daily routine. Lie & Sorensen (1996: 11) note this lack of "stable closure of the distribution of meaning and practice related to the artefact". Over time, all manner of changes can take place, with the possible need for upgrading (re-domestication) or divestment (de-domestication).

Conversion relates to the relationship between the household and external world (Silverstone et al, 1992) and it is transformed. One aspect of this, revealed by Silverstone et al (1992), is that artefact can confer status upon the household. The symbolism inherent in the artefact is upon what can be observed by outsiders. However, whilst the physical presence of the artefact may denote status, can status be assigned to the embedded imagery? The device independent symbolism presented through online technologies may co-ordinate action and be pragmatic in its everyday use. However, whilst web designers may win awards, an unfriendly website may impart a negative view about the organisation. An email praising the business may be forwarded with pride to family and friends. Status is not conferred by the artefact as an object, but through the artefact as a medium by what is presented in the symbolic domain.

However, in the context of the hotelier, one aspect of conversion is how the relationship with potential customers is transformed through the translation of the online presence into bookings. The assessment of this is not straightforward due to the multiple online channels that an hotelier may use and the lack of an audit trail which provides evidence of the online visit to booking association. However, the 'intuitive feel' of what is working and what is not, more often guides the decision as to what to do.

A pervasive feature of domestication is learning. This is not learning in a formal capacity. It is the learning associated with trying to make the technology work (Fleck, 1994). It is a problem solving exercise conducted within the domain of the business, institutionally unsupported, but drawing upon the network of family, friends

and local expertise (Williams et al, 2005). It may involve learning by observation and imitating what others have done or by using the guidelines provided by others (e.g. instruction manuals). Learning is neither codified nor articulated to explore the boundaries of what has been learnt and gain knowledge. Instead, codification and articulation, if it takes place, is directed towards completing the task. It is an emotional act involving self-discipline and faith... that the result will be . Much of what has been learnt remains unarticulated. The emphasis is upon 'How do I do such and such', not 'Why?' It becomes forgotten when the need disappears.

Underpinning this use of domestication is the recognition that, as a framework to conceptually explain the internalisation of ICTs within very small businesses, it lacks resolution to distinguish features that shape the nature of uptake, e.g. the role of external agents, the public-private boundary, engagement with both virtual and real domains and the fit within the temporal domain. Indeed, this latter issue of fit within the temporal domain draws attention to the notion of a bounded temporal space, within which its organisation shapes what is done – the 'busy day'.

5.2. The 'busy day'

The busy day has been introduced in recognition that domestication is situated in the temporal domain and that it needs to be somehow fitted into all that goes on during the busy day for each day that domestication takes place. This is potentially problematic and if there are more important or appealing activities, then these may take precedence. Indeed, there can be many reasons why domestication does not take place not only during one busy day but over a succession of busy days. The disruption to the domestication process may result in it being 'shelved': "I've no time. I'll do it tomorrow". Good intent is replaced by "it will do", as indifference overtakes novelty and the effort to exploit the full functionality fades. The 'taming' is not fully achieved.

In the case of the hotelier, whose business is also a home, the busy day is a blend of the public (business space) and the private (domestic space). The hotelier invites visitors into an allocated 'public' space and engages in a range of activities orientated to towards the visitor's experience. However, the hotelier's 'private' space is closed to the public, though the boundary between the public and private may be blurred, with visitors on occasion stepping into this private space (e.g. the kitchen for a cup of tea, the baby being comforted in the hotelier's arms). From a hotelier's perspective the boundary of the private and public is an on-going balancing act, yet with the visitor's experience central.

The visitor's experience makes the difference between a good and bad reputation and hence levels of business. The hotelier's management of the visitor's experience commences with the need to attract the visitor and continues with engagement in securing the booking and handling the arrival, stay and departure. Utmost is the challenge of how to get visitors. There is the on-going need to be available to deal with enquiries and take bookings. In addition to the face-to-face contact with the visitor are the tasks of cleaning, cooking and acquiring provisions. There will also be maintenance tasks (e.g. gardening, painting) and also major acquisitions (e.g. bedding, furniture), perhaps requiring a visit to some distant shopping centre. Shops are not the only other sites visited. There is also the need for compliance with regulatory issues (e.g. food hygiene, access, safety) perhaps requiring third party advice, requiring a visit. Furthermore, the hotelier does not act in isolation; family, friends and neighbours 'drop in' or are visited. Some of these friends and neighbours may also be competition, but mutual interest in the visitor leads to collaboration; visitors seeking accommodation are passed around to hoteliers who are not 'full'. The more ambitious may expand this collaborative network, inviting less familiar faces, but each with the common interest of the visitor, and organise themselves into a local tourism action group with the aim of improving the promotion of the locality exploiting whatever channels there are, in particular the development of an online presence. However, this itself requires commitment and needs to be fitted into the busy day.

The unpacking of the notion of the busy day reveals that despite the appearance of routine, there is inherent variety and potential unpredictability, with the day being configured, if everything is to get done. It is multi-level, with attention focusing upon, the micro-detail of discrete tasks as well as the bigger-picture in terms of decisions about the longer-term and also how government policies will affect the business. The busy day involves different actors and is multi-sited. Not to be overlooked is that somewhere within the busy day, in addition to the challenge of domesticating online technologies, the hotelier also seeks to fit in "a moment to myself"".

6. Conclusions

This is an exploratory empirical investigation into the online practices of smaller Scottish hoteliers. This account reveals the locally contingent nature of implementation and use. Despite institutional calls for hoteliers to get online and provide online booking facilities, this has not happened. Many hoteliers utilise email and have some

form of online web-presence, but online booking facilities are not commonly provided and tend to be through online intermediaries. The issue is not whether or not businesses are online, but the shades of online presence, which includes proxy presence using online intermediaries.

The exploitation of the most advanced technical offerings is constrained for a variety of reasons. The analysis of practices suggests that these constraints are associated with issues that can manifest at any point in the appropriation, configuration and embedding of online technologies. Furthermore, there are many configurational possibilities though these may be constrained through the need to ensure appropriate embedding. Embedding involves placement of a configured online solution within what exists, both spatially and temporally and within both real and virtual domains. Embedding is into existing practices, the 'busy' day and within online search directories. This can explain why there is limited uptake of online booking facilities.

The analysis draws attention to the conceptualisation of online technologies; that their physical features are rendered invisible, whilst attention focuses upon their symbolic dimensions and associated practices. This suggests that it is through their enactment that technologies become known.

However, the main contribution of this empirical work relates to both the development of the concept of domestication and also to IS research on organizational work practices. The concept of domestication provides an appropriate framework to examine the uptake of technologies within smaller organisations, this fitting the arena between research on individual practices and that of larger organisations. However, whilst this concept sheds light upon this complexity, it, in itself, does not have the fine resolution to penetrate this complexity. This resolution is provided through the detailed examination of the interplay between the user and the technology. It is through the detail of usage that idiosyncratic nature of practice is revealed. Thus, this study provides fresh and detailed insights into the uptake and ongoing use of ICTs within the work practices of these smaller organizations. It reveals that uptake is contextually shaped, with one significant context being identified within the temporal domain and being represented within the notion of a 'busy day'.

However, there is one aspect of this research which invites further investigation. This relates to the notion of affordances (Sellen and Harper, 2002) and in what manner these affect how newer technologies substitute for or

complement older technologies (Woolgar, 2002). This has relevance to the manner in which newer technologies are designed and are made available to fit into existing practices.

In conclusion, the question asked at the start of this paper and its apparently deterministic institutional view of the universal benefit of online technologies and the imperative that they are fully exploited to give competitive advantage, is at odds with the locally contingent and diverse nature of online practices, which is characterised by the appropriation, configuration and embedding within the business. The lens of domestication provides an insight into why this is the case.

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Figure 1 The 'Reservations Book': inside back cover, front cover and sample bookings page [this has been presented as a slightly out of focus image to preserve anonymity] (from Harwood, 2010)

1. Notes

[i] This website was started up in July 2002, by a bed & breakfast owner as a result of an idea triggered by need to alert a visitor of an incident. It expanded to cover the UK, operating as UK-APAS until the 19th February 2009, when it reverted to serving sole Scotland as SAPAS, having a few years previously, been handed over to another operator.