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**The Ambiguous ICT: Investigating How Tablet Users Relate to and Interact with Their Device**

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MSc in Media and Communications

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**Dissertation submitted to the Department of Media and Communications, London School of Economics and Political Science, August 2014, in partial fulfilment of the requirements for the MSc in Media, Communication and Development. Supervised by Professor Nick Couldry.**

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# **The Ambiguous ICT: Investigating How Users Relate to and Interact with Their Device**

**Jessica Blank**

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## **ABSTRACT**

The purpose of this research is to gain a detailed understanding of how everyday tablet users relate to and interact with their device. This is done with the intention of distinguishing the tablet from other ICTs on the market, as well as defining their role and significance in the contemporary information society. Qualitative data was collected from a sample of seven habitual tablet users using a combination of TA methodology with preliminary and follow-up interviews. Subsequent analysis was done along the lines of predetermined key themes identified by the researcher focusing on the allocation and experience of time, the incorporation of the device into user's everyday life, usability of the interface, and physical comfort/discomfort during use. Two further key themes emerged following the research, raising questions of the adaptability of tablets to individual needs and the private nature of the relationship between users and their device. The research question, methodology and interpretation of results relied on theories of domestication, ICT design, time and the information society concept. Findings revealed the tablet to be unique in its ability to adapt its external and internal features to suit individual circumstances and needs. Tablets are assigned positive value by users if they are seen as conducive to 'productive' activity, be it for professional or private reasons. Research uncovered tablet devices' strong potential to redefine the appropriation of new technologies, thus prompting incentive to continue further research on this topic.

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## INTRODUCTION

The research undertaken aims to shed light on the significance of tablets to individual users, and how this unique and complex ICT positions itself within contemporary society. At the core of such an investigation lies the desire to uncover the existence and true potential of the notion of the information society (IS). Despite the latter's disputed nature, the question of the risks and benefits of an information-driven society remains high on the agenda of media and communication studies. ICTs play a crucial role in establishing and maintaining what Mansell defines as 'the pervasive dominant vision of the Information Society [...] strongly informed by the idea that if better versions of the underlying technologies could be built, they should be developed in order to drive economic growth and to augment military strength' (2010: 168). With this in mind, the study of tablet devices, as a by-product of the IS, is essential to analysing society as it currently stands as well as anticipating its evolution.

However, to study a single ICT and expect a macro analysis of society is unrealistic. Therefore, as an initial point of contact with tablet devices, this research aims to form a more detailed understanding of how individual users appropriate this particular ICT and what purpose they serve. Whilst this jump may seem incongruous, it is justified by academic literature, such as MacKenzie and Wajcman, which claims that 'the social shaping of technology [...] lies in the details: in the particular ways technology is socially shaped; in the light these throw on the nature both of 'society' and of 'technology'; in the particular outcomes that result; and in the opportunities for action to improve those outcomes' (1999, xvi). Technologies enter our lives and we choose to accept or reject them, incorporating them into our daily routine or ignoring their presence entirely. This research aims to look at those who have allowed the tablet within their private realm, their everyday, in order to understand how this ICT permeates through society more generally.

The implications of this research are manifold. It looks at how tablets are being used by individuals in order to satisfy certain needs or desires. It begins to answer the question whether tablets are able to replace other ICTs such as the television or computer, or media products such as newspapers and magazines. This in turn can shed light on the future of media practice as understood by Couldry to be 'concerned with the specific regularities in our actions related to media and the regularities of context and resource that make certain types of media-related actions possible or impossible, likely or unlikely' (2012: 34). Beyond that, researching how users relate to and interact with tablet devices can provide significant

information about whether or not businesses should consider using them in operations or optimizing their existing platforms for tablet use.

In the space provided and with the available tools, it is impossible to form such a comprehensive theorization of the significance and potential of tablets. However, as an initial point of contact the results are overwhelmingly rich, varied and telling. The following research stems from curiosity, passion, and a belief that new technologies have the potential to radically alter the way we live if understood and explored in their appropriate context.

## **THEORY**

The following chapter outlines the concepts and theories that guide and shape this paper's research on user appropriation of tablet devices. For the sake of clarity and conciseness, these have been divided into separate headings as 'key terms' which best describe the notions being discussed. Within these, relevant theories, authors and concepts are detailed so as to provide a clear understanding of what they represent and why these are relevant to the formulation of a suitable research question.

### **Media Practice**

The concept of 'media' is not unproblematic. Research in the field of media and communications can lead to a broad range of possibilities and outcomes. It is thus essential to establish direction from the onset as a guideline for analysis. Furthermore, research focusing on digital media must take into consideration the complexity it generates within the field. With the advent of new technology, particularly the Internet, 'media have become flexible and interconnected enough to make our only starting point the "media environment", not specific media considered in isolation' (Couldry, 2012: 2). Understood in this way, undertaking the study of media environments is no small task. It requires a firm theoretical basis on which to base any conclusions research may bring up. When looking at the tablet in particular, Couldry's (2012) notion of media as practice provides a solid point of departure from which to frame a comprehensive and guiding research question. He notes that 'by looking at media as practice, as "something human beings do...a form of action", we find both a vast array of things to explore and a useful source of tension with the instinct to theorize about media in the abstract' (2012: 33).

Krotz defines '*media*' pragmatically as a modifier of communication, and mediatisation then [as] the concept used to grasp the social and cultural consequences of the changing

conditions for communication as offered by the media's development.' (2007: 28). This is important and particularly relevant to understanding media as practice because it establishes media consumption and interaction as both behavioural and cultural. As such, media can be seen as permeating through all aspects of human existence. It is here that media can best be understood as practice as defined by Couldry as 'concerned with *regularity*, that is, regularity of *action*'(Couldry, 2012: 2). This allows for a less constrained approach to research within the field. It shifts the focus away from media texts or institutions and towards a loose understanding of how actors engage with media. More specifically, a media practice approach 'asks quite simply: *what are people* (individuals, groups, institutions) *doing in relation to media* across a whole range of situations and contexts?' (Couldry, 2012: 37). Such an approach is particularly appropriate in studying how users interact with tablet devices because it allows for a multitude of outcomes by relying on careful observation of the relationship between the user and his/her device. Furthermore, looking at media as practice recognizes that media consumption consists of habits. It is only by pulling out these habits and analysing them within their wider environment that the true complexity of how individuals are engaging with media emerges. More specifically, in the context of research on tablet devices, looking at media as practice opens up our understanding of how people are engaging with this new technology in various different ways in order to identify its meaning and role in modern society.

## **Information Society**

Any research aiming to provide insight on the role and place of a particular ICT in society must base itself within an understanding of the concept of the Information Society and the theories associated with it. This is no simple task; according to Mansell, 'the Information Society is a notoriously fuzzy concept [...] discussions in this area frequently embrace utopian or dystopian sentiments with respect to the possibilities offered by new technologies' (2010: 166). However, it is necessary to identify the unique aspects of a society whose development is driven by the onset of new technologies in order for research on ICTs to find significance in the data. For the purpose of this paper, the distinction will not be made between Information and Network Society, thus theories of both will be utilized in order to gain an understanding of the type of society that is being discussed. The work of Castells is fundamental to theorising the Information Society, in particular his understanding of technological innovations as characterized by their '*pervasiveness*, that is by their penetration of all domains of human activity, not as an exogenous source of impact, but as the fabric in which such activity is woven' (1996: 30). Information processing and communication technologies

are thus at the core of the Information Society, making research on them particularly important and relevant.

When investigating any part of the Information Society, Webster emphasizes the importance of 'accounts that [...] strive to identify the most consequential characteristics of how we live.' (2006: 454). In order to do this, one must first understand what the Information Society means and what its constitutive components are. At the heart of this is a shift of value from tangible goods to intangible goods. That is, the Information Society is characterized by endless flows and the 'application of [...] knowledge and information to knowledge generation and information processing/communication devices, in a cumulative feedback loop between innovation and the uses of innovation' (Castells, 1996: 31). The use of ICTs is thus essential to the generation of capital and the functioning of the economy. Furthermore, technology in the Information Society permeates all aspects of human life, especially human interaction. Castells identifies the IS as articulated by a series of networks, 'complex structure[s] of communication constructed around a set of goals that simultaneously ensure unity of purpose and flexibility of execution by their adaptability to the operating environment' (2013: 341). ICTs connect individuals to these networks by sustaining both networked individualism and communalism, the new forms of communication that exist in contemporary society.

Taking the IS as a starting point from which to develop a theoretical framework for research on user appropriation of tablet devices enables a logical development of ideas via the characteristics of such a society. Lash understands the 'primary qualities of information [as] flow, spatial compression, temporal compression [and] real time relations' (2002: 2). These can also be easily attributed to tablet devices, indicating the importance of the nexus between ICTs and the IS. The study of tablet/user relations should provide valuable insight on the functioning and development of an IS as Castells identifies that 'the relevance of a given technology, and its acceptance by people at large, do not result from the technology itself, but from the appropriation of the technology by individuals and collectives to fit their needs and their culture' (Castells, 2012: 362). Studying the appropriation of an ICT by users as well as its position in society provides very specific insight about how life is mediated by new technology in contemporary society.

## **Domestication Theory**

In order to understand how users interact with their tablet devices, one must first identify a solid theoretical framework from which to take precedence. Whilst the incorporation of the tablet into an individual's life may be observed in the same way as the consumption of any other object, such an analogy would be flawed because of the very nature of the tablet's identity as an information and communication technology. As Silverstone et al. note, 'technologies are not just objects: they are media, and it is their status as media which distinguishes them relatively, if not absolutely, from other objects' (Silverstone, et al. 1992: 15). Thus a specific framework for evaluating the ways in which tablet users appropriate tablets as technology is essential.

Domestication theory looks precisely at how users 'tame' new and unfamiliar technologies, appropriating them for their own particular uses and incorporating them into their lifestyle, in turn giving them meaning. In the context of the research question at hand, domestication theory is particularly relevant because of the emphasis it places on 'consumption rather than mere use [...] attention has been given to what ICTs mean to people, how they experience them and the roles ICTs can come to play in their lives' (Haddon, 2003:45). Domestication theory thus calls for qualitative research and observation of individuals' consumption of technology, in order to gain invaluable insight on how users share or differ in their appropriation of them. Significantly, domestication represents 'a shift away from models [that] assume the adoption of new innovations to be rational, linear, monocausal and technologically determined' (Berker, 2006: 1). Rather, it provides a framework for a more complex understanding of how new technology finds its place in everyday life by incorporating the many aspects of its dynamics and interactions. Silverstone et al., pioneers of the domestication theory, draw on Igor Kopytoff's (1986) 'cultural biography of things,' which describes how objects are culturally defined and how this reveals information about the society and environment through which they pass. They identify four non-discrete phases in the domestication of ICTs.

*Appropriation:* Occurs at the point of reception, when the user acquires the object in question. Defined as the transaction involved in the passage of artefacts from commodity to object.



*Objectification*: Focuses on how users ascribe their own values to the object in question. This is expressed and observed through 'usage but also in the physical dispositions of the objects in the spatial environment' (Silverstone *et al.*, 1992: 22).

*Incorporation*: Identifies how a given technology has become functional within the user's everyday life, as intended or not by its design.

*Conversion*: The point at which technology becomes fully incorporated into the users' life, gaining significance outside internal structures. In short, conversion is the passing of the 'boundary across which artefacts and meanings, texts and technologies, pass [...] and claim for itself a status in the "wider society"' (Silverstone *et al.*, 1992: 22).

The relevance of domestication and its aforementioned constitutive components in understanding how users relate to and interact with tablet devices lies in its identification of the multifaceted layers through which a technology passes in order to gain meaning. Furthermore, domestication emphasizes the individual significance ICTs gain. Miller notes that 'the authenticity of artefacts as culture derives [...] from their active participation in a process of social self-creation in which they are directly constitutive of our understanding of ourselves and others' (Miller, 1987:215). Therefore, when looking at how users relate to tablets it is necessary to account for varying behaviours or beliefs and identify what may be behind their acceptance, rejection and use.

## **ICT Design**

The research question's concern with the tablet as a singular ICT is essential to the development of the observations that shall follow. An issue that must be addressed in this context is what makes the tablet different from a computer or mobile phone per se. Goggin briefly touches on this in describing the Apple iPad stating that it 'combines and reanimates a throng of existing meanings about media, well-established, as well as much newer practices of use and consumption' (Goggin, 2012: 14). In order to understand the tablet in its contemporary context, one must look more closely at the complex pattern of relationships that exist between technologies, their users, and their design. As Silverstone and Haddon note, 'innovation requires to be seen as a process which involves both producers and consumers in a complex interweaving of activities, activities which are solely determined neither by the forces of technological change nor by the eccentricities of individual choice' (Silverstone, 1996: 45).

The importance of design in formulating the research question is twofold. On the one hand, enabling a greater understanding of how and why users interact with their tablet in certain ways. On the other, mapping the position of tablet devices in relation to other ICTs. As Freeman notes, 'all innovations are social and not natural phenomena; all of them are the result of human actions, human decision, human expectation, human institutions' (Freeman, 1992: 224). Thus, insight on how tablet design impacts its usage is an essential component of the relation between users and their device. Crucially, recognizing the importance of a mutual relationship between use and design moves the research question away from a constraining technologically deterministic view, allowing for a wider variety of observations. When looking at ICTs, Mansell emphasizes the need to 'focus on how the choices of actors in their various institutions and environments affect the trajectories of change in the development, diffusion, and appropriation of these technologies' (Mansell, 1996: 22).

Focusing on tablet devices makes the question of design all the more significant because of the scarcity of knowledge and literature on the exact function of the tablet. As previously mentioned, the tablet exists separately from a mobile phone or computer whilst simultaneously incorporating key features from both. The aim of the research question is to understand what exactly the tablet device stands for, not only for users but also within society at large. In order to do this, one must draw on pre-existing theories and 'parallel work in other fields which has recognized the role of the user in defining meaning of text and objects' (Haddon, 2003: 44).

### *The Experience of Time*

ICTs have an important function with regards to the experience and organization of time in everyday life. Crucial to this is what Green and Haddon (2009) describe as the 'weakening of socio-temporal structures, as more work takes place at different times, and [the ability to] engage in leisure activities at different times [increases]' (2009: 82). When looking at how users relate to tablets, it is also important to consider how these devices affect the way these devices affect one's experience of time. The concept of *lived* time, as opposed to *clocked* time, is central to the formation of society because it is universally shared. Adam's (2004) study of time reinforces this through a perception of time as 'lived [and] experienced daily as an integral part of our existence' (2004: 3). Theories of time serve to strengthen a perception of media and ICTs as constituting an integral part of society and cultures.

Anderson's 'imagined communities' places media at the centre of the formation of the concept of the nation. Borrowing from Benjamin's (1940) notion of 'homogenous empty time', Anderson credits the genesis of nationhood to a shared sense of 'transverse, cross-time, marked not by prefiguring and fulfilment, but by a temporal coincidence' (Anderson, 1983: 24). Time is thus essential to the modern concept of the nation, which in turn becomes indispensable to the construction of the self. Furthermore, time is fundamental to the construction of the modern capitalist society as substantiated by Marx's theory whereby 'every commodity is = to the objectification of a given amount of labour time' (1857: 140). The experience of time is shared by all and increasingly mediated by new technologies. As we move towards an increasingly globalized world, it is important to ask how technology is altering the ways in which we experience time.

Once the centrality of time has been established in relation to society, economy and the formation of identity, it becomes clear that the ways in which ICTs are able to alter the experience of time is a necessary point of focus in the research question. Studies on the mobile phone's effect on spatial-temporal relations such as Ling (2004) suggest that the development of mobile telephony softens time. This is to say that mobile communications allows people to organize their time more flexibly, no longer bound by the rigid structure of clocked time. Another important consequence of ICTs in relation to time is the amount of data that is generated which can on the one hand allow for more productivity within a given time frame but also creates pressure. When looking at how users relate to their tablets it is important to note whether the time spent on their device is experienced as fast or slow and whether 'leisure activities become less "leisurely" - or [whether] there has been a "speeding up" of leisure' (Green and Haddon, 2009: 83). The question of the allocation of time also becomes important when looking at tablet users, whether or not they separate the time for work and play.

### **Formulating the Research Question**

The primary aim of this research is to *understand how everyday tablet users relate to and interact with their devices*. This statement must be further broken down for preciseness as well as in order to establish the exact reasoning behind such a formulation of intent.

First, the term *everyday user* refers to an individual who uses a tablet device on a daily or almost daily basis. This excludes people who only use the device for work, or those who own a tablet but rarely employ it. The rationale behind this follows Castells' argument that the

adoption of new technologies into society depends on how they are used; the significance of tablet devices is determined by those who actively engage with them because 'their sociotechnical features directly relate to the major cultural trends underlying social practice in our society' (Castells, 1996: 362).

Second, the terms *relate to* and *interact with* are to be understood as separate and distinct observable behaviours. Relating to tablet devices includes feelings of closeness to or distance from the object itself, as well as how the device articulates the user's everyday life. Interaction with tablet devices focuses on how the user carries out tasks on the device, as well as looking at how he/she physically engages with the tablet. The distinction between the two can be understood as the observation of intangible versus tangible connections between the tablet and its user.

Finally, the research question is framed with attention to the notion of time as shaped by ICTs, described by Green and Haddon (2009) as the weakening of socio-temporal structures. That is, beyond observable qualities of tablet use, the research question aims to understand how the tablet does or does not alter the experience of time. More specifically, the research question aims to identify ways in which tablet use can affect all possible aspects and formations of time such as consumption, production, communication, distance, place, identification etc.

The importance of such research is twofold. On the one hand, detailed research on the appropriation of a particular ICT provides insight into the functioning and development of the IS. This is exemplified by Goggin's (2006) study of cell phone culture, which provides similar insight because 'telecommunications has undergone a radical shift from being about voice communications to becoming mobile, flexible and customisable [...] they fit into new ways of being oneself (or constructing identity and belonging to a group)'. Similarly, Katz and Aakhus research on mobile communications revealed how these 'speed up the pace and efficiency of life [allowing] more flexibility at business and professional levels as well as in family and personal life' (2002: 11). Examining the role of the tablet in contemporary society can reveal how the way in which we live is changing as a direct response to these new technologies. The other important aspect of this research lies in its focus on tablet devices in particular, which has until now remained relatively untouched by academic research.

However, as tablets and other forms of hybrid mobile communication devices become increasingly popular with users, it is crucial to understand their function in society in order to apprehend their development and lifecycle in society and within organizations.

## **RESEARCH DESIGN AND METHODOLOGY**

Once the research question has been established, an appropriate research strategy and methodology must follow. This should be carefully crafted in order to extract the exact type of data necessary to create meaningful insight into the question at hand. The following section presents the most appropriate research method chosen to examine how users relate to and interact with their tablet devices. The entire process and rationale behind it will be explained in detail and elaborated in order to better comprehend as well as validate the analysis of the results.

### **Framing the Question**

In order to move forwards in designing a suitable research method, it is necessary to look back at the detailed formulation of the research question. This provides direction as to what type of data would provide the best information about the ways in which users appropriate tablet devices. Furthermore, in line with the research question's inextricability to the theoretical construction of the Information Society, Webster suggests that any analysis of the subject should delve deeper than the macro-level. Meaningful data is sought out through 'the combination of rich empirical analysis and its complex relations with wider texts and conceptualizations' (Webster, 2005:454). With this in mind an initial decision to compile qualitative data, rich in meaning and open to detailed interpretation, is the point of departure in establishing an adequate methodology.

A concise iteration of the research question is as follows:

How do tablet users interact with and relate to tablet devices, with special attention to the notion of time as shaped by ICTs summarized by Green and Haddon as 'the weakening of socio-temporal structures, as more work takes place at different times, and we can [...] engage in leisure activities at different times' (2009: 11).

The type of data that will answer this question is mostly concerned with the relationship between individual users and their own personal tablet device. That is, we are not interested

in how a user relates to any tablet since this would not pull out the personal nature of the relationship between an ICT and its user that lies at the core of the interrogation.

Furthermore, such a relationship exists on both a physical and cognitive level, meaning that the chosen methodology must be able to account for both how the user physically interacts with the device as well as how he/she feels or thinks whilst using the tablet. Katz and Aakhus term this 'intersection of two domains, namely the social person and the mobile machine' the *Apparatgeist*, encompassing the 'tangible and intangible aspects; material and social issues; and, quintessentially, the machine and "spirit" elements of flexible interaction with assistive technology' (2002: 11). It is expected that designing a research method that accounts for all of these characteristics will enable detailed investigation into the heart of the relationship between tablets and users.

## **Methodology**

As aforementioned, the type of data that will generate a substantive evaluation of user interaction with tablet devices can only be obtained by accessing the personal relationship between the individual and his/her device. This requires a methodology that allows for probing via communication between the researcher and subject, as well as controlled observation of the user in a natural environment. The most appropriate way to achieve this is through a combination of Think Aloud Method and interviews. The justification for this is detailed below.

### *The Think Aloud Method*

The TA method, also known as Protocol Analysis, originated in psychology as a research method aiming to render perceptible cognitive processes through verbalization of thoughts. Van Someren, Barnard et al. describe the TA method as consisting of 'asking people to think aloud while solving a problem and analysing the resulting variable protocols' (1994: 10). Whilst the study of user appropriation of tablet devices does not seek to understand problem solving, many aspects of the TA method are relevant and adaptable to the research question. The framework for the TA methodology can be found in Ericsson and Simon's work on the use of verbal reports as data. They cite the method's ability to 'gain information about subjects' internal states [because] with the instruction to verbalize, a direct trace is obtained of the heeded information, and hence, an indirect one of the internal stages of cognitive process' (1980: 218). Thus, an adapted form of the TA method for the purpose of this

research question should provide rich data on the inner workings of the subjects' minds whilst performing the seemingly thoughtless task that is interacting with their tablet.

Despite the apparent relevance of the TA method for the research question, it still remains that the classic methodology is not entirely suitable for these purposes. More specifically, the TA method is quantitative: as Koro-Ljunberg et al. specify a 'traditional' analysis of TA data involves the use of *a priori* codes' (2012: 743). However, in her study of ESL students, Charters identifies that qualitative analysis of TA transcripts that 'describe, rather than codify, may allow a clearer picture of the variability of individual experience to emerge' (2003: 76). The feasibility of this was tested in a pilot study, which revealed that the TA method could be modified to suit an analysis of the relationship between subjects and their tablet devices. Nonetheless, a tighter qualitative analysis of results was required that would involve coding for certain themes or key notions that were expressed across all or most subjects.

#### *Preliminary and Follow Up Interviews*

The TA methodology was combined with two short interviews, one preliminary just prior to and one follow-up directly after the TA method. The first interview consisted of basic questions about the subject (age, occupation etc.) as well as their use of technology in general. Such information is necessary to gauge an initial understanding of the relationship between the user and their tablet. Following from Akyel and Eçertin's (2009) study of subjects' comprehension of hypermedia texts using TA methodology, a questionnaire was created in order to gain initial data about the subjects and their technological habits. This information can then be applied together with an interpretation of TA method data to create a richer understanding of how individuals appropriate tablet devices depending on their circumstances. This was further substantiated by Charters' study whereby collecting initial data 'allowed [her] to get some sense of the complexities of [her] own participant's situations' (2003: 78).

Follow-up interviews were conducted with all subjects directly after having completed the twenty-minute TA exercise. As the aim was to draw out reflection on the task and their behaviours, it was essential that this be completed in the same sitting. The use of follow-up interviews in Koro-Ljungberg et al.'s study provided 'important insights and additional reflections on [subject's] problem solving experiences' (2013: 743). Whilst the TA method for this research did not require any problem solving, the follow-up interviews did provide a

platform for discussion between participants and researcher about the actions completed during the exercise. Furthermore, follow-up interviews were used to establish what Fontana and Frey describe as 'a human-to-human relation with the respondent and the desire to *understand* rather than to *explain*' (2000: 654). In this sense, participants were encouraged to reflect on their use of tablet devices as more than a normative task but rather as constituting a set of unique actions that defined their own interaction with the device. The follow-up interview was constituted by certain pre-defined questions but was mostly left open to discussion. Finally, it was important to ask subjects whether the TA method felt like an invasion of privacy in order to establish the level of intimacy the user felt with their tablet device.

### *Selecting a Sample*

The term 'user' in the research question needs to be specified in order to collect substantive data from which to draw conclusions. The choice was made to focus on subjects between the ages of 20 and 25 based on the fact that this group would not have had ICTs from 'ad ovum' but would have begun using them at a relatively young age making them more prone to adopting new technologies. Furthermore, the criteria of 'everyday' users is important because in line with Haddon's domestication approach, the research question aims to observe the 'active user of technology [...] turned into an active (media) consumer as an attempt to move away from television audience studies towards a wider view on media use in general; to move from the *text* to the *context*' (2006: 654). Therefore, the subjects should not be passive but should have successfully incorporated the tablet as an integral part of their everyday life. A sample size of seven participants was chosen in order to include a mix of students and professionals as well as to include various makes and models of tablets.

### *Details of the Methodology*

The TA exercise was timed at 20 minutes allowing enough time for the subject to feel comfortable with the situation. The subject was instructed to act as if they weren't being observed and researcher could not interact with the subject during this time. So as not to invade the participant's privacy, the researcher did not look at the tablet nor sit in a position that would suggest a direct view of it. In the event that the respondent fell silent they were reminded to 'keep talking' with a note card prompt.



All interviews and TA exercises were marked and recorded as separate stages and then transcribed. The analysis of the results to follow is guided by key themes initially highlighted by the researcher: allocation of time, work/play balance, incorporation of device in everyday life, physical comfort/discomfort, usability of device. Furthermore, interpretation of data through 'individual narrative and thick description [...] provide[s] a picture of [the] participant's thought processes, but also help[s] to highlight individual difference in response' (Charters, 2003: 69).

## **RESULTS AND INTERPRETATION**

The TA methodology data, preliminary, and follow-up interviews each provide vital insight on how the individual tablet users relate to and interact with their device. The aim of this research, however, is to understand how users engage with tablets on a more generalized level. That is, to observe variances and similarities amongst the subjects which illustrate the adoption of the ICT in society at large. Referring back to the established theoretical framework, the objective is to uncover how tablets embody Silverstone et al.'s concept of 'objects and meanings, technologies and media, which cross the diffuse and shifting boundary between the public sphere where they are produced, and the private sphere where they are appropriated into a personal economy of meaning' (1992, 19). In order to do this, the following section consists of two main components. The first being a detailed analysis of results, whereby the collected data will be presented and examined across a breakdown of key themes considered before and emerging after the research. Second, the findings will be interpreted and discussed as well as incorporated with the aforementioned theories and notions that are central to conceiving user appropriation of tablet devices. Combining these two processes should enable a clear and substantiated concept of the role and status of tablet devices as a key ICT in the Information Society.

### **Presenting the Data: Key Themes**

#### *Allocation/Experience of Time*

Communication technologies' ability to alter the ways in which we experience and manage time is one of the central focal points of the research on the relationship between users and their tablet devices. In order to understand how tablets come to be incorporated into one's everyday life, it is necessary to explore the various ways in which the ICT affects *lived* time.

Whilst this notion of time is shared by everyone, tablets have the ability to alter individual experiences of time, and herein lies an important distinction. As we move increasingly towards an established IS, Adam emphasizes an 'additional need to ground knowledge of the social relations of time in particular practices and technologies' (2004: 2). Therefore, a key characteristic of tablets is how users relate to it in time and, equally important, how time is mediated through it.

The notion of time was presented to the subjects from the onset in the preliminary interview with the question: 'How much time do you estimate you spend on your tablet per day?' Green and Haddon note that 'asking questions about time demands and the temporal organization of our daily lives can help to explain patterns of use, or non-use, but also includes the timing of our use of technologies' (2009: 74). This was an interesting point of departure as it asked the user to guess the amount of time they dedicated to their tablet, which in turn revealed the amount of time the user allowed himself to dedicate (realistically or not) to their tablet. One respondent initially reported spending 'probably two hours a day,' but after the TA method and upon reflection stated 'actually no, definitely more than that because I am using it all the time. So like ten hours a day maybe.' Such disparity between answers is not insignificant. It suggests, as Nafud and Tracey have argued, that ICTs are 'tool[s] that enable one to be efficient by working through a (capitalist) conceptualization of time as malleable –spendable, was table, stretchable and contractible' (2002: 215). This was further substantiated by most subjects' inability to estimate use with precision and/or their modification of estimated use in the follow-up interview following the TA exercise.

Whilst the initial investigation of time centred on the quantifiable *amount* of time users spent on their tablets, during research the TA method exposed the experience and allocation of time whilst using the tablet as a key theme. More specifically, users often reported efficiency (or lack thereof) when discussing their interaction with the device. One respondent in particular, who uses the tablet mainly for work, described how they saved time using the device with clients, stating: 'I find just in general that Adobe Flash is slower. So a lot of times if I know...I can think of what kind of things my client wants to see, I load them before so I don't have to wait for them to load when I'm with them because it slows down interest.' Adam notes that 'in 'Western societies' [...] the money-efficiency-profit link are inseparably intertwined [and] mutually defining' (2005: 205). Respondents attributed positive values to the tablet when it was efficient and sought for efficiency in using their tablet, as one respondent exemplified, stating: 'now I'm just waiting for a response so I'm going to use this time to look at the other e-mails I've just received.' Equally, however, inefficiency was

frowned upon as one subject noted, 'I'm flicking back because I can't be bothered to wait. I'm really impatient.' Overwhelmingly, the TA data showed that users allow very little time for the tablet to perform a given task as one subject made clear that 'if a magazine is downloading I'm not going to wait there until it downloads. I will be doing something else and go check other stuff.'

Following from the aforementioned notion of efficiency, research also pointed towards feelings of boredom as a result of or conducive to tablet use. In particular, users who did not use their tablet for work or any other 'productive' task often lacked engagement with the device. One participant in particular was extremely aware of time passing during the twenty-minute TA exercise, as exemplified by the following statement recorded during the TA method:

Has it not been twenty minutes? Time just kind of expands. Usually it goes in half an hour I'm just messing around on my iPad. I just only mess around on my iPad. I have used it for games in the past certainly but not anymore. When my life is relatively boring for whatever reason I might start playing games on it.

The relevance of this is twofold; on the one hand the subject expresses the sensation of time passing more slowly whilst on the device, on the other they seek out use of the tablet to fill empty time. This contradiction validates notions of ICTs as enabling us to 'pack more things into "dead" time [...] but that in itself creating more time pressure' (Green and Haddon, 2009: 85). Another subject reflected on the TA exercise stating he was 'bored, I don't know it just gets really boring.' As opposed to other participants who saw the TA exercise as an opportunity to use their tablet in a 'productive' manner, those who simply 'used' the device did not ascribe any positive values to it. Thus, one of the major insights of the research with regards to tablet use and time is that its value to society depends on its ability to save or make use of time.

### *Incorporation of Device in Everyday Life*

The appropriation of new technologies operates first and foremost on a personal level. In order to understand how users are using their tablets and to what ends, one must first understand how these have (or have not) become a part of their everyday life. Domestication theory presents a solid framework on which to base such an investigation and to analyse how technologies are incorporated into domestic life and the moral economy of the household.

Whether tablets have been domesticated or not remains at the heart of this investigation. Berker, Hartmann et al. identify technologies that have been successfully domesticated 'are not regarded as cold, lifeless, problematic and challenging consumer goods [...] but as comfortable, useful tools – functional and/or symbolic – that are reliable and trustworthy' (2006: 3). Probing the subjects about this as well as data from the TA method revealed that those users who allowed their tablet to enter their private space felt the most comfortable and attached to the device.

Some questions from the preliminary interview attempted to establish how important the tablet was to the participant's everyday life. One question determined whether the user took the tablet during travel or commute; another asked more directly whether or not they believed their tablet was an integral part of their life. All subjects who took their tablet with them at all times believed it were an integral part of their life, as one subject expressed very openly:

- Interviewer: Do you take it with you when you travel?  
Respondent: Absolutely. That's one of the other reasons I bought it for.  
Interviewer: And when you commute to university.  
Respondent: Yes, indeed.  
Interviewer: Do you use it when you're commuting?  
Respondent: Yes, I read books and magazines.  
Interviewer: Would you say your tablet is an integral part of your life?  
Respondent: Definitely.

From the onset it was clear that this participant had allowed the tablet to enter all aspects of her life, even though originally she had only bought it to take with her when travelling. Interestingly, the TA method later revealed a much deeper personal relationship with her tablet stating 'I don't see the iPad as this stranger laying there, it's just part of my whole life [...] it's my calendar, my doctor, it's my social media connection. It's everything really.' Thus, the subject's tablet is an essential part of her life but also, as Morley explains, is further domesticated because it allows her to 'privatize public space by retreating into [her] own protective bubble' (2006: 34).

The study of the domestication of media technology has 'relied largely on qualitative research methods, which encapsulate the nuances of consumption and the way that users inscribe artefacts with meaning to give them a place in the network of the home and everyday life'

(Berker, 2006: 6). In order to understand how the subjects appropriated their tablets, it was important to identify the important and defining characteristics of their lives. One subject in particular, a 26-year-old personal trainer, saw his tablet as an essential tool for his work. He explained 'when it comes to work I do all my program writing on my tablet [...] also my scheduling goes through my tablet as well.' This revealed that the tablet was a vital link for this subject as it is a crucial element to his livelihood. During the TA method, the subject expressed this 'lifeline' relationship between himself and his tablet,

I'm going into my calendar just to see how the rest of the afternoon is looking. I have one more client today. I've been trying to figure out tomorrow's logistics. I've got a very, very busy day tomorrow so when I'm going to eat... That's one of the harder things when you are trying to schedule, you've got to make sure you've actually got time to do something yourself.

Interesting here is how this subject relies on his tablet to schedule one of the most basic human needs: eating. However, this can be seen as an extreme form of domestication whereby the technology has been tamed and now exists in tandem with its user.

Whilst most participants believed that their tablet did form an integral part of their lives, two subjects did not agree with this statement. Despite this, they remain crucial to the research because they represent what Haddon refers to as 'non-users who might nevertheless be "gatekeepers" influencing the adoption process' (2001: 214). More specifically in this case their lack of sustained interest in their tablet signifies that 'how we experience [ICTs] is not totally predetermined by technological functionality or public representations but also structured by social life' (Haddon, 2001: 214). Both of the subjects in question had previously given more importance to their tablets under different circumstances. The first respondent, a student, admitted using it much more in the previous two years; he explained:

Respondent: Well I mean last year for instance I didn't take it once, but the year before I did.

Interviewer: You did? What changed between last year and this year?

Respondent: I bought a new laptop.

Herein lies another important factor of domestication theory described by Livingstone as 'the character of the multimedia product space subject to competing and continuous definition and redefinition' (1992: 117). Therefore, for this subject, the tablet lost its significance because it was replaced by a different technology that responded better to his needs at that

time. Similarly, the second respondent who did not currently see the tablet as essential to his life also found use and importance for it under different conditions. When discussing the movies he had on his tablet he stated, 'I bought them when I was going out with my ex because their Internet was terrible and she didn't have a TV so it was nice to have some form of electronic entertainment. I don't really use it anymore.' Here the tablet gained relevance, becoming assimilated into his everyday life through its ability to replace other unavailable technologies.

### *Usability of Device*

The importance of investigating the usability of the tablet in relation to user appropriation of the device is twofold. On the one hand, it enables a detailed evaluation of the strength and shortcomings of the ICT as a user-friendly technology. On the other, Mansell emphasizes the importance of moving away from 'linear models of the innovation process [which] assume that logical adaptive processes will ensure a smooth working-out of [...] the interrelationships between actors and structures' (1996: 22), in order to 'focus on how the choices of actors in their various [...] environments affect the trajectories of change in the development, diffusion, and appropriation of these technologies' (1996: 22). Research on how users interact with and relate to tablet devices is not only important for understanding how this ICT fits within society, but also can provide some insight on whether these devices can or should be incorporated in business operations. Throughout the TA method, the subjects' ease navigating the device was observed carefully. This, along with the data from both interviews provided significant insight on the usability of tablet devices.

Perhaps the most revealing observations from the TA exercise were the speed with which users navigated through their tablet. Importantly, however, all participants did not notice this until probed in the follow-up interview. When asked about this, one respondent stated, 'I'm a quick person, but I like maximizing what I can get out of the product. I guess I have learned. I am very comfortable with it. I know how to fly between applications and how to move everything.' Another reflected on the TA exercise stating, 'I noticed how much I flicked between things. How much I go from doing one thing to another, like read quickly. But that's probably because I'm so used to doing it now it just comes naturally, I don't even think about it.' This reveals an important advantage of the TA methodology whereby it 'brings to the forefront implicit aspects of complex processes thus revealing and highlighting the less obvious [...] and stimulate participants' reflections thus increasing their self-awareness' (Koro-Lumber, 2013:747). Throughout the research it became increasingly evident that users

were rarely aware of the speed and agility with which they switched between applications. Tablet use is very much a thoughtless process but this does not mean that it is not complex. Quite the opposite, this exposed the user-friendliness of the device and its interface. As tablets are tactile devices, it is essential that its interface be specifically designed with this in mind if they are to serve their ultimate purpose.

One respondent described her frustration at not being able to move (even more quickly) between applications,

It's when you are on one app you can switch to the other one just by swiping with four fingers. I do that a lot, but I never know which order the apps are in so sometimes it gets confusing and isn't as efficient as it should be. I guess I'm trying to say that it's a bit complicated switching between apps. I don't like going back to the home screen to change an application but most of the time I have to because it's too complicated otherwise.

Furthermore, the question of typing on the tablet was often brought up during the TA method or in follow-up interviews as a downside of the device. When asked if he felt he used his tablet in a 'productive' manner, one subject responded, 'I may occasionally answer an email. To be honest, I may start typing the email on my iPad but I don't like using the keyboard. It's really annoying so I just go use a computer.' One subject solved this issue by attaching an external keyboard. In summary, research revealed that whilst the tablet interface was easy to navigate and users felt comfortable moving quickly between applications, the tactile keyboard remained problematic for most users.

Another key point that was revealed during the TA exercise was the optimization of websites and applications for tablet use. Many users who used the Internet on their tablets complained when the website was not optimized for their tablet. One subject in particular did not complete a purchase because the website was almost impossible to navigate on her tablet.

Oh this is very, very bad. They should do a better website for the tablet. This is shit, this is just a very bad layout. That's so annoying, but I can't be bothered to go and get the computer. How much is it? Where are the prices? Oh this is so difficult to understand. Just put tickets... I'm losing interest only because the website is so bad.

As Berker et al. note, domestication is rarely complete and this is particularly relevant on the symbolic level whereby, 'some technologies continue to “disobey”, some only from time to time, and many become an integral part of everyday life' (2006: 3). More specifically, when it comes to websites and applications, there is always the possibility of enhancing them for the tablet, although this requires an investment on the part of the producer. Some subjects reported the inability to use specific software (such as Photoshop) or games on the tablet as a big disadvantage. One subject, working for a production company, used her tablet to sell her company's services to clients. She explained the rationale behind using a tablet rather than a screen; 'on a tablet, because everything is condensed, you always see it in a richer way than most. I find it does help.' This insight was particularly useful as it suggested the clean visual aesthetic of tablets was advantageous when presenting media products. Overall, research showed that ease of use was one of the tablet's distinguishing factors and therefore creation of tablet versions of any media product is advantageous in its own right.

#### *Physical Comfort/Discomfort*

Throughout the TA exercise, the physical relationship between the user and the tablet was carefully observed to determine whether or not interaction with the device was physically comfortable. Each subject had free choice as to how and where they wanted to sit as well as the position with which they used the tablet. However, observations often revealed that choosing the 'best' position using the tablet was often difficult. Most participants handled the device awkwardly often shifting between various positions and seemingly rarely finding a comfortable one. Whilst no subjects mentioned this during the preliminary interview, almost all participants recognized their difficulty in finding a comfortable position for tablet use. The stand 'add on' which most tablets advertise as providing optimal positioning was criticized on two separate occasions,

Well it's slightly heavy. Typing is annoying because if you stand it, on the trident thing, it is a terrible position to type in. How does anyone type like that? It kind of has to do with your thumbs, in which case it's almost more inefficient than an iPhone.

Yeah. Actually I must say I'm not that comfortable. You can use it like that [placed on stand] but it's weird.



As aforementioned, most users did not initially report any physical discomfort using their tablet. One (clearly uncomfortable) subject, held the tablet exceedingly far away from them, but did not notice this until probed during the follow-up interview,

Interviewer: Your eyesight, do you have bad eyesight? Because your tablet is really far away from your eyes. I don't know if you noticed it.

Respondent: No, I didn't notice.

Interviewer: You like literally hold it out here.

Respondent: Really? I do have bad eyesight.

Interviewer: But you don't feel it at all on the iPad?

Respondent: No, I'm not straining my eyes or anything

Whilst the subject did not recognize this, it is important to note for further research and development of tablet devices. Silverstone and Haddon stress the importance of recognizing 'the interrelationship of design and domestication in such a way as to identify the particular elements of the careers of information and communication technologies as they move through the spaces and times of innovation' (1996 :45). Therefore, incorporation of tablets into society must go hand in hand with careful consideration of the potential health risks and the technological evolution of the device must take into consideration consequent damage to the vision or posture.

### *Adaptability*

The purpose of domestication theory as defined by Goggin is to 'study how users "tame" technology, making it part of their lives and finding new uses for it' (2012: 55). Despite this, the question of tablet adaptability was not considered when designing the research question and initially was not a point of focus during interviews and the TA method. After completing the research and analysing the results, however, it emerged as the most important and unique aspect of the tablet compared to other ICTs. All subjects used and 'dressed' their tablets in their own way, which in turn was directly traceable to their personal circumstances or use of the device. These demarcations were both apparent on the outside (cases, accessories etc.) and within the tablet interface (choice of applications). One respondent, a fashion journalism student, carried her tablet in a stylish leather case and most of her applications were digital versions of magazines and social media platforms. She saw and presented her tablet like an accessory describing it as 'something very easy to carry around in any bag. I thought the iPad mini even fits in a small bag!' The exact same tablet seemed to be

entirely different when it belonged to another respondent who worked as a personal trainer. From the outset it was apparent that it was not a fashion accessory but a sturdy piece of equipment fit to survive the toughest conditions. He explained the reason for this,

I have had it break twice so now I have this big retainer on it that is meant to be indestructible. If you watch YouTube they fire a paintball gun at it and it doesn't break.

Furthermore, he used his device as a tool for his work helping him to calculate his client's body fat and writing their training programs. The adaptability of the tablet to the needs of its user is perhaps the device's most unique selling point. As one respondent described perfectly the tablet is 'kind of like an everyman, slightly good at everything.'

### *Privacy*

During the initial moments of the first TA exercise it became clear that the subject was slightly uncomfortable that they were being observed. This raised a crucial yet previously unconsidered question of the private nature of the relationship between the tablet and user. As a result, each subject was probed during the follow-up interview about whether or not they believed the TA method was an invasion of their privacy. Their responses fell on both ends of the spectrum. Some did not find the researcher's presence intrusive in any way expressing their surprise at the question.

Interviewer: So you didn't feel uncomfortable at any point and you didn't feel like I was intrusive?

Respondent: No. Why would it be?

Others, on the other hand, expressed a certain discomfort but always denied the researcher's presence as an intrusion, as one subject expressed in an interesting manner:

Interviewer: Did you feel like there was an invasion of privacy? That I invaded privacy?

Respondent: Yeah, a little bit.

Interviewer: A little bit, okay.

Respondent: Well no, because obviously you've gotten insights to what I do. Not invasion, just more of an insight.

Combining the subjects' responses to this question with other information provided during the research revealed that the nature of the user's relationship with the tablet depended upon their specific use for the device. If the subject used the tablet to manage personal aspects of their lives they felt more inclined to keep their interaction with the device private, whereas subjects who used it for general entertainment purposes or mundane tasks were happy to share their experiences.

## **CONCLUSION**

The motivation for researching how users interact with and relate to tablets initially stemmed from the desire to know more about an increasingly ubiquitous device which, nonetheless, remains relatively unexplored in the realm of media and communications studies. The information such research reveals is essential to understanding the rapid development and evolution of the information society. Mansell indicates that 'advanced information and communication technologies are pervasive technologies; they have the potential to alter very radically the contours of the society in which we live' (1996: 22). As the research question began to take form and an appropriate methodology was selected and carried out, it became increasingly clear that this research would only uncover the tip of the iceberg when it came to the relationship between users and their tablets. The value of such an investigation is substantive because of the speed at which we are 'continuing to witness the burgeoning growth of new electronic information and communication technologies, [which] are set to modify the nature and experience of interpersonal relations and communications across a vast range of human activities' (Gillespie, 2014: 1). Insight on the appropriation of tablet devices is useful on multiple levels. As such, producers, users, businesses, and institutions all stand to benefit from an awareness of the current role and possible evolution of tablets within the information society.

TA methodology provided an opportunity to gain information about the internal states of users when interacting with their tablets. Ericsson and Simon encourage the use of this method to uncover otherwise hidden thoughts or feelings because 'with the instruction to verbalize, a direct trace is obtained of the heeded information, and hence, an indirect one of the internal stages of the cognitive process' (1980: 218). The twenty-minute TA exercise combined with preliminary and follow-up interviews enabled the subjects to think through their interaction with their tablet, subsequently revealing private or assumed features of their relationship to the device. However, the method does have its limitations, namely the

inability to assess whether the subject is holding back information or being entirely truthful. Interpretation of results was based entirely on taking the participant's words as the truth with little or no justification of this. Further research should aim to report quantitative data about tablet use in order to validate the initial analysis, recording users' actual navigation through the interface by analysing hand movements and recording time spent on a page or application.

Nonetheless, the research has provided sufficient evidence that users who have incorporated their tablets into their everyday routine see the device as an integral part of their lives. Overwhelmingly, results showed that appropriation of the tablet depended on its ability to serve as a productive tool adapted to individual circumstances. Just as previous research on mobile phones such as Goggin's study of cell phone culture has, this study has revealed tablet's association with 'qualities of mobility, portability and customization' (2006: 2). As society moves increasingly towards globalization by the virtue of ICTs, the study of tablets can reveal how these new technologies 'fit into new ways of being oneself (or constructing identity and belonging to a group); new ways of organising and conducting one's life; new ways of keeping in touch with friends and family, and new ways of conducting business' (Goggin, 2006: 2). Will tablets replace computers, and what are the consequences of this? Whilst this question will remain unanswered for the time being, it is important for media and communication studies to remain committed to an understanding of the possibilities offered by an ICT as complex and unique as the tablet.

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## **APPENDIX A**

### **Sample Interview Transcript**

#### *Participant 1: Preliminary Interview*

- Interviewer:        Alright. So this is a preliminary interview. It's just some basic questions about who you are, how old you are, etc. Then a little bit about your technology history basically, but basic questions. So first question, what is your age?
- Respondent:        I'm 23.
- Interviewer:        What is your city of origin?
- Respondent:        I was born in Bilbao but I grew up in Barcelona.
- Interviewer:        Okay. What is your city of residence?
- Respondent:        London.
- Interviewer:        What is your occupation?
- Respondent:        I'm a student, full time.

- Interviewer: And at what level?
- Respondent: I'm doing a master's degree.
- Interviewer: In what subject?
- Respondent: Fashion journalism.
- Interviewer: How long have you had your tablet?
- Respondent: I have had an iPad since March last year, March 2013.
- Interviewer: And did you purchase it or was it a gift?
- Respondent: I asked my dad to buy it for me.
- Interviewer: Okay. So I'm going to say it was a purchase pretty much.
- Respondent: Yeah.
- Interviewer: So what was the rationale behind deciding that you wanted to get a tablet?
- Respondent: I used to have a big computer, an old Mac book. Battery-wise it didn't work anything and I needed something to get my notes when I was at university. Something very easy to carry around in any bag. I thought the iPad mini even fits in a small bag. So it was mainly for university purposes and practicality really because my computer is too big to carry around.
- Interviewer: So I asked you... reiterate what is the make and model of your tablet?
- Respondent: iPad mini.
- Interviewer: And why did you choose this tablet in particular?
- Respondent: I'm a fan of Apple products. I have been for long, not because of the fashion behind it. I design programs sometimes so I thought if my computer... like I'm happy with this brand, why not keep on the same? It's reliable and it works and I can synchronize all my devices. It was mainly because of that so I wouldn't have to worry.
- Interviewer: And the mini as opposed to any other model is practical?
- Respondent: Yeah. Well first of all it's a little bit cheaper. If you see compared to the big one the screen is almost the same so the bigger iPad has a huge frame. Not only because it was cheaper, has it really fit anywhere.
- Interviewer: Perfect. So what other devices do you have? I'm going to list you a few devices. A mobile phone, a laptop, a smart TV, a desktop PC, a Kindle eBook reader.
- Respondent: So I have a Mac book computer, the iPad and the iPhone.
- Interviewer: How often do you estimate that you use your tablet per day?
- Respondent: So let's say per day, if I'm at university and I have a three hour lecture I will obviously use it throughout the three hours. Then I read lots of books and magazine so surely I would spend one hour at least in the evening reading something. So in between two to four hours a day, depending on university.
- Interviewer: And do you think you use it more for work or play?

- Respondent: I actually think it's quite balanced.
- Interviewer: Do you take it with you when you travel?
- Respondent: Absolutely. That's one of the other reasons I bought it for.
- Interviewer: And when you commute to university.
- Respondent: Yes, indeed.
- Interviewer: Do you use it when you're commuting?
- Respondent: Yes, I read books and magazines.
- Interviewer: Would you say your tablet is an integral part of your life?
- Respondent: Definitely.
- Interviewer: Is there anything you only do on your tablet? Like you wouldn't do on your laptop and you wouldn't do on your mobile phone?
- Respondent: Reading books and magazines, yeah. Let me think what else. I use social media LinkedIn. I use it here only. I would never use it on the iPhone because the interface is not good enough. What else? And to read blogs as well.
- Interviewer: Is there anything that you cannot do on your tablet that you do with your other devices?
- Respondent: Well I mainly just call people or send messages. I have Face Time... oh, Face Time is another thing that I use constantly here. I don't respond to messages in the iPad because I don't think it's easy enough to do. It's too big. It's useless. That's the only thing that I can't do because I really do everything.
- Interviewer: Perfect, good, that's it, no more questions.

### **Participant 1: Think Aloud Method**

- Interviewer: Okay, we're good. Go for it.
- Respondent: So first of all I will check all notifications that I have. Some Facebook messages but I have already read this on the iPhone. Get in, use this. Any grant stuff. What else? I have already seen this one. So I'm going to get the newest... I just received notification for the new issue. It looks great. I'm skipping ads, thank you iPad. Contents.
- Interviewer: Try to keep talking. Like anything that comes to your mind.
- Respondent: Okay.
- Interviewer: At the beginning it's hard, but even if it has nothing to do with what you are doing.
- Respondent: Okay. What I'm thinking at the moment is it is taking so long to download. Why? So I think it will keep downloading even if I use other apps. I'll check back. Those are nice shoes. That's with Instagram. The interface on the iPad is bigger, way better. Close that. Oh again, Kim Kardashian. Please stop it, please stop it. She is everywhere. I am having nightmares with Kim Kardashian. I mean please. No, no, close that. This I like. It looks so different.



Recorded: You don't have to go through with this. It's not too late.

Respondent: I can't believe this.

Respondent: He is fit and fun. Let's see if it has downloaded. It didn't, almost. So let's do some social media-ing while it finishes. I hate Twitter adverts. They show up. I hope Instagram doesn't do the same; otherwise I'm just going to start hating it as well. Oh my god, I remember yesterday I was in a cab while listening to the strike in Trafalgar Square. They are so bad for them, like during the taxi black out strike you get... like so much 850% sign ups. Crikey. That's why I love Twitter, that you can read everything so quickly and before anything happens. I wouldn't have known about that otherwise, probably. Surely in the news that I like they are not in the front page of the Guardian or things I like to read. So Twitter gives me that information quickly and briefly which is something I really enjoy. I love this website. She is so interesting. I aspire to be her. I hope it's not too long.

Recorded: [Ad playing]

Respondent: 30 minutes, okay, most definitely not. I'll see it later. So send reading list, done. I'm opening Safari so next time that I open it up it will be the first one that I see. So I will just quickly go through it, I'll see it, done. What else? This is some comedy stuff. Something scary. That is my biggest nightmare, human trafficking. Since I moved to London I have this app on my iPhone. First people thought that it was kind of stalker-ish, but it's a Find my Friends app. So I went missing my friends could locate me on a map. I think it's a very clever way to keep in touch with the world. I know it will sound cheesy but I have it with my mom. So if I don't reply to her messages or something she just checks and she will see... I don't know, she knows where my friends live so she sees 'Oh she's up the street or she's at Nicole's.' That's something that I love about technology. It is kind of very easy. Which reminds me I am going to call her. I'll call her later. I could send her a message from the iPad but I just think its way, way, way quicker doing it on the phone.

Oh, the World Cup. When, what time? World Cup, let's see the news. Brazil, Croatia at nine. Nine from London? Yeah, British tonight. And tomorrow is Spain versus Netherlands. I am so excited by this one. This is great. That's perfect. Tomorrow at eight. I already had it in there. I had already looked at it on my iPhone so it just synched. That's why I always have all my products from the same... if I use all the same skin care and the same brand, why wouldn't I do the same with my devices? I think you get the best of what it has to offer, in my opinion.

That's what I love about magazines, like getting the magazines on the iPad is cheaper. I was at the station two minutes ago and I was looking at this particular magazine and it was five pounds. It came with some horrible plastic sunglasses that I really don't want. Why would I buy a magazine that takes so much space and a pair of cheap, China-made sunglasses where I can have it on the iPad? I can take it anywhere, it's cheaper. I do love print, but again.... I aspire to work for a magazine but I see the future going towards this.

If you are an environmentally conscious person you just save so much paper, and I am really concerned about that. I have converted my tutors at university. He is like 'Print the feedback and come to me and show me.' It's like why am I going to waste pages and pages of paper to show you something and then throwing it away. I will just take my iPad and I will show you, you can read it. At the beginning he was like 'Oh I don't like it.' Blah, blah, blah, whatever, just get used to it. The environment is suffering.

They're already talking about winter. Oh, go away scarves. Its July... oh no, June. That's another thing I am attracted to at the moment with this. Can't get excited for

winter in June. Sexy Spanish. Should prepare. Went to Wimbledon. Which reminded me, I have to get tickets to the Henley regatta if there are any left. It's not too far from home either. I could Google it. School and schedule. 23<sup>rd</sup> of July. It's very near. Tickets. I'm bad with the queue. Oh this is very, very bad. They should do a better website for the advert. This is shit, this is just a very bad layout. That's so annoying, but I can't be bothered to go and get the computer. How much is it? Where are the prices? Oh this is so difficult to understand. Just put tickets... I'm losing interest only because the website is so bad. Get in here. The race... I have no idea what the prices are. Whatever, I will get someone else to do it for me. The Henley Regatta. I have never been and I am so excited to go. Such a British... another bad website, obviously. Nobody cares about this.

If I was to have a company, even if it was only selling colourful beads for bracelets, like plastic for bracelets, the first thing I would do is have a proper website. You know, you can sell tissues for a very expensive price if you have a nice website I think. Media, shop, okay. Ticket advocate. Closure. Okay, but where are the prices. Okay, they are sold out. How do I press...? Sold out already? Crikey. 70 pounds is not that bad. Oh, oh, oh, Nicole. Henley Regatta tickets for Saturday are sold out. We should get tickets.

The coffee is getting watered down. If I was working in Tattler in order to have the biggest revenue stream, I would have this clickable with a reward style company so you could get a cut out of it.

Interviewer: That's a good idea.

Respondent: Well surely if somebody is paying you to put this product in here, why not get in a cut of the price if they buy them thanks to you. I think it's only fair. I really like this hat. Where is it from? Leather shoes. Straw hat, 210 pounds. Okay, it's really expensive but if I had the money I would just press in here, go to the website and buy it. Given that they don't have that I'm probably going to forget about the product and I'm not going to buy it.

Interviewer: We're good, 20 minutes.

### **Participant 1: Follow-up Interview**

Interviewer: Alright. So is there anything you said that you would like to clarify? Well actually would you prefer that I ask you the questions that I have with regards to what you were doing? I don't know if that would be better, if I ask you some things that I noticed maybe that would make you remember more quickly.

Respondent: I might remember.

Interviewer: Alright. So I noticed that you were really quick in between applications if you wanted to go between one and the other. Is that something you noticed actively when you are doing it or is that...?

Respondent: No.

Interviewer: And do you think that's you or that's the interface of the iPad or that's a mix of both, you are used to it and the interface is quite good.

Respondent: So the interface is great. Like its Ios7, things have gotten much better and much quicker. I'm a quick person, but I like maximizing what I can get out of the product. I guess I have learned. I am very comfortable with it. I know how to fly between applications and how to move everything. Obviously, for example, if a magazine is

- downloading I'm not going to wait there until it downloads. I will be doing something else and go and check other stuff.
- Interviewer: Perfect. Were you... you seemed to be really comfortable. Are you comfortable when you're on your iPad?
- Respondent: Very, very comfortable. It's just a very handy computer that you can just have. In fact sometimes, since I bought the iPad... it's very funny but since I bought it the screen on my computer is gone dirty. I always do 'Okay I don't want this app anymore' and I touch it. Like I try to close Safari and I'm like 'No, this is the computer.' I wish they come up with a Mac that has an interface like the iPad that you can touch. It's much quicker. I don't like the mouse anymore. It's easier on your hand.
- Interviewer: I see. So you talked a little bit about magazines that you read on your iPad. You said the advantages were that it's cheaper and that you could skip through the ads and you didn't have to know the extra crap and whatever. But then you also mentioned that you quite enjoyed print.
- Respondent: I do.
- Interviewer: Obviously you want to go into fashion journalism.
- Respondent: Yeah.
- Interviewer: A bit of a strange... not strange, but questionable question. Let's say you were to work in a fashion magazine, if you were assigned to digital...
- Respondent: I'd love that.
- Interviewer: you wouldn't feel like it was a demotion but you were as good as the person who was working in print?
- Respondent: No. surely I would like to see my articles on print, which anyway by print I mean in the proper magazine. I don't mind how the readers read it, if you are printing it off or on tablet version. But surely if I was assigned to work in the online bit of a magazine I would love that because still you can reach lots of readers. Even people that don't actually buy the magazine, that they just check the website. So you have to think of that pro, you arrived to a wider audience even the ones that don't engage with a monthly issue. So yeah.
- Interviewer: Perfect, great answer. So I also noticed that you move quite quickly. I also noticed that the notifications come on top.
- Respondent: Yeah.
- Interviewer: Do you find they distract you sometimes from what you were doing originally?
- Respondent: They annoy me more than distract me sometimes because maybe I am reading something on top of the app, maybe a book, and then it's just I get notifications for Instagram. It's like 'Stop, stop, stop, you're getting in the way.' Usually I check my notifications for some reason in my iPhone so on the iPad they get a little bit annoying when I'm doing other stuff. I don't know, maybe they could come up with some other way so it wasn't as annoying. Maybe just a little icon on top right. I don't like an Instagram notification maybe if you are on books or magazines that you require the whole frame of it, you could have an Instagram or Twitter icon that you can press if you are interested. But don't chop in half my screen if I'm reading.

- Interviewer: Oh yeah. I thought the calendar was really cool, the calendar that you have. So do you use that calendar every day?
- Respondent: Everything. I synchronize my computer, my phone and the iPad for everything. Like even our meeting is on there. I think it's quick. I don't know, I just find it very useful. Like I'm writing something and I see 'Oh this is happening in this date' so I will just open the app, put it in and it's on all my devices. I just think its super cool because then you are out, talking to somebody and they're like 'Oh let's go for dinner' and then I check my calendar and everything is perfectly organized. It's very useful.
- Interviewer: Okay. So now I'm going to go to the generalized questions which are... when I find them...See this is the problem when you don't have...
- Respondent: You see, if you had Ever Note you could synchronize all your notes with your computer. Like I have it colour coded depending on the subject and stuff.
- Interviewer: Terrible, this is terrible. I know I'm almost there.
- Respondent: There's no rush.
- Interviewer: Okay, got it. Okay, so is there anything that you said during the think out loud method, the 20 minutes we just did, that you would like to clarify or discuss?
- Respondent: From...?
- Interviewer: What we just did.
- Respondent: Clarify or discuss? I don't think... everything was pretty clear, wasn't it?
- Interviewer: Just if there was anything that you think that you said might have...
- Respondent: No, no.
- Interviewer: No, we did that. Did you gain any insights of your own from having to actively think out loud when you were on your iPad?
- Respondent: That I get easily distracted by a lot of information. When you said 'You move around between apps very quickly and open a lot of them' I'm like 'Oh that's true.' Now when I think about in 20 minutes I downloaded Tap Player, checked the Huffington Post news page, updated my calendar, checked tickets for a Henley regatta. That's a lot for a few minutes.
- Interviewer: Do you realize that?
- Respondent: Well, that probably means that it has a good interface and the iPad is useful.
- Interviewer: Do you feel like you were productive in the 20 minutes?
- Respondent: Indeed. Now I realize it, now that you said I was moving quickly in-between apps, I didn't even notice. I guess I'm just so used and so into it. I don't see the iPad as this stranger laying there, it's just part of my whole life. Like how everything evolves with my calendar, my doctor, it's my social media connection. It's everything really.
- Interviewer: And how did you feel during the experiment? Like did you find it a bit weird at the beginning?
- Respondent: No, no. Well to be honest sometimes I'm with friends and I'm with my iPad and sometimes I'm like 'Oh I'm reading this' and I read it out loud.

Interviewer: So you didn't feel uncomfortable at any point and you didn't feel like I was intrusive?

Respondent: No. Why would it be?

Interviewer: To make sure. Is there anything you want to add?

Respondent: That I think it's great. I would love to know about what you come up with.

Interviewer: Of course, perfect. That was amazing, thank you so much. It was really good.

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