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Discontinued Internet use of young people in the UK: A literature review

A literature review, produced as a draft process document as part of the 'Lapsed Use of the Internet Amongst Young People' research project at Oxford Internet Institute.

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1. Introduction

The purpose of this document is to provide an up to date review of current and recent studies, reports and policy documents that examine issues around digital exclusion, with a particular focus on discontinued use of the Internet by young people. It forms a part of the research that is being carried out for the Lapsed Use of the Internet study, commissioned by the Nominet Trust, that aims to explore why around 10% of young people in Britain stop going online, despite the prevalence and value of the Internet in the lives of the majority of young people. Through interviews with individuals identified as "lapsed Internet users" informed by previous work in this area the research aims:

1. To examine why young people stop using the Internet; and determine the extent to which this is due to reasons of digital exclusion or digital choice.
2. To explore the implications of non-use of the Internet in the daily lives of these young people.
3. To propose how the experiences of young people who no longer use the Internet can inform the digital inclusion strategy in the UK.

The purpose of the review is to inform the empirical phase of the study and the final dissemination of the project. It is an evolving document that will be developed throughout the study and is not at this stage intended for publication or distribution beyond the project team.

In the document below we first outline the existing assumptions made about young people and the Internet and justify the need for the current project. As there has been such a small amount of work on discontinued Internet use, non user studies may also support our thinking for this study. Thus, we review the current academic research on digital inclusion and go on to review the work that has been done on non use of the Internet in general and on young people in particular. Next, we review the current policy context in the UK and then consider methodological issues and approaches related to understanding non or discontinued Internet use. Finally we outline the conceptual framework that we will be using to inform the empirical phase of the study.

2. Young people and Internet use

The discontinuation of Internet use is a relatively new and emerging topic in the field of Internet studies. By contrast, over the past decade or so, an extensive body of academic literature has examined the use of the Internet by young people and its potential benefits, including, improving access to services and support, access to learning opportunities, and including young people in political affairs and decision making processes.

Today, the Internet is accessed by many young people through computers, mobile phones, smart phones, iPads and numerous other technological devices and has become an integral part of young people's everyday lives (Xenos & Foot, 2008; Montgomery, 2008). Indeed, the high use of new technologies by many young people have led to notions of the "digital native" or "net generation" where the use of new technologies is such a defining feature in the lives of younger generations that it requires a fundamental rethink of the ways that teachers, parents and policy makers connect and support young people (e.g. Prensky, 2001; Rainie, 2006; Gibbons, 2007; Palfrey & Gasser, 2008; Tapscott, 2009).

There is some evidence of policy makers reacting to some extent to this discourse. For example, in the UK there has been increased efforts of the government to reach out to young people by means of new media technology. Yet these initiatives shave met with mixed success (Geniets, 2011).

This is perhaps not surprising. In academic circles there have been numerous critiques of the notion of the digital native (e.g. Buckingham, 1998; Thurlow & McKay, 2003; McCay *et al.,* 2005; Brown *et al.,* 2008; Kennedy *et al*., 2008; Helsper & Eynon 2009; Jones & Ramanau, 2009; Selwyn, 2003a). Empirical research that has presented a more fine-grained and balanced picture of how this supposedly homogenous generation actually engage with new technologies, demonstrates a significant amount of diversity in how and why young people use new technologies and the influences it has on their lives (e.g. DiMaggio & Hargittai, 2001; Facer & Furlong, 2001; Livingstone & Helsper, 2007; Bennet, *et al*. 2008).

Nevertheless the digital native perspective still perpetuates and is perhaps even gaining increasing currency within policy and practice. Furthermore, the majority of academic research around young people tends to focus on the spectrum of Internet use, with a relatively limited focus on those who do not use the Internet, drop out

from using the Internet or use it in very limited ways (Katz and Aspden, 1998; Livingstone and Helsper, 2007). This is primarily because a great deal of the work in this area is based on large scale surveys (thus cannot pick up in detail on the experiences and challenges for this minority group). The existing qualitative studies also tend to focus on moderate to high end Internet users as these are the individuals who are more willing to participate in academic studies. Yet those young people who do not use the Internet, particularly those who stop using it, form a very important group for further research. The very existence of such young people seems surprising or even inconceivable to many. Thus we need more research both to better understand issues around digital exclusion and to put this group on the policy agenda

3. From digital divide to digital inclusion

Since the 1990s, new media studies have seen a large proliferation of articles on the "digital divide". The digital divide was traditionally defined as the gap between those who have and those who have not access to computers and the Internet or other technologies. However, as research has progressed the divide is no longer seen as a straightforward distinction between the 'haves' and 'have nots'.

Van Dijk (2006) identifies in his review different types of inequality to which the term "digital divide" refers. These different types of inequality are important, as they may point to first answers in our search for reasons of the non-use of the Internet by young people. Such different inequalities, according to van Dijk (2006) can be grouped into immaterial, material, social and educational types of inequality (Table 1).

Table 1, van Dijk (2006), p.223

Technological	Technological Opportunities
Immaterial	Life chances, Freedom
Material	Capital (economic, social, cultural), Resources
Social	Positions , Power, Participation
Educational	Capabilities, Skills

Building on this categorization, van Dijk (2006) very usefully classifies digital divide research under four successive types of access: motivational, physical, skills and usage, suggesting that in most developed countries the physical digital divide, thus the problem of insufficient access to the Internet, is closing, while the digital divide caused by a lack of digital skills and concerning the use of applications persists, and even widens. This has led some to argue for a "second-level digital divide" (Hargittai, 2002).

As is clear from van Dijk's work described above, the digital divide is now seen as a continuum of access and use where multiple interrelating factors such as attitudes, skills and quality of access are at work. Similarly, DiMaggo and Hargittai (2001) proposed that as Internet penetration increases a focus on digital inequality, made up of the dimensions of equipment, autonomy of use, skills, social support and purposes of using the Internet is a more valuable way of thinking about this issue than the dichotomous "haves" and "have nots" perspective of the digital divide.

Meanwhile, Selwyn (2004) has suggested four conceptual limitations to conventional dichotomous notions of the digital divide and individuals" ICT access. These four limitations are: the interpretation and definition of ICT, the definition of access, the relationship between "access to ICT" and "use of ICT" and a lack of consideration of the consequences of engagement with ICT. Selwyn suggests that, in the knowledge of these factors, "we can now begin to reconstruct the digital divide in more sophisticated terms: as a hierarchy of access to various forms of technology in various contexts, resulting in differing levels of engagement and consequences." (Selwyn, 2004, p. 351) To answer the question why some individuals engage successfully with ICTs from initial stages of physical access whereas others do not, Selwyn suggests that economic, cultural and social forms of capital play a mediating role in shaping individuals" engagements with ICT.

Tied in with such economic forms of capital, Nephew Hassani (2006) in her study found that differences in locations of use can partly explain gaps in participation in some beneficial activities, such as online banking or searching health information, and can be explained by income and education. In a large scale study in the US, Ito and colleagues found a similar problem. The authors note, "Sporadic, monitored access at schools and

libraries may provide sufficient access for basic information seeking, but is insufficient for the immersed kind of social engagements with networked publics that are becoming a baseline for participation on both the interest-driven and the friendship-driven sides [of activity]" (Ito et al., 2008:36).

Yet, despite such increasingly nuanced treatments of the concept of the digital divide, Tsatsou (2011) rightly has argued that research on digital divides needs to be revisited so as to emphasize the critical role of socio-cultural and decision-making dynamics in structuring the adoption of ICTs in both qualitative and quantitative terms. For, that the Internet can be successfully integrated in the everyday life context of marginalized groups in society has been amply illustrated, not least by Mehra et al. (2004) who in their study examined the use of the Internet by low income families, sexual minorities as well as African-American women. These authors concluded that Internet use needs to be seen in the context, social realities and practices of marginalized groups, which vary from minority group to minority group to group, rather than treated in an abstract, isolated fashion. These issues will be considered further throughout the sections below.

4. Internet non-use in general

Despite this longstanding recognition of the danger of a gap between the information rich and the information poor in various gradations, and despite the potential exclusion of citizens from vital functions in a democratic society because of this, there have been surprisingly few empirical studies within the notion of "digital divide" on little or no use of information and communication technology (ICT) (c.f. Haddon, 2004; Reisdorf, 2011; Selwyn, 2006). Our literature review suggests that even less studies can be found on little or no use of ICT by young people growing up in an increasingly mediated everyday life.

Selwyn (2003b) in his literature review lists the following reasons for people's non-use of technology that have become established and have dominated the academic debate over the last 20 years. These are: (1) material and cognitive deficiency; (2) technophobia; (3) ideological refusal and (4) diffusion theory. While ideological refusal approaches describe the Internet non-usage of people who resist ICT in terms of implications of traditional patterns of work and life, diffusion theory approaches describe the "trickle down" effect of technological innovation from early adopters to the majority of the population (Selwyn, 2003b). Within the majority of the academic literature and policy discourse on this topic there have been three key problems. First, is the assumption that non-use of the Internet is easy to measure and define. Second, that those non-users of the Internet are a homogenous group. And third, non-use of the Internet is merely due to a number of barriers that need to be overcome.

In terms of defining non-Internet use, there has been a growing recognition that Internet use is not the same for all people. For example, Murdock (2002) has developed a useful categorization of Internet users differentiating between "core" users, "peripheral "users, and "excluded" users:

Table 2, Murdock (2002) Levels of ICT access and use

"Core" users	Continuous and comprehensive use of ICT for information seeking, communication and origination / production or materials
"Peripheral" users	Spasmodic and limited use of ICT for information seeking, communication and origination / production of materials
"Excluded" users	Non-existent use of ICT for information seeking, communication and origination / production of materials

However, this classification implicitly suggests that the non-use of the Internet is an enforced abstinence rather than by choice.

Other authors have also stressed the need to allow for very limited frequency and breadth of Internet use when conceptualizing use and non-use of the Internet (Haddon, 2004; Wyatt, 2003); and also highlight that choice can be a factor. For example, Wyatt and colleagues put forward four types of non-Internet user: resistors, rejecters, excluded and expelled (Wyatt et al., 2002). Verdegem & Verhoest, found five distinct groups. The "incapable refusers", those who could afford connections to computers and the Internet, but did not wish to go online – due to limited skills and negative attitudes or a lack of interest. The "self-conscious

indifferents", for whom access and skills tend not to be a barrier but hold negative attitudes towards ICTs or a lack of interest. The "willing but incapable", for whom skills and access are a problem despite having the motivation and positive attitudes towards going online. The (self-explanatory) "skilled ICT lovers with limited access" group, and the "price-sensitive pragmatists", who have average skills to use ICTs and are moderately motivated but perceive high barriers to access in terms of cost (Verdegem and Verhoest, 2009, p. 649). While Verdegem and Verhost's view on "negative attitudes" requires further critique it is useful to highlight the diversity of experiences amongst non Internet user groups.

It could further be argued that access to ICT has changed considerably over the past few years, with Internet access through mobile phones and other devices having become increasingly wide spread, particularly among non users. As Selwyn (2006) has suggested, it can be assumed that the (re)presentation of the digital divide as a problem from the past has been accelerated by the migration of the Internet to other platforms. These new platforms bring potentially new factors that influence people's use or non use of the Internet. For example, Cotten et al. (2009) have suggested that gender differences exist in the usage (and therefore, it could be hypothesized, also in the non-usage) of mobile phones by middle school students, with boys exhibiting greater frequency of use for nonsocial, gadget-like features of mobile phones. However, no gender differences could be identified in their study in more traditional communicative mobile phone uses. And similarly, Selwyn (2006) in his empirical study has examined the motives and rationales behind the non-use of computers in order to potentially identify hierarchies of non-use in society. He addresses the following research questions: "What hierarchies of non-use of computers exist within the population and what are their levels of incidence in relation to the use of other ICTs? What social and economic factors are correlated with non-use of computers? (...) What are the circumstances, rationales and motivations underlying individuals‟ non-use of computers? How do non-users make sense of computers and get by in a technologically mediated world? Are differences apparent in terms of the hierarchies of non-use?" (Selwyn, 2006, p. 276). Selwyn concludes that computer use is not just a simple dichotomy of using or not using computers. Rather, he identifies a scope of factors that influence the non-use of computers, ranging from people accessing and using computers through other people, i.e. by proxy, age, socio-economic factors and gender. It could therefore be hypothesized that these factors not only influence the usage of computers but may also have explanatory value for the non-use of Internet.

Indeed, in their quantitative 2005 study, Selwyn et al. investigated, among other questions, who is and is not using the Internet, how individuals' uses of the Internet is shaped by existing socio-economic factors and circumstances, and how non-users can be encouraged to make use of the Internet by governments and other interested bodies. Drawing on findings of the quantitative analysis of a survey sample of 1001 adults aged 21-96, and from 100 semi-structured in-depth interviews, the authors conclude that only very few people can be perceived as truly unconnected from the Internet. Many of the non-users had made no personal use of the Internet due to a combination of choice, interest and disposition. For people who were not very familiar with computers yet, Internet usage seemed to be at a later stage of becoming computer literate. But many of the absolute non-users, according to the authors, had previously had interacted with the Internet and with computers in some form or another. Many of the non-users were actually in close proximity of Internet connections and often had access to the Internet at home, but for some complex reasons, often because other people were fighting over the Internet (for example in families), did not actually use the Internet actively but found surrogates to use the Internet for them (e.g. book flights etc.). This "use-by-proxy‟ of the Internet seems to be a prevailing explanation of many Internet non-users as to why they are not accessing and using the Internet. Overall, the authors concluded that "With all this in mind, we would suggest that (non)use of the Internet is best understood both in terms of social structuration and an individual's personal circumstances." (Selwyn et al., p. 22)

These findings are in line with a study conducted by Sourbati (2009), who in her study investigated the (non)use of e-government services by the elderly and proposed a closer investigation of the locally situated nature of media use, which can help prevent the tendency to see (chronological) age as the sole factor determining (non-)engagement with the Internet. Finally, using data from the Oxford Internet Survey, a nationally representative British survey on the usage of the Internet, Eynon and Helsper (2010) have suggested that reasons for (dis)engagement with the Internet or the uptake of different kinds of online learning opportunities are somewhat varied for different groups, but that both digital choice and exclusion play a role. Discerning between non-users, that is people who have never used the Internet, and ex-users, that is people who have used the Internet in the past but are no longer using it, the authors uncover a range of differences between both categories of non users. They conclude that non-users are in general more likely to indicate cost, skills, interest and access as reasons for not using the Internet than ex-users. Non-users generally do not have one specific reason for which they do not use the Internet, while individual ex-users

are more likely to have one particular reason, which varies considerably from person to person (Eynon and Helsper, 2010).

Thus, what we see then is the typical deficit views of non-users of the Internet do not hold true and a far more complex picture emerges, one where choice and exclusion may be relevant and where non users of the Internet are a heterogeneous group.

5. Internet non-use by young people

One of the very few studies that has looked at the Internet non-use of young people in the context of the digital divide is Livingstone and Helsper's (2007) study. Analysing findings from a national survey of UK nine to 19-year-olds, these authors identify inequalities by age, gender and socio-economic status in relation to their quality of access to and use of the Internet, and suggest a continuum of digital inclusion across age. The findings of the study identify inequalities by age, gender and socio-economic status in relation to the quality of access to and use of the Internet, but the authors suggest that there are very few children who do not use the Internet. This means that the simple assertion of the digital divide between haves and have nots is not applicable to young people, particularly as the vast majority of school age children will have some kind of online access available to them at school. Boys, according to Livingstone and Helsper's study, and older children use the Internet more, no matter where they get access, while the greater use among children from a middle-class background is a consequence of them having Internet access at home. Concerning low Internet use or Internet non-use, the authors identify a number of reasons, such as restrictions on access, lack of interest, and potential parental anxieties about Internet safety, as well as the possibility of those with little or no use of the Internet not understanding the benefits it brings to their peers, which may cause a lack of interest (Livingstone & Helsper, 2007).

Broos and Roe (2006) meanwhile have looked at young people's computer and Internet non-use from a different angle, suggesting that rather than just socio-demographic variables, psychological factors play an important role, too. Since adolescents are in a transitory phase, in which they start to anticipate their futures, these authors have suggested to include variables of anticipation of the future into research designs intended to gauge the usage or non-usage of the Internet. This is based on the assumption that, supplementing socio-economic variables such as "class of origin", the anticipation of the future tells researchers something about the "class of destination" and thus about motivational factors that may drive adolescents" use of the Internet and suggests an autobiographical approach may be worthwhile. The authors also found in their model important gender differences, suggesting that the Internet use and non-use of young women is more complex than that of young men. The educational status of the mother emerged as a particularly important factor in predicting the Internet use or non-use of young women. All in all, Broos and Roe's (2006) research suggest that besides sociodemographic explanations, computer locus of control and ICT self-efficacy may play an important role in the Internet non-use by adolescents.

Other studies have also suggested the need for psychological as well as sociodemographic factors to be considered. For example, a study of the online information seeking behaviours of young people demonstrated that self-concept for learning as well as ICT self-efficacy was particularly important for understanding uptake of such online activities (Eynon and Malmberg, forthcoming). Furthermore, Eastin demonstrated a link between young people's perceptions of their parents" success in online information seeking and their own self efficacy beliefs about online information seeking. Greater confidence in the teenager's ability to use the Internet for information seeking was directly related to uptake of online information seeking practices (Eastin, 2005).

Meanwhile, Peter and Valkenburg (2006) have urged to differentiate between different functions of use of the Internet by adolescents, rather than conceptualizing it as a simple digital divide. Differentiating between the use of the Internet as a social medium, as an information medium or as an entertainment medium, they found that the mode of use was influenced by adolescents' socio-economic and cognitive resources and that these variables has an influence of how frequently adolescents communicated online. For example adolescents with greater socio-economic resources were more likely to use the Internet for social purposes than adolescents with fewer socio-economic resources. And adolescents with greater socio-economic and greater cognitive resources (i.e. adolescents who were older and with a higher formal education) were more likely to use the Internet as an information medium than young people with fewer socio-economic and cognitive resources, while adolescents with lower socio-economic resources and lower cognitive resources used the Internet more frequently for entertainment, such as playing online games.

Correspondingly, research with young people in the US has demonstrated that those with the least skills gain the least benefit from using the Internet as they tend not to use the Internet for as wide a range of purposes and are less likely to use the Internet for "capital enhancing" activities such as informed political participation or using online job search sites to obtain employment (Hargittai & Hinnant, 2008). Besides potential factors put forward in these studies on why young people may use the Internet only to a little extent or may cease using the Internet all together, such as sociodemographic factors, parental anxieties of the Internet, psychological factors, and cognitive resources, it can be assumed that the contextual culture of the environments in which adolescents grow up may play a shaping role in the development of their attitudes towards Internet use. While implicitly culture is already inherent in the above factors, it seems paramount to examine the role of contextual culture in the formation of these attitudes over the course of adolescence more closely, and to investigate them in the context of adolescents‟ everyday lives.

Indeed, Thomas et al. (2005) put forward an interesting set of cultural factors (ranging from the macro to the micro) that could be considered when trying to understand how young people adopt use and experience new technologies (or not). These include a set of factors about social and temporal structures, values, and material cultures which then shape adoption and use and effect factors that we know to be important in understanding use and non-use of the Internet (e.g. individual skills, level of interest, ability to access etc). The level of support a young person receives both in terms of going online in the first place and staying online and making most use of it is likely to be an important factor to consider (DiMaggo & Hargittai, 2001). Indeed, in the American context at least, it seems that the family (particularly fathers and siblings) plays an important role in university students‟ introduction to the use of the Internet and related technologies (McMillan & Morrison, 2006). Perhaps not surprisingly, the number of sources of support an individual has access to is positively related to income. Those from better-off households tend to have more sources of support to use the Internet than those from less well-off homes (Dutton & Helsper, 2007). Indeed, research has found that having "warm experts", that is, having people around that are a little ahead in terms of Internet experience and skills can be beneficial for uptake and use of technology (Bakardjieva and Smith, 2001, cited in Haddon, 2005); and this concept fits with broader social constructivist views of learning (e.g. Vygotsky, 1978). However, these relationships are not straightforward and require further investigation. A national survey in the US in the mid-nineties found that teenagers who stopped using the Internet were more likely to be taught by a family member or friend as opposed to working out the Internet for themselves or being taught in more formal settings (Katz & Aspden, 1998).

6. Internet (non) use in the context of adolescents' lifestories – an autobiographical perspective

Murdock (2002) has developed the notion of a technological "career‟, suggesting that people's relationships with and use of technology over time may change. People of any age can move between not using ICT and using ICT throughout their lifetime (Haddon, 2005; Haythornthwaite & Wellman, 2002; Wyatt et al., 2002). It is important to understand Internet use (or non-use) within the wider context of people's lives. Internet use is influenced and shaped by other things that are going on in people's lives, their interests, their networks, their uses of other media and everyday constraints such as time (Haddon, 2005). As Selwyn (2006) suggested, a regular user of a mobile phone may not necessarily be a regular user of the Internet or a personal computer. It is therefore crucial to understand how people, young and older people alike, use the Internet in the context of their everyday lives and how this usage is and has been shifting throughout their lives. Similarly, Frissen (2000) has pointed out: "knowledge of the dynamics of everyday life is indispensable to understanding these processes of acceptance of ICTs" (Frissen, 2000, p. 73).

From a developmental psychological point of view, Bronfenbrenner (1977; 1986), building on work of Kurt Lewin, has suggested that to understand children, and adolescents and their development, they need to be studied in context. In his Ecological Systems Theory he differentiates between different nested systems which he calls Microsystem (immediate relationships of an individual such as family, or school), Mesosystem (interaction between microsystems of which the individuum is a part of), Macrosystem (the broader cultural and subcultural context) and the Chronosystem (relevant biographical changes such as leaving school and entering the job world, in other words, the evolution of the different system as the child and adolescent develops).

We believe that it is paramount to understand the usage and non-usage of media in general and the Internet in particular by young people in today's mediated world in the context of these different systems, for they not

only shape an individual's access to and interaction with media as a whole, but change simultaneously through young people's (non)interaction with media. A young person who does not have access to social media websites such as Facebook for example may not be part of the same group of peers as a young person who regularly posts and interacts on Facebook with other group members. Or he or she may feel excluded and marginalized as he or she may not be able to contribute to the social interactions and chats relating to information posted on Facebook or Twitter in school as much as others, which may lead to him/her to join other peer groups where the usage of the Internet does not matter so much. These actions (or rather non-actions) of an individuum distinctively shape his or her environment.

This need to capture a holistic view of the individual is similar to taking a "learning lives" approach, informed by the related concept of a "learning ecology" (Brown, 2000). Such a perspective highlights that people learn and use technologies throughout their lives both for and from situations that arise and are very much shaped by their personal social, economic and networked contexts. Some of these situations can be moments of transition in the life course, such as moving from education to work, becoming a parent and so on; others are likely to be more subtle and at times perhaps even invisible to the individual at the time of the event (Biesta and Tedder, 2007; Erstad et al., 2009). Key to the learning lives approach is agency, informed by past actions, present concerns and future plans. By using a qualitative approach, encouraging participants to reflect upon their use of new technologies and their lives and exploring in detail their interactions with others in a range of contexts, we can seek to achieve a unique understanding of how to conceptualise lapsed or non-use of the Internet.

Goode (2010) has summarized this approach of technology use in the context of adolescents' life stories, and identities, within the conceptual framework of 'technology identity', using identity as a theoretical and methodological guide to examine and explain the digital divide. Viewing identity, among other factors, as a product of participation in communities, Goode has suggested that experiences of using the internet in the past influence adolescents' relationships with technology today. Social science researchers increasingly have embraced this concept of identity as a missing link between learning and its socio-cultural context (Sfard and Prusak, 2005), that may also explain why learning does not take place in certain contexts. We therefore believe that to fully understand discontinued use or non-use of the internet and the digital divide, is crucial to examine adolescents' technobiographies and participation in communities in everyday life.

7. Policy perspectives on digital inclusion in the UK

In the UK policy literature, there is perhaps too simplistic a view that use of the Internet is a "good thing" with more being better (Wyatt, 2003). The Internet is seen as a way to provide everyone with certain opportunities (to find jobs, to get government services, to have a say....) but opportunities to do these things is not automatically the same as achieving these goals (Loader, 1998). Becoming digitally included is unlikely to lead straightforwardly to being socially included – although they are related (Van Aerschot & Rodousakis, 2008).

Nevertheless, being able to use the Internet and other new technologies if one wishes to do so is important and may lead to improvements in some aspects of people's lives. There has been some work that has tried to ascertain what these benefits may be in empirical terms. For example, some quantitative research has found a positive relationship between access to and the use of technologies by school children and educational attainment (Attewell & Battle, 1999; Harrison et al., 2003; Jackson et al., 2006; Papanastasiou et al., 2003). Yet overall, the outcomes have tended to be quite mixed, and the research often suffers from a number of methodological issues (Wittwer & Senkbeil, 2008). Secondly, in a novel, purely quantitative methodological approach, Dunleavy et al. (2011) are developing a methodology for the costing of digital exclusion. These authors have identified the following clusters of people who are digitally excluded: People with low income or who are unemployed, elderly disabled people or people who are retired, and educationally disadvantaged and unemployed. Based on these clusters, these authors are estimating the costs of digital inclusion and the "benefits foregone" through digital exclusion.

However despite these studies, we still know very little about the extent to which not being online, or having very poor experiences online matter in broad terms both for the individual, for their families and friends and for society (Haddon, 2005). Qualitative studies such as the current project may well help in exploring this important issue.

What we do know is that access and use of new technologies tends to reinforce and replicate existing social inequalities (Green et al., 2005, Dutton & Helsper, 2007); with those who are better off and better educated being more likely to use and benefit from the Internet. Indeed, deep-rooted inequalities in Internet access and use are even growing for some digital inclusion indicators such as broadband access and frequency of use – leading to the emergence of a "digital underclass" (Helsper, 2011). Those people who are unemployed with low levels of education are not only less likely to be online, but those who are online are less likely to have quality access to the Internet (i.e. via broadband), use the Internet less frequently, for a narrower range of purposes and have less skills than those who are employed and / or have high levels of income (Helsper, 2011). Thus whatever the opportunities of Internet use, those who are already better off are more likely to benefit from them.

In policy terms, there is still perhaps too great a focus on removing the barriers to ICT use (e.g. access, skills, fear) and not enough of a focus about what new technologies may actually offer the user and develop strategies to increase the value of going online for these individuals (Verdegem & Verhoest, 2009). Furthermore, policy makers need to allow for the possibility that people are not always not using the Internet because of issues traditionally related with inequality – it can also be a choice (Wyatt, 2003). However, determining the extent to which non-use was a choice based on full information about what the Internet may offer is challenging (Eynon & Helpser, 2011; Van Aerschot & Rodousakis, 2008). Relatedly, it is clear that non users are not a homogenous group – thus it follows that research needs to fully understand the differences within the group of non-users for them to be targeted and incentivized appropriately in any kind of digital inclusion strategy (Verdegem & Verhoest, 2009).

This focus on removing barriers can be seen clearly in current UK policy, where there has been a shift away from a range of digital inclusion policies (i.e. focusing on access, skills development, promoting awareness and favorable attitudes about Internet use) to a focus on the provision of broadband infrastructure as documented in the Broadband Delivery Programme report, published by the DMCS in May 2011. The current Race Online (http://raceonline2012.org/) initiative and the associated "give an hour" campaign is another illustration of this focus[1]. Access alone is unlikely to be sufficient to address the complex issue of digital inclusion and is in direct contrast to much of the rest of the EU which had followed the UK‟s earlier "exemplar" approach to tackling the issue (Heslper, 2011).

Drawing on the Technology Acceptance Model by Rogers (2003) and Bandura's Social Cognitive Theory (Bandura, 1986), Verdegem and Verhoest (2009) propose an approach that focuses on the notion of "relative utility". From this perspective they argue that for every individual, at least in theory, there is a turning point where the benefits outweigh the costs of ICT adoption (where costs are broadly defined to include skills and effort as well as financial gain). As the authors point out, an individual's level of resources initially will influence the extent to which their perception of utility will affect uptake of ICTs, as those who are better off may be content with a lower level of perceived utility as they have more available income (Verdegem & Verhoest, 2009).

Similar thinking is perhaps behind the "digital by default" strategy that is proposed by the UK government – where all government services are provided online though DirectGov and forms the primary way to provide services and engage with citizens. While the policy is primarily motivated by a focus on the use of ICTs to improve the efficiency and effectiveness of its services and as assumption that the majority of citizens demand online services the report also suggests that efficient and usable online government services will encourage people to go online[2]. However, whether this will work or not remains as open question (Helsper, 2011).

As these different policy perspectives illustrate, digital inclusion strategies in the UK in general and for young people in particular have a long tradition, but lack a certain focus and pragmatism. One of the reasons for this incoherency could be a lack of understanding and in-depth knowledge of how those who are excluded from online access navigate daily life in an increasingly mediated world. More in-depth and contextual research is needed to understand the social realities of young people who do not use the Internet, and to better understand how the non-use of the Internet affects these young people's daily lives and life opportunities. Such questions cannot be answered by quantitative methods alone, but ask for a more in-depth methodological approach.

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[1] Although it is still important to acknowledge the role of UK online centres who have a broader remit. http://www.ukonlinecentres.com/

[2] For more updates to this policy please see http://digital.cabinetoffice.gov.uk/

8. Methodological Approaches to understanding discontinued use of the Internet

According to van Dijk (2006) there are many shortcomings of digital divide research. These include: its lack of theory, conceptual definition, interdisciplinary approach, qualitative research and longitudinal research. One of the current challenges of studies examining Internet usage and non-usage is that most studies which report from an empirical rather than a theoretical perspective, are quantitative studies (e.g. OxIS studies). While these studies substantially contribute to a better understanding of what variables influence the usage and non-usage of the Internet (such as level of education, socio-economic background, gender, age etc.) they carry the problem that this quantitative data does not provide any explanations nor offer nuanced information about, for example, what respondents understand by "Internet usage" when they tick boxes in a questionnaire. Someone may use a weather app on his smartphone on a daily basis without realizing that he is actually browsing the internet. Or they may say that they are users of the Internet but in effect use it through other people by proxy. This may lead to confusing statistical findings.

Such a quantitative approach also does not really tell us what using the Internet means in the context of a person's life. It just tells us the extent to which they use the Internet (and other technologies or not). Similar to social inclusion research, while an individual's indicators of social exclusion may be similar, their way of experiencing social disadvantage may be different (Emmel et al., 2007). Thus qualitative studies may help in this regard.

Furthermore, as Anderson and Stoneman (2007; 2011) have argued, the impacts of ICT is never linear, and to better understand how these technologies affect our daily lives and different cultural contexts, more longitudinal studies are needed. Indeed, other scholars have also stressed that individuals may drop in and out of Internet use throughout their life time (Haddon, 2005; Wyatt, 2003). In addition to longitudinal studies, a qualitative approach can help unravel puzzling findings and develop a more in-depth, more nuanced understanding of young people's Internet use and non-use. While in this study we are not able to track people over time, we can encourage people to talk about their past and plans for their future which may be particularly valuable in understanding discontinued Internet use and the reasons and consequences of this.

As noted above, this group is hard to engage in research of this kind. Emmel et al. (2007) have suggested that the establishing of trustful relationships with socially excluded groups is the most important factor when conducting research with socially excluded people and the same applies to those who are digitally (often as well as) socially included. As these authors have argued, service providers and researchers access hard-to--reach groups using a range of methods, which include innovative service delivery, peer interviewers, incentives, involvement and immersion in communities, and acts of reciprocity. Service providers and researchers use these methods to enhance credibility, build rapport, and break down power relationships. This helps facilitating easier access. In line with these findings, our study will conduct a number of peer interviews with young people who no longer access and use the Internet. As a starting point we will use existing contacts from previous national surveys (OxIS and Becta) to both better understand the participants and as a basis for recruiting people to this study.

9. Discontinued Internet use – from digital exclusion to digital choice to digital gamut – towards a conceptual framework

Whether or not discontinued Internet use is the result of adolescents' life stories, varying socio-cultural contexts as well as individual aspects such as skills or self-efficacy needs to be determined through further research. Given the thin qualitative basis of evidence produced so far for reasons of why young people stop using the Internet, more research is needed to find out how experiences of lapsed users can inform the digital inclusion strategy in the UK. Young (2000) has suggested that everyone whose basic interests are affected by policies should be included in the process of policy-making by means of democratic communication.

Based on the evidence of the literature review presented here, we propose the following framework within which we intend to examine the discontinued Internet use of young people (aged 17-22) in the UK: as has been outlined, young people's" life-spheres can be differentiated in different social contexts, including family,

peers, school or job. Internet access and usage can happen in each of these contexts. We suggest that each of these contexts has at least three different dimensions, which influence whether young people access and use the Internet or not. These dimensions are: influences of the prevalent culture that may jeopardize or encourage Internet use, i.e. parental influence in the family sphere, peer-cultural influence in the peer sphere, school or work culture that influences or encourages the Internet use; a more "physical" or material dimension, that includes physical access to the Internet and/or material access (i.e. money to pay for the Internet); and an internal dimension. As young people leave school and become adults, the concepts of an individual's self, his/her agency and skills are substantially altered and transformed. It is therefore essential to include this third, intrapersonal dimension in our conceptual framework to account for shifts of the self-concept, agency and skills and their impact on the usage or non-usage of the Internet and their contribution to young people's technological identity.

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