From "being tethered" to "going unplugged": media addiction and the role of unplugging as a transformative tool of digital literacy

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> "We are tethered to our 'always-on/always-on-us' communications devices and the people and things we reach through them: people, web pages, voice-mail, artificial intelligences (non-player game characters, interactive online "bots"). Animate and inanimate, they live for us through our tethering devices, always ready-to-mind and hand. The self, now attached to its devices, occupies a liminal space between the physical real and its lives on the screen" (Turkle 2008: 122)

Introduction

Concerns about the effects of media on consumers are not new; in fact, they are as old as broadcast and even print media themselves (see Dabbous and Nasser, this volume). Today's debates about the internet and smartphones mirror earlier concerns about the effects of television on children. The findings of the first systematic and definitive study by Himmelweit, Oppenheim and Vince, and especially the realisation that "television is not as black as it is painted but neither is it the great harbinger of culture and enlightenment which its enthusiasts tend to claim for it" (1958: 40), is remarkably similar to the conclusion of many other reports since. Negative effects, positive effects and no significant effects coexist and interact with each other and with consumers.

Like television and video games, the emergence of the web and social media, smartphones and tablets as objects embedded in the fabric of our daily lives, gave a rise to a torrent of hopes and fears. Early narratives of sweeping change towards either a cyber-utopia or dystopia have been largely replaced by a more nuanced body of research on the challenges and opportunities created by new media. In brief, it has been argued that digital information and communication technologies are creating a more democratic, participatory and open culture in which the availability of information, pluralism of opinions, knowledge sharing, user-generated content and social connectivity stimulate and empower users and provide them with the means of developing their voice, identity and social capital (see Mihailidis and Gerodimos 2016).

At the same time, concerns about our increasing dependence on digital devices and particularly about their effects on younger people remain in the news headlines, as surveys reveal the extent to which smartphones and computers have altered our experience of daily life. The number of college students that report problems consistent with what might be termed Internet abuse, Internet addiction, or problematic Internet use ranges between 8% and 50% according to a number of studies (Kittinger, Correia and Irons 2012: 324). Influential commentators have argued that society is "in need of rehab" (Alderman 2011). In one Stanford University study 75% of students admitted falling asleep with their iPhone in bed with them, while 69% said they were more likely to forget their wallet than their iPhone when leaving in the morning (Hope 2010). 'Netbrain' – a disorder caused by overconsumption of new technologies is said to affect 11% of the British population and one in three adults aged 18 to 34, with those suffering being narcissistic, easily distracted and fearful of missing out (Dean 2015).

This chapter reviews the literature on digital media uses and effects and considers a media literacy approach to tackling media dependence. It starts by looking at the evidence on digital media effects with particular emphasis on problematic use, so as to map potential areas of concern. It then examines the role of media in young people's daily lives and spaces, and the implications of the blurring of the boundaries between public and private space. It considers the role of digital media literacy in addressing some of these challenges and presents the results of a qualitative research study and pedagogic experiment in which 190 students unplugged completely for 24 hours and then reflected on their experience.

The effects debate

A heated debate has been going on in the academic literature about whether screen media have direct physiological effects, for example by altering the structure of our brains; and/or whether they have indirect but no less significant physiological effects, as by spending more time sitting and consuming media we spend less time engaging in physical activities; or whether they have no significant effects whatsoever.

In February 2009 a public feud unfolded in the media between scientists in Britain regarding the effects of digital media. A leading neuroscientist, Baroness Susan Greenfield, gave a speech in the House of Lords in which she warned that digital technologies are "infantilising the brain into the state of small children who are attracted by buzzing noises and bright lights, who have a small attention span and who live for the moment" (Mackey 2009). In a number of subsequent interviews Greenfield argued that screen media have the potential to rewire our brain and contribute to conditions such as Attention Deficit Hyperactivity Disorder (ADHD), while also making younger people more self-absorbed and less empathetic (see Greenfield 2014).

A few days later, Dr Aric Sigman, a prominent psychologist and expert on health education published a paper in the *Biologist* (Sigman 2009), in which he argued that the decline in face-to-face contact over the last 30 years coupled with the dramatic increase in the use of electronic media can be linked to a number of biological changes and health risks, including heart disease, dementia and early death.

These interventions were seized on by the media, which, adopting a less nuanced approach, came up with headlines such as "Social websites harm children's brains: Chilling warning to parents from top neuroscientist" (Derbyshire 2009) and "How using Facebook could raise your risk of cancer" (Daily Mail 2009). Greenfield was subsequently accused of "abusing her position" as head of the Royal Institution, and Sigman of "distorting the scientific evidence" so as to mislead the public (Goldacre 2009). The debate has continued, including through recent editorials in the BMJ, in which Greenfield was accused of not carrying out a fair scientific appraisal of the evidence, confusing correlation for causation and giving undue weight to poor quality studies that are "misleading to parents and the public at large" (Bell, Bishop and Przybylski 2015). Greenfield responded with a BMJ editorial in which she cites tens of peer reviewed studies that support her arguments: "with internet addiction, the reductions in certain prefrontal functions and striatal dopamine receptors and transporters resemble those in other addictive disorders" (Greenfield 2015: 1).

This debate – both its substance and the way it has been conducted – has important implications for media literacy. At the substantive level, it is important to carefully review the evidence regarding the effects of digital media on younger users, the extent to which it is legitimate to speak of *media addiction* in the same way that we use that term for toxic substances, and the extent to which critical literacy interventions can ameliorate or even tackle some of the negative effects. At the level of the scientific debate, it is also important to examine how scholarly and media practices shape the public's understanding of science and of genuine health risks. For example, while –as shown below – the evidence is, indeed, mixed and points to potentially negative, positive and reinforcing effects, this does not mean it is equally balanced between the two sides of the debate. An extensive and growing body of evidence indicates a correlation (though not always causation) between certain patterns or types of internet use and a series of social, psychological and even physical disorders.

It is equally important to note that even the studies cited in the responses by critics of Greenfield and Sigman are rarely one-sidedly positive or optimistic about the impact of digital technologies and the ways in which we currently use them. For instance, Goldacre 2009 cites Sum, Mathews, Hughes and Campbell's 2008 as having found that "greater use of the Internet as a communication tool was associated with a lower level of social loneliness" but overlooks a number of other findings, including the continuation of that very phrase, that "[i]n contrast, greater use of the Internet to find new people was associated with a higher level of emotional loneliness" (Sum et al. 2008: 208). Even Bell, Bishop and Przybylski (2015) acknowledge that "[t]hose who use social networks to avoid social difficulties have reduced wellbeing" (2015: 1).

Back in 1958, Himmelweit *et al*. made a crucial distinction between television's effects on children's behaviour and knowledge (i.e. via the content of messages) and its effect on their everyday time and

routines (i.e. time displacement and the process of viewing). This was an important first step in disentangling the web of claims and possible causal relationships, and it remains a highly relevant distinction that applies to digital media as well. In the remainder of this section, the evidence for each area of effects is considered in turn.

Developmental damage and displaced time with parents

It has been argued that children's use of media and especially the amount of time they spend staring at screens is causing developmental damage as well as long-term physical harm, including obesity and heart problems (Sigman 2012). US teens use screens for an average of 10.75 aggregated hours daily (Greenfield 2015). The sheer amount of average daily screen time is considered an independent risk factor for disease, although not in Britain or most of the EU. In 2011 the American Academy of Pediatrics renewed its 1999 policy statement and provided further evidence that "media— both foreground and background— have potentially negative effects and no known positive effects for children younger than 2 years" and discouraged media use in this group (American Academy of Pediatrics 2011: 4). However, 90% of parents report that their children younger than two years watch some form of electronic media and by the age of 3 years one-third of children have a TV in their bedroom. Even parents' heavy television and internet use can interfere with a child's development because parents are likely to spend less time talking to children, which is crucial to their language development. For every hour of TV that a child under 2 years watches alone, they spend 52 minutes less time per day interacting with a parent or sibling (American Academy of Pediatrics 2011). The displacement effect also applies to adolescents: Lee (2009) found that time spent communicating online had a negative association with time spent with parents.

Effects on learning and academic performance

While the Web has provided users with an historically unprecedented and virtually infinite resource for knowledge acquisition, research and collaborative learning, the interaction between the high-choice environment of the Internet and users' self-control may account for a decline in learning among college students (Panek 2014). In fact, Fieldhouse and Nicholas (2008) argue that users who grew up with conventional frameworks of authenticating and processing information are empowered by the web, whereas digital natives are relatively disenfranchised as they have not developed mechanisms of handling vast amounts of information that have not been vetted by information intermediaries, such as professional editors and 'gatekeepers'. Kalpidou, Costin and Morris (2011) found that having a higher number of Facebook friends potentially hinders academic adjustment. Furthermore, numerous studies (e.g. DeLoache et al 2010) have shown that media-free, face-to-face learning is much more effective than learning through digital resources.

Effects on social relationships

The impact of digital technologies on the quality, quantity and relative importance of online and offline relationships has been a popular subject in the academic literature. Abbasi (2008: 215) notes that "the time we spend socializing electronically separates us from our physical networks" and argues that this affects the way people access and critically engage with important information, including that related to their healthcare. Greenfield (2015: 1) is similarly sceptical adding that "[i]ncreased use of social media does not correlate with a larger offline network or feeling closer to friends in the real world".

However, the evidence in this area of research is more mixed: Ellison, Steinfield and Lampe (2007: 1143) found a strong association between use of Facebook and all three types of social capital (*bridging*, which refers to loose connections and weak ties; *bonding*, which describes emotionally close relationships; and *maintained*, which captures the ability to maintain valuable connections through life changes), with the strongest relationship being to bridging social capital. Valkenburg and Peter (2007) found support for the stimulation hypothesis (i.e. that online communication stimulates well-being via its positive effect on time spent with existing friends and the quality of these friendships), but not for the displacement hypothesis (i.e. that online communication reduces well-being because it displaces time spent with existing friends, thus reducing then quality of those friendships). This positive effect was found specifically for time spent

with instant messaging (IM). Quan-Haase (2007) also highlights the positive role of IM as an inexpensive and readily available tool that is being used extensively by students to maintain or deepen far-flung ties and integrate them into their daily lives.

Valkenburg and Peter (2009: 2) have formulated the internet-enhanced self-disclosure hypothesis i.e. the theory that the positive effects of the internet on social connectedness and well-being can be explained by enhanced online self-disclosure. This refers to "online communication about personal topics that are typically not easily disclosed, such as one's feelings, worries, and vulnerabilities", which in turn leads to more meaningful conversations and opportunities for deeper friendships. Online networks can be particularly beneficial for young people at risk of social exclusion as they provide them with valuable opportunities for inclusion (Notley 2009: 1208), although online self-disclosure itself poses numerous challenges (such as invasion of privacy and risk of bullying and harassment).

However, it is unclear whether digital media favour one particular demographic, whether they enhance or hamper existing relationships and whether they facilitate developing relationships with people from diverse backgrounds that one might not normally encounter or choose to socialise with. For example, Lee (2009) found that online communication generally tends to favour those adolescents who already have strong social relationships at an earlier age (the so-called "rich get richer" hypothesis), which in turn leads to more cohesive friendships. In contrast, Szwedo, Mikami and Allen (2012: 455) found that "spending large amounts of time in online relationships may leave otherwise well-adjusted youth relatively less satisfied, as these relationships lack the intensity of in-person relationships" (not to mention that in order to cultivate online relationships they may have to neglect in-person friendships); whereas *less* well-adjusted youth may benefit from the confidence boost of having the relative anonymity, controllability and popularity afforded by social media. Thus, the effect of the medium on a user's socialisation is conditional on a number of antecedent factors, and in particular social skills and mental health, which takes us to the core of the debate on media addiction.

Mental health, social skills and problematic internet use

Defining the concepts

The academic literature on media effects has struggled to distinguish between mere dependency (which is a normal consequence of using any technology), heavy use (which may or may not have health implications) and actual addiction (a pathological state usually associated with substance abuse) (Kim and Haridakis 2009). Internet addiction (IA) and problematic (or pathological) internet use (PIU) are two of the most widely used terms to describe patterns of digital media use that may have implications for the health or wellbeing of the user. While anonymity and controllability are two major assets of online interaction that drive many users to prefer that to real-life social interaction, Fioravanti, Dèttore and Casale (2012) show that escapism – the opportunity to escape from the real world – may be the most important factor.

The key features of IA/PIU are: (a) use of the internet is obsessive-compulsive; (b) it interferes with home or work life; (c) the pleasure gained is exaggerated; (d) attempts on the part of the user to stop the problematic behaviour fail (Kim and Davis 2009). These four elements are common to all forms of addiction. A fifth element, i.e. growing tolerance on the required substance (or pattern of behaviour) so that the addict needs increasingly more so as to achieve the desired effect, is more difficult to establish through self-reporting, which is the conventional means of researching media dependence.

Studies across America and Europe have used a variety of diagnostic tools or criteria and have produced variable results, but the prevalence rate of formally defined IA is in the range of 1.5% and 8.2%: "cross-sectional studies on samples of patients report high comorbidity of IA with psychiatric disorders, especially affective disorders (including depression), anxiety disorders (generalized anxiety disorder, social anxiety disorder), and attention deficit hyperactivity disorder (ADHD)" (Weinstein and Lejoyeux, 2010: 277). Adolescent PIU is significantly associated with hyperactivity, conduct problems and comprehensive psychosocial maladjustment (Kormas et al. 2011). Kittinger, Correia and Irons (2012: 324) found that a sizable minority of students experience problems related to Internet use and that "the use of Facebook may

contribute to the severity of symptoms associated with Internet addiction", even after accounting for demographic variables.

Crucially, what people *do* online – how they use the internet – may be as important as how much *time* they spend online in terms of their loneliness and wellbeing (Sum et al. 2008). Two aspects of PIU are compulsive and excessive internet use. Mazer and Ledbetter (2012) found that the former is particularly associated with harmful effects on users' wellbeing, whereas Odaci and Kalkan (2010) found that excessive use (i.e. spending 5 hours or more online a day) led to significantly high levels of PIU.

Many studies have shown that internet addiction is intrinsically linked to the social aspects of the Web, especially amongst adolescents. Users with poor social skills and/or mental health problems that affect their social relationships tend to have a preference for online social interaction (POSI), which in turn is associated with PIU. For instance, there appears to be a negative association between emotional intelligence and POSI (Casale, Tella and Fioravanti 2013: 526).

Relationship between PIU/IA and loneliness, anxiety and depression

A statistically significant correlation has consistently been established between internet addiction and loneliness, depression and, especially, anxiety (Odaci and Kalkan 2010). In Ceyhan and Ceyhan (2008: 699) loneliness was by far the most important predictive variable of the three, although Caplan (2007: 234) argues that "the relationship between loneliness and preference for online social interaction is spurious, and that social anxiety is the confounding variable". Subrahmanyam and Lin (2007) found that adolescents' loneliness is not linked to time spent online, although their sample was a small cohort of 192 students from a single private school in Los Angeles County.

Sum et al. (2008: 209) differentiate between types of loneliness: participants who spent more hours online had higher levels of social and family loneliness, but lower levels of romantic loneliness. Once again, this acts as a reminder that causal relationships between psychosocial antecedents, patterns of internet use and effects are complex and more research is needed to disentangle their dynamics.

Social anxiety appears to be a particularly significant predictor of PIU. Key elements of anxiety include anxiousness about being alone; being sensitive to criticism; seeking reassurance (Oldmeadow, Quinn and Kowert 2013). Users who suffer from social anxiety perceive the internet as a safe space in which they have greater control and where there is less risk of being negatively evaluated (Lee and Stapinski 2012). These studies suggest that a key factor of anxiety may be low self-esteem.

Relationship between PIU/IA and low self-esteem

Low self-esteem has been linked to many addictive behaviours, including PIU (Kim and Davis 2009, Widyanto and Griffiths 2011). This is linked to users' anxiety and unrealistic optimism about the benefits of the internet. Low self-esteem has a direct effect on women's internet addiction levels and in particular their levels of online interaction (Fioravanti, Dèttore and Casale 2012).

Academic perspectives on the risks and benefits of social media are mixed. Spending a lot of time on Facebook is related to low self-esteem (Kalpidou, Coston and Morris 2011). However, this does not necessarily mean that Facebook is the *cause* of low self-esteem. A process of self-selection is possible, whereby users experiencing low self-esteem and low life satisfaction may seek benefits and gratifications via the use of Facebook (Ellison, Steinfield and Lampe 2007: 1143). This goes to the core of the debate on internet addiction and media effects in general, i.e. that of correlation and causation.

Correlation, causation or cyclical reinforcement?

While, as shown above, an emerging body of literature indicates that there is an association between wellbeing and problematic patterns of internet use (including internet addiction, excessive or compulsive use), establishing cause and effect is very difficult and this is something that is widely acknowledged by

researchers. For example, Ceyhan and Ceyhan (2008: 700) note that "[i]t is difficult to determine whether loneliness is a symptom of excessive Internet use or whether heavy Internet use is a symptom of loneliness". Similarly, Caplan (2007: 240) hypothesizes that "socially anxious individuals may develop a preference for online social interaction because they perceive greater control over self-presentation online than they do in [face-to-face] encounters".

However, even if we were able to conclusively prove that PIU is a *symptom*, rather than a primary cause, of poor social skills, that would still not address the question of whether digital media provide a comfort zone that deters a user who, for example, lacks social skills from confronting the underlying causes of social maladjustment, which may include challenging oneself or one's assumptions, or entering a process of reflexivity and learning, which in turn requires exiting the safety of one's tightly controlled bubble. In other words, even if PIU is not the *primary* cause of phenomena such as anxiety, lack of self-esteem etc, it may well be reinforcing such psychosocial pathologies at a large scale.

In fact, research indicates that POSI *exacerbates* face-to-face avoidance (Lee and Stapinski 2012), while psychosocial conditions such as loneliness and lack of social skills have a reinforcing relation with PIU:
"individuals who were lonely or did not have good social skills could develop strong compulsive Internet use behaviors resulting in negative life outcomes (e.g. harming other significant activities such as work, school, or significant relationships) instead of relieving their original problems. Such augmented negative outcomes were expected to isolate individuals from healthy social activities and lead them into more loneliness" (Kim, LaRose and Peng 2009: 451).

It has been argued that motivation is more significantly associated with dependence than demographics, and that the nature of the engagement mediates the relationship between motivation and internet dependence. Sun, Rubin and Haridakis (2008) distinguish between cognitive involvement (i.e. active and instrumental use of the medium's content) and affective involvement (which is more habitual, passive and medium-oriented). This school of thought emphasises the role of uses and gratifications sought by an individual, and posits that users' needs and conscious choices shape the extent of their media dependence; thus, implying that the user is in control of that relationship.

However, research by Panek (2014: 570) indicates that "levels of self-control are a more accurate predictor of the amount of [social networking site] use and online video use than the users' stated reasons for using the Internet". Therefore, the notion of user (self-)control is something that has to be unpacked and understood better, as it is clearly linked both to their mental and psychological health, as well as their motivations and involvement with media and messages.

Based on the evidence reviewed it is difficult to argue that the internet or digital media have a 'blanket' effect on users. However, there are clear challenges and risks, especially for a number of vulnerable groups, as well as for younger people who grow up without the editorial safeguards and cognitive frameworks of processing, evaluating and critically engaging with information that were available to previous generations. In order to provide young people with the tools that will enable them to have a balanced and healthy relationship with media – one that they will be in control of – it is vital to first consider the ways in which media is embedded in their daily spaces and the challenges this creates for their socialisation.

Digital media in youth daily life: a third space?

The integration of media and digital devices in our daily lives and especially in youth spaces and lifeworlds has been extensively charted over the last couple of decades. Of particular importance is the literature on the *domestication* of media and technology (e.g. Berker, Hartmann, Punie and Ward 2006; Silverstone 2005), which introduced much-needed nuance – the daily rituals, situations and patterns of use that enable us to go beyond simplistic and deterministic understandings of the impact and uses of media. Domestication "looks beyond the adoption and use of ICTs (as well as gratifications or benefits) to ask what the technologies and services mean to people, how they experience them and the roles that these

technologies can come to play in their lives" (Haddon 2006: 195). The concept of domestication symbolises the process of negotiation between users and technologies, as the former 'tame' the latter and integrate them into their routines and fit them around their needs (and vice versa).

Similarly, the literature on *bedroom culture* examines the bedroom as a site for consumerism and individualism – as a media-rich private space (Bovill and Livingstone 2001), along with the benefits and risks that this has for young people's wellbeing (e.g. Jackson, Brown and Pardun 2008). Bovill and Livingstone's (2001) seminal study across Europe showed differences in terms of media habits and time spent in the bedroom across cultures. Still, a clear pattern emerged from their data: having media in the bedroom is likely to encourage young people to spend time alone with media; more time spent in the bedroom meant less free time with family (2001: 10).

Many scholars have expressed concerns regarding the shift to a privatised media culture, arguing that young people are losing vital skills of socialisation: of encountering other human beings in real life situations; situations that may be challenging and people who may come from a different background and whom young people might not have normally chosen to interact with. Sennett (2012: x) argues that "modern society is de-skilling people in the conduct of everyday life. We have many more machines than our ancestors but less idea of how to use them well; we have greater conduits between people thanks to modern forms of communication, but less understanding of how to communicate well". Sherry Turkle (2008, 2011), who has spent the best part of her career carrying out in-depth fieldwork with media users, found that young people are using social media to skip the harder and more demanding (and ultimately more meaningful and interactive) elements of socialisation and friendship.

The first important dimension of this phenomenon has to do with the actual *space* in which social interaction takes place and the extent to which this is being directly or indirectly privatised, which means that it is harder to maintain the civic fabric of a community. For many young people and adults the private is the only space in which they can imagine "any sense of hope, pleasure, or possibility" (Giroux 2011: 20). Livingstone (2005: 170) provides a strong defence of the privacy of the bedroom providing young people with the vital space to explore their distinct identities, follow their personal interests and develop their individuality away from the pressures of families and peers. Crucially, the withdrawal of children into a mediatised private space may be the result of the systemic marginalisation of youth from public space, in which they are traditionally considered either a risk or at risk. "Such a relatively privatized bedroom culture is also developing because of the perceived failures of a more public, outdoor leisure culture (in terms of access, cost, variety etc)" (Bovill and Livingstone 2001: 17).

Public space is being "domesticated" as mobile devices and tethering enable users to be physically located in public space but mentally absent. Kumar and Makarova (2008: 324) argue that this has led to a "further attenuation of public life, especially as regards sociability". At the same time, private space is also being eroded by the same media. A culture of surveillance, of always being online and trackable – a culture created and afforded by portable computers, wireless internet, smartphones, tablets, text messaging, mobile applications, CCTVs, tracking cookies and personalisation algorithms – infiltrates "even those spaces and moments of personal reflection necessary to nurture critical modes of individual and social agency" (Giroux 2011: 20). Therefore, if it is harder for today's citizens/consumers to find themselves in a truly *public* sphere, and equally difficult to withdraw to a truly *private* one, it seems that media have created *a third space* that may include physical co-presence, withdrawal to the private and social interaction, but it is built around the perceived preferences, choice and convenience of the individual.

This brings us to the second key dimension of digitisation's impact on socialisation; stepping out of one's comfort zone and encountering people and situations that one would not normally choose to interact with. This is a fundamental element of social organisation, urban coexistence, democracy, enlightenment and the civic culture. Beyond the reinforcement of some access divides and interaction silos, the architecture of social media appears to favour the creation of a self-centred universe aimed at gathering attention and popularity for the individual, as opposed to crossing boundaries and becoming part of the body politic.

Valenzuela, Park and Kee (2009: 875) found positive relationships between intensity of Facebook use and students' life satisfaction, social trust, civic engagement, and political participation. However, the positive and significant associations between Facebook and social capital were small and even Valenzuela, Park and Kee note that "online social networks are not the most effective solution for youth disengagement from civic duty and democracy" (2009: 875).

Empirical research by Ekström, Olsson and Shehata (2014) challenges the notion that Facebook, Twitter and blogging enable forms of social interaction and creative production that have an overall positive impact on young people's public orientation:

> "Such engagement has negative longitudinal effects on self-transcendent values, political interest and talk about politics and societal questions. [T]he facilities on the Internet often described as 'social' media offer environments which mainly draw young people's attention away from common concerns. […] Social media has an overall tendency to promote self-focused values, interests and talking about personal rather than public life." (2014: 179-180).

The use of sophisticated personalisation algorithms by leading providers of online content and spaces, such as Google, Yahoo and Facebook, has raised questions about the extent to which users are increasingly getting trapped in a 'filter bubble' (Pariser 2011), i.e. a space in which users only encounter other users, perspectives and content chosen or tailored for them based on a complex number of settings and previous actions. Personalisation practices are invisible and many users are not even aware that the content they access has been manipulated – this fact alone has significant ethical and media literacy implications. The broader question – which has significant political and cultural implications – is how this "diet" of content affects users' socialisation, which depends on them being challenged and encountering difference.

As media become more embedded in everyday life and in space, questions about place, community, engaging with the surrounding urban landscape and with the Other are intrinsically linked with those of a more specific media effects/literacy nature (Gerodimos 2015). The final section of the chapter makes the case for a 24-hour "unplugging" exercise as a tool of media literacy education.

Going 'unplugged' as a media literacy tool

A key question emerging from this discussion regards the extent to which youth dependence on media is "healthy". Taken literally, this means whether use of media can have direct (primary) or indirect (secondary) effects on their wellbeing, e.g. through missing out on physical exercise or vital social interaction. Taken more metaphorically, a "healthy" relationship with media means a pattern of use over which the consumer has control – i.e., in which the user sets the boundaries and is aware of their own behaviour and of the implications that their media use has on them, their relationships, their way of life. This shows why taking a critical distance not just from *media content* or *messages*, but also from *media use itself* is a critical component of media literacy.

While many studies tend to focus on rates of take-up and use, the phenomenon of digital divides is applicable not just to access and adoption, but also to the full range of uses and perceptions of mobile and digital media. "Youth" is not a homogeneous cohort and using the label of "digital natives" carries the danger of overlooking important dynamics within demographic groups (Cheong 2008: 771).

Many consumers find it difficult to imagine life without media: "to be without some ICTs can be perceived as a form of deprivation, a shock, as when something goes wrong and people lose technological access— such as when telecommunications systems or local connections fail" (Haddon 2006: 198). In a study of youth groups across the US and the UK, Leyson, DiGiovanna and Holcomb (2013: 598) found that 82% of the UK sample "felt uncomfortable travelling in a city (such as London) without a mobile phone— recording personal fear and unfamiliarity with the area as reasons for needing a phone". Approximately 95% of their participants across the US and the UK reported that they would not consider leaving home without it.

Acquiring a reflective distance from something that is so engrained in one's reality can be extremely difficult. Not only does it require active effort, but it also requires *an opportunity* for such a reflective process to happen. This chapter argues that a structured exercise of unplugging from all media for 24 consecutive hours in the context of everyday life (self-managed), work (offered by the employer) or study (organised by the educational provider) can be a powerful tool of media literacy. This can be designed and implemented in a number of ways. In the last few years, private spaces of quiet and disconnected contemplation (in the form of retreats, specialised hotels or treatment centres) have appeared, although these remain inaccessible to most people. A study of an organisation cutting off email access for five workdays for 13 information workers showed that "without email, people multitasked less and had a longer task focus", while "stress, as measured by heart rate variability, was lower without email" (Mark, Voida and Cardello 2012: 1).

In the autumns of 2010 and 2011, a total of 190 students participated in a qualitative study at Bournemouth University in the UK. Students were asked to refrain from using any kind of media or ICTs including television, radio, newspaper, magazines, smartphones, computers, tablets, mp3 players, game consoles, and all other manners of accessing the Internet for a period of 24 consecutive hours. Books and landline telephones were exempted from the study. Students were advised that should they lapse and involuntarily use media (e.g. by grabbing their phone without realising it) they should make a note of that, stop the media use and continue the experiment. They were then asked to write a short, open-ended reflective piece, using prompt questions on routine adaptation, feelings experienced, perceptions of social uses and reflections on non-mediated activities. If they were unable to continue and wished to stop the exercise students were encouraged to still write and submit the reflective piece as the primary purpose of the study was not to test how many students "made it" through the 24 hours but to enable them to articulate their feelings, perceptions and coping strategies as well as to explore the pedagogic benefits of such a project (see Figure 1).

FIGURE 1 ABOUT HERE

The first wave of data collection was part of a larger global study that took place in October 2010 and involved 891 students in 10 countries from around the world, organised by the Salzburg Academy on Media and Global Change. The overall and comparative findings of that study are available at http://theworldunplugged.wordpress.com/ (see also Roberts and Koliska 2014). This chapter focuses on the UK cohort of participants and incorporates a second subsample of students who completed the exercise one year after the first wave. Furthermore, it focuses on the particular questions raised earlier such as patterns of media use, perceptions of dependence, effects on young people's relationship with others and with space, and pedagogic benefits.

The big majority of participants found Unplugged very challenging to complete, but also deeply rewarding and valuable (the expression "eye-opener" was often used). Students likened the experience to going on a diet, giving up smoking and "going cold turkey". Carrying out the exercise led to significant changes to their daily routines: it required considerable planning and preparation (such as notifying friends and family, and planning coursework around the lack of internet access); it disturbed their normal activities, thought processes and physical reactions (e.g. students reported twitching, overeating, pacing up and down their room, feeling anxious, being annoyed by the sound of their own breathing); and made them think about the extent to which ICTs are embedded in the fabric of our daily life.

> "One possible benefit from the experience was the amount of thinking I did. It was strange how in what felt like such an empty stretch of time, I was able to think about things completely uninhibited by any sort of distraction…I found myself contemplating thoughts and concepts that usually wouldn't have entered my mind. It was almost like experiencing a certain type of freedom. There were no objects that could have prevented the expansion of my thoughts, and moreover the depth of my thoughts" (Rosie, P031/2010).

Common words used to describe the experience included *bored, lonely, isolated, dependent, frustrated, anxious, addicted, detached, disconnected, restless, fidgety*, but also *liberated, aware, relieved, calm,*

reflective, outgoing, socialising, refreshing, enjoyable, satisfying. Because of the lack of media, many participants engaged in activities, and interacted with people that they would not normally have engaged with or encountered in their daily routine.

> "During the day, I saw the world from a more local perspective. I began to talk to people at the bus stop, rather than shielding them with my iPhone or iPod. In a way, it felt like isolation, but then I also felt more part of a local community" (Joshua, P064/2010).

Our findings concur with the concerns expressed by Turkle regarding the impact of tethering on our behaviour towards others in public space:

> "A train station is no longer a communal space, but a space of social collection: tethered selves come together, but do not speak to each other. Each person at the station is more likely to be having an encounter with someone miles away than with the person in the next chair. Each inhabits a private media bubble. Our media signal that we do not want to be disturbed by conventional sociality with physically proximate individuals" (2008: 122).

Perhaps the most important change to their routine involved leaving the physical space of their bedroom or home and engaging in physical activities in public space, such as walking, visiting friends or talking to others in person and spending time outdoors. Students reported suddenly becoming a lot more observant and appreciative of their surroundings, including realizing how omnipresent media are in public space:

> "It's a funny thing, realizing how much you need or want something once it's been taken away from you. I found myself constantly going in to my bag to get my phone, only to realize I had locked it up back at the flat. Perhaps this was due to the fact that everywhere I turned there was one form or another of media around me. I saw businessmen walking on the streets talking quickly away on their cells. Teenagers in the park listening to an ipod, or a music device of some sort. Men in sport bars were watching the football, whilst women in coffee shops were reading the latest magazine" (Felicity, P069/2010).

Most participants were pleasantly surprised by how much they enjoyed alternative activities such as reading books, going to the beach and having meals and discussions with friends. They felt that these activities were a lot more meaningful and rewarding than their usual media habits. While the boundaries of the study should be clearly stressed – it is based on participants' own reports – participation in this short exercise appears to have had immediate, direct and perceptible benefits to their health and wellbeing.

By far the single most ubiquitous application or aspect of media use that students missed was not the internet per se, but music and mp3 players (such as ipods). This was noted throughout the day but especially in the morning and during various activities such as work or commuting. The ensuing silence initially made many feel ill-at-ease, but allowed them to be more reflective and also more aware and appreciative of their natural and social environment:

> "I found myself staring into space a few times and simply thinking. The quietness made me think about my dog, who died a few months ago, as she was a husky and always howling. I found myself missing her and feeling much more upset about losing her than I had in a while. This made me realise how much I use media to distract myself from certain feelings and emotions. Turning on the television or going online is an easy way to disconnect from unpleasant feelings rather than dealing with them. I imagine this is probably something quite common. There is a lot of stress in daily life and perhaps one of the reasons why all forms of media are used so much is to enable people to disconnect from their daily worries and concentrate on something else. It would probably be healthier to deal with our emotions rather than disconnect from them" (Sarah, P002/2011).

Students struggled with not being able to use their smartphones and in particular to use social media, yet for some, going back resulted in a big "anti-climax" as nothing of particular importance had actually

happened. This further highlighted the artificial and occasionally compulsive need that some users feel to continuously refresh or revisit their social media feeds.

> "The feeling of not knowing what was happening was liberating – suddenly – the conversations and discussions I had with other people seemed far more important. I didn't miss Facebook one bit. It's not like real life – your online friends don't notice if you go missing for 24 hours. […] Did I feel like my life was meaningless? Absolutely not – it felt empowering to feel like I could survive without the media. […] Epic Win." (Sam, P122/2010).

Overall, this experiment highlighted that our consumption and use of media is perhaps unhealthy (literally and metaphorically), unnecessarily excessive and counter-productive. While most of the participants appreciate the practical and socialising benefits of media – and the study helped them register the many positive aspects of ICTs – they also indicated that Unplugged gave them a chance to reconsider their lifestyle.

Crucially, this exercise produced a range of significant and tangible *pedagogic,* and in particular *media literacy benefits* identified by students themselves: not only did it facilitate awareness of both individual and societal reliance on media, or the benefits of media in terms of socialisation and learning; it also gave students a glimpse of older or more conventional forms of communication; it enabled them to develop a range of communication skills and challenged them to step out of their comfort zone; it facilitated reflexivity about one's own needs and behaviour towards the self and towards others, as well as observing others' behaviour and media uses; it led to a re-evaluation of priorities and time management, as well as an appreciation of non-mediated cultures, spaces and activities. Overall, and despite the initial shock, many students felt that taking part in Unplugged restored a sense of control and actual choice, which is somewhat paradoxical given the abundance of choice of online spaces, sources and perspectives.

It should be noted that the post-experiment reflective piece was as fundamental to the learning process as the time spent unplugged itself, as it helped students emotionally process and cognitively articulate their thoughts, needs and feelings. It is recommended that the exercise is followed up by an in-class debriefing session that might draw links between students' lifeworlds or routines and key theoretical debates in media studies.

Concluding reflections: media literacy in a tethered world

Holmes (2009: 1174) argues that "[o]ver-zealous risk discourse may prevent many benefits of online communication being experienced by young people" and that the risks that media pose for young people are small-scale and largely focused upon particular demographic groups. However, the literature and evidence presented in this chapter shows that while there is considerable variance in the motivations, gratifications sought, patterns of use, interactions and effects amongst and across demographic groups, increasing dependence on media is a cause of concern not just for public health experts or policy-makers but *for users themselves,* including youth who would be considered as media literate in the conventional sense.

The widespread adoption of ICTs has led many scholars to argue that the internet's effects have been "normalised". It was originally thought that when not many of your friends are online, but you spend a lot of time online, then you are more likely to miss out on relationships. The fact that most people are now online means that this negative effect becomes neutralised. However, this orthodoxy misses the fact that when almost *everyone* is online, *expected* to be using social media and to be tethered to their devices, this may then become a *prerequisite* of socialisation. In other words, choosing to make more limited use of social media (assuming that one has the choice) comes with a potentially high cost of missing out on what everyone else is doing or taking about, and the ways and means – the daily cultural practices, rituals and communication codes – in which they do that, which are probably just as important. In fact, peer pressure and social expectations proved to be a key motivating and demotivating factor in our participants' media habits and perceptions of themselves and of others.

Therefore, while the benefits of new information and communication technologies are undeniable, this should not be an excuse for overlooking the many concerns posed by contemporary patterns of use. While the term of "addiction" should be used with caution, more research is needed to establish the extent to which emerging levels of screen time and media use qualify under the rubric of problematic (compulsive or excessive) use even for demographic groups that might have not traditionally been considered vulnerable.

Furthermore, the personalisation and surveillance practices of online content providers, search engines, social media, commercial firms and even employers and governments have created a complex web of constant tethering, which is affecting our work-life balance, socialisation skills, mental health, engagement with public space and social and civic integration. These implications are rarely obvious or perceptible by users themselves, and even when they are apparent it is very hard for individuals to avoid or challenge patterns of use that have become a dominant part of our culture, including family and peers. Creating opportunities for critical distance, reflection and awareness of one's own media uses is a vital and under-explored aspect of media literacy.

Media use is directly and intrinsically linked to our well-being, life satisfaction and happiness. Crucially *media themselves can be part of the solution*. The scope of media literacy has expanded in recent years, from the critical analysis of media messages and meanings in the era of broadcast media (what media do) to the acquisition of various practical and critical skillsets in the era of user-generated content (what we can do with media). As digital technologies become ever more organically embedded in our bodies, homes, workspaces and daily routines, as the spaces and contexts in which we use media are expanding, so must the support structures that digital and media literacy offers: creating opportunities for consumers to reflect on their lives and realities through, with and without media; encouraging them to alter and reshuffle their media habits and routines so as to step out of their comfort zones; providing them with the tools to revision their built and social environment. For example, a follow up study showed that encouraging students to go out to their local public spaces and use cameras or phones to capture issues, problems and concerns combined media literacy with urban and environmental education and civic engagement (Gerodimos 2015).

> "If we are to address any viable notion of the new media along with the public values that give it substantive meaning, we must marshal the power of pedagogy and critical inquiry as part of a broader attempt to revitalize the conditions for individual and social agency while simultaneously addressing the most basic problems now preventing the realization of social justice and global democracy. Public values matter" (Giroux 2011: 25-26).
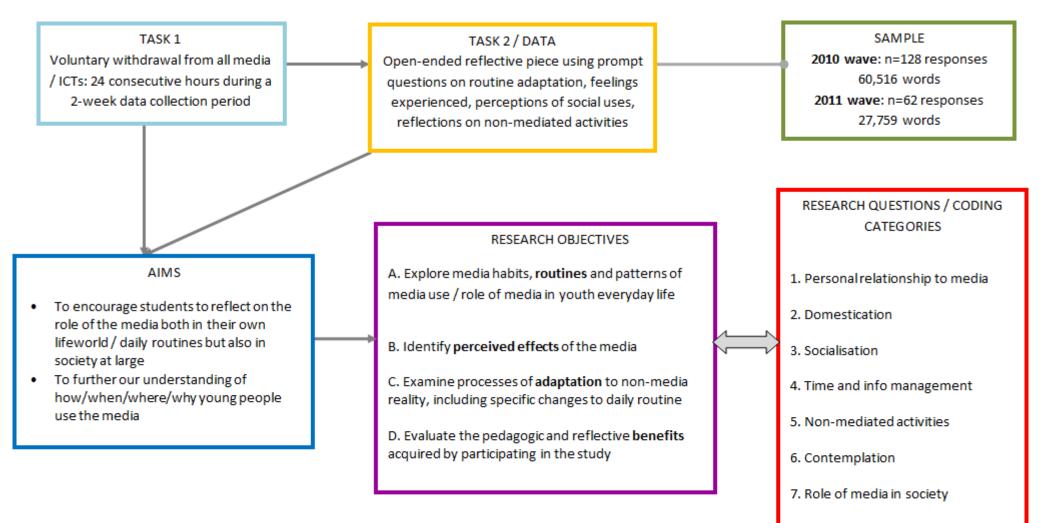
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Figure 1 – Research Design of 'Unplugged' Study

TASK 1
Voluntary withdrawal from all media / ICTs: 24 consecutive hours during a 2-week data collection period

TASK 2 / DATA
Open-ended reflective piece using prompt questions on routine adaptation, feelings experienced, perceptions of social uses, reflections on non-mediated activities

SAMPLE
2010 wave: n=128 responses
60,516 words
2011 wave: n=62 responses
27,759 words

AIMS

- To encourage students to reflect on the role of the media both in their own lifeworld / daily routines but also in society at large
- To further our understanding of how/when/where/why young people use the media

RESEARCH OBJECTIVES

A. Explore media habits, **routines** and patterns of media use / role of media in youth everyday life

B. Identify **perceived effects** of the media

C. Examine processes of **adaptation** to non-media reality, including specific changes to daily routine

D. Evaluate the pedagogic and reflective **benefits** acquired by participating in the study

RESEARCH QUESTIONS / CODING CATEGORIES

1. Personal relationship to media

2. Domestication

3. Socialisation

4. Time and info management

5. Non-mediated activities

6. Contemplation

7. Role of media in society

8. Value of study and follow-up