'No, Facebook Isn't Distracting Me, I Can Study at Night.' ICT Habits and Boundary Management Among Estonian Secondary Pupils

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Abstract

The topic of this article is the use of information and communication technologies (computers, tablets, and mobile phones) and boundary management between mental domains (school and home domain). More specifically, how do Estonian secondary pupils perceive and manage mental boundaries between schoolwork and leisure activities in environments with ubiquitous access to ICT. Building on a mixed methods study consisting of a web survey with structured, closed-ended questions and focus groups, this study shows that pupils use ICT for leisure and schoolwork to a great extent, both at school and at home, enabling learning outside of schools as well as leisure activities within schools. The study also shows how the pupils use ICT to integrate and segment schoolwork and leisure activities, at home and in school; and although shifting between mental domains and different genres of participation may have positive effects on pupils' learning lives, their problematic experiences of navigating between domains must be addressed to understand the complexity of living and learning in the e-society.

Keywords: information and communication technology (ICT), pupils, boundary work, home-school life, Estonia.

Introduction

Scholarly attention has been given to how adults use technology and manage their work and home life, often within organisational studies (Hall & Richter, 1988; Valcour & Hunter, 2005; Golden & Geisler, 2007), in relation to everyday life (Nyberg, 2008), family and gender roles (Haddon & Silverstone, 2000; Shumate & Fulk, 2004; Kossek & Lambert, 2005; Wajcman, Bittman, & Brown, 2008; Ba, 2011), and in regard to health and flexible forms of work life (Hochschild, 1997; Allvin et al., 1999; Felstead & Jewson, 2000; Kamp, Lambrecht Lund, & Sondergaards Hvid, 2011). The interest of boundary management in the work life of adults has generated the development of what is usually called 'boundary theory' (Nippert-Eng, 1996; Zerubavel, 1991). In essence, the theory focuses on the ways in which people create, maintain, or change mental boundaries as a means to simplify and classify the world around them (Ashforth, Kreiner, & Fugate, 2000; Golden & Geisler, 2007; Kreiner, Hollenbe, & Sheep, 2009). This article seeks to understand the role of information and communication technology (ICT) – specifically computers, tablets, and mobile phones – in the boundary management between the school and home domains in the life of secondary pupils.

Previous educational research about ICT *in school* has focused on the role of technology and its potential impacts on educational benefits and learning processes for pupils and students in different subjects, as well as for teacher education and their professional role (Jedeskog & Nissen, 2004; Erstad, 2006; Ramböll, 2006; Collins & Halverson, 2009; OECD, 2010). Research has also focused

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on how engagement in new media ecology can impact pupils' informal learning in out-of-school contexts (Sefton-Green, 2001, 2004; Valentine, March, & Pattie, 2005; Francis, 2007; Buckingham, 2008; Ito, 2009, 2010; Furlong & Davies, 2012). The possibility of using ICT to engage in learning activities in different contexts has led educational researchers to talk about 'learning sites' as a concept to understand how pupils use technology and digital media to create meaning, negotiate identity, and engage in learning activities across multiple and diverse settings and contexts (Buckingham, Bragg, & Kehily, 2014; Erstad, Gilje, & Arnseth, 2013; Ludvigsen, Lund, Rasmussen, & Säljö, 2011). It has been argued that the increasing use of ICT in young peoples' lives can challenge institutional boundaries between the school and home domains (Hernwall, 2006; Youngs, 2009; Nikunen, 2010). From a pupils' perspective, ICT has been found to be utilised as multipurpose tools or as a 'window between domains' (Bergström & Hernwall, 2013, p. 55), with the double capacity to perform both schoolwork and leisure activities, wherever, whenever. While educational research tends to focus on the interplay between communication, learning, and ICT in different settings, the sociological contribution of this article consists of the examination of ICT-related strategies that are created and used by pupils to engage in the effort of constructing, dismantling, and maintaining borders between schoolwork and leisure activities, at home and at school.

The study is conducted in Estonia, where 98% of Estonian schools have broadband connection, and most pupils have access to computers during a school day (Eurydice, 2011; Estonian ICT Export Cluster, 2013). Technological change, along with radical economic reforms, has been a crucial component of the rapid Estonian post-socialist transition towards a prominent e-state (Runnel, Pruulmann-Vengerfeldt, & Reinsalu, 2009; Kalmus, Keller, & Kiisel, 2009). It has been found that Estonian children start using the Internet at a younger age and go online more often than their peers in many other European countries (Livingstone, Haddon, Görzig, & Ólafsson, 2011). Surveys indicate that 93% of Estonian children aged 6-17 use the Internet (The Gallup Organisation, 2008), and 82% of 9-16 year-olds do it every day (Livingstone et al., 2011), while the European averages are 75% and 60%, respectively. The Internet has become an important part of everyday life, particularly for the younger generations. It plays a powerful role in children's development, communication, education, and leisure activities. Thus, as a maturing e-society, Estonia offers favourable conditions for studying pupils' use of ICT for managing boundaries between home and school domains.

Boundary theory

Originally, the notion of boundary work was developed by Gieryn (1983, p. 781), who demonstrated attempts by scientists to demarcate science from non-science or pseudoscience. Gieryn's metaphor of boundary work and his analysis of the rhetorical strategies employed for such boundary work lend themselves easily to other analyses, where professional or social groups draw boundaries to differentiate themselves from others. In later years, the notion of boundary work has evolved beyond science studies, it has been developed and applied to sociological studies about adult work life in a broad sense; focusing on people's mental and practical strategies of integrating and segmenting different systems of meaning – different expectations and roles – such as between home and work, self and others, physical and virtual/symbolical, and public and private (Lamont & Molnar, 2002; Nippert-Eng, 1996; Bishop, 1999; Ashforth, Kreiner, & Fugate, 2000; Riesch, 2010). The theory builds on the approach of social constructionism, according to which the individual is treated as an active agent in the co-construction of boundaries in negotiated interaction with others. One's work-home boundaries, its features, and its ascribed meanings are crafted as an ongoing, situated accomplishment, meaning that they are negotiated and transformed through social interactions and practices among various actors over time. According to advocates of the theory, people erect 'mental fences' around

geographical areas, historical events, people, ideas, and so on. The fences appear to be continuous and in different ways similar in character (Zerubavel, 1991). The mental process results in domains of reality with particular symbolical meanings attached to them. Home and work are examples of the social domains created by boundaries (Nippert-Eng, 1996). Boundary work consists of organisational policies (Rothbard, Phillips, & Dumas, 2005), and individual practices that we use to create, maintain, and modify cultural categories (Nippert-Eng, 1996, p. 7).

According to the theory, boundaries between home and work can be constructed along a continuum from 'thin' (weak) to 'thick' (strong). Thin/weak boundaries are 'permeable' (open to influence) and 'integrating' (prone to merging aspects of categories), whereas thick/strong boundaries are 'impermeable' (closed to influence) and 'segmenting' (prone to dividing aspects of categories) (Ashforth, Kreiner, & Fugate, 2000). The segmenters prefer to keep two domains as separate as possible and maintaining boundaries, for example, by keeping separate calendars for work and home activities or keep two different key rings, one for each domain. These individuals will rarely (if ever) bring elements of one domain into the other. In contrast, integrators will put work and home activities on the same calendar, have one set of keys for work and home, invite work friends home for dinner, and so forth. Integrators prefer to combine elements of both domains, essentially removing boundaries between the two and blending facets of each. Both segmenters and integrators should be understood as ideal types, neither of them is found in their pure states in real life (Nippert-Eng, 1996). In this article, the integration-segmentation spectrum is not used to classify individual preferences (Kreiner et al., 2009; Rothbard et al., 2005), but rather to identify strategies that are created and used by pupils to engage in the effort of constructing, dismantling, and maintaining borders between schoolwork and leisure activities, at home and at school.

Building upon the general integrating-segmenting spectrum of boundary theory, Kreiner, Hollenbe and Sheep (2009) have expanded the understanding of work-home boundary management by finding a fuller array of options in the specific tactics available to individuals. This development provides actionable knowledge that individuals, managers, and family members can use to make informed choices about the very practical and pervasive problem of boundary work. In their work, four broad types of tactics have been identified: behavioural, temporal, physical, and communicative.

According to Kreiner et al (2009, p. 716), *behavioural tactics* (or social practices) includes four specific tactics: 'using other people', 'leverage technology', 'invoking triage', and 'allowing differential permeability'. The first tactic, 'using other people', refers to the actions of other individuals who either help or hinder a person's attempts at work-home balance, such as spouses, children, co-workers, and supervisors. Due to the aim of the study, the second tactic 'leverage technology' is of particular interest and involves looking at technology as a potential factor for both boundary integration and boundary segmentation of schoolwork and home domains. The third tactic within the behavioural area is 'invoking triage', which implies tactics for individuals to prioritise work-home demands by 'intentional allocation decisions' (Edwards & Rothbard, 2000). Work-leisure triage involves making quick but efficient diagnoses of which problem is the most important and/or the most likely to be fixed, according to an established basic priority set, and then acting accordingly. Closely connected to the latter is the tactic of 'allowing differential permeability', meaning that the individual is, in the moment, consciously choosing which aspects of work and home to integrate and which to segment, and then acting accordingly.

Besides behavioural tactics, Kreiner et al (2009) also discuss *temporal tactics*, involving different ways of adjusting work/home schedules; *physical tactics*, involving different types of tactics for manipulating physical borders or barriers between work and home domains (e.g., raising a fence around one's house); and *communicative tactics*, involving ways of setting expectations and confronting violators of work-home boundaries (e.g., telling someone to stop calling at home). However, none of these three latter tactics have been observed in the empirical material, probably because they lack

in significance when studying underage individuals. Pupils have little, or no, control of schoolwork schedules (temporal tactics) or of physical tactics such as manipulating physical borders between school and home.

About the study

In order to set the study in Estonia and in the Estonian language, the study design and the execution of the study were conducted in cooperation with the social and market research agency Faktum & Ariko, based in Tallinn, Estonia. The study combines both quantitative and qualitative methods.

The first part of the study consisted of a web survey conducted between September and October 2012 and answered by 518 pupils. With the aim of studying how secondary pupils (15-18 year old) experience and manage the mental boundaries between schoolwork and leisure activities in environments with ubiquitous access to ICT, the pupils were recruited from five schools with extensive experience of using integrated ICT in education and administration. The schools from which the pupils were recruited were all located in and around the city of Tallinn. Due to the choice of specific schools, the findings of this web study are not representative for Estonian secondary pupils in general, but rather serve to gain knowledge of ICT experiences among pupils in ICT-rich schoolwork environments. The sample of participating pupils was purposefully stratified according to sex, year, and school (Dahmström, 2005; Djurfeldt, Larsson, & Stjärnhagen, 2010). Half (55%) of the sample consists of pupils aged 15-16, and the rest (45%) are between 17-18 years old. More girls (60%) than boys (40%) have participated in the study, and the number of pupils was almost equally divided between the schools.

The web survey questionnaire consisted of 33 standardised closed questions about the pupils' use of devices and Internet services for different schoolwork and leisure activities, at school and at home. In line with international research about young people's media habits and ICT usage (Livingstone, 2009; Livingstone & Haddon, 2009; Carlsson, 2010), the questionnaire consisted specifically of questions about the respondents' general ICT activities, such as using e-mail and chat services, visiting social network sites (e.g. Facebook), writing school papers, or taking photos and recording video.[1] In this article, the same activities are asked about in different contexts, at home and at school, and for different purposes – for schoolwork and for leisure – with the purpose of creating a more nuanced understanding of how ICT is used as integrated, multipurpose tools. Moreover, in order to ensure a good response rate, the pupils who took part of the web survey were included in a draw with chance to win a) an iPad, b) an iPod touch, and c) an iPod nano (which were delivered to the winners after the web survey was closed).

The second part of the study consisted of three focus groups: one focus group was conducted with pupils aged 15-16, one with pupils 17-18 years old, and the third group consisted of pupils of mixed ages. With the aim of extracting expertise and insights from the participating pupils' different and similar experiences of using ICT for schoolwork and leisure activities, at different places and times, the focus groups were prompted with pre-specified topics, and open-ended questions allowed the discussion to evolve around these open-ended questions, facilitating interaction among the participants (Wibeck, 2010; Wilkinson, 2004). This process allows participants to interject their own observations and understandings while also feeding off of the ideas of other participants.

1 Full list of possible questionnaire answers includes: Take photos/record video, Draw or illustrate, Create presentation (e.g. Powerpoint, Prezi), Write a paper or report, E-mail, IM and chat (e.g. MSN Messenger), Use Social network sites (e.g. Facebook, Twitter), Blog, Browse the internet, Make VoiceoverIP calls (e.g. Skype), Play games, Program, Take notes, Read e-books, Read online newspapers, Watch video clips on online service (e.g. YouTube), File share or download music/movies for free (e.g. PirateBay, MSN, Torrent), Download new Apps, Make payment or transactions (e.g. buy tickets). Also, regarding mobile phones: Send and receive text messages (SMS), Send and receive photo messages (MMS), Make or receive phone calls.

One way or another, all focus groups are 'staged performances' (Hammersley, 2003), communicating the informants' desires – how they would like to be seen, what they hold up as ideals, what they think might be important for an outsider to know, how they perceive researchers, and more. All of these messages are present in staged performances in a much more highly concentrated form than in routine interactions and mundane daily practices (Monahan & Fisher, 2010). In this study, the focus groups were conducted in the pupils' native language by two local project members at Faktum & Ariko in Tallinn. The sessions were audio recorded and observed by myself and a simultaneous interpreter behind a one-way mirror. As such, they are to be understood as 'observed staged performances'. Obviously, this is not the common way to perform focus groups. However, it was the most logical and practical alternative. I cannot speak the Estonian language, and although the Estonian pupils spoke English, it was still a second language to them, which would hinder them to fully be able to engage in undistorted conversations with me (also speaking English as a second language). In order to be present and, at least to some degree, part of the performance of the focus groups, the solution was to sit behind a one-way mirror and take part of the focus group with the help of the simultaneous interpreter, who translated everything that was said in the observation room into English. If I had been present in the interview room, the simultaneous interpretation would surely have interfered with the conversation in a negative way. I could, and did, take part of the focus groups in that I could ask the interpreter to put forth a message (e.g. to follow up a certain aspect or question) to one of the moderators via an earphone (and made secret to the participants). In the words of Hammersley and Atkinson (1983, p. 93), my assumed field role could be said to be 'observer as participant'. It should be clarified that I did not document any additional data about the pupils while being behind the mirror. The focus groups were always followed by an assessment of the interviews, including myself, the moderators, and interpreter, to gain a richer and more nuanced understanding of the performance.

The pupils' intertwined use of ICT

In order to discuss experiences of boundary work, it is vital to first establish an understanding of the usage of ICT devices (computers, tablets, and mobile phones) among the pupils in different contexts. This section presents the findings from the web survey, which involves pupils' self-reported ICT habits per physical context (at school and at home) and per purpose (for schoolwork and leisure activity). The findings are based on the respondents' subjective understanding of purpose, i.e. for 'schoolwork' and for 'leisure activity'. Since an activity (e.g. making a mobile phone call) can involve both work and leisure purposes, the questions allowed multiple answers.

Computers (desktops and laptops) are firmly adopted as tools for work in Estonian schools, mainly as in computer labs and laptop carts. In this study, 86% of the pupils reported that they have access to computers at home, and 66% of them have regular access to computers at school. This self-reported access to computers is in line with findings in international statistics (Toots & Laanpere, 2004; Eurydice, 2011). Much of the previous research about ICT in school has focused on its potential impacts on educational benefits and learning processes for pupils and students in different subjects (Jedeskog & Nissen, 2004; Erstad, 2006; Ramböll, 2006; Sörensen, Danielsen, & Nielsen, 2006) and pupils' informal learning in out-of-school contexts (Sefton-Green, 2001, 2004; Valentine, March, & Pattie, 2005; Francis, 2007; Furlong & Davies, 2012). The present study focuses on how domain-related activities are mixed and negotiated in different contexts (Buckingham, 2008; Ito, 2009, 2010). For example, 32% of the pupils report that they use computers at home for schoolwork activities, and 54% of them say that they use the device at school for the same purpose. For schoolwork, the pupils mainly use computers for productive activities, such as writing papers, doing presentations, taking notes, browsing the Internet for information, as well as reading newspapers and watching newscasts. Top leisure activities using computers involve visiting social network sites, reading news, playing games, watching video clips, writing e-mails and chatting.

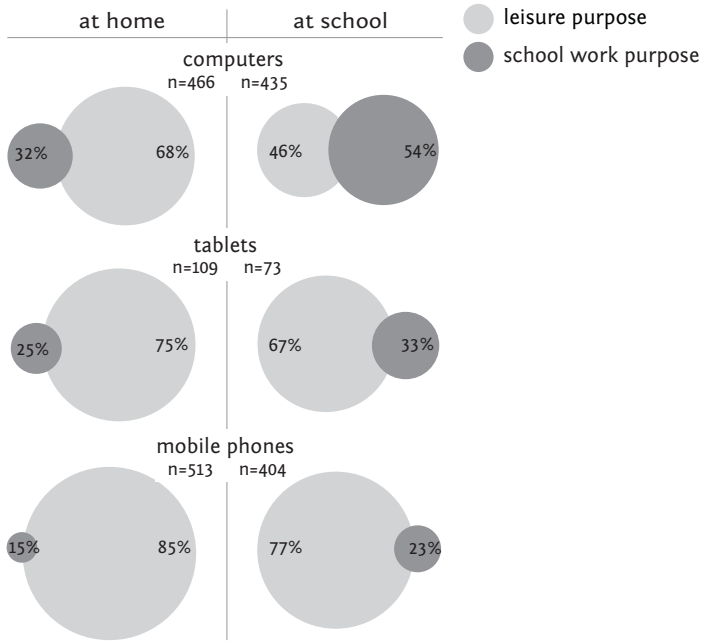

Figure 1: The pupils' self-reported use of computers, tablets, and mobile phones per purpose and context (n=518)
Source: author's compilation

The *tablet* is a new device within the education system of most countries, which means that national data of access to tablets are lacking. Despite the novelty of the device, schools in many countries have begun to embrace it, and there are a few studies pointing to positive impacts tablets might have on learning activities in schoolwork (Higgins, Mercier, Burd, & Hatch, 2011; Jackson, Brummel, Pollet, & Gree, 2013). Several schools in Estonia have recently started to utilise tablets as tools for pupils in the lower grades; however, most of the respondents in this study (and age group) do not have access to school tablets on regular basis. 14% of the pupils in the study reported having access to tablets at school, compared to 21% having access to tablets at home. Among those who use tablets, a quarter (25%) report that they use tablets at home for schoolwork activities, and one third (33%) of them say that they use the device at school for the same purpose. For schoolwork, the pupils mainly use their tablets for productive activities, such as writing papers, doing presentations, taking notes, or browsing the Internet for information. Tablets are also used for illustrating, programming, and for reading e-books when used in schoolwork. Top leisure activities involve visiting social network sites, reading news, playing games, watching video clips, writing e-mails and chatting, as well as taking photos and making VoIP (VoiceoverIP) Internet calls.

In Estonia, where there are more mobile phone contracts than residents (Estonian Competition Authority, 2012), most Estonian youths have access to a *mobile phone* (Howard, 2007, p. 134; Bolin, 2010). In light of their more limited access to landline phones, Estonians have been particularly open to mobile technology, which has spread much faster in Estonia than in Sweden, for example. In the present study, 99% of the pupils have access to mobile phones at home, and 78% of them have access to mobile phones at school. Unsurprisingly, the dominant usage of mobile phones is related to leisure activities, since it is a private device. 15% of the pupils report that they use their mobile phone at home

for schoolwork activities, and 23% of them use the device at school for the same purpose. Although the research carried out about the educational benefits of using mobile phones is still limited, it seems that pupils across nations use the features of their devices to find creative ways to employ these features in their schoolwork, both at home and at school (UNESCO, 2012; Walker, 2013). Top schoolwork activities when using mobile phones involves activities such as taking notes, browsing the Internet for information, writing e-mails, taking photos, making phones calls, SMS/MMS, reading news, and visiting social network sites.

In societies like Estonia, with extensive integration of ICT in private as well as public life (Runnel et al., 2009), ICT is quickly becoming omnipresent in the pupils' lives and 'becoming embedded in the fabric of every activity, part of the infrastructure that supports learning, communication, and participation' (Livingstone, 2009, p. 63). This study shows how the pupils use ICT for leisure and schoolwork purposes to a great extent, both at school and at home (for an overview, see figure 1) – making both learning outside schools as well as leisure activities within schools possible. Young people's ubiquitous use of digital devices allows them to permeate the institutional boundaries between home and school and create meaning, negotiate identity, and engage in learning activities in different ways in different settings (Erstad, Gilje, & Arnseth, 2013; Ito, 2009, 2010; Buckingham, 2008; Bergström & Hernwall, 2013). While this section has offered a general understanding of pupils' intertwined use of ICT devices for leisure and schoolwork activities in different settings, the following section will take a closer look at the pupils' experiences of using ICT in different settings.

Behavioural tactics and integrating and segmenting activities

In the focus groups, the pupils give various accounts indicating that a life without mobile phones, computers, and instant access to information is unimaginable. The pupils speak of how they use devices and online services in desired integrating ways that enhance mobility, flexibility, and individuality in their lives. However, the pupils also reveal a world full of digital temptations, such as social network sites. For example:

> ***Vaike, F15**: I open the computer to check e-school. While e-school is loading, you quickly check your Facebook notifications and then you get stuck there for an hour. And suddenly you remember that you opened the computer to check e-school.*
> ***Maarja, F16**: And by that time, e-school has logged out already.*

This section will discuss the pupils' use of ICT with the help of boundary theory, particularly how they intertwine and separate schoolwork and leisure activities. Due to the aim of the study – how pupils utilise ICT for different purposes in and outside of schools – one tactic is of particular interest: 'leverage technology'. Examples of the other behavioural tactics are also visible in the empirical material: 'using other people', 'invoking triage', and 'allowing differential permeability'. Kreiner et al (2009, p. 726) express this in terms of 'interplay of tactics', i.e. specific behavioural tactics are often intertwined in social practices involving boundary management. Two separate sections will follow, discussing the integrating and segmenting activities in more detail, with the help of the pupils' narratives. The examination ends with an overview (Figure 2) of the findings based on behavioural tactics and integrating and segmenting activities.

Integrating activities

Estonia is one of the few countries in the world that has an operational, national e-school system ('eKool'), free to use for school authorities, teachers, and pupils. The e-school system is designed for use by teachers, pupils, and parents to exchange information and communicate about school news, pupils' grades, homework and assignments, absences, and more. As such, the e-school system can be understood as a 'learning management system' and used instead of or together with other learning management systems such as Moodle (DeSchryver, Mishra, Koehleer, & Francis, 2009; Murphy, 2012). The latest development in this regard and at the time of the study is the app version ('m-Kool') of the e-school system, which can be downloaded for most advanced mobile phones (i.e. smartphones). Several of the interviewed pupils report that they use the m-Kool to check homework and schedules instead of keeping an analogue calendar. Having said this, the e-Kool and m-Kool could be said to function as school systems that enable and augment integration between the school and home domains.

Another popular activity that supports integration between the two domains is writing school blogs. International studies have pointed to various advantages in connection to blogs in the education and informal learning of students (Young, Gyeong, & Lee, 2011; Stonehouse, Keengwe, & Shabh, 2012) and pupils (Read, 2006; Wong & Hew, 2010; Tanti, 2012). Several of the pupils speak about how blogs are starting to be intertwined in the curriculum in some classes, for example media and sports classes.

> *Right now I don't have a blog, but we will start media lessons next year where we have to keep a blog – it's like an assignment.* (Maarja, F16)
> *I have a personal training blog as part of sports in school. So when I train, I write about it, I write an entry after every training session.* (Kati, F17)

The pupils give accounts of various other ways they are encouraged by individual teachers to use ICT to enhance productivity and learning, for example, by using computers or mobile phones as alternatives to books to search for information.

> *Sometimes, the teacher asks us to look up some information from a book in the shelf at the back in the room, then [she] says that those who have a computer or a phone can use that to look it up.* (Paavo, M17)

However, ICT is not only used for schoolwork. As a 'window between domains' (Bergström & Hernwall, 2013, p. 55), devices are used to facilitate schoolwork outside of school as well as leisure activities at school, as illustrated by the next conversation.

> ***Marek, M16**: I almost never use my mobile at home. In school, I use it when I need to check the latest sports news or e-mail.*
> ***Interviewer**: So what do you do with your mobile phone apart from reading sports news?*
> ***Marek**: I don't know – Facebook, Twitter, e-mail. If need to Google something fast, and other stuff.*

With the help of communication services and social network sites, such as Facebook, MSN, and Skype, pupils can discuss and share information, and even work together on the same documents using Google Docs. Another digital tool for informal learning is the photo-based social network service Instagram. This communication service is used by one of the pupils in the present study to engage in a private learning activity outside of the school, as explained in this next quote:

***Aino, F16**: I use Instagram to look at images and to learn about graphic design; I also display my own images.*
***Interviewer**: Do you study graphic design at school?*
***Aino**: No, I do it in my free time. I don't have the kind of money it would take to enrol in that education, so I try to learn by myself. Also the teacher in my media class helps me out.*

In this regard, it is possible to observe the interplay of tactics between 'leverage technology' and 'using other people'. The pupil in the narrative is using Instagram to engage in informal learning about graphic design by studying other people's designs and communicating with them, but the pupil is also discussing and getting advice from one of the teachers.

Although the pupils use many different social network sites and types of social media software, it is obvious that Facebook is by far the most used service for communicating and collaborating with others. Jakob, M16: *Yesterday I used Facebook to explain a math problem to a classmate for about 15 minutes.*' In line with international studies (Bosch, 2009; Madge, Meek, Wellens, & Hooley, 2009; Selwyn, 2009), the pupils in this study use Facebook for communicating with peers – sharing information, organising and discussing assignments, tests, group and project schoolwork, and teachers' notes. Several scholars have put forth the positive impacts of using social network sites for learning, since it can encourage communication, creativity and collaboration (Garrison & Kanuka, 2004; Harris & Rea, 2009; Minocha, 2009). However, other scholars are of the opposite opinion and claim that it provides distractions and impacts teaching and learning performances negatively (Mayer, Griffith, Jurkowitz, & Rothman, 2008; Junco, 2012; Yunus, Nordin, Salehi, Choo, & Amin, 2013). I will now turn to the pupils' battle with distractions and experiences of blurred boundaries.

Segmenting activities

The schools simultaneously assist and encourage pupils to utilise e-school and other software to enhance formal and informal learning; they also construct institutional boundaries. According to the pupils, all of their schools have some sort of rules regarding the use of ICT devices. Of the three devices investigated in present study, computers are the devices most integrated in formal education with the least amount of restrictions. Robin, M15: *We don't have any restrictions. Just, if you do other things in [the] class room besides schoolwork the teacher will not be very happy*. Tablets, on the other hand, are new devices at school and have not really been adopted and wholly accepted by everyone.

***Jüri, M15**: Some teachers just don't want it. In half of the classes people have tablets and they play the whole hour and don't listen at all.*
***Jakob, M16**: Speak for yourself. I frequently use my tablet, and I do listen in classes.*
***Vaike, F15**: Well, some teachers are against it, but actually, in secondary school, we are allowed to use tablets for taking notes. Some teachers luckily understand that they are not only for playing.*

The use of mobile phones at school is a special case, since it is a private device, owned by the pupil and not the school. As such, the mobile phone plays an ambivalent role at school, and several pupils give accounts of formal rules that prohibit mobile phones at school. At the same time, teachers (especially younger teachers) seem to have a more pragmatic attitude towards them. Several pupils also state that their schools have rules against taking or uploading photos of other people.

Officially you are not allowed to take pictures or film in school. (Marek, M16)
In our school you can take photos but are not allowed to upload them. (Oliver, M15)

School rules about the use of ICT not only apply to devices but also to software and specific Internet sites. As one pupil Maarja, F16 says: *In our schools, Facebook and Twitter are blocked*. The reason for blocking these specific sites is that they are not deemed suitable for schoolwork. Although the pupils disagree with such school policies, they actually disclose in the interviews that social network sites may, sometimes, be experienced as a distraction to schoolwork. For example:

> *Even though I'm logged off from the computer, the iPad logs on automatically and lights up and blinks – you just can't ignore it.* (Jakob, M16)
> *You start to study, but Facebook is open, and the speakers are on so you hear the notification sound. Even if you just quickly check who is chatting with you, it happens again and again. Finally you give up on studying, because friends are more important.* (Kati, F17)

The pupils speak about how technological devices enhance these temptations by utilising sound and visual notifications, e.g. push notifications from social network sites and different applications. Such notifications are often deemed helpful and supportive in order to stay up to date with the latest news within your personal network, or as reminders of things to do according to your schedule. However, the same services can also act as powerful distractions, as explained by the two pupils.

> *I try to shut it down, but I have problems with that. If I really need to study something and I know that I can't do it later, then I have to shut it down.* (Kaisa, F17)
> *At the same time, if you shut down your computer, you still get a message through your phone that someone wants to chat with you.* (Kati, F17)

Pupils who experience distractions when using ICT can appeal to the behavioural tactic that Kreiner et al (2009, p. 718f.) calls 'allowing differential permeability', meaning that the individual is, at a particular moment, consciously choosing which aspects of work and home to integrate, which to segment, and then acting accordingly.

> ***Robin, M15**: I don't use the computer for my hobby, only for checking my school schedule.*
> ***Interviewer**: Are you a Facebook user?*
> ***Robin**: No, I am the only one in my class who is not. I understand that I miss some things that are discussed in the class community, but then I get the information from the others anyway so I try to stick to my plan not to have a Facebook account.*

Such decisive segmentation between schoolwork and leisure activities is probably quite unusual among the pupils in general. None of the other interviewed pupils seemed willing to segment schoolwork and leisure in such a definite way as Robin does. Instead, most of the interviewed pupils appeal to the behavioural tactic 'invoke triage' (Kreiner et al. 2009, p. 718) when they speak about different self-imposed rules and the importance of making quick but efficient diagnoses of which problem is the most important and/or the most likely to be fixed. They do so according to an established basic priority set and then act accordingly.

> *I try to establish rules that homework and stuff needs to be done first. And then, if you believe it, you have enough time. But if you do your homework next to the computer, it will take three to four hours, instead of one hour. It's quite good if you have enough willpower.* (Marek, M16)

Another way to combat distractions, according to some pupils, is by adopting a 'counter-distraction' such as using music. In previous research, the ability to utilise media components, particularly music and video, has (Baek & Freehling, 2007) been identified as a leading cause of distraction for high

Table 1: Behavioural tactics and integrating and segmenting activities

Behavioral tactics	Description	Integrating activity	Example quotes	Segmenting activity	Example quotes
Leveraging technology	Using ICT (computers, tablets, and mobile phones) to facilitate boundary work	Using computers, tablets, and mobile phones to intertwine school and home domains	• *Yesterday I used Facebook to explain a math problem to a classmate for about fifteen minutes.* (Jakob, M16) • *I almost never use my mobile at home. In school, I use it when I need to check the latest sports news or e-mail.* (Marek, M16)	Using computers, tablets, and mobile phones to seperate school and home domain	• *Music is what helps me. I turn on the music player and it separates me from the world. I even forget about Facebook.* (Jakob, M16)
Using other people	Using other individuals who can be involved in the school-home boundary	Using parents, peers, and school authorities to blend school and home domains	• *I don't have that kind of money it would take to enrol in that education [graphic design] so I try to learn myself. Also my teacher in media class helps me out.* (Aino, F16)	Using parents, peers, and school authorities to seperate school and home domain	• *When I was younger I spent too much time in front of [the] computer. Then my father installed a program that shuts down the computer after one and a half hours.* (Cael, M17) • *Last year I had limits. At ten [in the evening] the computer must be off and lights out at eleven.* (Vaike, F15)
Invoking triage	Prioritising important school and home demands	Prioritising school and home demands equally at school and home	• *I open the computer to check e-school. While e-school is loading, you quickly check Facebook notifications and then you get stuck there for an hour. Suddenly you remember that you opened the computer to check e-school.* (Vaike, F15)	Prioritising school demands at school, and private demands at home	• *I try to establish rules, that homework and stuff needs to be done first. And then, if you believe it, you have enough time. But if you do your homework next to the computer it will take three or four hours, instead of one hour.* (Marek, M16)
Allowing differential permeability	Choosing which specific aspects of school-home life will or will not be permeable	Situation-based choosing which specific aspects of school-home life will or will not be permeable	• *You start to study, but Facebook is open, and speakers are on so you hear the notification sound. Even if you just quickly check who is chatting with you, it happens again and again. Finally you give up studying because friends are more important.* (Kati, F17)	Principle-based choosing which specific aspects of school-home life will or will not be permeable	• *I understand that I miss some things that is discussed in the class community, but I get the information from others anyway so I try to stick to my plan not to have a Facebook account.* (Robin, M15)

Source: author's compilation

school students who are attempting to accomplish homework assignments. In this study, a more complex understanding of using music is observed, namely as a tactic that can distract the pupil from distractions. Jakob, M16: *Music is what helps me. I turn on the music player and it separates me from the world. I even forget about Facebook!* If the 'counter-distraction' tactic or the will power of the pupils falters, pupils can appeal to the tactic of 'using other people', e.g. parents.

> ***Vaike, F15**: Last year, I had limits. At ten [in the evening] the computer must be off and lights out at eleven.*
> ***Interviewer**: Did it work?*
> ***Vaike**: It did! But this year, I don't have any limitations yet and it has a noticeable impact on me – on grades and on sleep.*

In difficult cases, when parental assistance in the form of rules is not enough to segment schoolwork and leisure activities, parents may appeal to the tactic 'leverage technology' themselves. For example, two pupils – Cael, M17 and Andres, M17 – speak about how they spent too much time in front of the computer when they were younger, which led their parents to install a program that shuts down the computer after one and a half hours of use.

Discussion

Over recent years, much of the educational research has focused on pupils' use of ICT and new possibilities for learning and informal learning as part of the everyday life of the young. As Ito et al. (2010) writes,

> *Transitioning between hangings out, messing around, and geeking out represents certain trajectories of participation that young people can navigate, where their modes of learning and their social networks and focus begin to shift.* (Ito et al., 2010)

From such a perspective, the abundant amounts of leisure activities using ICT observed in this study, at home and at school, could be seen as expressions of alternative routes to engagement and learning that are better adapted to the needs of the 21st century (Ito, 2010). Although shifting between mental domains and different genres of participation may have positive effects on pupils' learning lives, the pupils' problematic experiences of navigating between domains, shown in this study, must be addressed to understand how to further cultivate learning in the new media ecology.

For the title of this article, I have chosen a quote from one of the pupils talking about ICT in connection to possible distractions, *No, Facebook isn't distracting me, I can study at night* (Andres, male 17y). While studying at night might be a successful strategy for some pupils, it is probably not a favorable study strategy for the majority of pupils. In fact, several of the other interviewed pupils talk about stress, sleeplessness, and decline of school performance in connection to experiences of weak or segmented boundaries between the school and home domains. Moreover, several of the pupils talk about the need of boundaries in order to get schoolwork done, and that it takes willpower and discipline to uphold certain rules and priorities that have been either self-imposed or imposed by parents. The practice of boundary work is an important tool in constructing, dismantling, and maintaining mental borders between schoolwork and leisure activities in different settings. It is a practice that has implications for social order and rules of interaction. As a classifying and meaning-making practice used to create and constantly modify the mental frameworks used to experience social life, boundary work is an important tool, which is used to 'prop up' and stimulate identity work and learning. Or as Nippert-Eng (1995, p. 28) writes, *Indeed, without boundary work, any conceptual distinction between 'home' and 'work' and any experimental framework based on them, become moot*.

Furthermore, Kreiner et al (2009) puts forth that boundary work is an individual practice that can be taught and learned. However, when applied to the life of pupils, boundary work becomes a question of responsibility, not only for the individual pupil but also for parents and school organisations. When ICT becomes increasingly more intertwined in the fabric of pupils' everyday life and schoolwork, new solutions are demanded to handle schoolwork and leisure activities in a responsible way. This study has taken the first small step to extend boundary theory to the lives of pupils, but it will take further research to unveil the complexity of living and learning in the e-society.

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