

Harnessing Technology: The Learner and their Context
Increasingly autonomous: learners using technology in the
context of their family lives and beyond
14 Individual Case Studies

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Contents

Acknowledgements.....	3
Introduction	4
Case studies	7
Case 1: CO	7
Case 2: ED	12
Case 3: FR	19
Case 4: YU	25
Case 5: EC	29
Case 6: TU	36
Case 7: CE	40
Case 8: CL	48
Case 9: EM	54
Case 10: RV	60
Case 11: NO	66
Case 12: PU	74
Case 13: RU	78
Case 14: TJ	82

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Introduction

The aim of the Learner and their Context research is to gain up-to-date understandings about how a wide range of learners experience new technologies in their lives outside formal education, and the learning made possible by those experiences. The research is being conducted in support of the Government's Harnessing Technology strategy.

This second phase of data gathering consisted of a number of case studies of learners in their homes. (During the first phase of data gathering, we interviewed, mostly in their schools or colleges, young people who have some degree of access to technologies away from formal education.¹)

A second report, *Harnessing Technology: The Learner and their Context – Increasingly autonomous: learners using technology in the context of their family lives and beyond. Analysis of a series of case studies conducted with learners in their homes* accompanies these case studies.

Case studies

The aim of the case studies was two-fold: first, we wanted to see how learners work with technology in their homes, and gain insight into their thinking about what they do; secondly, we wanted to locate our observations of the learners within the wider context of the family and the home by talking to at least one of the adults who looks after each young person (except in the case of the further education (FE) and higher education (HE) students, who were the sole respondents for their cases). Thus many of these case studies concern, above all, learners within the family context – the parental dimension adds depth and richness to our understanding of the learners' technology-related activities and attitudes.

Learners came from primary and secondary schools, further education and higher education. The sample of learners was selected – mainly from the group of over 100 young people interviewed in their places of learning for the first phase of data gathering – to provide a good spread of ages, genders and levels of technology interest. We chose some additional cases to maintain the desired range of learners. (Details of the distribution and numbers of learners interviewed are provided in the case study report that accompanies the full case studies.²) All learners interviewed came from the Reading and Oxford areas.

¹ Phase 1 report: Becta (2009) *The Learner and their Context. Report of Phase 1 of the qualitative data gathering: Interviews with learners*

² Davies and Good (2009). *Harnessing Technology: The Learner and their Context – Increasingly autonomous: learners using technology in the context of their family lives and beyond. Analysis of a series of case studies conducted with learners in their homes*, Appendix A.

The aim in this first year of the research has been to explore the experiences of learners who do, to some extent, use technologies in their lives; therefore this sample was not intended to be fully representative of the full population of UK learners. Neither does this sample cover the full spectrum of socio-economic status: the work was conducted in the relatively prosperous south-east of England, and also received a proportionately poor response rate from families with low socio-economic status. Nonetheless, the young people we spoke to came from a wide range of homes and social situations, and belong within the 80 per cent or more of the population of learners who live in Internet-connected homes.

Themes

In the course of data analysis, we identified a number of common themes (see the case study report³ for detailed illustration) that reflect issues that appear to be of some importance across many households, although in slightly different ways from family to family. These themes divide into two broad sections: the first relates to how parents and the wider family shape and influence learners' uses of technology; the second focuses on how learners develop their own personalised, independent technology-related behaviours.

1. Family context of learners' technology uses:

- i. Impact on learners of family beliefs and values
- ii. Children's access to technology
- iii. Concerns about safe and effective uses of the Internet
- iv. Extent and nature of parental engagement in children's uses of technologies for learning.

2. Learners' technology-related practices:

- i. Self-directing and self-organising behaviours
- ii. Innovative and/or intensive users
- iii. Formation of future learning careers through personalised home technology activities.

We developed 14 full-length case studies from the case study interviews; these are presented in this document. Each case study is discussed in relation to one main

³ Davies and Good (2009). *Harnessing Technology: The Learner and their Context – Increasingly autonomous: learners using technology in the context of their family lives and beyond. Analysis of a series of case studies conducted with learners in their homes.* Appendix B.

theme, with references to other sub-themes as relevant. The themes map closely onto the Harnessing Technology outcomes that are most relevant to the focus of the Learner and their Context project; each case study is also tagged with the relevant Harnessing Technology outcome, as follows (each of the analytic themes, numbered as above, is given in brackets):

Harnessing Technology outcomes:

- Engaged and empowered learners:
 - Learner entitlement is met with all vulnerable groups supported (1ii)
 - Technology adds value to family and informal learning (1i, 1iv)
 - Learners use technology confidently and safely to support their learning (1i, 1iii, 1iv)
- Improved personalised learning experiences:
 - Learners able to exercise choice among flexible learning options (2i, 2ii)
 - Engaging learning experiences which support deep and higher order learning (2ii, 2iii).

Case studies

Below, we present the case studies. Each case study includes the following:

- Case information
- Family overview and history
- Voice of the parent (primary and secondary school learners only)
- Voice of the learner
- Impact on learner
- Conclusion.

Case 1: CO

Theme 1i:

1. Family context of learners' technology uses:

- i. Impact on learners of family beliefs and values.

Tags

Learner entitlement; family learning; secondary; educational value; family values; career.

Summary

This case study considers the importance of parental beliefs regarding the value of technology to help further learning practices, enhance academic achievement and aid career pathways for the learner.

The chosen family is distinctive in having moved countries (possibly to improve the learning capacity of the family); the parents' have limitations regarding technology use but recognise its importance within the UK education system. Particular reference is also made to the benefits and disadvantages that technology can have, and specifically how technology needs to be harnessed effectively. These reflections are noted in comparison to the skills shown by the learners and the learner's view of the role of technology within his own learning.

Case information

- **Target case:** CO ('Cain')
- **Age:** 13–14
- **Gender:** Male
- **Institution:** Year 9 pupil, Secondary 1
- **Other family interviewed:** Father.

Family overview and history

Cain was in Year 8 at the time of the first interview in school and had progressed to Year 9 when the home visit was conducted during the autumn term 2008. His secondary school was awarded specialist school status in July 2008.

Cain's family consists of a mother, father, two brothers aged 19 and 20 and one sister aged six.

The family had no access to computers before they moved to the UK. Cain's father encountered his first computer in 1988 while teaching at an overseas university. After moving to the UK, although Cain's father had access to a computer during his studies, the family did not obtain their first home computer until 1999 when Cain was four years old.

At the point of interview, the family had two household computers, but Cain explained that the only one regularly used is located on the lower floor, because the upstairs computer lacks Internet access and printing facilities, and is therefore impractical for homework. The focus computer is only seven months old; it is kept on a stand between two beds in Cain's brother's room, where the parents can keep an eye on its use. Cain said that he is the main user of the computer now that his brothers have left school or obtained their own laptops.

Voice of the parent – father

The motivations of the family for buying their first computer are important in understanding the beliefs underlying technology use within this family. For example, the fact that Cain's father chose to buy a computer so early after moving to the UK, in order to support his studies, suggests that education may have been a factor in the decision to move to another country.

Cain's father described how expensive the computer was, constituting a substantial commitment for his family:

"We bought a very, very expensive [computer] at that time ... Thirty hundred because it was more than enough money, a lot of money, but I want to make them [his children] happy and to – and get the education here on the computer... It's important for learning, yeah. Anything in – it is on computer nowadays."

Cain's father recognised, even early on, that the computer offered an unlimited information resource which could aid his children's future educational practice. However, the integration of the computer into family life was not solely for the benefit of the children: having worked in quite a high flying role while abroad, Cain's father moved to the UK much earlier than the rest of his family to study for another degree, and required access to a computer for research. However, having been brought up in a society and era where information was frequently sought from books, Cain's

father seems slightly apprehensive about using the computer, instead recognising his children's efforts as being more in tune with the digital technology:

"I would be more happy on – on books. But children are more happy... children are more happy on computers. [...] Originally, my habit was using books when I was child, I got education. [...] So I guess it's a personal habit. But even I feel that computer is more... but sometimes I take my books and I feel happy... So within a short time, we can read a lot to our – we can compare; we can open different websites on any topic."

Cain's father predominantly places an emphasis on the importance of computers for education. Despite this, he holds a very balanced attitude regarding new technologies, recognising that some aspects of computer use in excess may indeed hinder learning. He hints that young learners in general should be prevented from spending too much time on disapproved-of activities, specifically game playing. Therefore he is ambivalent about the value of the computer:

"I think there are two sides on the computer: positive and negative. But if anybody is using in the sense of positive, he can learn a lot, lot, lot. There are a lot of chances. Yeah, different websites, Internet and want the knowledge which is on the computer. There's a good chance. [...] Other side is the games and other things. For children, they can damage – they can waste a lot of time. Yeah. [...] Negative for children if they are not measured; they can go on long websites, they can play."

Although Cain's father does not express concern about time-wasting with regards to his own children, he does believe that this is a universal issue that other families face. He is sure that Cain does not fall into the games-playing group, suggesting that he prefers to use the computer for academic studies: "He is not involved too much in games. He concentrates on his studies."

At present Cain's father is working within a school and explained that even during lesson time when students should be working on assignments given by the teachers, they covertly play games and listen to music. Cain's father believes that, particularly in classroom settings, learners should use the technology to enhance their learning rather than for entertainment:

"Even in the classes, they are opening their websites, games, music. Too much music they're – too much music. But I can say that I feel as though everything is bad. During the class, if they're a maths class, they should open only the maths website. [...] Once they're in education, once they're in class, they should only use that time for education, to get education. But they spoil the time."

Cain's father actively encourages Cain to take part in extra-curricular activities such as a debate competition society where Cain has the opportunity to speak in front of large audiences of people, including MPs, mayors and native English speakers.

Cain's father believes that the school Cain attends is excellent, and he is pushing his son to a higher educational attainment, explaining that Cain is studying at the top level for English, maths and science.

Voice of the learner – Cain

Interestingly, although Cain's father suggested that his son is not much of a games player, Cain spent a large amount of time during the interview focusing on those activities about which his father had expressed disapproval, while also demonstrating a high level of skill on the computer for more academic activities. Cain explained that homework takes precedence over leisure activities on the computer: "Whoever's got the most important job, they get it [to use the computer], so if a person is playing games and somebody else needs to do their homework, then the person who needs to do homework will get it." Cain said that he shares the computer with his whole family and therefore access issues are potentially difficult. When Cain does get access to the computer, he follows strict rules, completing his homework before performing other activities such as gaming or instant messaging: "First I do my homework and then if there's time I probably play games or MSN." Perhaps as a reflection of his father's beliefs, even when showing the interviewer examples of leisure activities, Cain often attempted to justify these activities as being a reward for working so hard during his school day: "Mostly you want to relax and – yeah, after a time like school where you been like sweating. Things like that."

Cain demonstrated, through the applications and Internet sites that he showed the interviewer during the visit, very extensive knowledge. He described, for leisure, activities such as instant messaging, games involving sport such as Stick Cricket and Miniclip games, CD-ROMs, Commando 2, and online games such as Stick Arena. Cain's use of each of these games appears confident, and he showed an often advanced knowledge of their use; sometimes he also communicates with other players. Cain also explained that he spends a great deal of time using applications that are particularly suited for school work, such as Word and PowerPoint: "... mostly Word for English, and presentations for Microsoft PowerPoint... Basically you have to make a poster and they go on display around the room sometimes." Indeed, Cain's demonstration of making a PowerPoint presentation showed a particularly advanced knowledge of the application: he created a perfect-looking poster presentation from scratch in a matter of seconds. Cain also demonstrated to the interviewer use of Microsoft Excel, Internet searches, MP3 organisation and downloading, photo-editing software and email, and efficient use of the school website to send work by email to teachers for printing. Cain manages an extensive selection of tools and gives the impression that he prefers to complete his homework in order to start enjoying using the computer for non-academic activities when possible.

In a similar vein to his career-focused father, however, Cain recognises the need to familiarise himself with digital technologies in order to get further in life:

“I would probably like to get a higher level in ICT because ICT has various jobs. They are quite easy. You don’t have to do much, just computer, yeah.”

Impact on learner

When considering the views expressed by Cain’s father towards the importance of technology and, indeed, the importance of a good education, it follows that Cain will become skilled in computer activities because he believes that computing will help his career. Interestingly, however, Cain hasn’t adopted his father’s negative attitude towards computer games: he enjoys a number of these after a busy day at school. As with a number of the young people we visited, Cain is required to complete his homework before leisure activities.

It is difficult to discuss the extent to which Cain’s father’s beliefs are reflected in Cain’s use of technologies, but it does appear that Cain is adept both with those packages he already uses and at familiarising himself with those he does not. Demonstrating skills such as knowledge of keyboard shortcuts and multi-tasking across packages, Cain does not, however, mention much specifically about the involvement of his father in his technological development, explaining that he can usually solve problems himself by fiddling with the software, and, if necessary, could turn to his older brothers for help. There is little evidence that a parent’s positive attitude towards the use of computers for education increases his or her engagement with a child’s use of computers. Indeed, the only mention that Cain’s father makes of involving himself specifically with his child’s education is when he talks of sometimes checking the homework Cain is supposed to be doing, and writing comments on the slip to go back to the teachers, even if it is just to thank them for teaching him new things. Very little computer knowledge is shared except for when the siblings want to show their parents something, for instance to improve their parents’ English or when they want to buy something. This may in part be due to the parents’ lack of confidence with computers (as highlighted earlier through Cain’s father’s preference for books).

Conclusion

This case study focuses on parents’ assessment of the educational value of technology. This case study shows that belief in the educational value of technology does not necessarily lead to actual parental engagement in learning with technology, perhaps in part because of the parents’ doubts about their own technological skill level.

In spite of the parents’ lack of confidence with technology, clear standards are understood within the family, with the father encouraging values and practices that emphasise computer use for academic activities. Within this context, the learner, while not receiving direct help from his parents, has become adept with the computer and has learnt to discover new technologies by himself, through using some of the

programs that his older brothers installed on the computer. The learner also disregards some of his father's views by spending a substantial amount of time playing computer games.

Overall, the lack of parental engagement in technology use does not appear to have negatively affected the level of skill displayed by the learner. However, the learner has very limited knowledge of possible online dangers, worrying most about the risk of spam when signing up to websites – something his father has warned him about. The limited engagement of the learners' parents in technology use does not necessarily mean that the learner is not developing with technology, particularly when other family members such as older brothers are available to help. The learner has access to the activities left on the computer by his older brothers.

Case 2: ED

Theme 1i:

1. Family context of learners' technology uses:

- i. Impact on learners of family beliefs and family values.

Tags

Family learning; secondary; self-directing; organisation; learners' own devices.

Summary

This case study focuses on an instance of what is possibly a growing phenomenon: young people learning to balance the opportunities presented to them by new technologies for learning, leisure and social communication with respect for the strong values that are characteristic of households that hold religious beliefs.

Case information

- **Target child:** ED ('Emma')
- **Age:** 15
- **Gender:** Female
- **School:** Year 11 pupil, Secondary 2
- **Other family interviewed:** Father.

Family overview and history

Emma's family moved to the UK from another English-speaking country a few years previously. Emma is the younger of two sisters; her older sister studies at university, away from home. Both parents work. The father is a lecturer at a nearby theological college; religion plays a prominent part in this family's life.

When interviewed, Emma was using a new laptop which she had received only the previous day, having previously used the family desktop. There are two other computers in the house, and Emma's sister has her own laptop – an Apple Mac – at university. Emma's mother is only an occasional user. According to Emma, computers have been in the house all her life and have “evolved over time”. The family has had broadband Internet access for six years.

There is no TV in the house, although sometimes the family watches TV online. The father is the lead expert on using computers in the house: he set up the Internet connection and supports the family technically – he considers himself a fairly able user. The father is sometimes able to draw on advice from his college: “It's just been a matter of being self-taught and working with people who are experts”. However, different members of the family seem to have their own areas of technology competence. The family use a range of technologies, having several mobile phones, PDAs and cameras in the home, they use a sat nav, shop extensively on the Internet, and use Skype and Facebook regularly to converse with friends and relatives in their country of origin.

Voice of the parent – father

The father is a firm believer in value for money when it comes to using technology of all kinds. He disapproves of his older daughter's choice of an Apple Mac, because their pricing is unpredictable. He is keen to avoid spending money carelessly, and talked about cost in a range of contexts, such as cameras:

“We first went into digital after... you know, she said ‘I want a camera’ and she was using some of the throwaway things which, you know, by the time you actually invest in a digital camera, you're better off with that financially, and I don't respect the quality of throwaway things.”

Emma's father said that the decision not to have TV is:

“... totally the licensing. It's a pain dealing with them... We've actually never had one. It's not to say that we don't watch TV if we are out and about or at grandparents or visiting, sure. But functionally, by the time we spend time doing homework and music and other activities, we have chosen not to do that and, quite frankly, paying the license fee is another disincentive... I use BBC Player from time to time.”

It appears that the particular sense of value for money within this family is quite probably defined mainly by the father: he makes active choices about how much and what content and experiences the family consume from their fairly wide technology resources. For example, rather than leaving itself open to an unmediated flow of TV, for instance, the family spend time together looking at digital photos: “... so it's a different type of computing, you know, we've got a digital photo frame so we often watch that whilst we're eating.”

Emma's father has confidence in Emma's good sense as a technology user and in the fact that he knows what she does online: "I don't think she spends a huge amount of time playing with the computer as such, in terms of Internet surfing. She does a lot of Internet surfing, but it tends to be more school-related." Emma does sometimes have social networking and messaging sites on while working on the computer; her father favours Facebook: "I'm not sure I want to encourage MSN chat whilst doing homework at the same time." He is generally happy with the way Emma uses Skype and Facebook to keep in touch with members of the family in their home country. "They [two daughters] have done a lot of that. Bebo is another site that Emma will be using for that same sort of factor, but she will be connecting with friends..." Emma keeps in touch with friends she met in her first home country when she was only two to four years old.

Emma's father views all her uses of technology, including using digital photo editing software, in a generally positive light. Emma does a reasonable amount of digital manipulation and is expected to scan her diagrams from textiles and manipulate them to see different digital effects: "She was quite creative and she used to photograph them well. She would use some of those for some of her art assignments. She would also use that for some of her own memories and sharing with family and friends elsewhere."

In terms of Emma's safety online:

"I'm not overly concerned... I think she's a reasonably astute girl who's not going to be easily fooled into revealing too much of herself on some of those sorts of sites. I'm not sure she's spending a lot of time, you know, making herself vulnerable. She's more likely than not to be invisible or – that would be my understanding of the way she is operating."

By contrast, Emma's father had a few concerns with their older daughter when she first started using email, and he gave advice to her about this. In general, such advice to his daughters about Internet safety tends to come up through general conversation rather than 'these are the rules'. As far as Emma is concerned, he said: "I'm not nearly as concerned about her being a possible victim or that she's going to be surfing sites that are inappropriate." He has a slight concern that she might sometimes spend too much time chatting with friends during her homework, "but I don't think that's happening much nowadays".

According to Emma's father, Emma uses the computer mostly for art and textiles, and sometimes for science, for which she makes use of Wikipedia. "For me, one of the concerns I would have about their uses of the Internet for school is I don't know if there is as much discernment regarding some of those issues. You know, going – finding whatever information they can, will they go and find it. And then when they get through the other end of school, they've got to start to turn around and say well

hang on, you've now got to reference that and doing all of this, and making sure that this is expressed in your words rather than taken straight out of it and there's none of sitting where I sit." In this respect, he does not think that his elder daughter is "all that savvy... One of my concerns with the quality of sources and things like that, but I am well aware that there are many university websites which will start to tell you the things you should be looking for."

Emma's father knows that Emma sometimes makes use of the school intranet, for instance gaining information for her assignments from it. Although he has occasionally gone onto it himself, he thinks he should do so more. He strongly approves of the school's aims to extend its communications online with pupils and parents. He particularly sees value for this in terms of supporting children who are less committed to their work than Emma is.

Voice of the learner – Emma

Emma presents her uses of the computer as unremarkable and relatively low key: "Normally I just – I don't know often I just check my email... Internet and I have a memory stick also that I would use on my computer." Emma's routine on returning from school involves the computer as one of a range of activities: "I tend to eat a little bit and talk to my mum, talk to my parents about the day, that kind of thing, and then I might come up, do some homework first or... there's lots of things I do. Sometimes I play the piano or sometimes I just go and sit in my room and listen to music. A lot of the time I'll just come on here and check my email, and then I'll get started onto my work."

School work is an important part of Emma's activities once home, and the computer plays a part in this, but only as a convenience according to her: "Sometimes I'll do homework first, but generally – generally I get on the computer while I am doing my homework, because a lot of my work is on the memory stick, is on the computer." Since moving into Year 10, Emma's USB memory stick has become a particularly important device for her, as it allows her to move her school work between school and home without having to resort to email, which she views as more complicated: "I think it is a lot to do with coursework, I mean especially my textiles. I do textiles and have a lot of textiles coursework I have to do, so it is easier to keep it all on [the memory stick]."

Although Emma plays down her uses of, or dependence upon, her computer, she appears to make considerable use of it for carrying out and organising her school work. All Emma's folders on Windows are ordered very systematically by years and subjects. She said that she cannot stand her folders being messy and has only recently rearranged the structure as she is in the process of moving computers. This highly organised approach appears to work both to help Emma organise her full range of work and hobby activities (given that her interest in dress designing seems to cross the boundary between school and leisure activities), and with particular

aspects of her work – she has created a planning page for making a prom dress in textiles. But when it comes to doing the actual design work, Emma is not so confident about using technology: “I drew out my initial designs because I prefer to draw them.” Emma has had access on occasions to dedicated design software at school, but not at home; she finds that she does not have time to use the software at school, and is not comfortable with it: “I don’t tend to use it, I’m not very good with it!” Instead, she designs her dresses on Paint and gets the basic shapes from the Internet. She also does other kinds of art work, such as creating pictures of waves, which she has manipulated at school for her art book.

Emma is not particularly keen on searching for information on the Internet – she doesn’t tend to use Google for own fact-finding unless friends ask her to look something up that is interesting. In terms of her school work, she uses the Internet for textiles and English. In demonstrating her approach to making searches, she focuses on looking for art images.

Emma does also use Wikipedia, qualifying that choice in the way that is very common:

“I know it’s – well people say it’s not very good because lots of people can change it, but, yeah, I do tend to use it quite a lot! [...] Well, I always change it and everything. I don’t like copy off it for anything, but for – if I am researching artists and that kind of thing especially, I will use Wikipedia.”

As Emma goes through her various documents, images and applications that she draws on in her textile and design work, it is clear that she is in fact an able user of online resources.

Emma sends and receives emails regularly, using Google Mail rather than the email program that she has access to on the school’s learning platform. Emma uses email for activities outside school (as reported above, she uses her memory stick for managing and transporting school work) – she sends emails to other members in her puppet group and also to a friend in her home country. Her Google Mail inbox is highly organised and ordered: “My mum and my sister they have it messy. I can’t stand it. Once I get rid of something I just – once I’ve read it and I don’t want to see it, I just archive it so it goes into ‘all mail’... They have the ‘all mail’ there already, but a lot of people just read the box and leave it in their inbox, but I like to have my inbox clear so I have it in ‘all mail.’” Her dad set her up on Google Mail, and Emma also has a Hotmail email account, which she uses for instant messaging.

Emma’s main modes of communication with friends are through the personal news updating functions of Bebo and Facebook. Emma is careful about who can access her pages: “It’s just my friends, well not just from school, but my friends from school and church and also in like other countries. But that’s basically what I just use Bebo

for.” Emma demonstrates her use of email by showing a message from a friend of a friend, whom she met on her last visit to her original home country: “Yeah, it connects me with [that country].” Emma is a fairly confident user of online communication, including image and video sharing.

Emma has tried a wide range of social networking sites: Bebo, Facebook, MySpace and Hi5: “I have MySpace for my friends in [second previous home country] because they all use MySpace, and my friends in [first previous home country] use Bebo, so I talk to them on Bebo.” She also has English friends on Bebo and Facebook, but it is Bebo that she checks most often: “I prefer Bebo ‘cos I can change it around. My Facebook is – I can’t change it... You don’t have much control over what it looks like; it’s just a bit boring. I prefer Bebo because you can give yourself anything, yeah.” She explained that the only reason she has Hi5 is because people send her invitations when they join something, and she hasn’t used it since.

Emma does not use instant messaging very often: “I don’t go on as much as normal because I get quite distracted when I go on [instant messenger] and I only talk to like one or two people normally. I don’t really talk to the other people on my list, I just talk to my – basically just this friend.” Indeed, Emma thinks that a lot of the chat is “rubbish” and not useful. “Normally, I just go on if I need to find out something from somebody or – and then don’t have to pay for text messaging.” She uses instant messaging to contact others in relation to homework, and has a particular friend whom she works with in German: “We have to do like a vocab test for every Thursday. Sometimes we’ll test each other over [instant messenger] just before to get it clear.” She doesn’t know whether it is possible to speak live, but she can send files. “Homework-wise, I just ask them if I’m not sure about something. I don’t really use it for anything else. Other than that, I just talk. I tend to – I don’t do that very often.” She does text “... if I’m desperate, if they’re not on MSN or something like that, then – normally I’ll go on [instant messenger] first so I don’t have to pay for it, like text messaging.” But Emma said that she talks to others rarely about homework, perhaps once every two weeks at most, mainly about German homework with her particular friend, and sometimes art or textiles. “And I don’t always do that [German], because sometimes I’ll go online and she’s not online.”

In addition to social networking, Emma uses the Internet frequently to check the main daily newspaper from her most recent previous home country (sometimes using it as her home page), and gets world news from there because she doesn’t have a TV. Sometimes Emma also listens to the radio for news.

Emma emphasises that she “could live without a computer... I don’t play games. If I play anything, it’s the piano or sometimes the violin.” When Emma first got Bebo, she was excited about the new capacity it had, but as time has gone on, she sees it as “... just a phase you go through, I think”. Emma said that she only spends about four or five hours per week on the computer, including for homework.

Impact on learner

Considerable care needs to be taken in characterising how learners like Emma actually use technologies in their lives. At first sight, there appears to be something of a mismatch between claim and reality: Emma asserts that she uses the computer relatively little, that she finds much of what it is used for to be trivial and time-wasting, and that she can take it or leave it, and yet she appears to use the computer for many things and is generally quite skilled in the ways she does that. The same goes for other technologies: Emma has a mobile phone, an iPod, access to iPlayer and has used more social networking sites than most of the young learners we spoke to. Emma engages with world news in a genuinely global manner, and keeps in close touch with friends from all around the world.

Emma is also a member of a family with strong values that are directly related to their particular faith, and she represents these cautiously but explicitly (more explicitly, in fact, than does her father). Emma explained that although she wakes up every day to music on her iPod, she does not use iTunes very much in comparison with others of her age: “I’m Christian, so I don’t tend to listen to a lot of the secular music, so I think a lot of people – a lot of secular people have a lot of... ‘cos there’s a lot of music out there, but I don’t know a lot of it. So, yeah, I haven’t got that much, because my knowledge of music doesn’t go that far.” Emma’s music is taken off CDs rather than downloaded from the Internet. Emma reflects her father’s concern not to spend extravagantly on new technologies in her avoidance of texting, but it also appears that not downloading music from iTunes, not watching broadcast TV, and having a highly ordered and structured use of Facebook and Bebo, all reflect a determination to manage and moderate the potential flow of content from new technologies rather than to succumb to these things. It appears that Emma – as an individual, a young person with normal teenage enthusiasms, and also as a member of a family unit and a church – has clear values about how to deal with the modern world.

Emma is focused and selective in how she uses technology to support her learning away from school. She seems to benefit most from her access to technology in the home in terms of how the computer enables her to organise her work and interests in a hierarchical folder system and through highly structured means of laying out content on the screen. In general, Emma acts very much like the majority of her peers in the way she uses Wikipedia, occasional online resources and a range of software on her home computer to manage and produce school work. But Emma emphasises that she takes care to ensure that going online does not expose her to new and unpredictable people or material. Emma’s uses of Facebook are clearly delineated and with childhood friends and members of her worldwide church. Bebo and instant messaging allow her to engage with the wider peer group of her school, but it seems that she does so in fairly limited and cautious way.

New technologies are valued within this family, and by Emma, as highly convenient tools for doing the things that are identified as worthwhile and desirable. Such choices are intended to keep the more disruptive or disturbing aspects of the online world at bay, with the possible consequence that Emma seldom encounters the information, opinions, stimulus and social interaction that many of peers experience on a regular basis.

Conclusion

The impact of family beliefs and values is very strong in Emma's life, and these have considerable implications for the role that technology plays in her life and learning. Although on the surface it appears that this family does more or less the same kinds of things with technology as take place within very many families, it is possible that more careful and conscious decisions are made within this household than in many other homes about what is and is not acceptable, and why. It would be wrong to suggest that Emma is disadvantaged by this in any way, but her experience of using, enjoying and learning from new technologies is strongly affected by family beliefs and values. This is very possibly quite a widespread phenomenon within families with strong commitments to specific faiths.

Not only do such families possibly exercise high levels of choice and control over uses of new technologies in the home, but also it is likely that these new technologies increasingly provide a means for strengthening and extending faith-based activities within the home. There are a wide number of potential implications for young learners relating to issues of faith-based learning (such as creationism), different perspectives within formal education regarding engagement with the modern world and its social-communications media, and conflict between liberal and conservative values. In particular, it is possible that some young learners from very religious homes (more religious than Emma's perhaps) will not want to engage freely with new technologies and the Internet in school.

Case 3: FR

Theme 1i:

1. Family context of learners' technology uses:

- i. impact on learners of family beliefs and values.

Tags

Family learning; confident and safe use; secondary; educational value; family values; career; religion; limited use.

Summary

This case study talks about the reality of distinctive family values and concerns that affect technology practices in the home. The chosen family are particularly relevant because of their strong religious views which greatly affect the types and frequency of activities that they perform with respect to technology. In particular, this case study highlights the parents' specific views about using the computer, and the impact these have on the learners' own use, knowledge and skills. These reflections are noted in comparison to the skills shown by the learner and the values the learner herself holds about the importance of technology to her learning.

Case information

- **Target case:** FR ('Francesca')
- **Age:** 13–14
- **Gender:** Female
- **Institution:** Year 9 pupil, Secondary 1
- **Other family interviewed:** Mother.

Family overview and history

Francesca was in Year 8 at the time of the first interview in school and had progressed to Year 9 when the home visit was conducted during the autumn term 2008. Francesca was attending a secondary school which was awarded specialist school status in July 2008.

Francesca's family consists of a mother, father and younger sister. The family has spent a number of years overseas because both parents travel within their work for a Bible translation company.

There are three computers within the home: one computer which is considered 'old' and therefore rarely used; a laptop which the father uses for work and when travelling; and a laptop which the mother uses for work. Both daughters use their mother's laptop, which is on a desk in their mother's bedroom.

The mother was born in another country and currently works as a language trainer for those who want to work abroad; this requires her to travel to Germany two or three times a year to teach. Part of her role is to coach clients who are based in a variety of locations worldwide via email, and so she makes extensive use of email. The mother works only during school hours and allows her two daughters to use her laptop outside these hours. The mother also uses her computer to communicate with her family back in her home country. The father is a translation consultant who usually works at home and uses his laptop to communicate with other translation teams across the world. He also uses a financial program on his laptop as he is treasurer for the family's local church.

Despite both parents using their laptops quite extensively, the mother does not believe they are using them to the full extent of their capacity: “We are not using all aspects of what the computer could do. We do a lot of word processing and we do a lot of email.”

Voice of the parent – mother

The family are very religious – something that is both reflected in the parents’ work and ingrained in their family attitudes. One deeply grounded value that appears directly related to this religion – and a matter of extreme importance to Francesca’s mother – is the need for the family to enjoy each other’s company, in particular participating in traditional activities such as reading stories rather than more typical contemporary activities such as watching TV.

“We read books too as a family. Well quite often [Francesca’s dad] doesn’t sort of take part in it. I read to the girls, and [younger daughter] has now started reading to me when I cook, wash the dishes or something. [...] but personal technology, that’s old-fashioned... if you read stories together instead of watching the telly and then you feel you’d rather read stories together rather than spending hours on... [Francesca] goes to a friend’s house every other week and they always have their meals in front of the telly, and she says they seem to always do that. But she doesn’t like it. I couldn’t imagine it.”

The mother’s determination for the family to spend time together is reflected in her negative attitude to her children spending time alone in their rooms, and more specifically in the way she prevents Francesca from spending too much time by herself on the computer. The decision to behave in a communal way is integrated in a number of technological-related activities that the mother suggests occur in this family. For example, the family became interested in digital photography a few years ago, and Francesca’s mother said they often gather around the computer to look at photos in a slideshow or manually, using this as an opportunity to discuss the events. Francesca’s mother is quite against more mundane family activities that do not stimulate conversation and development, such as watching television, and believes that, had her children been allowed this experience, it may have harmed their development. On occasion, the family do watch DVDs together on the father’s computer, but in general the mother thinks that television is one of the more negative aspects of modern life:

“We feel like there are so many other good things to do together. Or even if it’s not together, it’s – well, we do not think it is all that worthwhile to stare into this box all the time. And we all feel, including the children, that we wouldn’t know when to watch the telly really; we keep ourselves busy otherwise. [...] I think our children are quite creative. I think they wouldn’t be if they had spent three hours of telly every day. [...] while you’re watching the telly, you’re not talking to each other... you’re not relating.”

Francesca's mother hopes that Francesca will use technology "not as a means to an end but as a tool to get what she wants... If she wants to communicate with people and the computer helps her then that's great." Francesca's mother clearly states, however, that she does not want the family to feel dependent on technology, and suggests that Francesca uses technology mainly for developing her own learning through activities including homework, Internet research, word processing, email and enhancing her biblical studies via a Christian forum. Francesca is said to communicate in German by email with one of her cousins who lives abroad – an activity that is both social and helps her practice her German writing skills and enhance linguistic development. The only technological activity that Francesca is reported to undertake for pure entertainment is her use of Kodak EasyShare software, which is used to focus on activities relating to religious events and memories. For example, Francesca's mother described activities following a Christian camp that Francesca had attended: "She came home from the summer holidays with some video clips that she took on her camera, and we spent ages combining this into one longer video and trying to put the soundtrack to it, and she had great fun."

Voice of the learner – Francesca

Francesca's mother's focus on both the importance of family unity and keeping religion and academic purpose at the forefront of activities suggests she may influence the types of activities Francesca uses at home. Francesca appears to follow very closely the expectations of her mother as to the main kinds of computer activities she performs, which she noted include using the school email system, SUBmerge (her Christian forum), Google and Wikipedia for homework, Word, Excel and photo editing. In line with her mother's expectations, most of these activities are to enhance her learning in various ways. For example, she uses the school email system to communicate in German and thus practise her German writing skills for an early German GCSE exam, and to send work between school and home; Google is primarily for finding homework information and images or maps; she creates any written homework assignments as Word documents, because she explained "I can type faster than I can write, 'cos a few years ago my mum taught me how to touch type, and we've got little CDs that teach us, so if I have to write a whole essay, I do it on Word. And it's a lot easier to edit obviously." Francesca uses Excel to practise certain aspects of school learning; she has become extremely adept in a number of these academic activities, showing superior evaluation skills when selecting particular sites for research and creating spreadsheet templates in Excel to test mathematical formulae learnt at school. For example, the following quotation from Francesca shows her ability to know when to trust information on Wikipedia:

"I like Wikipedia. Some people don't, because it's not – I don't know. They don't trust it, but I don't find it a big problem... On a topic like the Second World War, people are going to know what's genuine and are going to complain about it. But if it's a

debatable topic, then I wouldn't go to Wikipedia... I'd ask my parents first, I guess... and it often says at the top of the article if it's not quite – if it hasn't been checked for ages or something.”

One of the activities which Francesca speaks most enthusiastically about is using SUBmerge, an online forum that she participates in occasionally in order to discuss particular topics. Francesca primarily uses this site to learn more about the Bible readings for a particular day, sharing prayers with others and answering others' questions about the Bible. Francesca suggests that she is an active poster on the forum. Although the site provides a biblical development resource, Francesca feels a sense of unity from getting to know particular contributors on the site, even though they reveal no personal details.

Regarding more leisure-based activities on the computer, Francesca suggests that she is keen on photo editing, although she does not spend much time on this activity. She does, however, note how the software can help her academically for her art work, by, for example, enabling her to put a blackout line around areas where the colour changes in a photo: “That's quite good if you're doing... I did a face and then put it on a cartoon effect, which makes it easier to sketch.”

Other activities that could be classed as more leisure based on the computer are often restricted either by Francesca's parents, or are used specifically by Francesca in relation to her religious beliefs. For example, when asked about playing games on the Internet, Francesca suggested that she is not allowed to do this, as her mother has told her that her firewall protection is not strong enough (which might also be her mother's way of discouraging her from playing games). Interestingly then, Francesca also explained that she plays the basic Microsoft games (including Solitaire) and FreeCell while waiting for programs to load, and she noted “I do my gaming in school. If my teacher says if you've finished the work, you can have five minutes on games.” It is therefore not that Francesca is against gaming per se, but that she has learnt to see this as inappropriate within the home context, because of her mother's opinions.

Francesca engages in a few other activities for specific purposes, for example using YouTube to look up a particular hymn that she heard at a camp. Francesca's main priority in using the computer is for her own academic development and for learning more about her faith; this encompasses even her basic interactions with the computer, which are designed to help her develop her knowledge of the German language, because her mother set the language to German so that even Francesca's favourite web pages appear this way. Despite her use of the computer for only those activities considered to be sufficiently worthwhile, it seems that Francesca still sometimes believes that she is spending too much time on the computer when she could be doing other activities. When asked if she feels she

ought to be using the computer for doing more things, she replies: “No, I sometimes feel I ought to be using it less.”

Impact on learner

When the views of the parent and learner are compared in this case, it is clear that there is a very close match between what the parent believes to be appropriate and what the learner actually does. Francesca uses the computer primarily as a tool to carry out academic work, and again as a tool to support her learning about her religion. In a similar manner to her mother, she seems not to use or want to use any other technologies that discourage personal interaction, such as television: “[I’ve] not planned to get one.” Francesca does, however, take part in a few leisure activities, although these are very much limited in comparison to her academic workload. Within this family, therefore, it seems that the attitudes shared by mother and daughter have a significant impact both on the amount of time Francesca spends on her activities, and the quality and nature of these interactions. This does not appear to have any limiting impact on the quality of Francesca’s academic ability, because she independently chooses to use digital technology to enhance her learning, and indeed her mother has helped her develop a number of key skills to help her get by on the computer, such as the ability to touch type. Thus, perhaps in this case, such a strong negative attitude regarding particular uses of technology has in fact aided the learner’s development in other respects.

Conclusion

This case study focuses on a family context where there is a strong concern about too much time being spent on activities that divert the learner from her family and their community, and that involve practices that could be considered as ‘time wasting’ or purely leisure based. More specifically, the learner can be shown to focus her computer use on academic activities such as homework assignments, and activities that further her own intellectual development regarding her religion, such as in the Christian forum she is required to visit for her Bible-reading notes. The feeling of using the computer only when necessary is reflected in some of the attitudes portrayed by the learner, including her suggestion that she feels she often spends too much time on it. However, some of Francesca’s parents’ concern regarding technology conflict with her own wishes: for example, Francesca views school as the place where she can play games, because she is not allowed to do this at home.

The parents’ influence on technological activities does not mean that Francesca’s home environment is not stimulating: the parents try to spend time with their children developing them culturally through visits to museums and reading to them, and even developing their basic technological skills through teaching them to touch type. The mother also takes part in some computer activities, like placing videos into one stream, suggesting a fairly high level of parental engagement in all aspects of the learner’s life.

Despite a restriction on technology use, Francesca does not seem to feel deprived in any way by not having access to certain activities, although she does note that her use is not necessarily what would be considered normal (for example, when she suggests that she uses YouTube for specific queries as opposed to for browsing). This family environment has focused the learner on using the computer optimally, and Francesca demonstrates high levels of skill at the activities she uses the computer for, for example using it to confirm theories she has learnt at school. Thus what may be seen by some as a restrictive environment does not appear to hinder the development of the individual if technology use is fostered correctly – in other words, if learners are given guidance as to what technology can be used for, and are taught particular skills to improve their performance when they do have access to technology.

Case 4: YU

Theme 1ii:

1. Family context of learners' technology uses:

ii. children's access to technology.

Tags

Learner entitlement; family learning; deep and higher order learning; primary; access; innovative.

Summary

This case study represents an example of a boy of primary school age who has been given very good access to a computer with Internet access. This has allowed him the time and space to explore a number of applications; because he is very interested in computers, this has enabled him to move forward and create animated presentations.

Case information

- **Target case:** YU ('Yadav')
- **Age:** 10
- **Gender:** Male
- **Institution:** Year 5 pupil, Primary 3
- **Other family interviewed:** Mother.

Family overview and history

Yadav's family are originally from India and consist of a mother, father and younger brother aged three. Yadav lives in a terraced house; the interview with Yadav was

carried out in a small upstairs office, where the computer with Internet access is located. Yadav uses a desktop computer on a dedicated computer table within this office. A laptop is also available which Yadav can use but which is prioritised for his father's work. The upstairs computer has no sound, whereas the laptop does. Yadav's father is a computer engineer; his mother's occupation is unclear, but she did say that she spent most of the day in front of a computer. The family first acquired an Internet-connected computer in 2000. The computer was originally bought to manage the family's finances, and this remains the first priority. Nevertheless, the children's educational uses come second and after that games.

Yadav uses the computer and accesses the Internet to support his schooling; he uses Google for research, Word for writing, and a paint program for drawing and painting. In his free time, Yadav likes to use instant messaging to chat with his cousins and grandfather in India, he plays adventure and action games on sites such as MiniClip and Disney's Toontown, he creates and animates narratives in PowerPoint, and he sends greeting cards.

Voice of the learner – Yadav

Yadav's uses of the computer and the Internet are interesting mainly because he creates some extremely striking animated PowerPoint stories: he dreams up a scary story and then creates a visual animation in PowerPoint. One example that he demonstrated featured the Spiderman character and an opponent that Yadav invented and drew. Yadav chooses a background from those provided within PowerPoint; finds pictures on the Internet and/or creates his own; then he selects the slide transition speed and puts it all together. Yadav explained how he animates the characters: "If you want to get it to move, you right click, click it, then you go to custom animation, then make what moves you want to do – so, if you click flying, it goes like this and any animation you can do, lines." Yadav said that he can produce a PowerPoint story in one day, but that he then refines it over the following weeks. Yadav also likes to handwrite but is motivated to use the computer more because he likes to decorate his work (he said that he cannot decorate his handwritten work so well) and add pictures. Alternatively, he might use a paint program to produce a picture, cut it out and paste it into his book.

Yadav's accounts suggest that he has acquired most of the knowledge about how to develop PowerPoint animations through his own exploration after his interest was sparked by what he learnt at school: "I learnt some of it at school then one day I came home and thought I could do that, and I learnt more things." Yadav also mentioned that his father used to help him. Yadav has spent some time exploring the different font effects in Microsoft Word. He showed how you can add effects such as 'sparkles' to animate fonts.

Yadav said that his brother also explores the computer and finds things out for himself, which suggests that their parents have provided a supportive environment

for self-directed and exploratory learning on the computer. Yadav said that his mother in particular was very impressed by what he could do on the computer.

In relation to safety, Yadav talked of the threat of computer viruses, but said that often sites with viruses are blocked. He tends to encounter these when he searches for games. Yadav also searches for information for homework – such as recently, on the Tudors. He said that he would type a phrase such as ‘Tudor information’ into the search box and that usually this kind of search would produce useful results.

Voice of the parent – mother

Yadav’s mother was convinced that the computer and the Internet were very important for both of her sons’ educations, and would be even more so at secondary school. She said that Yadav uses the Internet a lot for school work: “Any item, he Googles it!”

Yadav started using the computer as a young toddler and is now able to use the computer independently most of the time. When Yadav was younger, his dad showed him how to do things (as his dad now shows his younger brother). Yadav’s mother also talked about how the computer had helped Yadav to learn the alphabet. Because Yadav was so keen to use the computer, he had had to learn letters in order to operate it.

Yadav’s mother said that Yadav rarely asks for any assistance now and carries out homework without needing help. Occasionally she will help him to carry out a search if he is stuck. Yadav’s mother also helps him indirectly with his education. Yadav is sitting the 11-plus exam to go to a grammar school. Yadav’s mother goes on an 11-plus forum, which gives information about how to prepare for the exam. Yadav’s mother said how she found the site, showed it to Yadav, and copied information into Microsoft Word about how he should do the exam. Yadav’s mother said that, given that she was educated in India, the Internet is particularly useful for finding out about the educational system in the UK. She also sometimes buys books for Yadav online which support his studies.

Yadav’s mother does not tend to be very concerned about Yadav’s safety when he uses the computer and the Internet. She said that if Yadav wants to download a game to the computer, he asks her first if it is safe to do so. Yadav’s mother said that she can trust him, whereas his younger brother would not yet know what he should and shouldn’t do. These descriptions suggest that Yadav’s mother was thinking particularly about viruses being downloaded to the computer. Indeed, she said that previously Yadav’s father had to remove a computer virus that Yadav had accidentally downloaded; since then, he has always called her when he has encountered something different, or will simply close the window or program. They now have anti-virus software installed on the computer. Yadav’s mother did not mention other potential threats such as pornography.

In relation to the school's website, Yadav's mother said that she usually looked at it around every 3-4 months. She said it wasn't terribly useful except for hearing about the latest news in school etc. At the moment, she would like to see resources on there about how to prepare for the 11 plus exam and how Yadav might improve his comprehension skills (again in preparation for the exam). She said that she is not able to contact the school through the website and that's something that she would find useful.

Impact on learner

It is interesting to see how Yadav's production skills have developed – with regard to making PowerPoint animations – in this case study. It appears that the family have a strong culture for sharing knowledge and for education more generally: Yadav received support from his father when he was learning to use the computer, his mother gives Yadav support in preparing for the 11-plus exam and praises other things that he does on the computer, and Yadav tutors his younger brother, who is learning to use the computer. Yadav also described how learning about the computer in school originally sparked his interest, and that, because of his curiosity and enthusiasm for the computer, his knowledge has grown through self-directed exploration. Moreover, Yadav has clearly been committed to improving his PowerPoint stories and implicitly, his computer skills, through building and then refining each of the slide shows.

Conclusion

This case study shows how good access to a computer with Internet access can lead to creative outputs for a child interested in technology and enhancing the stories that he likes to make up. (Yadav refers to using the computer for a whole day to build an animated PowerPoint slide show.) Moreover, it seems that animating the stories has provided Yadav with the motivation to invent the stories in the first place, in the same way that the computer originally encouraged him to learn the alphabet. Therefore, the computer with Internet access has become a catalyst for literacy-based activities and hopefully further development.

Yadav's mother's description of Yadav taking the 11-plus exam and how she is supporting this shows that this family have high expectations and aspirations for Yadav and are committed to his education and learning. It's interesting how this support emerges in relation to providing Yadav with information about the exam rather than sitting one to one at the computer working together on a particular task such as homework. Presumably educational support in this family is more a matter of providing the right conditions for learning – of which the computer with Internet access plays a part – rather than having direct hands-on contact.

Case 5: EC

Theme 1iii:

1. Family context of learners' technology uses:

iii. concerns about safe and effective uses of the Internet.

Tags

Confident and safe use; primary; safety concerns.

Summary

This case study talks about a learner who is subject to a strict set of rules regarding her Internet usage, following an incident when she was younger, which compromised her safety. In particular, this case study is interesting because the learner has different computer access in two homes: with her mother during the week, and at her father's house at weekends.

This case is particularly pertinent to the theme of parental concerns about safe uses of the Internet, as the mother expresses worries about a variety of different technologies and also about her daughter's computer use when at her father's house, in particular the rules within the household to prevent the learner being exposed again to danger on the Internet.

Case information

- **Target case:** EC ('Erin')
- **Age:** 9–10
- **Gender:** Female
- **Institution:** Year 5 pupil, Primary 3
- **Other family interviewed:** Mother.

Family overview and history

Erin was in Year 4 at the time of the first interview in school and had progressed to Year 5 when the home visit was conducted during the autumn term of 2008. Erin was still attending Primary School 3 at the time of the second interview.

Erin lives with her mother, stepfather and three younger sisters under the age of eight. Erin comes from a split home and visits her father weekly.

There are two working laptops within Erin's home: one that Erin has full-time access to, but which has such a slow processor that it is almost unusable, and one that Erin has very limited access to, as it is the stepfather's personal laptop. Work on this laptop is restricted only to urgent homework tasks, under strict supervision. A third

computer in Erin's bedroom was donated by her father for her personal use, although this does not work. Erin has access to a fast working computer at her father's house. Erin experiences other barriers to using technologies at home, with no facilities to print and very limited facilities to use wireless Internet access, as discovered by the researchers when they were required to bring their own laptop into the home to allow Erin to demonstrate her favourite websites. Erin's mother explained, as the Internet connection failed on the researcher's laptop: "The Internet connection is actually not great, it does do this quite often."

Erin is said to have had computers around her for her whole life, even though it seems that since her father left, her computer use at home has diminished slightly. The uses of the computers within Erin's home are distributed across the family. The stepfather is said to use the laptop for email for work, and the mother is also permitted to use this laptop. However, the mother often chooses to use the slow computer during the day, suggesting that she puts it on and then goes back to it after an hour to see if it has loaded. The mother uses a computer about two to three times a week for a variety of tasks, including Facebook and shopping for food and on eBay. The mother also has an iTunes account and has suggested that she will share her music with Erin now that she also has an iPod. Access to this slow computer is also shared with two of Erin's younger sisters, who do activities such as playing on painting programs.

Erin's mother does not rate either her partner's or her own computer skills very highly and believes that a number of the tasks they do are really quite basic. Despite this, Erin's mother does try to help Erin when she is looking for a particular piece of information, as she understands the importance of using exactly the correct search terms. The only instance of the family spending time researching items together on the computer is when Erin and her mother look for clubs that Erin can go to. Thus it follows that Erin receives most of her technological knowledge from her father: "My partner's not very good. None of us are very good with computers. Erin's dad – obviously I'm not with him – but Erin's dad, he's the one who will teach her something if she needs to learn, rather than me or my partner, not very good. We can shop, and he does a lot of emailing through work."

Voice of the parent – mother

The nature of the family setup, with a perhaps lower level of computer expertise within Erin's immediate home environment, has led to an elevated level of concern for safety issues regarding a wide range of technologies and Internet sites. Part of the nature of this concern stems from the fact that the mother feels she cannot control Erin's experiences when she is at her father's house, and although she recognises that Erin's father might be an expert in computing, she worries that Erin will not be so closely scrutinised. In particular, the mother's concerns have become more ingrained after an incident when Erin was younger, where she and a few

friends managed to see something on the Internet that they were not supposed to, leading to her mother making a visit to the school to discuss the issue, which is recalled as a very unpleasant experience. This incident resulted in a six-month complete ban on the computer: “We got stung once before when [Erin] had a lot of free rein with the computer. And she had a lot – this was a couple of years ago now. She had a few friends round for a sleepover and they found something that they shouldn’t have done. And they had to go to the school and explain exactly what they found, and it was very humiliating.”

Erin’s mother now spends a great deal of time maintaining a set management regime by which she can monitor her daughter’s movements on the computer and protect her from any potentially harmful material that she might encounter. For example, she has imposed a ban on Erin visiting websites such as YouTube on her own, thus protecting her from this potential risk and enabling Erin’s mother to screen any items that Erin sees. However – confirming the mother’s concerns about Erin’s weekly visits to her father – Erin explained that she uses YouTube with her father, although her mother was apparently unaware of this until the interview.

Another aspect of computer safety that deeply concerns the mother is the presence of paedophilic contact on the Internet. Erin’s mother explained that her fear has been heightened by the media. She discusses with Erin the danger of online paedophiles: “I find it quite scary really. I don’t want her to be getting into meeting people that way... I’ve seen too many programmes of how paedophiles find children that way and it scares me. I don’t like – I’ve told her exactly in constant detail in what exactly they do and how they can trick her into giving information and things like that, so I think I’ve scared it out of her now. I’m hoping she doesn’t trust anybody on there that she hasn’t personally met.”

In order to counteract any potential threat Erin may face, her mother has imposed regulations on the types of utilities Erin is allowed to use on the computer. For example, aside from not being allowed to view YouTube alone, Erin is not allowed to speak to anybody online whom she has not met face to face, and is banned from visiting any social networking websites. Erin’s mother speaks critically about websites such as Stardolls, which Erin is a regular user of and that also have a social networking element: “She’s not allowed [to speak to strangers online]. She’s got a couple of friends on there who are my friends, who I know who they are, and she’s allowed to speak to them, but she’s not allowed to communicate with anybody she doesn’t know.”

Erin’s mother is confident that she has made the right decision in taking complete control, and refers to the incident that happened when Erin was younger as the reason behind her caution: “I decide what she goes on at the moment... But to be honest with you it is quite a dangerous place to be going into at the moment... Since [the incident] I think probably there’s nobody that would be giving her as harsh

lessons as I will. I'm quite honest with her. I think she's old enough to be honest with her, what the bad things that are on there."

Erin's mother makes a number of references to the physical monitoring of Erin's computer use. Her mother supervises Erin by only allowing her to use her partner's laptop when next to her mother in the kitchen, so that she can watch her. Thus Erin's mother justifies not having net-nanny software, as she regularly checks what Erin is doing: "I do nosy in sometimes. [...] I do obviously walk away from her and let her get on with it, just sticking my head around every half an hour."

Even after the consistent monitoring of Erin's movements, her mother admits to checking on Erin's computer use in private via website histories and looking at Erin's contact lists to see who she speaks to on MSN Messenger. Also, Erin's mother checks the emails that Erin receives, revealing what she has been doing and whether people have contacted her.

Erin's mother also displays anxiety about Erin spending too much time on the computer overall, and would rather that she spent time playing and completing more creative activities. (This may suggest a reason why the main computer has not been fixed: Erin's mother can ensure that Erin uses the computer only in her mother's vicinity.) Thus it is of little surprise that Erin's mother is concerned about the length of time Erin might spend on the computer when visiting her father, implying that she wishes she could also control this situation.

Erin's mother is not just concerned about her daughter's use of the computer and the Internet, but also about other activities, including Erin's use of a mobile phone. Erin was given a mobile phone by her grandmother, although Erin's mother did not want to let her daughter have a phone at such a young age. Erin's mother thinks that ownership of a mobile phone both makes Erin a target to be bullied and provides an excuse for her daughter to show off to others who are not so fortunate. Erin's mother is particularly concerned about her child being involved in a culture of making others unhappy because they do not have phones:

"She shouldn't have a mobile phone, but I got outvoted by that one. That's another thing: I don't think they should have them until they go to secondary school either... don't need them. The only reason she needs a mobile phone is so that she can go to school and say 'I've got a mobile phone', and it's attractive to bullies and all sorts."

Erin's mother is also concerned about the cost of using the phone. However, Erin's mother has been pleasantly surprised by Erin's use of the phone, commenting that she rarely replies to texts and seems to be using the device maturely.

Erin's use of a mobile phone reflects her mother's preferred approach to using a computer: not as something to depend on, but something that can supplement other options such as researching via books (Erin has a number of paper encyclopaedias

that she can refer to). When asked what she would like her daughter to get out of her uses of the computer, Erin's mother is confident that things are working well at present:

"She doesn't use it every day, it's not something that rules her life. She knows it's there, she knows how to work it, and if she needs information or needs to find something out – in exactly the same way I do... I want her to go to refer to it when she needs it, but all in all I do prefer she uses her books and more traditional ways of doing her homework, and using the Internet as a backup rather than ruling her life."

Overall, the mother described Erin as quite an effective user of technology, who rarely asks for help with her homework and uses other sources such as encyclopedias for research. Erin is described as enjoying research on the computer, particular when it comes to researching her own interests such as the ancient Egyptians and Tudors.

Erin regularly visits a site called Stardolls, which her mother described is for dressing up cartoon dolls. Other activities highlighted by the mother as being regularly employed by Erin are using email via a Hotmail account and playing on a site called ToonTown. Erin also uses image-manipulation software for photos and is a regular if sporadic user of a Playstation, Wii and Nintendo DS. However, Erin's mother does not think that Erin is particularly competent at resolving problems on the computer, and would perhaps like Erin to become a more skilled computer user: "Knowing Erin, she would probably click buttons and then turn it off thinking that she'd broken it and pretend she hadn't! I don't know. We've never really had any – I suspect that's what she would do."

Voice of the learner – Erin

The data collected from Erin was far less detailed than that from the mother, as the pair were situated around the same table and difficulties were encountered with recording two concurrent conversations. However, the interaction between the learner and her mother did reveal a number of interesting controversies regarding the mother's wishes and the learner's actions. For example, Erin's mother suggested that Erin does not go on YouTube without her. Erin in this case explained to the second interviewer her interest in searching for songs on YouTube, as they often have lyrics. Here is the discussion between Erin and her mother as Erin looks at an S Club 7 track on YouTube:

Erin: "It's one of my favourites."

Erin's mother: "So you do look through YouTube. Have I answered that wrong?"

Erin: "With Daddy!"

Other than this, Erin's use of the interviewer's laptop reflected largely the impression of Internet use that the mother had expressed. Erin highlighted her favourite website as being Stardolls, explaining that currency for the site can either be earned by frequently visiting the website, as she does, or by paying £2, for example to buy 2,000 'Star dollars'. This currency allows the user to buy new clothes for their wardrobes; the user has various options for the virtual wardrobe, including locking certain drawers from others. Erin showed the interviewer the doll that she dresses up and the wardrobe where she can store clothes that she has bought from the site.

Relating to her mother's concern about talking to people online, Erin also recognises the danger of talking to other members on the Stardolls website: "You can [talk to others], but I don't actually like to... because some of the people you don't know. So you don't actually talk to them." However, Erin's mother is surprised that Erin has friends on this website, explaining that she specifically told Erin not to befriend people on the site:

Erin's mother: "She's not allowed. I don't let her do [social networking]. The Stardolls is actually – there's a lot of people on there, they can talk amongst themselves, and I've told her not to..."

Erin: "I still have friends; I just don't talk to them."

Erin's mother: "But I told you not to though, have them on there though! She's not allowed."

The websites that Erin demonstrated fell into two fairly distinctive categories: those relevant to school and research, and those important for gaming and fun. The majority of sites that Erin demonstrated related to research, perhaps because Erin felt the need to highlight the sites she uses most at her mother's house, as her Internet time here is generally limited only to educational activities as opposed to the more leisure-based sites she has allocated time for at her father's. During the interview, Erin visited the school website in order to show links that the school provides to an independent science website. On this science web page, Erin demonstrated the use of an interactive Flash game for learning about mechanics, in which she can test particular movements and the impact of changing gradients in response to an on-screen mechanics query. Erin also visited the Bitesize revision website, which she finds interesting.

Erin has two email accounts: one that she uses only to contact her father, and one that she uses for everyone else, although she struggled to log in to it during the interview. However, Erin explained that she uses instant messaging mainly so that she can access emails easily as opposed to talking, her reasoning being that very often people are not online and the only people she is allowed to talk to are her family and very limited friends. The last website Erin demonstrated in the interview

was Disney's ToonTown – a game where the user battles with the evil Cogs using a variety of implements including lipstick and flowers. When asked whether she plays this game regularly, Erin replied: "A lot! At my dad's." Thus it appears that a distinct boundary has formed between the limited amount of educational research that Erin is allowed to carry out on the computer at home, and her comparatively unlimited leisure activities on the computer at her father's house.

However, Erin's limited computer use at her mother's house has not restricted her capacity to use the Internet efficiently. Erin employs a large range of efficient searching methods, which she demonstrated during the interview on an unfamiliar laptop where she did not have access to saved favorites and history links. Erin explained a number of different routes to finding particular sites, for example by typing in address names in the address bar, finding research materials via her school website, emails via her MSN Messenger page, and by using Google search to find search terms such as 'youtube' and 'Romans'. During her demonstration of a Google search for Romans, Erin explained "... you just pick the one that you think will have the most information on it", picking a BBC site as an example of an informative page she had discovered previously.

Impact on learner

Erin's mother's extensive preoccupation with keeping Erin safe from possible dangers on the Internet has possibly limited Erin's Internet access options when at home, and perhaps has played a part in her mother not replacing the shared family computer when it became very slow. However, Erin's mother fears a lack of control over Erin's computer use when Erin visits her father, where she is apparently allowed greater access to the computer and can take part in certain leisure activities, including visiting gaming sites. Indeed, some of these uses actively contravene rules that Erin's mother has in place for limiting friendships online and avoiding 'bad' material. Despite this, Erin has become very skilled in researching information, and has discovered a reliable set of websites that she can use within her homework. Erin has also become very good at articulating the risks on the Internet and is particularly aware of the risk of befriending strangers online. Erin appears to accept her mother's beliefs and concerns about her computer use, and no particularly controversial sites emerged (although this may in part be due to the parent and child sitting in close proximity during the interview).

Conclusion

This case study focuses on a learner who is restricted in her computer use within her main home environment, but is unusual in that she experiences a far wider range of activities at weekends when she stays with her father. Importantly, Erin's mother suggests that it is within the father's house that Erin receives most stimulation for improving her computing knowledge, as the father is the most computer-knowledgeable family member. The mother's and father's contrasting views on the

use of the Internet affect Erin's experiences outside and inside her main environment. The limited access that Erin has to computers at home has only a small impact on Erin's learning, because she receives a more varied computer experience at her father's house.

Perhaps the mother might benefit from a greater understanding of how the computer works in order to help her daughter up-skill when the computer goes wrong. It could be argued too that the family would benefit from being able to use a more efficient computer, so that they can experience a greater range of family learning activities.

Case 6: TU

Theme 1iii:

1. Family context of learners' technology uses:

iii. concerns about safe and effective uses of the Internet.

Tags

Confident and safe use; primary; access; safety; skills.

Summary

This case study focuses on the theme of safe and effective uses through close examination of the uses of the Internet by Tasha, a nine-year-old girl. Tasha's mother described the concerns she has about the limitations of using technology for learning and therefore how Tasha is limited to 30 minutes' computer use each day, and an hour at weekends.

Case information

- **Target case:** TU ('Tasha')
- **Age:** 9
- **Gender:** Female
- **Institution:** Year 5 pupil, Primary 4
- **Other family interviewed:** Mother.

Family overview and history

Tasha's family are made up of a mother, father and older sister aged 12. This family are long-term users of computers – the children are unable to remember a time when they did not have one. The family went to live in the USA when Tasha was four years old and returned a couple of years ago. The mother is self-employed and works from home running her own company; the father works for a charity.

The family have two Mac computers, and although the mother said she bought these for herself, now the laptop is used by everybody. In general, the parents prefer their two daughters to use the laptop downstairs, but sometimes the daughters also use the desktop upstairs because the screen is bigger and upstairs is quieter for getting school work done. The family use a wireless broadband network which the mother brought somebody in to set up. The mother said that, in general, she is the expert in the house at particular programs such as Microsoft Office applications. Nevertheless, the mother said that her husband also has good skills. During the interview, Tasha sat on the sofa with a laptop on her knees – her usual location when using the computer.

Tasha explained that she uses the computer for learning; for example, she uses Google for research, Word for writing and sometimes a maths site which contains times tables. In her own time, she likes to play games on the computer and complete puzzles, play Club Penguin, send emails, use Skype for keeping in touch with friends and family abroad and sometimes watch TV on demand, particularly old episodes of Doctor Who. Tasha also owns a digital camera and a Nintendo DS Lite, on which she likes to play Animal Crossing and Nintendogs.

Voice of the learner – Tasha

Tasha's uses of the computer did not seem very expansive compared with what she might have been doing. This may be the result of the 30-minute time limit that her parents impose. Nevertheless, Tasha was able to explain the workings of Club Penguin in great depth, suggesting that perhaps she spends a lot of time there.

In relation to her schooling, Tasha said that she had found a useful maths site which she now regularly visits to learn her times tables. To find this site she had gone on Google and entered 'maths' and 'four times table'. She said that she liked to visit sites which "help you think". One such website that she likes to visit and is focused on learning mathematics is Maths is Fun. Tasha said that apart from that, she does not do much on the computer for her homework: she gets homework only one night a week. Sometimes Tasha practises her writing using Microsoft Word. In Year 4, Tasha completed a project on endangered animals in the rainforest and used the Internet for research. Tasha also looks up words that she cannot spell by putting them into Google; she finds then that the search engine brings up the correct spelling.

Outside of school uses, Tasha enjoys puzzles; she showed one where you move tiles around a box into a particular sequence. She also uses an animated touch-typing site, where a turtle encourages the user to use the correct finger to press each letter. She said that this didn't feel like a game, but it did feel like she was learning something. Tasha seems particularly keen on Club Penguin and described the functionality of the site in great detail. One of the attractions seems to be that Tasha can make friends on this website, although she seemed only to have one, and it was

not clear if this was a friend that she had first met online: “You can make loads of friends, so there’s like a smiley face, so there’s like a friend on this particular server [...] so there’s a map and you can go anywhere on the map. There’s also some secret places.” Tasha described how you can become a secret agent, and you can visit the beach, Plaza and coffee shop. She demonstrated how it is possible to collect pens, choose what your penguin wears, become a black belt or Ninja penguin, and basically have fun. When asked about the people that she communicates with, she said that they were ‘random people’ from all around the world. She seemed to particularly enjoy acquiring ‘puffles’ – a kind of penguin pet which can eat, play, sleep and go for walks with you. Tasha also explained that she was not a member, because you can do almost the same things without membership as with it, so membership did not seem to be good value for money. The website showed that Tasha had been using Club Penguin for 139 days; Tasha explained that the longer you are registered, the more areas you can access.

Tasha also talked about using Skype to speak to friends abroad, which she said she did occasionally. Tasha does not use MSN Messenger – although her older sister does – because her mother will not allow her an account until she is a certain age. She said that she does not tend to open more than one window at a time, preferring just to focus on one application. She also said that she used YouTube for watching Doctor Who episodes that she had missed while she was in the USA; however, it sounded from the interview with her mother as if Tasha was actually using iPlayer to watch programmes.

Voice of the parent – mother

Although Tasha’s mother and father are extremely keen to support Tasha’s (and her older sister’s) education, Tasha’s mother challenges the idea that computers necessarily enhance learning and education. As mentioned earlier, both daughters’ uses are tightly restricted to 30 minutes on weekdays, with a buzzer to show when time is up. Tasha’s mother said that this is because they want their children to engage in a range of activities:

“I’m quite strict about computer use. We restrict them to half an hour a day which we time. They put the timer on; when the buzzer goes, they’re supposed to come off. Because I have always – we’ve always encouraged them to spend their time in other ways in addition to the computer.”

Tasha’s mother added that there are similar rules for the television. In fact, if one of the daughters has been on the computer that can also have an impact on the time they are allowed to watch television.

Interestingly, and in line with the strict time limitations placed on the children’s uses of the computer, Tasha’s mother said that she never encourages her children to go on the computer. She said that because both daughters are very conscious of the

presence of the computer, she does not need to encourage them. Moreover, she said that her eldest daughter's homework is often carried out on the computer: she has to log in to access her homework and then she must complete it online.

Tasha's mother said that she encouraged her daughters to use books such as encyclopaedias for research. She was resistant to over-encouraging computer use, although she thought the computer had some educational value, for example for homework such as maths, but she did not really see the value of activities such as Club Penguin. Tasha's mother said she would prefer her children to play, face to face, with friends. Even then, in relation to maths homework, Tasha's mother said that her older daughter is tested online, as homework, and the teacher can then access the results; however, the website does not explain to her daughter why she might have got something wrong, which Tasha's mother thought was unhelpful. Furthermore, in relation to searching the Internet for homework purposes, she questioned the quality of what was online:

"I'm sceptical about the quality of the information which can be found on the Internet, which is why I will always go to a book first, if we have it on the shelf."

In general, Tasha's mother seemed more concerned about the educational value of her daughters using the computer and Internet than she did about safety issues such as contact with strangers and looking at pornography. Nevertheless, Tasha's mother said that she did worry sometimes about her daughters using Google, as "anything could pop up". She said that she had tried to make them aware of this and of not inputting personal information; sometimes she sat with her daughters when they were doing searches for homework, but only if they wanted her to. She said that the more familiar pattern was that Tasha would go upstairs to complete a piece of writing for school and that, when she had completed it, she would bring it down to show her mum.

Tasha's mother said that in general the girls had learnt their skills both from her and also from school. She had tried to teach her daughters to recognise what's 'official' information and what's not. She also had concerns about plagiarism and that the Internet can lead to shallow approaches to learning:

"... so easy to kind of copy out or cut and paste whole chunks of text that, for a homework assignment or something – that would be quite easy and that's something that I don't want to, you know – I want to encourage them to think for themselves, be creative in their thinking."

Tasha's mother also said that the family do not sit around the computer together very often: the computer is not the focus of family time together. Nevertheless, she said that sometimes they use Skype to talk to friends and family, and look at photographs from abroad. In relation to spending time as a family, she said that once a week they

have a movie night, when they watch a film they have rented. Otherwise, the parents discourage the children from watching television, although the daughters do like to watch Doctor Who and animal programmes.

Impact on learner

It is not easy to establish exactly what the impact is of the strict limits on computer use. It is clear that Tasha's mother is a concerned and thoughtful parent who, although very keen to support her daughter's education and learning, does not assume that the computer with Internet access is the best means of doing this. In the interview, Tasha's mother emphasised more traditional routes: using books such as encyclopaedias for learning. Moreover, Tasha's mother is demanding in terms of what she expects from Tasha's learning: she questions the quality of information available on the web and is concerned that copying and pasting can lead to shallow approaches to learning. Tasha may be being instilled with a sense of the importance of education and learning more generally – indeed she talks of liking online activities which “help you think” – without being overly reliant on the computer. The strict time restrictions are also likely to be teaching Tasha that time is not to be wasted.

Conclusion

This is an interesting case study which shows a mother's wish that her child should enjoy the benefits of education, in a family where the parents do not necessarily assume that technology is of greater benefit than a range of other offline activities for learning. Nevertheless, these parents assume that their daughters will use technology in any case, and so are taking for granted any benefits. Although Tasha's uses may seem to lack breadth, her articulation of the functionality of Club Penguin shows that she is extremely adept at understanding and using computers. Tasha's motivation for using the computer also suggests that given the choice, she would spend more time online than her mother would like her to. Given the strength of support for education generally within the home, it is difficult to establish whether Tasha would learn more if she had greater access to the computer and the Internet.

Case 7: CE

Theme 1iv:

1. Family context of learners' technology uses:

- iv. extent and nature of parental engagement in children's uses of technologies for learning.

Tags

Family learning; deep and higher order learning; primary; parental engagement; parents' technology skill.

Summary

This case study gives a strong illustration of how parental engagement in a child's learning activities is mediated in a variety of ways through the technologies available in the home, and how those technologies also specifically stimulate a particularly high level of parental engagement in that learning.

Case information

- **Target case:** CE ('Callum')
- **Age:** 15
- **Gender:** Male
- **Institution:** Year 11 pupil, Secondary 2
- **Other family interviewed:** Mother.

Family overview and history

Callum was in Year 10 at the time of the first interview in school and had progressed to Year 11 when we conducted the home visit during the autumn term of 2008. His secondary school has specialist status in maths and computing.

Callum is from a one-parent family; his father has lived in another part of the country for several years now (Callum is in regular contact). Callum's brother is in his first term at university. The father of Callum's mother closely supports her.

Callum had a quite bad leg injury in his first term at secondary school, and had to rest at home for several months. His mother was worried that Callum would stay at home playing computer games; that concern is still evident, but in fact Callum gets out and about quite normally now.

There are three working computers in the house, one of which is broken and is about to be repaired by the older brother, who is coming back from university to do so – he is the technology expert in the house, although clearly Callum is also quite able in many respects, because he ensures that virus checks are carried out every few days, and appears to be a generally competent user.

The main family computer, and the one that is connected to broadband Internet, lives in the dining room, where it is always visible to Callum's mother, but as Callum explained: "If people come round, we do usually take all that stuff out and put it somewhere else and then have the dining table." The three machines currently in the home (not counting the Apple laptop that Callum's brother has for his studies at university) include what is now quite an old one, which used to be kept in the playroom, as Callum's mother explained: "... for a very good reason, because I wanted to know absolutely everything they were doing all of the time. It's got a glass door into the kitchen, so I'm completely aware of what's going on in there."

Eventually, though, this one was augmented, because as Callum's mother explained:

"When Callum started secondary school, my dad said 'You can't have just one: these days you need one for each child. What happens if they both have homework that involves the Internet?' So he bought us a laptop and then, if they both needed it at the same time, one had the laptop and one had the main one."

Computers have long played an important role in family life, to the extent that "when we just had one and at one point it died and had to go off to the computer doctor, we found that we couldn't live without it and we were using the free access at ... the public library."

Callum's mother reckons the family has had broadband for about four years, with her sons – especially the older one – having impressed upon her that this was necessary for their game playing: "We started off on a dial up, but then Xbox 360 came out and had this [bright] idea whereby you can play anybody in the world, and at the time their cousins were living in the States. We couldn't do dial up any more, so we went broadband." For a while, Callum's mother insisted that her older son paid half the cost through his paper round: "I felt that I had no need of broadband. I was quite happy to stay on dial up, so I'm... since my ex husband left I've, um, been on the benefits system, so, um, money's tight." Callum's mother now pays the full cost, and the family have moved to wireless broadband, although the older son also uses a 3G dongle connection.

Voice of the learner – Callum

Callum comes across as a highly competent technology user in most respects. The range of activities that he undertakes appears fairly typical of many boys of his age – games, communication with friends via MSN Messenger and Bebo, using iPlayer to catch up on missed television programmes, using mainstream applications for producing homework, and using Google and Wikipedia for finding information and material relevant to homework. In terms of his uses of these resources, Callum appears to be a fairly high and able user, although like very many such users at this age, there are notable gaps in his knowledge. When asked about the specifications of the computer he is using, he explained that "usually I just read the sticker", and reveals that he has no idea how much RAM or memory his computer has, because these details are the domain of his older brother. Nonetheless, his computer desktop revealed that he manages a wide range of applications in an organised and able manner.

Callum is clearly very much at ease with a multi-tasking approach to his technology use: "Usually I'll have two tabs – maybe one for Bebo, one for Google or a game maybe that I'm playing – and then I'll have MSN and then that's really it, and iTunes. [...] I prefer playing games when I'm listening to music."

Callum's uses of technology for school work are typical of many of the learners of this age that we have spoken to, involving mainstream word-processing, presentation and spreadsheets packages for things like essays, physics research and business studies: "I've got spreadsheets for accounting, and PowerPoint for presentations for trying to sell a product, but mostly Word." In doing his school work, Callum makes substantial use of the most popular search resources on the Internet, but in a way that displays a fairly well-developed and sophisticated set of procedures:

"First of all I would Google it. I recently did one for biology where I was looking at cystic fibrosis. [...] Yeah, so I'd do that, see if I could find anything relevant and then I'd open a new tab and go straight to Wikipedia, because Wikipedia is really useful... If I couldn't find what I was looking for in the contents, I would use the Find function, yes. [...] That one I would go to first because it said [Cystic Fibrosis] Trust. [...] And then I would go to the one... You know you can trust it if it has 'org' in it really. Then I might go to this one, because it's a leaflet, so it's been written by someone who knows what they're talking about. [...] And then I would just go for something in the title or in the little thing that I think might come in handy. So if it says how it's inherited, I would click on that because I wanted to know about how it was inherited as well."

Callum's sources of information for school work are mainly on the Internet, although his mother also does her best to ensure that he also explores sources other than this:

"I get like virtually all of it from the web. My mum... if it's a big project like a piece of coursework, Mum quite often goes to the library and gets a book. For example, history: my history coursework on the civil rights movement in the 1950s; she went to the library and got some books on the civil rights movement, and I had a look through those."

As Callum's mother makes clear (see next section), she expects to be regularly involved in and informed about Callum's technology-related activities. Callum does not seem to have a problem with this, recognising that it is his mother's role to regulate him to some extent: "She just tells me to get off and do work... On the computer, she will help with work and um... work really, and she says 'Who are you talking to?' on MSN and stuff like that." Although Callum clearly values his independence as a technology user, he appears happy to co-operate with his mother – perhaps as a means of securing greater freedom than he would have otherwise.

Callum engages in a great deal of online communication and games playing. Callum plays online with family – including his brother at university and cousins in Wales – and with a wide network of strangers across the world. Callum said that he is very open with his mother about what he does in this respect, and about the fact that he

plays with people he has come to know through online games playing: "... If I'm doing Campaign, I'm probably doing it co-op, and if I'm online, I'm with people I know. It's very rare that I'm on my own, if no one's online. This particular game is an 18 – just to warn you [laughs]. My mum doesn't mind, I've asked her and she said that's okay."

In the course of these activities, Callum appears to be developing a good range of strategies for collaborative games playing and appears to be well-informed about and interested in the nature and background of the games that he plays: "It's quite apocalyptic. [...] it's set quite far in the future. Um, humans are on a planet and they've come to the planet; they've made towns and cities and stuff and then you find that a being call the Locust lives underneath, and it was their planet and they live underneath the ground. ...[there's a] back story as well, because you get... because from the game you get what's happening, but you don't get really why it's happening, and things like this can help. [...] Several books came out, I think there was about five books about the back story."

In addition to his normal daily technology activities involving school work, games playing, TV viewing on the computer and communicating with friends via Bebo and MSN Messenger, Callum has developed a strong interest in music technology, especially using Sibelius – which he uses both for school work and for fun:

"If I'm sitting at the PC, I'm usually just... the keyboard's on and I'm just playing something random with my left hand, and that's where my ideas come from, from me just randomly playing something and then I think 'That sounds quite nice, I could do...', so I go on, notate it and then I'll build on it with other instruments and stuff."

In addition, Callum uses the Internet for other sources of musical information:

"I use it really to... um, I learn tunes off YouTube for the piano. ... You type in a Cold Play Clocks tutorial, and it will be a camera facing you, and it just tells you the finger positions and when to play it. And I find it really useful because I learn quite well like that. I also use it for reviews of products which I'm thinking of buying, reviews of games which I'm thinking of buying."

In all of these activities, it is apparent that Callum has worked out quite a complex set of informal learning behaviours which, as the next section suggests, form the basis for potential long-term interests and study in his life.

The overall impression, therefore, that Callum gives about himself is of a self-motivated learner who has constructed, with the support of his older brother and other family members in the first instance but now through his own initiatives, a wide repertoire of technology-based activities that address both personal entertainment and social needs, and provide quite rich scope for a range of activities that contain a

variety of opportunities for learning, some relatively pedestrian and others rather more creative.

Voice of the parent – mother

Callum's mother recognises that she is "not at the level they [her sons] are" when it comes to computers and the Internet, but she is in fact a regular user, even if not particularly sophisticated: "I go on it quite a lot, but I stick to my basics. I use email; I find road directions using maps and things." But this does not discourage her from keeping a constant eye on how Callum uses his technology ("I do hover"), how he gets on with his learning, as well as attempting to obtain information online from Callum's school. Although she has concerns about safety, Callum's mother appears confident that Callum generally acts in a responsible way (nothing Callum told us contradicted that belief): "He hasn't put his photo on Bebo, because I said I would prefer it if you didn't."

Callum's mother, with the help of her father, works hard to maintain family closeness, and is happy to use technology in support of that, mentioning the fact for instance that her father bought a Skype phone so "... then we could all gather around the computer and, you know, talk to him together." In fact, Callum's mother has spoken to her older son every single day since he went to university – "We couldn't have done that without the computer, because we couldn't have spoken for three quarters of an hour when one or other of us was paying a bill." It appears that her engagement with her older son using technology encompasses both emotional support during the potentially difficult first term away from home and conversations about his university work.

As far as Callum is concerned, it appears that his mother has a fairly realistic understanding of how he operates, and acts accordingly in trying to encourage him to make the best of his time and technology uses, recognising that educational activities compete with other priorities:

"... he's a teenager and he wants to be playing on his Xbox 360 or playing his keyboard or chatting with his friends. [...] he tends to come home and if I start... you know, if he walks in the door and it's like homework straight away, which is what [Callum's brother] used to do, that really doesn't work with Callum, he's got to have some chill-out time. [...] it's better if you can catch him after supper. So you've dragged him away from the machine to sit at the table to eat and then before he sort of is drawn back by some magnetised force... You have to sort of try and catch him before he starts another game, because once he's started on another game, you're on a sticky wicket basically."

Callum's mother is both sympathetic and realistic about her son, and about what she must do to gain his co-operation, and at times somewhat negative about his capacity to work hard, which at times leads her to assume the worst about his approach to

using the Internet at home for his school work: “School you study, home you enjoy, therefore homework is a bit of an issue before we start. But homework, okay, you just have to grit your teeth and do it, but if you do it as fast as possible, it’s done. And therefore, of course, Wikipedia is his easiest option, because if he can just copy and paste from the whole lot, he doesn’t actually have to investigate further.” On this basis, Callum’s mother thinks she has a very clear educational role to play in helping him to use the Internet effectively for school-related searching. The key need, as Callum’s mother sees it, is to teach Callum to “... sort the wheat from the chaff; even if you’re not getting dodgy sites, you know, his instant reaction is to use Wikipedia, and I’m saying ‘Well don’t rely on it solely. It can give you an overview, but it’s not going to be the be all and end all. Why don’t you try this site or that site?’” Callum’s mother in fact becomes very engaged at times by her high level of involvement in Callum’s learning: “I enjoy talking about it and, um, whichever morning it was when I walked upstairs to wake him upstairs, I said, ‘Barack Obama has won; don’t you think in view of how we spent the last fortnight, and you’ve been doing bus boycotts and, you know, Emmett Till’s murder – don’t you think that they’ve come a long way?’”

Nonetheless, it is clear that Callum’s mother’s view of Callum’s searching techniques is not very much in accord with his. Although Callum offered the example of searching for information about cystic fibrosis as a good example of his effective searching technique, his mother viewed this as characteristically superficial: “I was saying, well you know, somebody who has had a bad personal experience of cystic fibrosis or Huntington’s might not give you the full picture – as opposed to how you get it, what your symptoms are, what the prognosis is – and give you a balanced view of all of them. I said you’ve got to be careful how you choose your sites here. Um, and that doesn’t occur to him: he just wants to click on the one with the most information, copy and paste the lot, probably not even correct the American spelling, which winds me up no end, and you’re lucky if he reads it, unless I say to him, ‘Read it out to me; tell me the words that you don’t understand.’”

This concern about Callum’s learning also means that his mother is constantly keen to learn more about his current work requirements and about his options for the future, by making regular use of the school’s learning platform, which at the time of interviewing she experienced as frustrating on occasions:

“Well, I went on the math’s department’s website and it said ‘meet our staff’. And I thought ‘great!’ And then it didn’t tell me any of the staff. [...] I’m the sort of parent that doesn’t just sit back and let it all happen; I am actively involved. [...] I need better information, and it’s no good me clicking on ‘maths department’, ‘meet our staff’ and then a plain page not helping me.”

Impact on learner

Overall, it appears that the presence and continual use of technology in this home enables Callum's mother to know about and engage in Callum's learning. Callum's mother is probably the kind of parent who would be engaged with or without the presence of technology, but it does also appear that in some respects technology creates new sources of anxiety for her, in terms of risks to safety and the opportunity to produce poor quality work quickly and easily, while also providing the means for engaging directly with Callum to help him become a more responsible learner.

It is not possible to gauge how effective Callum's mother's interventions are, but the evidence of this first case study visit suggests that Callum and his mother, between them (with occasional contributions from both grandfather and brother), have achieved a high level of awareness regarding Callum's learning activities in the home, which enables an ongoing and potentially valuable dialogue about good and bad practices. This interaction has involved Callum's mother learning about the things that Callum is able to do, as well as trying to teach him to do things in the ways that she thinks best. For instance, Callum's mother talks of one occasion when she tried to demonstrate that Callum cannot play a computer game and answer questions on physics from her in preparation for a school test at the same time: "I'm sitting there and I'm thinking, please get it wrong so I can get cross and say turn it off! But he gets it right, because he can multi-task..."

The most striking example of Callum's mother's involvement can be found in what she had to say about Callum's use of Sibelius – software that seems to have had a positive impact in terms of possible future directions for Callum's learning:

"I do approve of that. And interestingly he's got to choose his A levels next week. How can he choose his A levels when he hasn't even sat his mock GCSE's? ... and we're having a big conversation because he is quite tempted by the thought of music at A level, or music technology at A level, or music and music technology at A level..... And I don't think, without having Sibelius at home... I'm not sure I would have been as supportive, because of course I can't see what he's doing at school. If we hadn't had Sibelius, I don't think I would really understand why he wants to do something like music technology. Or I'd think 'Is this just a flash in the pan?' But, you know, I've seen him..."

Callum is quite possibly more thoughtful and perceptive about how he operates than his mother gives him credit for, and he therefore has quite a complicated job to do in maintaining good and co-operative relations with her around his work, while developing his own personal practices in ways that are quite possibly more appropriate than she recognises. Such a process of negotiation and compromise is a normal part of family life, but it nonetheless raises questions about how parental anxieties may sometimes create problems in terms of constraining desirable learning

about using the Internet, for instance, in the very process of trying to discourage careless and rapid Internet searching.

Conclusion

It appears that technology in this home has a considerable impact on Callum's learning, as well as on his life more broadly. Technology forms a nexus for family activities and a focus for his mother's characteristically strong involvement in Callum's learning. Callum's mother appears both to respect Callum's intelligence in certain respects but to doubt his reliability as a teenage learner. Thus she engages very consistently and directly in Callum's learning and, to some extent, attempts to keep his wider uses of technology under control so that they do not distract from the increasingly urgent demands of studying for GCSEs. At the same time, the presence of technologies in this particular home means that knowledge about current and future learning is high and is talked about regularly. From Callum's point of view, this might sometimes mean that he has to moderate his inclinations in the light of his mother's concerns, but at the same time he receives a very high level of support, and – as the comments above regarding Sibelius demonstrate – is able to demonstrate that activities that might otherwise have been viewed as dubious are in fact of real value, by virtue of their being shared between Callum and his mother on a regular basis.

This is a strong example of parental involvement in a learner's technology-supported learning: interactions around learning are frequent and detailed, to some extent at least because of the need to engage directly with the learning through technology for a variety of reasons. Callum engages with his mother partly in order to secure the levels of access he needs for his personal interests and partly because he is willing to negotiate and adapt his uses of technology; Callum's mother is willing to accept and live with some of his practices, even if these do at times frustrate her.

It is possible to detect in Callum's technology-related behaviours the development of practices that might form part of his learning and working life in future, even if at present these are largely viewed as being primarily recreational or hobby related. At the same time, both anxieties and hopes relating to technologies in the home seem to have stimulated ongoing attention to and interest in activities and processes of learning which embrace a wide range of family activities. Such a constant involvement with technologies, and with learning for that matter, would not suit every family, but in the case of Callum and his family it seems to be highly productive, and does show how the home computer can constitute a focus for family engagement with learning in various ways.

Case 8: CL

Theme 1iv:

1. Family context of learners' technology uses:

- iv. extent and nature of parental engagement in children's uses of technologies for learning.

Tags

Family learning; primary; parental engagement; parents' technology skill.

Summary

This case study talks about the importance of parental engagement in the development of children's uses of technology, and how this engagement might relate to the learner's specific informal learning practices. The case study both reflects direct engagement with technology in order to support formal learning for school work, and the development of knowledge about technology in order to support the pursuit of hobbies and skills useful to the career development of the learner. In this case, the learner is at primary school and so parental engagement is at a vital stage of the child's life where it can be argued, therefore, to play a major role in the learner's technological development.

Case information

- **Target case:** CL ('Colin')
- **Age:** 9–10
- **Gender:** Male
- **Institution:** Year 5 pupil, Primary 1
- **Other family interviewed:** Mother and father.

Family overview and history

Colin was in Year 4 at the time of the first interview in school and had progressed to Year 5 when the home visit was conducted during the autumn term of 2008. He was still attending Primary School 1 at the time of the second interview.

Colin's direct family is made up of a mother and father. The family home has had broadband since 1997 when the main family computer was upstairs. When Colin was younger, he spent a large amount of time going up and down the stairs to ask for help on the computer. Thus the father brought the computer downstairs and placed it on a table in a more public area (the lounge) to enable both parents to monitor Colin on the computer. The computer is intended for Colin's father's use, and Colin's use of it is limited and strictly monitored.

Colin's father is quite an intensive computer user, occasionally using it for work at home (about twice a month), and also using it extensively away from home. Colin's father also uses the computer at home for more practical or leisure-based activities

such as checking emails, Internet banking and listening to the radio. Colin's father demonstrates quite advanced computing skills: he created his own website to share photos with extended family across the globe and helped Colin create a website to display his Lego creations. The father is also an active user of sites such as YouTube; he noted that: "[Colin's mum's] dad was playing steel pan and I had clips, so I uploaded these clips, plus I had some video clips from many, many, many, years ago when my uncle and my aunts were young, so I uploaded that information so they could see wherever they are."

Comparatively, Colin's mother is a much lower computer user, as she does not use the computer or Internet at all, preferring to switch off at the end of an evening. Colin's mother's main purpose for using the computer is to buy airline tickets to visit her family. Although she displays limited computer skills, Colin's mother recognises the need to develop these in order to continue in a career. Thus the mother's lack of technological skill may partly be influencing the parental encouragement of Colin's use of the computer, to ensure that he develops the technological skills which his mother lacks and is clearly concerned about: "I know I can't avoid it. It's something I'll have to face, you know, once I get back to work... If I need to learn, then yes I would. But as long as I can avoid it, yes!"

Voices of the parents – mother and father

With technological experience at two different ends of the skill spectrum, both the mother and father are adamant that technology is important to Colin's future and that the development of these skills will be directly relevant both to his studies and his future career choices. Colin's parents express the view that technological developments are continually occurring in the world and it is important to keep up with this momentum; it is possible that the mother's own insecurities about not having the necessary computer literacy skills have led her to feel she must not impose these same limitations upon her son: "It's something you can't take for granted at all really. It's become a way of life... I think it wouldn't be fair on him for his future to deny him the right to get the exposure of a computer."

Similarly, the father has experience of holding a busy computer-orientated working role, and therefore expresses the need for Colin to have computer skills in order to understand others around him in the workplace "because everywhere today, in all the jobs, you know there's use of computers – you can't escape that. So the more skill he has, the more he understands how people use them, you know, it just gives him a better chance in life with jobs and you know his work future and studies."

In order to ensure that Colin gets the full extent of learning from digital technologies, both parents talk about how they prioritise Colin completing his homework before allowing him to play games on the computer. Importantly, however, Colin sees his computer use as more valuable for fun activities, perhaps because a large amount of his homework is paper based at this young age and does not require a computer. It

may also be because his parents request that Colin completes any educational-related activities such as violin practice in preference to games, therefore increasing the value of the limited time available to enjoy the computer: “The priority is his homework or whatever. If he is doing a project – you know, if he is doing an exam soon for his violin – so that would come first. So we sort of compromise, you know: if he does this, then yes he can have that time.” [Colin’s mother]

When asked about what they are hoping Colin to get from his home computer use, Colin’s parents suggest that they would like to prepare their son for normal tasks necessary for him to prosper in a working environment. For example, Colin’s father suggests that “I generally just want him to be more confident in using the computer, which he is fairly confident – more confident probably than I am... Get used to, you know ... Word and Excel and normal stuff which he can use on a day-to-day basis.” Importantly, the parents (in particular, Colin’s father) play an active part in this technological development, engaging Colin to take part in more stimulating activities such as website building and database development. Colin’s father’s extensive interest in computers plays a large part in this engagement: he encourages Colin to become interested and involved in activities such as creating websites.

In particular, Colin’s father ensures that he keeps his son interested in these technological activities by harnessing Colin’s own interests, suggesting that “as long as [Colin’s] interested, then we can encourage him to continue learning.” Colin and his father constructed a personal website together in order to display Colin’s Lego creations, and Colin talks positively about adding more of his own creations to the site. Colin’s family also spend time helping him to develop some of the skills he already has on the computer, for example by aiding him with the evaluation of the information he obtains through Internet searches, rather than completing the searches for him as some parents may be tempted to do. Through structuring his search processes, Colin is potentially enhancing those skills he has already developed and can spend more time in working on the individual aspects of his work such as the presentation and pulling together of information: “He’s obsessed with having to create the dynamics of it, all the different colours... prompting him a bit – be creative on his own if he can.” [Colin’s mother]

Although the family play an active role in the development of Colin’s technological expertise, the parents are extremely concerned about the amount of time he spends on game playing and thus attempt to limit this to 30-minute sessions to ensure that Colin’s free time is used more effectively, encouraging other activities such as homework, outdoor activities, music and toys. The mother in particular is keen on maintaining a healthy balance with these activities, and is concerned that Colin spends too much time on the computer at school and through homework and game playing. Colin’s parents consider that many children spend too long using technology, and suggest that parents have a responsibility in this area. Colin’s father said: “Generally, we find kids spend a lot of time on computers or playing ... on their

game machines.” Colin’s mother acknowledges that parents have a significant responsibility in this respect: “I don’t think it is the children’s fault necessarily. I think some parents choose the easy option.”

Voice of the learner – Colin

Colin’s description of the activities he completes on the computer fit very well with his parents’ expectations. Colin demonstrates advanced use of Word facilities such as spell checking and WordArt, and an understanding of the concept of Excel spreadsheets, even though he has not yet fully encountered these within his school work. Another very advanced skill Colin employs is that of Internet searching: as his father claims, “He is the Google King!” Colin demonstrates effective search strategies such as comparing information across websites, opening web pages in different tabs to keep previous information available, and scanning website descriptions for information before choosing a site. Importantly, Internet searching is a particular area where Colin’s parents have expressed an active interest, and thus these skills may be a direct consequence of the help Colin has received.

Aside from more academic packages, Colin talks widely about his gaming activities, in line with his preference for using the computer for fun. A number of these games such as the multi-player games found on Arcade Town (Sherwood RPG, for example) were recommended by Colin’s cousins. Colin also uses a number of other online games sites, including Bin Weevils and Club Penguin, explaining that most of these games are actually quite complex, employing their own currencies in order to buy further armoury or furnishings, and involving communicating with others through instant messaging. Colin also spends a large amount of his time trawling the Internet for cheat websites in order to enhance his game playing on his Playstation 2 and PSP. It seems that the computer and, more specifically, the Internet are of most importance to Colin’s game play at present, although this is not to neglect the fact that he is advanced in his use of technology for academic work.

Colin explained that, like a number of learners, he always completes academic work first, recognising the importance of education over play. However, Colin uses the computer for educational purposes, even after he has completed the mandatory homework. For example, he described to the interviewer that he once spent some of his restricted computer leisure time trying to practise using charts on Excel after encountering these at school. He expressed enjoyment for this activity, showing a particular interest in practising technological knowledge at home, despite his limited leisure time: this suggests that Colin understands the importance of computer use within his educational development and wants to conceptualise what he is taught in school:

“I like seeing if I can do it here, because I learnt how to do charts on, at [Name of school], so I wanted to see if I could do it here, so if I have to do anything to do with charts, I can just go ahead... I tried to remember it until I was able to go on the

computer, because I'm only allowed on it sometimes. And then once I'm allowed to do it, I decide... I'm going to see if I could try and do my own charts, so I just do it."

In a similar vein, Colin's father noted that Colin has voluntarily shown interest in learning about other software such as databases, and he actively asks for help with these areas to further his knowledge and understanding.

This family seems to work through active shared development of academic and technological skills, with Colin's father adapting the level of instruction to that which Colin can understand. For example, Colin proudly showed off to the interviewer his personal website, which had been constructed jointly with his father in order to present his Lego creations. Colin explained further that his father is active in the upkeep of this website, as Colin both borrows his father's camera to take photos of the Lego, and asks for his help to upload the items onto the Internet.

Impact on learner

As a young learner, Colin clearly prefers using the computer for leisure purposes and specifically for gaming. Importantly, however, Colin also demonstrates a very advanced knowledge about particular aspects of academic-related activity, including effective Internet-searching techniques. Being interested in these kinds of activities even when provided with the chance to use the computer for leisure is significant, and is perhaps in part due to Colin's father's enthusiasm for technology and his active encouragement in teaching Colin new activities. Although Colin's parents do not believe that gaming is a very useful activity, Colin seems to be enhancing his learning through a balance of leisure and academic activities. Colin's parents are very careful about managing Colin's activities so that Colin experiences as encouraging a learning context as possible. Thus, in this case, a strong belief in the usefulness of technology for furthering Colin in his studies, coupled with Colin's genuine interest in technology has provided a stimulating learning environment in which Colin seems to be benefiting.

Conclusion

This case study focuses on a strong instance of a positive family environment. Colin's parents both attempt to moderate purely leisure-based time spent using technology, as well as encouraging activities that are more directly relevant to their son's development as a learner in school and in relation to the field of technological knowledge. Colin understands the importance of completing academic activities before undertaking other activities, and chooses to perform certain academic-related activities in his spare time. Thus, in this case, an opportunity for furthering the learner's own interests (for example, through the development of a website to show off Colin's Lego creations) has encouraged the learner to willingly take part in the use of the computer and learn more about the important aspects for his own personal development. Similarly, through the reduction of the time available for game

playing, Colin seeks new methods to stimulate his explorations and has become quite advanced in computer skills for someone of his age. The question therefore arises as to whether it is necessary, in order to motivate a child's informal and academic-related learning capacity, for a parent to have a reasonable amount of knowledge and motivation towards technology, which the learner can harness. It may therefore be beneficial to help parents develop their own computer literacies in order that they can play a more active role in technology use within the home.

Case 9: EM

Theme 2ii:

2. Learners' technology-related practices:

ii. innovative/intensive users.

Tags

Family learning; deep and higher order learning; secondary; innovative.

Summary

This case study focuses on the theme of innovative/intensive users by reflection on a male secondary school learner whose uses of digital technologies are advanced, expansive and sustained. In particular, Elliott has experience of posting videos to YouTube. The case study also examined how Elliott's extensive use creates tension between him and his parents, particularly around his completion of school work.

Case information

- **Target case:** EM ('Elliott')
- **Age:** 15–16
- **Gender:** Male
- **Institution:** Year 11 pupil, Secondary 1
- **Other family interviewed:** Mother and father.

Family overview and history

Elliott was in Year 10 at the time of the first interview in school and had progressed to Year 11 when the home visit was conducted during the autumn term of 2008. Elliott attends a secondary school that was awarded specialist school status in July 2008.

Elliott lives with his mother and father, an older sister who is studying for a degree, and a younger brother. There is a further older sister, but she has now left home

after doing a Masters degree. The family moved to the UK from East Africa when Elliott was two years old.

The interview with Elliott was conducted on the first-floor landing of his home, where the main desktop computer is situated. Elliott's parents were interviewed in the lounge downstairs. Elliott's father has his own laptop which he uses mainly for reading foreign newspapers. The family has a wireless broadband connection.

The main desktop computer was placed on the landing in a small corridor between two bedroom doors. Within this narrow space, Elliott has connected the hard disk to two monitors, which sit side by side on the workstation. The location of the computer affects how it is used: it allows Elliott some privacy compared with that which he might experience if the computer were in one of the main living spaces downstairs; nevertheless, other members of Elliott's family may pass behind him on their way from the staircase to one of the bedrooms. Moreover, the narrowness of the corridor in which the computer is located makes it very difficult for two members of the family to sit side by side and use the computer together. Indeed, there were only a few references to using the computer together as a family in the interview. Elliott described how occasionally the family gathered around the desktop computer to use the webcam to speak to members of their family who remained in East Africa.

Elliott's accounts suggest that he has many interests – particularly anything relating to politics and crime in the media. Elliott is fascinated by the FBI, CIA, MI5 in general, and the ways in which these are portrayed in films and on television; he also looks at websites related to spying. Elliott regularly attends army cadets. He is doing well at school, and although both his parents are keen to support his education, his mother in particular seemed to be the driving force.

Elliott actively engages with Web 2.0 practices. When Elliott was younger, he uploaded videos of himself and his friends performing in a dance group. Also, and unusually, he has set up his computer by connecting two flat-screen monitors to the hard disk; he can use the monitors independently to view materials and carry out activities.

Elliott carries out an extremely wide range of activities online, by his own and his parents' accounts. Elliott is the driving force within his family in terms of exploring advanced uses of digital technologies; for example, he has set the computer up to enable him to watch satellite television. He said that he keeps up with these things, as his parents are less interested.

Voice of the learner – Elliott

When Elliott is in the house, most of his time is spent sitting at the computer on the landing. He said that, in terms of school work, he uses Google and Wikipedia for research; BiteSize for revision; SparkNotes to write essays; and email to send

homework from school to home. In his free time, Elliott tends to watch Sky Anytime and other television programmes that he has downloaded onto the PC, listen to music downloaded to iTunes, chat to friends on MSN Messenger, use a webcam, use Bebo or My Space, watch and upload videos on YouTube, and use email. Elliott also owns two mobile phones.

As noted above, Elliott uses the computer with two monitors to view different activities online simultaneously. This idea grew out of an interest in the FBI and other crime agencies as shown on television and in film. Elliott described how this unusual setup came about: “I just – it just came to me once, and I thought – because I watched the movies and like they have the dual screens with the – you know – FBI and all sorts, and just working on loads of screens. And I just thought, ‘I could do that!’ We’ve got a few monitors and wires, and I could think of a way to connect them together, and plus I find it easier because I can have like music up there and chat there, or homework there and Internet. I just find it really easy that way.”

The other members of Elliott’s family just use the single screen without making use of his setup. As Elliott commented, “They don’t seem to sort of need it”, suggesting that they are less keen to multi-task perhaps. Conversely, Elliott finds the two screens indispensable: “Now that I have both of them, I don’t see how I used to have one.” He reports how he tends to multi-task with music, various websites, MSN Messenger, homework and a combination of activities across the two screens.

Elliott uses MSN Messenger a lot: he has it on whenever he is using the computer. However, Elliott said that he often signs in to the service but then changes the settings so as that his status shows him to be offline. In that way, he can keep an eye on who is online in case he wants to chat with them, rather than fully participating in chat all the time. Elliott said that he preferred to chat to four to six people at any one time rather than to a whole group. During the interview, around 83 people on Elliott’s contacts list were online.

“MSN’s there yeah, it has to be! [...] Actually it’s always on. Even if I’m not using it, I just sign – like appear offline, so they think I’m offline but I’m online.”

Elliott is a keen user of the social networking sites Bebo and MySpace. On Bebo, his profile is set to ‘public’ and he enjoys chatting to people that he has not met face to face first. He is confident that he can assess whether anyone is threatening, “because I class myself as being able to assess who I am adding and their danger, and if it’s a 42-year-old guy, obviously I’m not going to straight away accept him.”

Elliott explained that his usual pattern of getting to know someone is to exchange one or two comments on Bebo, for example, then move to MSN Messenger to talk more intimately. If he appears to get on with the other person, he might agree to meet him or her. If he was meeting a girl in this way, he would take friends with him

only if the girl said that she was going to. Elliott said that he had done this in the past occasionally. He said that if he turned up at the meeting point and found that the girl did not appear to be who she said she was, he would leave: "... and then if obviously it turns out to be the wrong person, then you just take u-turn and walk straight past them and like you're not the person."

Elliott is quite rare among others of his age in that he has posted videos on YouTube. These videos are of dance sessions held in different locations around his home town. He said that the group have posted 'loads, literally loads' online.

In relation to supporting school work, Elliott said that he uses the computer to plan his work. He often draws up a task sheet or action plan, including coursework dates to ensure that he meets various deadlines. Nevertheless, Elliott's uses of digital technologies for school work are unremarkable: Google and Wikipedia for research, SparkNotes to support essay writing, the BBC BiteSize site for revision. It's clear from the data that using the computer and Internet intrinsically satisfies Elliott, regardless of the activity itself. When asked if he would use SparkNotes offline in traditional book format, he said no, he would not enjoy it so much and would get tired turning the pages.

Elliott said that his computer and Internet skills are self-taught:

"I taught myself all this stuff when I was six – or I was older than that. I just sort of started from scratch, turning on the computer, using little paint shop, searching for cool cars, on Google, Yahoo! and stuff to just being able to do this kind of thing."

The data show that Elliott's continuous multi-tasking causes tension between him and his parents, particularly his mother. Elliott spoke at length about the arguments which arose around his use of the computer when his mother thought he should be 'studying'. Elliott said that he is very motivated to do well at school and usually achieves fairly good grades: recently he has averaged an A for most pieces of coursework. However, his routine switching between programs and activities such as a homework, television and chatting greatly annoys his mother, who would like him to focus solely on his studies. Elliott said that he was tired of trying to explain how he can concentrate while carrying out these other activities. He explained the situation in terms of generation and difference:

"She comes up when I'm on this, somehow always seems to happen. Because the thing is, she says when she's coming up, and I'm clicking off all the things I'm doing. But it's not true, because I'm always clicking whether she's here or not, because I have to be checking things, going on websites and all those kind of things, so it's sort of – I'm just like I'm tired of trying to explain because it's just going to get worse, so I don't say anything. It's kind what I'm doing. It's like I bring good grades home, I bring As, Bs, Cs, I never bring Ds... How can I achieve these grades if I'm not studying?"

Voices of the parents – mother and father

The interview that took place separately with Elliott's parents also reflected the tension being caused by the computer in the house, but from his parents' perspective. Elliott's mother said that she worries that he spends too much time upstairs on the computer and that his life seems to revolve around it. She outlined a number of concerns which suggested that although she thinks the computer and Internet can be useful for education, it is having a detrimental effect on Elliott's health and studying. Elliott's mother said that she worries that Elliott is unsociable and withdrawn from the family due to his excessive chatting. She would prefer the computer to be downstairs, if room were available, so that Elliott would rejoin the family. It's clear from the data that this is an ongoing argument within the household. Elliott's mother described how Elliott spends too much time saying he is studying when he is actually chatting with friends. She said that when she starts to climb the stairs (bearing in mind that the computer is on the first floor landing), she can hear him clicking various applications shut, and she knows that he has heard her coming and closed something down. Often, she finds homework on one screen and MSN Messenger on the other. One of Elliott's mother's main worries is that when Elliott spends what she considers to be too much time chatting and then goes off to bed, he cannot settle very well and talks in his sleep. Both parents and Elliott's elder sister have heard him doing this. Elliott will then be very tired in the morning. Nevertheless, Elliott's father said that the sleep-talking always sounds like he is having fun – perhaps playing football for example – rather than chatting on the computer. This discourse is quite ironic in one way, given that the father originally acquired a computer because it was clear that Elliott was drawn to them when they were visiting family and friends. Elliott's father's account suggests that although both parents are keen that Elliott should succeed academically at school and university, the computer and the Internet are now being seen as a risk rather than a benefit to his studies.

Both parents have developed their own skills with computers in different ways. Elliott's father acquired books as a means of learning, while Elliott's mother attended a course at the local college. Elliott's mother ascribes a new and better job that she was then offered in part to her improved IT skills. In relation to Elliott's mother's own job and Elliott's future, she noted the importance of these skills for employability: "... every job you apply for, they want to see the IT."

Elliott's parents concurred with his perception that he drives the digital technology agenda in the house. The examples they gave included setting up and attaching the two monitors to the computer, requesting and installing the webcam, and connecting Sky television to the PC. Nevertheless, Elliott's father also alludes to a friend who helps the family with upgrading the computer, doing things such as adding memory, and who helps when they are having problems, for instance if the computer is very slow.

There is also a suggestion that Elliott's parents worry about Elliott's level of skills. Elliott's father tries to keep an eye on him – particularly the kinds of sites he might visit that they would not be happy about, such as pornographic sites. Moreover, there is also concern about the political interests he has and crime agency sites that he likes to look at. There was a suggestion that they worry about how much information he is able to access about MI5 and the FBI for instance, and whether he was placing himself at risk through taking such an interest in these agencies.

Elliott's parents are positive about his future. Elliott is doing well at school in subjects like maths, sciences and psychology, and his parents assume that his grasp of technology will support him in whatever he decides to do. The impression they give is that he will go to university, and then they would not be surprised if he applied to go into something like MI5.

In relation to the links between school and home, Elliott's parents say that Elliott sometimes visits the school website, and they are aware that there are some reports online and details of the curriculum and timetable that they can look at. They said that they do not tend to check the site regularly but they know it's there if they want to.

Impact on learner

This case study is interesting because it shows how an older child's – in this case a teenager's – uses have developed with parental support in terms of the provision of digital resources, combined with independent and self-directing behaviour. Although Elliott's parents provided him with the resources to support and encourage his interest in computers and the Internet, as he has become more independent, he has taken forward his uses to a point where his parents are no longer comfortable. Elliott's sustained and extensive uses of the computer have become a battleground within the family, which is particularly manifested in relation to Elliott's school work. Of course, it is very difficult to assess whether technology is helping Elliott to learn, acting as a distraction or, most likely, somewhere in between. It is possible that using the computer provides more motivation for Elliott to undertake school work than if he were studying offline. Elliott clearly thinks that the computer helps with his learning rather than being a distraction, and he has clearly worked out methods for getting his work done, such as his strategy for appearing offline when using MSN Messenger. Nevertheless, his mother is concerned for his studies and, more generally, his health.

Conclusion

Elliott's uses of the Internet are particularly interesting in that he has participated extensively in Web 2.0 technologies, for instance, uploading videos to YouTube. Also, his use of two monitors is unusual and seems in part to be drawn from his interest in crime agencies such as the FBI, where multiple screens for surveillance

are common. The case study shows how Elliott has shaped his computer uses to fit with his wider interests of internal security and so on. It's fascinating to see how arguments around the computer and Internet are manifested in a home with such a strong emphasis on education and learning. It's clear that Elliott's parents are very keen for him to achieve the best he can. The methods that Elliott parents described for ensuring that they could both use computers (the father learnt from books, the mother attended college) show their own initiative and commitment to lifelong learning as a means to achieve success.

Elliott's home is a good example of how homes are not yet designed to accommodate computers very easily. Elliott's commitment to the computer means that he is prepared to use the computer on the landing. The location of the computer itself tends to work against the family sitting alongside him, although it may be that this was not intended in the first place.

Although Elliott is aware of safety information and believes that he is able to assess and deal with possible risks in relation to meeting people in person whom he has first met online, it is of course of concern that he should do so. Again, it's very difficult to assess the level of risk that he is taking, given that he has strategies for assessing any possible threat and believes he can cope.

Case 10: RV

Theme 2ii:

2. Learner technology-related practices:

- ii. innovative/intensive users.

Tags

Choice among flexible learning options; deep and higher order learning; HE; higher education; innovative; vocational course.

Summary

This case study discusses a postgraduate student who uses technology to help her adjust to life in a new country. Part of the student's usage involves socialising with speakers of her native language who are in similar situations and living within the same geographical region of the UK. This learner is a particularly advanced user of technology, using her skills to update a company website, and demonstrating high quality web-searching skills. The student's favourite use of the Internet is for communication, in order to stay in contact with overseas family and friends. The learner recognises that different computer users have different access needs depending on their computer skills, and therefore she chooses her communication tool carefully.

This case study is particularly relevant to the innovative/intensive user theme, as she is harnessing the use of technology in such a way that she remains in touch with news regarding her home country, as well as using technology to understand further the new country she is living in.

Case information

- **Target case:** RV ('Ruth')
- **Gender:** Female
- **Age:** 30
- **Institution:** Postgraduate, Higher Education 2
- **Course:** Masters degree in international business management.

Case overview and history

Ruth is a Masters degree student completing a vocational course in international business management at university. She originates from Central Asia, having arrived in the UK ten months previously. She is fluent in English, despite her native tongue being Russian, a skill developed from previous work within a communications company while abroad. Ruth spends the first half of her week day working as a part-time administrator. As part of this role, she is required to update sections of the company's website, which is her only use of technology at work. When describing this aspect of her technology use, she noted that it requires fairly standard skills, thus suggesting that her own private technology use may be use much more in-depth skills: "It's simple HTML pages though, nothing really sophisticated." Ruth uses HTML code to change the content on the website and to update images, but she doesn't consider that this requires great technological expertise compared to that needed to programme websites from scratch.

In the afternoons, Ruth travels back to her university for classes. Ruth explained that technology is not generally used at university except for when the students are required to open up the Blackboard website to find links for their class work. During the day, Ruth does not use technology again until she goes to the library in the evening. Ruth noted that within the library, even books can be accessed electronically via an e-resources site on the university website.

Voice of the learner – Ruth

Ruth presents herself as a very competent computer user, dabbling with HTML programming, communication, and work for academia. As a university student, Ruth talks extensively about the role technology plays within her academic life, particularly for supporting her research assignments and guiding her to specific websites allocated by the university where she can obtain journal information and university administration resources. One such example of this is her use of Blackboard to check for internal emails from her lecturers and to pick up lecture handouts from the

Internet. Another important example mentioned by Ruth is the e-resources site, which she locates from her university website, and which allows her to view electronic copies of books and journal articles. Ruth noted that her university is subscribed to a particular database of articles; she demonstrates an advanced knowledge of the differing search options available to narrow down a particular search when using these sites.

Indeed, Ruth's searching skills are not just relevant to her use of university e-journals, as she demonstrates similar skills when using Google. Through the use of Google, Ruth explained that she has also discovered a useful reference site that university colleagues had not mentioned, and now she often turns to this website first for research. In particular, Ruth also often refers to other main Internet sites for research, as she believes these will always be reliable: these include the Financial Times and BBC websites. Another very important site to Ruth for research is Wikipedia, as it contains a large amount of information in one place. Although Ruth recognises that Wikipedia may not contain completely accurate data, she ensures that she uses only 'proofed' or frequently cited sources on Wikipedia. The positivity she expresses for Wikipedia is demonstrated by Ruth's praise for the developer of the website: "God saves the person who invented Wikipedia! It's a good thing to do!"

Despite a detailed understanding of how to find a range of online materials, including journal articles and books, Ruth explained that she prefers to read paper copies of books, as she actually does not enjoy reading books and journals on the computer. Interestingly, the only books that she does choose to download and read are often fictional and for her own private consumption, suggesting that she almost wants to instigate a distinction between her academic and leisure use with regards to technology. However, potential difficulties in getting hold of books written in Russian (her preferred language for reading) may leave Ruth with little option but to try to obtain them via other means:

"I'm not really into reading books on the screen, I do prefer paper... I prefer paper, but now even friends are sending books to each other by email now. Yeah, friends from home and books from home in my language."

Ruth expresses that her priority for using technology is for communication, to the extent that she could not survive without the Internet. The Internet has given her the ability to stay in close contact with friends and family at home, and indeed Ruth suggests that she would not have come to study in the UK had this technology not been available. Reflecting this heightened importance for communication, Ruth described herself as an email addict who relies heavily on her computer for networking. She emails friends in the UK and those abroad, checking her email first thing in the morning before work. The timing of her first email check is important, as it helps to ensure she maintains a regular pattern of communication with her family and friends back home, who have a time lag of around five to six hours: "So usually I

just do my emails at night, because my friends and family are writing me from [Central Asia] at night. So first thing I do in the morning is I check my emails before even having coffee or something!" At weekends, when Ruth has more spare time, she prefers to use online Skype software so that she is able to call her friends abroad.

Importantly, Ruth chooses to use different methods of communication depending on the person she is contacting. One such example of this is the way that she contacts her mother, whom she described as a very poor user of technology who cannot get to grips with Skype. Thus Ruth uses another method for cheap or free phone calls with her mother via the Internet, recognising that this method will be better suited to her mother, who can then use the telephone as normal. "See my Mum doesn't know how to use – how to approach – the computer at all. I can't use Skype with her. So with her I am using this kind of technology if you like." Ruth recognises that Skype, however, is a much better tool for contacting her friends, as they can communicate in real time via the computer without time constraints: "My friends are more or less familiar with [Skype] nowadays, and with them I would rather use Skype because we can chat for hours. But with parents, you see, they are not really familiar with Skype and this kind of stuff."

Despite the importance of networking within her life, Ruth chooses not to become heavily reliant on sites that specifically encourage social networking, such as Facebook. Although she does claim to own a Facebook page, which she will use to give her access to her friends' pages, she uses the site only to contact very close friends and does not like the idea of the website in general, feeling that it particularly undermines the meaning of friends: one such argument that she presents for this is that people can have up to 400 'friends', most of which could not be considered as true friends, as the person may have only met them once to exchange email addresses. Similarly, Ruth is against the use of instant messaging software such as MSN Messenger, as she feels it is not a very secure way of communication; thus she much prefers Skype.

Importantly, although Ruth does not use Facebook, she uses another site to express her feelings and opinions to a wider range of people. She prefers to use the Live Journal website for networking purposes, as she believes that it is used far more responsibly than Facebook. This online diary is where she writes both a blog that is available publicly for her friends to view, and private sections that only she can see, which include images of clothes that she has found on the Internet and wants to buy. Ruth explained that the site works in a similar way to Facebook, as she can view other friends' pages and people can leave comments on her own work, although she may not necessarily know them personally. These posts can be either informal or a constructive exchange of opinion, but one of the most important uses of Live Journal for Ruth is to communicate with others using Russian and find similar Russian

speakers who live nearby and with whom she can share her own personal experiences:

“The fun part? I don't know really. Just to express your opinion and to see what people and to – I don't know, some people really read... It's really quite often in here... there's a community here. It's called Ru London. Russian speakers from London. London Russian speakers if you like. And we're all community to this thing and we might not even know each other... like the person and some of the stuff is really – some people are just – it's all about homesickness, sometimes – kind of stuff. You can cheer up someone sometimes or they cheer you up... Or sometimes they make – they organise parties, they just throw up an advertisement.”

Ruth expresses a preference for this site over other more popular sites such as Facebook, because she believes that there is more of a purpose to the social exchange and that through using Live Journal she can meet like-minded people. In a similar respect to other social networking sites such as DeviantArt, Live Journal allows users to express themselves artistically by uploading lyrics and poetry; this is something that Ruth particular respects, believing that it sparks more meaningful and 'decent' conversation. The site allows her to network with many people while expressing her artwork, and thus Ruth believes that the nature of the site encourages people to meet and is less likely to be subject to some of the dangers present on other sites, because users are more likely to use it responsibly. This vision, however, possibly puts Ruth in danger, as she admits to having attended parties held by Ru London in order to meet people from her online group.

Ruth suggests that her native language plays a very important part in the way she interacts with technology, using every opportunity to keep in touch with her Russian heritage. One example of this regards the actual setup of her laptop, which she brought from her home country and which has the Russian-language version of Windows. Although this was not intentional, and Ruth feels she has no reason for it not to be in English, she clearly feels more comfortable with this language and often chooses to download items in Russian. For example, along with the Russian e-books that Ruth shares with her friends, she also downloads films in Russian from a site called Fast Torrents, as she cannot get hold of them easily in the UK. Ruth believes it is legal to download materials from this site, as there are no advertisements on the page. This is in contrast to the music she downloads from possibly illegal sites that she finds by searching the artist and song title via Google. Ruth also accesses a Russian News Portal to keep up to date with the news, including sports, culture and politics. The site that she uses is important to her, as it presents only official news related to her country, as opposed to opinionated views. Therefore she explained that “... you don't have to worry about someone's opinion to be put in. It's just really very objective.”

Ruth makes very careful choices about the types of software she uses within certain circumstances according to the particular benefits each holds. For example, she claims that she is not a fan of iPods, as she would rather buy CDs or download music. Again, however, her preference for listening to Russian music that is not easily found using iTunes may influence her decision to use a mobile phone as an MP3 player. Similarly, Ruth uses online ticket sellers to buy tickets for all her travel, including buses, trains and planes, as she understands that cheaper deals that can be found online: “You always get good deals here. You can find the cheapest deal possible and it’s just more convenient. You just can go to Heathrow just in half an hour before the flights leave.”

Ruth’s use of gadgets is also quite specific for fulfilling particular needs. She uses her mobile phone for music, an alarm clock, text messaging and as a camera, although she still considers her mobile phone use to be old-fashioned. However, Ruth’s most important gadget, which she claims to carry with her nearly everywhere, is her 8-megapixel digital camera. Ruth uploaded some of these pictures to Live Journal, and she explained that “... just coming to a foreign country was such a new experience for me at the beginning, and so I tended to take pictures of everything... and then it just became a habit. Sometimes, really, I get some very interesting situations in life, which you think why don’t I have my camera with me?”

Impact on learner

Having moved to the UK fairly recently, Ruth has discovered the need – as do a number of new students at university – to keep in touch with her closest friends and family at home. However, being faced with the complication of living overseas and high telephone bills to her home country, Ruth is using her knowledge of the Internet innovatively to make communication possible. What is so interesting about Ruth, however, is the way that she chooses to use different Internet applications for different people, realising that her parents, for example, are not familiar with Skype and would much prefer communication via traditional means. The fact that Ruth is so keen on email and Internet communication suggests that she might not be entirely comfortable with living away from her family and has not got a large group of friends at university to cushion this need for constant home contact.

Although communication is one of the key ways that helps Ruth to feel at ease with living in a new country, she also actively seeks out other students who are facing similar circumstances of being a long distance from home – particularly other students who speak Russian. Through her use of Live Journal, Ruth has not only made friends, but has been given the opportunity to attend social gatherings with other Russian speakers in her area and has found a way to have a relatively structured and purposeful discussion with somebody whom she does not know. In particular, she is very positive about the encouragement she has received through her use of Live Journal, which became particularly important for helping her through

periods when she was feeling lonely and wanted a friend. It is therefore a culmination of her regular contact with home, messages to other Russian speakers on Live Journal, and other aspects of her Internet use (such as regularly keeping up to date with home news stories and sharing Russian e-books with her friends) that keep her feeling close to her home country and have helped her successfully integrate into a new culture and feel at ease with this new country.

Conclusion

This case study discusses a learner who demonstrates an innovative amalgamation of technology uses in order to make herself feel more comfortable about moving to study in the UK, while carefully ensuring that she has up-to-date knowledge of news in her home country. In particular, this learner has harnessed new technologies to combat homesickness and talk to and meet like-minded people who share her language and have similar interests, both in poetry and photo imagery. Ruth's methods for staying in touch with her home country include sharing Russian fiction e-books with her friends and downloading music and films in Russian. Indeed, even Ruth's decision to carry a digital camera around everywhere reflects her attempt to understand more about the new culture and perhaps to document particular memories, which can be shared with her family and friends at home. Ruth expresses particular care in her choice of social networking sites, as she prefers to be involved in those that serve a particular purpose, such as the Live Journal site where she can exchange feelings with Russian speakers.

Ruth's move to the UK has played a significant part in the development of her technology use, particularly in her heavy reliance on communication tools such as email and Skype. However, Ruth also demonstrates particular skills that a number of university students are developing throughout their studies, including advanced search techniques. Ruth's use of the Internet for combating homesickness and meeting similar others who can provide advice is something that could be developed across a number of other universities and would be very helpful for other students who have just moved from their parents' homes and have no experience of living on their own.

Case 11: NO

Theme 2i:

2. Learner technology-related practices:

- i. self-directing and self-organising behaviours.

Tags

Confident and safe use; choice among flexible learning options; secondary; safety; games; informal learning.

Summary

This case study talks about the ways in which a learner uses computer software and online resources as means of managing and organising his activities and social world. This is largely a self-directed activity, and one that his parents are not involved in. This case study also discusses some of the relatively positive and negative factors relating to learning within game playing, and the ways in which this learner's approach to using technologies stimulates his thinking about possible future career choices.

Case information

- **Target case:** NO ('Nathan')
- **Age:** 13–14
- **Gender:** Male
- **Institution:** Year 9 pupil, Secondary 2
- **Other family interviewed:** Mother.

Family overview and history

Nathan was in Year 8 at the time of the first interview in school and had progressed to Year 9 when the home visit was conducted during the autumn term. Nathan's secondary school has specialist status in maths and computing.

Nathan's family consists of his mother, father and younger brother. Both boys have computers in their bedrooms, and the mother and father both own laptops. The interview with Nathan took place with Nathan on his personal computer in his ground-floor bedroom (at the front of the house – not an isolated or particularly private setting).

Wireless broadband allows all users in the house, in their various locations, to access the Internet at the same time. However, Nathan noted that the network frequently collapses and needs to be reset via the main laptop (his mother's). Nathan also explained that his personal computer is quite slow; he is therefore extremely limited in the tasks he can do, as he cannot have multiple screens open at the same time.

The father was the first member of the family to use computers when he owned an insurance business. Nowadays, the father uses the computer the least out of all family members, as he is employed in the construction industry. While Nathan's father was running his own business, Nathan's mother was employed to type letters and update accounts online.

Nathan's mother no longer works, but still regards herself as a heavy computer user: she believes she uses the Internet at home "all the time – far too much!" Nathan's

mother regularly surfs the net for information about new ideas that she has heard about, or to query things that she does not understand. In particular, Nathan's mother uses email in preference to instant messaging to contact family who live in different countries: she did once use ICQ (instant messaging software) with these family members, but did not like the fact that other people would try to talk to her as well. However, Nathan's mother recognises the problem that email is not instant (ie it is asynchronous), and wishes there was some intermediate form of communication: "... whereas your emails are obviously just a one to one aren't they? It's a lot more personal." Nathan's mother also uses the Internet regularly for her interest in genealogy, as she has a family tree online. Again, however, this is something that she expresses concern about, as it has a tendency to bring up pieces of history that she may not be expecting.

Voice of the parent – mother

Nathan's mother thinks that the use of the Internet has allowed particular tasks involving her children to become much easier, for example by providing an unlimited resource of information that can be harnessed for homework tasks. Nathan's mother thinks that this also makes her task as a mother easier, as she can sit with her children on the computer and help them find relevant information:

"Well lots of times, if they have general topics on different people, you know, say for history or whatever, they have to write things up. It's nice to be able to look up and maybe pick out a few facts as well, and cos you don't always have the necessary books – well you couldn't have every single book about everyone in your home – so we [the parents] tend to do stuff like that with them."

Nathan's mother also sometimes sits with her sons on the computer to help them find free online games to play together, some of which have an obvious educational value; for example, she talked about one such game "where you have to spell words out to move on".

Regarding levels of expertise in the family, however, the mother claims that she was not really confident using computers until Nathan started learning how to use them at school. Nathan would then come home and demonstrate to his mother ways of performing actions that were often easier than she had previously used. Nathan's mother has confidence in Nathan's ability to help her, even now that she feels she has become a fairly advanced user, and she considers Nathan to be the expert of the family.

Nathan's mother described Nathan as using the computer mainly for talking to friends on Bebo, downloading music and completing homework, which he can download from the school Internet site and send by email to his teachers. Nathan used to play a war game which the mother mistakenly believed to be World of Warcraft, but was in fact Bitefight. This game was introduced to Nathan by a teacher

at his school, but the mother did not see the point in the game as there was no challenging aspect to it: she described it as being a very slow game, requiring Nathan to click a mouse to fight the other team. Nathan's mother has a low opinion of war and fighting games in general, however, suggesting that these games may have an impact on the levels of crime amongst young people, although she does recognise that different perspectives are possible on such issues:

"Which makes me think – you know with everything that's going on – you know you hear so many stabbings and shooting and things these days. Do children think that they're all computer games? It's like real life and people do really get up after they've been shot and stabbed and what have you? But I don't know. Then I think to myself, but they're playing games like that – we used to play games as children where we'd be shooting each other with fingers and whatever pretending they were guns, and so you know we did it too!"

Nathan is also said to play on his brother's Nintendo DS, and the boys share a Wii games console and Wii Fit. This form of computer game is much preferred by Nathan's mother as the boys are not just sitting around on the sofa and pushing buttons, but are actively moving and jumping around. Nathan's mother has heard about widespread problems with the Wii Fit putting children's body shapes into categories and often miscategorising young children as overweight, and indeed explained that Nathan has had an experience with this himself: when the family first bought the Wii Fit, Nathan was classed within the 'obese' category (which is clearly mistaken), and this affected Nathan so much that he spent a few months constantly using the games console. Nathan's mother claims that he had a great celebration when he finally moved out of the 'obese' category, "so it obviously did affect him in a big way".

Regarding Nathan's computer use, Nathan's mother does not think he is getting as many benefits out of it as he should be. She showed concern that Nathan spends too much time on the computer communicating with others rather than harnessing its true potential for information and homework – Nathan often chooses the easier option of asking for his mother's help rather than hunting for information: "He sees it more of a social tool I think. Something to keep in contact with people rather than – probably not enough as a learning tool... if there's something he's not sure of, he'll always come and ask us instead of maybe thinking 'Well, I'll just go on the Internet, have a look and see if I can find any information about it there.' It's sort of – I don't know – it's almost like it's too much like hard work for him to be bothered to do that. It's much easier to ask us."

In general, however, aside from worries that Nathan could be using the computer more effectively, his mother feels fairly confident that he is using Bebo and other websites safely. Even though Nathan uses these websites in the privacy of his bedroom, he tends to leave his bedroom door open, allowing his mother to look in if

need be. When Nathan's mother has checked Nathan's Internet use, she has found that Nathan has been talking to friends from school; Nathan has his profile set to private, which limits contact with strangers. Nathan's mother believes that there are a lot worse things that Nathan could be doing than misusing social networking sites. Overall, she is not concerned with Nathan's use of the Internet, and feels that he is quite a sensible user. Nathan is a similarly sensible user of his mobile phone, using it for texting and emergencies only. Nathan's mother understands that – as with anything – a few people will always abuse the system, and therefore she sometimes worries that Nathan may get access to something on the Internet that is inappropriate for his age, but she also agrees that whether you like it or not, if a child wants to see something then they will. Nathan's mother also noted that there are a wide manner of ways in which Nathan could access unsolicited material, other than through the Internet, although the Internet has made such material much easier to find: "It's going to happen wherever, you know? Like you say, there's magazines, television... It's all totally different now as well to when we were younger, so they're going to find – if they really wanted to see it, they'd find it somehow, somewhere."

Voice of the learner – Nathan

While his mother believes that Nathan spends the majority of his time using the Internet as a communication device with his friends, and less time than she would like on researching homework and using the computer as a learning tool, Nathan paints a much more varied picture of his computer use. Importantly, Nathan presents himself as an extremely organised individual who makes active choices about the particular activities to complete, based on his needs at that time. At the beginning of the interview, Nathan claimed to be "a big games player", but his following recollections suggest that this used to be more true in his past, as his current computer setup does not allow him to follow this activity: the 'new' computer that he showed the interviewer does not have the capacity to play DVDs, thus limiting his choice of games. The computer that Nathan presents is also very slow, and while his grandfather promises him a new laptop, at present the computer is obviously holding him back.

Nathan suggested that he learnt most of his technological skills from his father at home, and that this was an active process which he directed: "I'm very nosy and want to know what's going on, so I just... I know how to wire a computer up.... I just watched my Dad for a couple of years because he used to do electronics." Nathan's self-directing behaviour led him to ask his father for information, which partly fostered his love for technology. Indeed, Nathan shows further organisation within his personal life, having already decided upon a career as an air cadet (as he loves flying), but also having a so-called 'plan B' career choice organised: that of a banker ("because I love maths and computers"). Nathan frequently mentioned his love of maths within the interview and thinks that using a calculator during school is actually cheating, as he "loves using his head".

Nathan seems to regard patterns and routines as important within his daily life. As such, he explained that when he gets home, he nearly always goes on Bebo (also noted by his mother), which is perhaps part of the reasoning behind her belief that he spends a large amount of time communicating with others. However, Nathan also explained that another main aspect of his computer use is flight simulation software: as a member of Air Cadets, this software plays a central role, enabling Nathan to practise flying and possibly plan his career development. Nathan also described a fairly limited spectrum of other activities that he completes regularly on the computer, including storing his music on iTunes and downloading it from Lime Wire, using email and playing specific games. These sorts of games vary from racing and strategy to educational games, although Nathan noted that “I haven’t used that one yet” when asked about a particular educational game, suggesting that educational games do not have high priority.

Nathan plays Bitefight, a game that is very structured and based on the implementation of strategies to defeat opposing teams. Nathan’s mother does not think that Nathan’s choice of war game provides much stimulation, such as for hand–eye co-ordination skills, as Nathan only clicks the mouse to progress. Conversely, Nathan described Bitefight as an intense game in which he develops his own characters, strengths and weapons, and owns his own ‘clan’ with buildings and people. Nathan noted that Bitefight is a bit like World of Warcraft, “but a bit weirder”. Indeed, players can progress through the game by choosing particular strategies, such as the length of time to fight, and then telling their teams to attack. The main difference from a number of other war games is that Nathan’s results are displayed in the form of still images and written text, rather than in real time. While demonstrating the site to the interviewer, Nathan explained that it had changed since he had last used it, and thus he struggled to find certain items. However, Nathan described that he has an upgraded version of the game bought from the Internet, implying that he is a heavy user of the game. It is possible that Nathan’s choice of game reflects his mathematical mind, which is well suited to thinking through strategies.

Bebo is Nathan’s other daily priority. Nathan has put a lot of thought into how he uses Bebo and how he constructs his profile and home page. Nathan’s home page includes a number of applications, including polls, quizzes, tests, information on friends and pets, and comments that other people have left. Nathan explained that the purpose of these applications is “you stick them [in] for fun to make it look better”, suggesting that one major reason for adding so many applications is to present a particular image to others. One application, the ‘Top Friends’ application, allows the user to order their friends as ‘best friends’ or just ‘someone you know’. While Nathan realises that this could cause hurt feelings, he believes that so few friends visit his page that this will not be an issue. This raises the question of why he added such a controversial application in the first place: he seems to take particular pleasure in organising all data in his life.

Nathan explained that he follows a regular daily pattern, visiting Bebo between 5:00pm and 6:00pm, as this is when most of his friends are also online. Nathan suggests that he is very careful with his use of social networking sites (confirming his mother's trust), claiming to be friends only with people he knows personally "because I don't want anyone who doesn't know me to get my information and details straight away". Nathan is also careful about keeping his profile private, and demonstrates a good understanding of the process of keeping safe on these sites, suggesting that you can see a person's personal site only if you agree to be their friend, and that Bebo has its own setting whereby anyone aged under 21 must have a private profile for their own safety. Similarly, Nathan shows good knowledge of other aspects of safety, including that if he wants to post on someone else's wall, they must accept the posting before it is presented online, thus enabling a sort of screening procedure.

Nathan's other leisure activities involve music. Nathan downloads music from the Internet for his own use in what appears to be a very structured way. Importantly, rather than playing this music on the computer (because it is difficult to multi-task), Nathan downloads it onto his iPod and then places this into his iPod dock to listen to music in his room. Nathan also has a set of DJ decks that he occasionally uses at his boys' club.

While Nathan's mother expressed some concern about whether he used the computer to its full potential for school work, Nathan himself provided evidence that he is making appropriate and sensible use of the computer for learning. Nathan demonstrated how he makes use of the school VLE for collecting and submitting the bulk of his homework: "You have to do the task it says on the computer, then you can either send it by email or print it off." Nathan implies that without the computer, he would not be able to complete his homework: "It's like you go on this homepage or you don't get your homework done!" It is notable, though, that Nathan has not bookmarked the link to the school VLE, although he is adept at going to the main school website and linking from there. Nathan described how, when on the main school website or the school VLE, you are given a school password and can collect your homework, link to further research, play educational games and complete polls and questionnaires sent by the school. Nathan explained that after reading the homework task on the site there are often hints that lead to links for extra research – something that he does, although his mother is clearly not aware of this. Nathan described one such recent example where he researched computers for an ICT lesson. "We were talking about it in ICT because we got a new Diploma course... we were looking up extra stuff..." This research consisted investigating computer memory and how the amount of computer memory might change in the future. Nathan explained that, typically, after researching his homework, he types his answers onto a worksheet downloaded from the website and then makes use of technology further by sending the file by email directly to his teacher. It should be noted, with respect to what seem like well-managed self-directing learning behaviours, that Nathan views himself as a not particularly able student, who has

extra lessons to improve his literacy level. (Nothing that Nathan demonstrated of his Internet usage actually showed any evidence of poor literacy.)

Nathan has two important pastimes which both play a part in his informal learning practices involving technology. As mentioned previously, Nathan regularly uses flight simulation software for practising his flying skills at Air Cadets, as this is a career that he is hoping to follow. Nathan talks positively about the technology he sometimes encounters at Air Cadets and the current work that he is completing, which involves using the computer to improve the silhouettes of 30 different planes. Similarly, Nathan's second passion is the Boys Brigade, which he noted has a much larger link to digital technologies itself, where for example at the moment they are creating a 3 minute video on a camcorder which they also have to use editing software for. Nathan noted that at the Boys' Brigade: "... they have cameras, older computers that you take apart and look inside of like the RAM, hard drive". Nathan is also doing a first aid course "which helps with technology because we are using a lot of the laptops, computer and projectors". Boys' Brigade, in Nathan's eyes, is useful for learning about technology and how it may help Nathan in the future. Thus a large amount of Nathan's interaction and learning with technology actually occurs during his after-school activities, and this appears to be going relatively unnoticed by the mother, who did not mention either the Air Cadets or Boys' Brigade as relevant for Nathan's learning.

Impact on learner

While Nathan's mother expressed concerns that Nathan may not be using technologies to their full potential, Nathan, however, demonstrates a very balanced attitude, juggling social communication, game playing and work successfully. Nathan's mother appears extremely caring and willing to help Nathan with homework; she is able to perform many of the activities that Nathan partakes in. However, it appears that Nathan's mother has little understanding of what Nathan really uses certain websites and activities for. Not only does she not know what war game he plays, but she also seems to misunderstand the importance of Bebo in Nathan's life. Bebo, it seems, plays a larger part in Nathan's life than just communication; it can almost be considered as an aid to help him organise his life. Through the use of applications such as 'my ideal phone' and 'moods', Nathan can not only find out more about himself (such as the model of mobile phone which would be most useful), but he can also portray himself to his friends through presenting different moods on his personal web page. Nathan's use of Bebo is fascinating, especially with respect to ordering his friends into specific categories, perhaps to enable him to find his favourite friends more quickly.

To ensure that Nathan does not stray too much from one activity to another, Nathan has created a regime – for example, visiting Bebo between 5:00 and 6:00pm daily – which balances his activities. Having such an organised week with different after-

school activities on different days (Boys' Brigade and Air Cadets) also aids his incorporation of routine. Nathan appears to be an organised individual who harnesses technology to help him, and is hoping to follow a career path in which his advanced knowledge of technology will be a benefit. Technology has impacted on Nathan greatly, and a matter of most interest is that even his after-school activities have now integrated technology into their sessions, which may have further helped Nathan's love of technology and realisation of how it can be used.

Conclusion

Overall, Nathan's mother seems confident that Nathan is a competent computer user, although she expresses some concern that he does not use technology enough in his learning. Nathan's mother presents an awareness of certain Internet dangers that Nathan may be subjected to, but feels fairly relaxed that Nathan will not succumb to these. In reality, it appears that Nathan uses the computer with a good degree of fluency for his academic work, looking up additional research and communicating with his teachers via the school's VLE. Nathan's use of social networking software such as Bebo is equally interesting – Nathan has created an intricate profile which helps him to organise a number of matters regarding his lifestyle in ways that his mother is not aware of. To some extent, given Nathan's sensible and careful approach to the computer, Nathan's mother has judged quite accurately that he can be left to his own devices to a large extent; as a result, it appears that Nathan has been able to develop his own ways of doing things online very effectively. This case study thus demonstrates, perhaps, that there is some value in leaving well-motivated and enthusiastic learners to their own devices to some extent. Nathan certainly has a better understanding of what he can achieve with the computer than does his mother, and as Nathan advances into adolescence, this freedom to develop his own means of operation online possibly provides a secure foundation for future activities.

Case 12: PU

Theme 2i:

2. Learner technology-related practices:

- i. self-directing and self-organising behaviours.

Tags

Choice among flexible learning options; deep and higher order learning; further education; innovative; advanced; skills.

Summary

Peter is a good example of a self-directing and self-organising further education student. While he talks about his preference for making things by hand – he is currently undertaking a practical woodworking module – he is unusual among his peers in how much he uses digital technologies to support his vocational design course. This case study describes how Peter uses the Internet to support learning in ways that he has often identified himself.

Case information

- **Target young person:** PU ('Peter')
- **Age:** 21
- **Gender:** Male
- **Institution:** Further Education 1,
- **Course:** National diploma for design crafts.

Case overview and history

Peter lives in rented accommodation with a landlady and a number of other lodgers. His family are based a couple of hours away. While Peter uses technology extensively, and said that he nearly always has his laptop with him, he is also keen to explain that he likes to do things “the old way”. In terms of his formal learning, this means that Peter uses technology to support a practical design course where he makes things with his hands. Sometimes Peter likes to get away from it all: “Most summers, I really just love camping in the middle of nowhere with the bare essentials. Not even a phone, nothing.”

Apart from his interest in woodworking and making things, Peter is keen on photography, music and cosmology. At weekends, he works in a camera shop. Peter is extremely articulate, and while he said that he chose a practical course because he was failing academically, he came across as well informed and very engaged and creative in his studies.

In relation to his formal studies, Peter said that he uses a mobile phone calculator in class to work out measurements, email to carry out his duties as student representative for his course, 3D rendering software for designing things, Photoshop editing software, and Wikipedia and Google for research. Peter demonstrated an image of a wooden mirror frame that he had generated using 3D rendering software on a laptop in order to see what the mirror frame would look like before he made it out of wood.

Outside his educational uses, Peter tends to use his mobile phone for texting rather than calling, as it's cheaper, his iPod for listening to music and as an alarm clock, email to keep in touch with people, Amazon to shop online for books and laptop

accessories, iPlayer to watch television programmes, Facebook to keep in touch with people from school, YouTube for laughs, and finally an Xbox to play games. Peter owns a top-of-the range laptop (with a particular reputation for graphical qualities) and a digital camera.

Voice of the learner – Peter

Peter's access to the Internet is not as good as at his family home: his landlady has a wireless connection with a very small download limit. Peter has overcome this issue by using mobile broadband; he likes the fact that he can use it anywhere – including at college, which does not have wireless access. Peter can use his laptop for Internet access at college, where otherwise he would have to use the college computers, which he said are slow and also use Microsoft Windows (he is a committed Mac user).

Peter's course is full time. He has found ways of using technology to support his learning which appear to be self-directed and self-initiated rather than following the lead from his tutors. Technology is well integrated into Peter's life: for instance, he uses his iPod as his alarm clock: "It's quite nice unless you have the heavy metal playlist playing. That's not nice to wake up to! [...] I don't like the old alarm clocks where you wake up to a bell...!"

While at college, Peter uses his mobile phone as a calculator to work out measurements for his woodworking design plans. In relation to his course, Peter supports his learning by using a range of technologies. Sometimes he uses these inside college, but more often outside and/or at home. Usually, Peter is given a brief (a plan of what a customer would like, which reflects the kind of commission he might get professionally) that he has to expand. Peter frequently takes a digital camera out with him so that he can capture any ideas to help with his designs. He edits the photographs as needed, zooming and cropping, and prints some of them on large A3 sheets. In line with the course requirements, Peter has also put together an electronic portfolio in the form of a website:

"... it's basically everything we've done, so you have a little introduction about yourself... me personally, I've got each page as a different project. Not too much text about it, because you don't want to be sitting there reading an essay, but it's like the brief, what I made, pictures of models, like parts to construction and the final piece, and some even 3D-like studio videos of like spinning around it."

Peter also uses a 3D rendering package to create models on the computer. He said that he tends to be more adept at using this package than some of his peers; nevertheless, he believes it is wise to have a blueprint on paper "just in case". Peter compares himself with his peers when he suggests that "some are not so adept to the 3D rendering and making the actual models on the computer, so they tend to

draw stuff and take pictures, whereas I've got 3D rendering software that we use in the college on my laptop and I just make like 3D models and animate them."

Peter also uses the computer a lot for research, mostly for his course. He likes looking for design ideas for contemporary furniture and architecture. He tends to copy the pictures and make a record of them in Photoshop by putting a red ring around the sections he likes. Peter seems adept at evaluating information that he is researching. He said that he uses Wikipedia quite a lot to search for information and then quotes this, reworded, in his portfolio. Peter tries to evaluate information by looking for overlaps in what he has found in three different places: "I count that personally as being quite reliable – not 100% obviously because they could all be wrong."

Peter is much less keen on the communicative potential of applications such as MSN Messenger and social networking sites such as Facebook than he is on packages which support his design course. Peter said that he used MSN Messenger when he was at school and had more free time; however, now that he and his friends are much busier, they have lost interest in it. Peter prefers now to use email, because it's asynchronous, so that it fits into his and his friends' lives better: "whereas now it's just I will email you, and you will reply in your own time. It's easier".

Despite not being keen on Facebook, Peter allowed his brother to set it up for him, because his brother thought it was essential that he had an account, with Peter leaving school and moving away. Peter said that he much prefers to be making something practical rather than spending his time creating a Facebook account. He said that he could not be bothered to set up his own. While Peter preferred not to spend time setting up a Facebook account, this did not seem to be due to a lack of competence with technology. In general, Peter seems to take his skills for granted and assumes that it is due to his age: "I'm very good at picking up stuff with technology very fast, because obviously I've grown up with it."

In relation to safety concerns, Peter said that he is very careful not to place himself at risk. For instance, on Facebook he uses a false birth date and uses only his email address. Also, his account is set to be private so that only friends can contact him. Peter finds it frustrating that people keep adding him just so that they have a lot of friends. Peter voiced his concerns about personal information kept about him on different databases such as the college database. He said that if the FBI can be hacked in to, he is sure the college can. Nevertheless, Peter did not think that the information held about him at the college was likely to expose him to credit card fraud or anything else particularly damaging. He said that paying by cheque hopefully would protect him from having his bank details stolen and other information relating to his course: "They haven't really got any bank details or anything like that, because I've paid with cheque for these courses, so it's sort of I'm not too really worried about that. The only personal details they've got, I guess, is my academic

records, and it's sort of like I've got hard copies of those, so if someone hacks in and changes them I can prove otherwise."

Impact on learner

Peter's case study is interesting and shows how an FE student holding more traditional values draws on available technologies to support his practical course as opposed to using social network sites and instant messaging for communication and network building. Peter's commitment to his course is manifested in his creative and wide-ranging uses of technologies, for instance using a camera to capture ideas for his projects and a 3D rendering package for design. Peter is helped by having confidence in his skills and abilities to use technology to enhance his learning. Moreover, his skills include the ability to evaluate websites such as Wikipedia, which he uses for research, combined with a healthy scepticism about the authenticity of other sites he finds on the web. While Peter showed an awareness that it may not be possible for the college to completely guarantee the safety of the data it holds, he was not particularly concerned about this and, on reflection, thought the information held by the college was not likely to lead to identity fraud in any case.

Conclusion

Peter's case study shows how a student who has grown up with technology is adapting applications and practices that he is familiar with and interested in to enhance his learning on a design course and in life more generally. From the moment that he wakes in the morning using his iPod as an alarm clock, to the other uses of technology he integrates into his daily activities, Peter is using technology to support his daily activities. Nevertheless, he also likes to leave technology behind by going camping and getting away from it all.

Peter's course has an extremely good reputation, and it seems as if Peter's uses of technology for learning are self-initiated rather than being tutor-led and encouraged. Nevertheless, other students may need to have the potential benefits of using technologies in these ways scaffolded for them by their tutors, so that they can also use their experiences outside the college to bring more to their formal education. While the current project is mainly focused on learning at home, it is also worth noting that Peter has to provide his own Wi-Fi connection to use the Internet within college on his own laptop; it will be of benefit when colleges are able to provide Wi-Fi connectivity and/or faster college computers for students' uses.

Case 13: RU

Theme 2iii:

2. Learner technology-related practices:

- iii. formation of future learning careers through personalised home technology activities.

Tags

Choice among flexible learning options; deep and higher order learning; higher education; vocational; innovative.

Summary

This case study focuses on the theme of students' intensive personalised uses of technology by looking in detail at the uses of Rosalie, an HE student at a post-1992 university. Rosalie is studying for a degree in journalism and photography. Her accounts suggest that she is a committed student whose interest in writing developed while she was at school, with her degree now being a formal means of consolidating her interests and skills. The bringing together of Rosalie's interests with her formal education and hopefully a route into a journalism career make her an interesting case study.

Case information

- **Target young person:** RU ('Rosalie')
- **Age:** 21
- **Gender:** Female
- **Institution:** Higher Education 2
- **Course:** Journalism and photography.

Case overview and history

Rosalie came from Eastern Europe to study in the UK, and appears to be enjoying her course and the whole experience of being a student.

Rosalie recently completed a six-week placement at a national newspaper, with a further four weeks to complete in January. She said that it had been a really good experience. During her placement, Rosalie spent all day in front of the computer, and also used other equipment such as the photocopier. In general, Rosalie said that she is "very good with technology, to be honest", showing her high levels of confidence. Moreover, during her work placement, Rosalie helped another editor who was a "technophobe" and needed help answering emails.

The shift from her writing and photography interests to studying journalism and photography at degree level appears to be seamless; her interests appear to have been formalised by studying this course. Rosalie identifies herself as a journalist and photographer already, and her uses of the Internet in particular reflect this. When asked which technology she could not be without, she said: "I'm a photographer, I can't live without a camera." Indeed, she showed the interviewer a set of

photographs taken of buildings in Eastern Europe. The intertwining of her interests with her studies seems to be reflected in her uses of technology. In these, she appears to be shifting seamlessly between work and her writing and photography hobbies on her laptop, which she said that she was never without. In other words, by using a computer and digital camera, Rosalie is weaving together the personal, education and the professional. She described herself as having a “very low boredom threshold” and prefers not to have a routine.

Rosalie was interviewed in a cafeteria at her university, with her laptop, as this was more convenient for her than a visit to her home. Rosalie uses Blackboard for her university course and also library databases, Google and Wikipedia for research, and an online dictionary. She also uses Photoshop to edit photographs, Microsoft Word and other office applications, Gmail for email, Facebook, and Skype to talk to her parents. Rosalie also writes her own web page and a number of blogs, and occasionally uses a web cam. Rosalie uses a number of websites such as Transport for London and online banking to organise her life. For fun, Rosalie likes websites that feature animals, YouTube for watching comedy videos, and iTunes for organising music.

Rosalie owns a mobile phone, and both film and digital cameras.

Voice of the learner – Rosalie

What is striking in the accounts that Rosalie gave of her digital technology use is the strong sense of a link between her writing interests and the vocational journalism course she is studying, and beyond into the job market. Rosalie said that most of her activities are to do with “trying to find a job [...] yes, and as a journalist and photographer, it’s a good way to practise... practise writing... or practise writing something that others might get interested in.”

The other noticeable aspect of Rosalie’s reported use of technology is how far her writing and therefore her computer use and photography is an outward expression of identity but, again, is intended to help her find work. This emerged in the discussion of the web page Rosalie has designed and her participation in and writing of blogs. Rosalie said that she writes a web page to attract “some attention”: “just to let people understand what kind of person I am, what I’m interested in... hopefully, potential employers and mostly friends, people who would like to see some of my work.”

Rosalie said that she much prefers having her own web page to relying on Facebook or any other social networking site (although she does use Facebook too). This is because she can personalise her own web page much more, which is important for presenting herself and her work. Rosalie said that it is quite artistic and that “I was trying to make it very me!” Rosalie’s engagement in blog writing is similarly interesting and expressive. She said that she regularly participates in five different blogs: some based around different communities and others blogs that she has set

up herself. Rosalie said that she spends more time on blogs than anything else, and that this can be initiated by either exciting or unpleasant events: “If I don’t have anything to do, I’ll write something down or if something exciting happens that I want to share with the whole world, something bad happens.” Rosalie said that she has been participating in a Russian community blog for six years, since she was 15 years old. Because of this, she finds that she is more honest and open on this blog, whereas she noted that on other blogs she may be “... more anonymous. I think it’s harder to find my identity. I can be hiding.”

Rosalie said that her participation in blogs has given her the opportunity to try out a range of writing styles for different audiences. Rosalie said that the Russian blog had helped her to meet lots of “cool” people, including journalists and photographers in the Russian media-related field; originally, she participated to be “stylish”, whereas now it was more to be part of a “community”. Rosalie said that this blog has also now become an expression of success, somewhere that people could say: “I am doing better than you guys.” Nevertheless, she said that recently she had lost interest in what most other people were doing most of the time.

Rosalie also spoke about a blog that she had established herself with a quirky title. She had been inspired to do this when she decided that she wanted to have a blog on BlogSpot. Rosalie said that she used the blog to gather her thoughts and to make notes about things that are important to her and that others may be interested in too, such as recycling, ill treatment of animals, for instance: “Things that I think matter such as recycling, I was obsessed by recycling for a while.” Rosalie also uses the blog to display photographs she has taken. Rosalie said that she had established a regular group of readers, and that these were mainly her friends.

Interestingly, Rosalie does not use MSN Messenger to communicate with friends, and her accounts of using Facebook suggested a business orientation to this, which contrasts with the more expressive uses of blogs and her own website that she described. Rosalie said that she uses Facebook for keeping up to date with friends. She described how she found it easier to send a quick message to somebody on Facebook than participate on a blog, particularly if it was the middle of the night and she couldn’t sleep. Nonetheless, Rosalie does say that she uses email “all the time”. In common with Rosalie’s blogs and website, she said that she keeps her Facebook pages “clean” so that nothing embarrassing appears and that any photographs are from the beginning of a party rather than the end. Rosalie is aware that her blogs promotes her to potential employers.

In contrast with Rosalie’s self-directing rich and expressive uses of technologies for her writing, the provision of digital technologies at university seems somewhat bland. For instance, Rosalie makes use of the Blackboard VLE to download lectures and the supporting links which her tutors provide in order that she can access different

resources for her studies. For her course, Blackboard is not used for collaborative learning. Rosalie is also required to write a web page and upload it to the server.

Impact on learner

It is interesting how Rosalie's interests and ambitions manifest themselves in her uses of digital technologies for writing and/or photography. Rosalie seamlessly combines the personal with the educational and professional through her uses. It is clear that the ability to publish on the web has provided an important outlet for Rosalie's writing and desire for self-expression, in a way that would not have been as easily achievable before the arrival of the Internet.

Conclusion

As this case study has shown, seemingly Rosalie is on a path which has seen her take her interest in writing through to higher education and, hopefully, towards a career in journalism. Because Rosalie has confidence in using technology, she is able to harness its strengths to provide an outlet for her writing. Rosalie is aware that her own intensive and self-initiated uses of technology provide a range of spaces for her to develop her writing in. These provide an excellent complement to the more formal aspects of her vocational course, as represented on Blackboard. Nevertheless, there is clearly an overlap between Rosalie's personal and professional uses of the computer, which produces an audience for her life, whether this be friends, family or potential employers. Moreover, Rosalie also has a sophisticated understanding of the potential influence of how she markets herself within her writing spaces and how to present herself professionally – for instance, she is careful about the content of her Facebook page.

Case 14: TJ

Theme 2iii:

2. Learner technology-related practices:

- iii. formation of future learning careers through personalised home technology activities.

Tags

Choice among flexible learning options; FE; further education; apprentice; work-based learning; career-driven; limited use.

Summary

This case study discusses the importance of technology for supporting the learning careers of individuals, and how those who are pursuing hands-on career paths sometimes perceive technology to be irrelevant. This theme is particularly relevant to

the following FE apprentice, who demonstrates a limited range of activities regarding technology, preferring to focus his energies on activities which he considers to be of a practical use within daily life. Conversely, the learner also demonstrates a fairly strong reliance on technology for improving the knowledge that he needs to become expert in his field. This case study investigates these contradictions and how they affect the learner's choices about how to use technologies, with particular reference to the learner's reservations about using new technologies in favour of traditional methods, following the popular belief that his chosen career will benefit very little from any technological advancement.

Case information

- **Target learner:** TJ ('Todd')
- **Gender:** Male
- **Age:** 17
- **Institution:** Further Education 1
- **Course:** CG Level 2 certificate in furniture production.

Case overview and history

Todd attends an FE institution, where he works one day a week on an apprenticeship course studying woodworking skills. For the rest of the week, Todd works for a company that produces kitchens and furniture.

After his working day, Todd spends one to two hours on the computer, which he believes is significantly longer than the time he spends watching television "because there's not a lot on nowadays". Todd's computer has been in the house for eight years and has a slow processor. Todd acknowledges the fact that this significantly hinders his computer use, such that he cannot do anything that could be considered 'strenuous' for the processor, including watching television online. Todd aspires to buy a Mac laptop, but is dubious about spending a large amount of money on a new laptop when the computer he uses still works; Todd sees this as a waste of money.

Todd learnt to use a computer while in primary school. However, he does not consider this as his final learning process, rather believing that learning how to use the computer happened through his active use of it and through his own corrective methods, such as trial and error. "I've never really learnt to use the computer; I've just always played with them. And, like I've said: trial and error."

Voice of the learner – Todd

Regarding the activities he carries out on the computer, Todd discusses a fairly limited range of software, Internet tasks and gadgets, while justifying each use with careful decisions about their practicality within his daily life. Todd often states reasons for not choosing to use a particular gadget or software, which include: that

the activity is a time-wasting activity or a money-wasting activity, that Todd already owns something similar, or that he lacks interest in following current trends. These reasons are discussed in detail below, but they do suggest that Todd does not particularly feel a personal attachment to his technology and regards it more as a means to improve his life situation and find information when needed.

Todd explained that he is a fairly heavy user of the Internet for most of his shopping, although he is very negative about the prospect of buying clothes and footwear online. Another of Todd's prominent uses of the Internet is the social networking site Facebook, which he joined after hearing about its benefits on Radio 1; he visits this site once or twice a week. Todd uses Facebook for finding out what his friends from school are doing and arranging meetings with them. He is not interested in the popular culture behind the website, and makes often derogatory comments towards certain activities performed by others on there. For example, he talks negatively about the actions of those who put up lots of private photos, such as of holidays, just to show that they have been: "People like to put pictures of their holiday and all that... whereas I don't really see the point, because in that sense you're going to – if you've done it, you've done it, and they'll end up hearing about it one way or another." Todd also talks in detail about moving from Bebo to more mature sites such as Facebook, explaining that those who use Bebo are immature and obsessed with their personal profiles: "... it's all about what wallpaper you have next and stuff like that!"

Perhaps Todd's negative attitude towards social networking sites has partly influenced his decision not to sign up to sites such as MSN Messenger; he claims that he simply cannot be bothered – it is not something he thinks will be useful, as he already texts and visits his closest friends. Instead, Todd talks of visiting other websites: "I'd look at how I'm doing in the old table ping pong leagues... sometimes I have a look at the company's website, see if there's any of my stuff on there." His use of other more structured Internet activities such as email is also extremely limited; Todd checks his email for evidence of goods that he has ordered from the Internet, and uses his father's email address rather than setting one up for himself, as he doesn't see the need: "That [email] works, so don't fix it I suppose." Todd uses his father's email address in spite of the embarrassment he feels when his father accidentally reads his private Facebook messages sent to his father's address.

In a similar way to his use of Internet facilities, Todd uses a sparse and fairly unremarkable range of gadgets. He explained that while he did once own a digital camera, this has now been given to his father. Todd much prefers to use his mobile phone for taking photographs, something which he claims to do in class if he is proud of a piece of work and wants to show his father. However, this is not a requirement, and Todd does not claim to do much with the images afterwards, apart from sometimes uploading them onto Microsoft Paint, adding annotations and extra artwork "only when I'm seriously bored". Thus the manufacturing of his own artwork

and the publication of personal photos to the Internet is of little importance to Todd, something that is accentuated by the fact that he has only one picture on Facebook “so they can put a face to the name”.

Todd has a very practical attitude towards the use of other gadgets and technologies, and while he does own some of the latest technologies, his use of them is quite limited and specialised to his specific practical needs. Todd’s apparent wariness regarding new technologies appears to have developed through his dislike of the social buzz that often forms among younger individuals following the release of a popular new technology. Todd is more concerned with the practical benefits that the technology holds which will improve his day-to-day living experience and thus save him time and money. For example, Todd prioritises his mobile phone for activities such as phone calls and texting; he again shows a disagreement with the rising popularity of texting, feeling this is an expensive waste of time: “You end up sending like ten text messages when you could phone them up and get to the same conclusion in 30 seconds.” He does, however, note the usefulness of his mobile as a central hub for amalgamating a number of digital activities, mentioning that he uses it both for photography and for holding music. Todd’s choice of a mobile phone for a number of purposes therefore might relate to his underlying need to save time and to use the most convenient method possible. Todd admits to once owning an iPod, although again making a stand against the faddish nature of new technologies – he suggested that the novelty of the iPod wore thin after a while, when he could not be bothered to transfer music from his CDs. Similarly while Todd has a Playstation 3, he now doesn’t like or cannot complete the games he bought most recently for it, and therefore exudes a feeling of frustration with the technology. This is part of the underlying reason why he has not yet bought himself a Mac laptop, as he feels that technologies have often let him down in some way. For example: “I sort of got scorned by the old iPod, so I said what’s the point? I just have my phone now.”

Interestingly, Todd also seems to avoid a number of opportunities to use digital technologies because of the limitations of his computer to complete often basic actions. For example, Todd explained that he can have only one program open at a time on the computer screen as his processor works so slowly that the computer may crash. This has an impact on Todd’s ability to multi-task, and perhaps contributes to his concern about wasting time using technologies. Indeed, Todd’s slow computer also limits his use of particular gadgets; for example, the webcam, which he claims to use only “if someone is desperate to see me”.

Todd’s practical attitude does not end with his selective use of limited packages: Todd is working on a woodworking course where he claims there is no requirement to type up any written work; subsequently, he displays a preference for writing notes by hand. However, much of this decision reflects Todd’s belief that he is not skilled enough at typing to make the use of the computer worthwhile, adding that he would

like to become a faster typist if he had the chance: “I mean, you could write stuff up on Word if you wanted to... I’m quicker writing by hand.”

Todd’s belief that the industry he is working in has little to do with technological developments has a significant effect on his use of the computer for academic development. This belief is confirmed by Todd’s suggestion that future advancements within technology may benefit his personal life, not directly mentioning his career. Within his course, Todd has used the VLE and the ICT suite only once, and does not find the ICT department helpful. More importantly, Todd’s belief in the lack of a technological requirement within his chosen career means that he does not see the benefit of using technology to develop his woodworking skills. For example, as part of a previous carpentry course, Todd encountered computer-aided design software which enabled him to create sketches of furniture with different dimensions and angles, so that the computer could immediately recalculate a specific dimension change and reflect a three-dimensional example of the design. Todd thinks that this sort of software is a waste of time, as it can present too much information for the client to understand, can take a great deal longer than hand sketches do to develop, and may not be an accurate reflection of what you asked the computer to do. Todd noted:

“I think... with technology, you can sort of overkill it a bit... You draw a meticulous bit of furniture on the computer, but it does take time... so by the time you’ve drawn it on the computer in your spare time, it’s not really that sort of feasible to then go and make it, because you’ve got to pay someone to go and make it. Unless your client is going to pay you to see that desk spinning round on the computer, then what’s the point? It does take a lot of time to design things on the computer, because it doesn’t always understand and it doesn’t go well does it?”

Todd also believes that his visual-minded personality means that the computer-aided software is not needed and thus could prove to be something of a hindrance: “I’m generally the sort of person who thinks about it more up here and visualises it a bit more. I don’t need it to spin around on a computer screen to, you know, be able to see what it’s going to look like when it’s done.”

When asked about keeping an online record of his achievements as evidence for a future employer, Todd discussed that although he would consider assembling a portfolio of photographic work, he would never use this in a formal context such as at an interview. Todd believes that his career does not depend on any technological evidence of work that he has completed, but rather a physical demonstration as evidence of what he can do manually. Thus Todd does not even feel that the course he is completing is providing him with much of a grounding for his career, as it is experience which is most important to future employers: “[employers] ask you how many years’ experience, and that’s about it... all Fred’s bricklaying is going to care

about is how many bricks you can lay in a minute, so doing college sometimes isn't all that helpful."

Having decided to study for a course which helps develop skills for a specific career, it makes sense that Todd spends much of his time focusing on this career, for example through the four days he spends working as an apprentice and learning about the trade on the job. This provides Todd with little free time to spend at home using technology, and indeed the nature of Todd's home life on a farm suggests that he probably takes part in certain other manual activities as part of his daily routine. Todd explained that his computer use is fitted around activities such as going out, playing table tennis or shooting.

Conversely, Todd mentioned a number of activities for which he uses the computer to enhance his expertise within his chosen career, although he does not necessarily distinguish these as aiding his development. One such example is when Todd looks online at different pieces of furniture to get ideas for designs. Another extremely important aspect to the design of a furniture product is the knowledge of different types of materials and finding out where to buy these from. Todd suggests that he spends time using the Internet to further his knowledge of materials and to find out where he can buy these; for example, he said: "I suppose I do look at some bits of furniture, you know, where I'm going to buy some knobs from for a bit of furniture for what I'm doing for myself." The process of buying materials and fixtures online, however, is described as being "a bit of a palaver", as the specialist items which he likes to buy online are often not available to private customers. Todd has developed a method of getting around this obstacle by referring to the name of his farm business when ordering goods – a selling point to the manufacturers, who often also produce agricultural goods and therefore think they will get further business from the farm. However, there are difficulties in hiding the fact that he is a private buyer, and Todd opens a number of different accounts on different sites in an attempt to hide his identity. Importantly, although Todd has demonstrated that he does not normally bother to use technologies when he has time or money constraints, he does make the effort to use online shopping, despite the hindrance that they cause. This implies that although Todd often finds technology a nuisance – perhaps due to his lack of typing skill and preference for traditional methods – he still recognises its importance for helping him get hold of the latest products, and therefore he compromises.

Todd also uses the computer for other activities that can be regarded as enhancing his development towards his woodworking career by widening his expertise and keeping him in touch with modern ideas. For example, Todd spends some time each day on the computer looking at the latest tools and machinery, which ensures that he remains up to date with methods he could use to create his own products. Indeed, Todd explained that for a bit of "bedtime reading" he downloads catalogues produced by other companies from the Internet, to read offline when the computer is

not on. This, he suggests, improves his knowledge of what furniture styles look good and, again, what types of tools are useful for replicating these effects:

“Cos you can download catalogues online for stuff like that, and if I was going take on a private job making someone a whatever, you can generally – some companies are pretty good. You can email them like how heavy your door is or whatever... and they’ll send you what hinges you want.”

Lastly, Todd also suggests that he monitors the Internet regularly to discover what other companies are doing and to keep in touch with movements within the industry. He even manages to find almost step-by-step guides, such as for how to produce particularly complicated parts of furniture such as runners: “... look on the website ‘cos generally they have pretty good diagrams on how their drawer runners are made and... apart from that and learning, ‘cos it’s not quite as easy as just to think ‘Right, we need some handles for this.’” Todd’s uses of the Internet for researching his course and career are actually quite strong, despite him having a low level of interest in other computer activities.

Impact on learner

Although, initially, Todd appears to be unremarkable in his choice of technologies outside of formal learning and work, and indeed almost appears to be against particular activities that are often favoured among others his age, such as Facebook, he does actually use technology very efficiently to his advantage. Todd not only prioritises those activities that best fit his hectic lifestyle (helping on a farm and juggling an FE course with an almost full-time job) but also uses his ever-expanding knowledge of the Internet to help him learn more of the general knowledge and skills that he feels are necessary to his chosen career, which include different techniques for producing basic sections of furniture, and an up-to-date knowledge of current trends within the furniture industry and what competitors are creating. This strategy is very profitable for helping Todd save time and money, and is helping him prepare for his future career in furniture production.

However, Todd’s belief that technology is not useful for aspects of this career (for example, the fact that he would rather draw diagrams by hand and calculate dimensions in his head) does have some implications for the efficiency he might have when using his practical skills. His lack of typing skill and the problems he has communicating his exact requirements in computer software seem to be partly responsible for holding him back from the benefits that computers can have within his course and future furniture production. For example, Todd has not yet discovered the usefulness of computer-aided design software. Although the work on his course is not suffering from this lack of computer use, if Todd realises the benefits that computing can have and harnesses these benefits correctly, he may improve the efficiency of his outputs.

Conclusion

This case study discusses a learner who is both apprehensive about the use of technologies due to his own lack of skill in typing, and is preoccupied with performing activities that help him to save time and money. This learner is extremely focused on improving practical skills for his career, which are, in his eyes, at odds with recent developments in technology that could be used as an aid in his work. Despite this, Todd does acknowledge particular features of the Internet which allow him to accurately monitor existing companies and new developments in the furniture-making business, and buying tools and materials online which otherwise he might be unable to get hold of. Therefore, although this learner is very particular about the types of activities he does on the computer, he recognises the computer as a tool to help him reach his goal.

One main reason for Todd's lack of use of the newer technologies such as computer-aided design software is the stigma he feels regarding his typing skills, and the belief that the computer will not always create the correct prototype due to a lack of understanding of his needs. Although the learner feels that he is much better off hand-writing notes and sketching drawings, it would be beneficial for him to receive formal help with basic computer skills, so that he can build his confidence with technologies and learn how to input the correct information to produce accurate designs on the computer. This case study also follows an intensively motivated individual working specifically towards one career, and shows how he harnesses technology to advance himself. Perhaps, had the career been of a less practical nature, the learner might have spent more time using technologies to develop further expertise. This case study does, however, suggest that even in courses where little computer expertise is needed, learners can use the Internet advantageously; thus consideration perhaps needs to be given to such learners, who might feel that technology should not play a part in a hands-on subject, and yet who would benefit from greater confidence in using technology.