

Fingers and Thumbs:

Learning on mobile phones and games consoles

Jeni Edge
Nicole Fuller
Iain Springate
Cathy Walker

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Introduction

Government policy favours the use of new technologies in learning, both for its reported ability to widen participation in learning, and also to produce a workforce skilled in the areas which are perceived to be needed for economic success.

To investigate the extent to which technology has the potential to widen participation in Hull, the Learners' Forum has conducted research into people's attitudes to learning and technology in the city. Whilst this report concentrates on learning through the use of mobile phones and games consoles, the full report also analyses data about computers, online learning, and learning through the television. For more information about these other areas, please see the full report, entitled, 'A Digital City? Attitudes to learning and technology in Hull'.

In total, 103 residents of the city were spoken to, and the make-up of this sample broadly reflects the demographics of Hull in terms of gender, age, employment status and ethnicity. In addition to this, we made sure that we spoke to people from all areas of the city by dividing it up according to the Area Committees.

For this piece of research, the Learners' Forum used semi-structured interviews, meaning that we were able to gain an insight into people's opinions and experiences in their own words. For more details about the methodology used in this research, please refer to the full report, 'A Digital City? Attitudes to learning and technology in Hull'.

This report focuses on people's views of mobile phones and games consoles. It should be highlighted that respondents were not asked many questions on these subject areas, although a number of them did make comments about them in more general questions. This is the reason behind the short length of these chapters, and why no concrete conclusions are made at the end of the report.

Learning on the move:
Mobile phones in education

The UK is undisputedly a nation of mobile phone users. It is reported that mobile phones are owned by approximately 54.7 million people in this country (although this figure is likely to be higher than the actual number), thus meaning the vast majority of the British population of approximately 59 million have their own mobile phone (Ofcom 2004; Office for National Statistics 2002).

Recently, a lot of interest has been shown in the potential for learning involving the use of mobile phones to meet the needs of disenfranchised young people for whom some learning could help to empower them and redirect their lives. The m-learning project is working with young adult learners aged 16 to 24 across Europe to test out using mobile technology as a tool in learning. In this way, relevant and fun topics such as football and music are chosen to attract young learners and draw them in to learn skills such as literacy and numeracy through games and quizzes over their mobile phones. The notion is that by using technology which is a familiar part of young people's lives, some of the barriers to learning can be broken down and these people can engage with learning which will eventually lead to them becoming part of the labour market (www.m-learning.org).

In order to ascertain some initial impressions of how popular and successful m-learning could be in Hull, the Learners' Forum asked participants whether or not they used a mobile phone. Out of 101 people, 75% said that they did use a mobile phone, and 25% said they did not. So three-quarters of our sample were mobile phone users, which suggests that Hull could be behind the national average of around 90%.

Other than this, interviewees were not asked any further specific questions regarding mobile phones, but many did talk about them in the course of the interview and these ideas are explored below.

Biography of a phone

People's understanding of the biography of mobile phones will inevitably affect the way in which they use them. For many participants, the timing of their encounter with new technology was key to their appreciation of it, and to whether they embraced or rejected it. For example, one interviewee talked about how her negative feelings towards mobile phones had changed into more positive ones:

I would have said I hated them last year, but I inherited my father's mobile phone which he had with him...and I find now that it's cheaper to text my children, because one's a long-distance lorry driver and he's only home on a weekend - one lives in Leicester and I find it's easier to text them if I've got a little bit of news than get on the phone and have a long conversation with them.

(58 yr old female on incapacity benefit)

It can be inferred that the above person would not have purchased a mobile phone herself – it is only because of inheriting her father's old phone that she began using one at all, and it is this opportunity to engage with mobile technology

which has enabled her to recognise the advantages of it. Similar scenarios were found with other interviewees, involving both mobile phones and computers. Whilst people did not perceive a *need* for new technology in their lives, once they had the chance to use it through inheritance or a gift, they could appreciate how it made some tasks easier, cheaper or quicker. This was particularly found amongst those at the older end of the spectrum, who had largely not experienced such technologies as familiar through work, school, or home life. One participant recognises how people learn to use appliances through familiarity:

Well the majority of things we are brought up with, we're brought up with them so we learn by using them all the time, but I would say if you are not used to that type of technology and then suddenly you've got to learn how to do this, it looks over complicated, there are too many buttons and manuals are three inches thick!
(34 yr old full time employed male)

Similarly, it is notions of familiarity and unfamiliarity to the technology which breed different attitudes to mobile phones. Several interviewees shared their sense of annoyance at mobile phones, the majority of whom were in their 50's and over.

Mobile phones, I must say, I can't stand them, can't stand them, but that's most probably my age showing.
(54 yr old full time employed female)

Evidently, persons such as this would not benefit from m-learning initiatives, but this is not problematic as all of the participants expressing such views are older than the target age range for m-learning. It is a useful indication that learning on a mobile phone is better aimed at a younger audience who are already very familiar with phones and sending text messages, and tallies with the idea that learning must be relevant to the learner and delivered in a helpful way.

However, by no means is it to be assumed that all of our older interviewees were against mobile phones. As in the earlier quotation, several gave anecdotes which showed their eagerness to use them, and explained how they had come to start using them. For some, the opportunity to start using a mobile phone has equalled the opportunity to explore technology in a very hands-on way:

When I was given this [phone] by the volunteer group for whom I work [...] they gave each volunteer a mobile phone and I thought, 'well right, go to it', and I learned a lot by trial and error. Now I'm actually playing games on this thing, playing games and er, so I'm very much, I believe in trial and error, you know, fishing in the dark, shooting in the dark, yeah. (68 yr old retired male)

Not all older mobile users had the confidence to learn to use them in this way. An example of a mobile user lacking this confidence is given below, and it is evident through the way in which he is not sure of the appropriate language surrounding them:

**When I want a teletext my daughter's got to do it – I just can't.
(61 yr old male on incapacity benefit)**

Some older interviewees had negative comments about mobile phones. In particular, interviewees were concerned about children and young people's overuse of mobiles. Interestingly, many of these could not give a solid reason for their disapproval, but indicated that they thought teenagers using mobile phones in the street looks messy, and that it is a sign of an undefined social malaise:

Pp: Oh I think [mobile phones] are alright but you have to keep them out of the hands of children, I really do.

Int: There is a lot of kids with them now isn't there.

**Pp: Yes, I know there are and they are a nuisance. I don't know how you can stop them from using them – I don't think you can.
(70+ yr old retired male)**

It is probable that such generalised negativity amongst older generations towards young people and mobile phones results from a knee-jerk reaction to change, in a similar way that many in the same age group are against children using calculators and computers as part of their schoolwork because it is believed to be "cheating" when compared to their own school education which involved attaining great feats of mental arithmetic. Without acknowledging the need for change in the ways children are taught in the wake of technological developments worldwide, there are some who dismiss the use of modern technology as a stifling influence on the brains of our nation's children:

Pp: ...I think [mobile phones] are vastly overused. They are continually, teenagers have them clamped to their ears don't they, all the time, so they don't look where they are going and they walk into you.

Int: I was going to say what do you think the effects of this would be?

Pp: Well they are going to lose the art of conversation for a start off plus not going to be able to spell because with texting you use a shortened version, I tend not to, I tend to use full words, but when my friend texts me I can't understand it because she shortens everything down, I think what the hell is she on about here. And computers again, yeah great and calculators but nobody uses their brain anymore. They do it they reach for their calculator they've got to add 13 and 13 together, they don't seem to use their brains anymore and that disturbs me a bit. (50 yr old female on incapacity benefit)

Clearly, an abandonment of mobile phones and calculators for young people is not going to occur in the near future, but this respondent's fears about a loss of good command of the English language is a valid one. In an environment where

some teachers complain of essays being written in 'text speak', we have the possibility of m-learning targeting the youth market with learning tasks aimed at improving literacy and numeracy standards. (BBC News Online, 2002a) Whilst in theory the idea of using topics and themes which are already of interest to young people to hook them into learning is a good one, in practice for many young people the main purpose of a mobile is to keep in contact with their friends and family by texting. As it is commonplace to use non-standardised 'text speak' as a short and speedy way of communicating with others, is it possible that attempts to improve literacy standards through this medium could run into problems? If people's understanding of mobiles is inherently linked to the shortened version of language used on them, it could be very difficult to persuade them to use their phone in a different way.

Those who are part of the m-learning project recognise this argument, and dispute it by asserting that many of the young people who are enthusiastic texters are those who would not usually use pen and paper to communicate. They contend that mobiles are;

uniquely placed to contribute to improving young people's literacy – especially as mobile phones are increasingly being designed with the extra facilities commonly found on palmtop computers as well as cameras and picture messaging. This provides more opportunities for visual and literary expression. (Attewell and Savill-Smith 2004:5)

However, the types of phones highlighted here are those at the upper end of the cost scale, and it must be acknowledged that many of those young people lacking the basic literacy and numeracy skills who would be targeted by m-learning will be those from poorer socio-economic backgrounds. Although in time, the cost of such mobiles will decrease, it is likely that further technological advances will make other phones more expensive, more desirable and potentially better for m-learning purposes.

No need for style

Several participants were against the design of mobile phones which favoured style over functionality, most particularly those with extra functions perceived to be superfluous and unnecessary on a phone. Noteworthy is the fact that those who commented in this way were not particularly lacking in confidence when it came to using technology, but simply conceived of phones as phones and were not able or willing to alter this concept:

Mobile phones yeah I tend to use mobile phones you can have the latest little techphone or you can have the old fashioned bricks. At the end of the day it still does the same job. It makes a phone call. So all the little gadgets and everything that go on, to me they're just useless, I'd rather just have a brick.

(39 yr old unemployed male)

I mean, to me, it's a bit old-fashioned I know, sounds old-fashioned, to me a phone's a phone, you know what I mean, it's not a games machine, it's not a camera, it's a phone, you know what I mean, but that's my old-fashioned aspect on it...

(51 yr old full-time employed male)

In many ways, this fits in with the idea that people have their own biography of a piece of technology – if these people have grown up thinking of mobile phones as fulfilling basically the same function as a landline phone in the home, only in a portable fashion, the notion that they can also be for taking photographs, playing games and learning can be somewhat alien. In addition to this, the usefulness of these extra functions on phones stems from the phone user, so if they are perceived as unnecessary to them, then essentially, they are unnecessary.

Other participants are able to use their phones for what they perceive as the basic function(s) of them, but feel they need to turn to others if they want to carry out a more advanced task. They appear to be content with this situation, as they can do the things they predominantly wish to do on a mobile phone:

As long as I'm shown how to use it I'm not usually too bad. I can't do nowt dramatic like go onto the internet on my mobile phone or owt like that, but if I ask [boyfriend] to do it he would, so I don't know, so long as I know how to ring off it, so long as I know how to switch it on, I'm usually not too bad.

(24 yr old part-time employed female)

A younger interviewee takes issue with the design of mobile phones, but with regards their size rather than any extra functions:

Pp: Mobile phones, they're getting too small. They really are too small! [motioning with finger]

Int: Fingernail.

Pp: Exactly. [You hurt your finger] twisting it so you can push just one button, they're stupid [...] Coloured screens [on mobile phones], good, I like coloured screens, it gives you more chance to adapt and change it to your own personal things, with a screen, you just don't, the fashion! I love a bit of class! [laughs] But yeah phones and stuff, it's all about style nowadays, it's more just a style, but they become useless.

(18 yr old student)

This individual clearly enjoys owning a trendy mobile, but is resistant to the need to own a device which constantly needs updating. As a person within the target age range for m-learning, it is evident that he is enthusiastic about mobiles and this may be sufficient as a 'hook' into m-learning, but the inference in his comment is that because the companies producing phones emphasise the style element, there is a need (or perception of a need) to keep up-to-date with the technology. Inevitably, to keep up-to-date with the latest phones is costly and out

of the reach of some of the very people m-learning is supposed to be targeting – disaffected young people. The expense of mobiles is highlighted by one participant below:

I think eventually, you'll be able to do as much with a mobile phone as you can on a computer, I mean you can do quite a lot of stuff now, in that sense they're quite good, but I mean that kind of phone not everyone can afford anyway, and not everyone can afford a phone at all... (25 yr old part-time employed male)

In order to engage in m-learning, presumably people will not be required to own the latest, most technically advanced phone. However, it ought to be recognised that receiving and sending text messages does usually cost money, and some people may be reluctant to spend extra on their phones for learning purposes. Because of this, it is essential that any learning or learning support that is delivered over the phone is completely natural and fits seamlessly into the lives of m-learners.

One practical way of combating the problem of cost is if the phones being used for learning purposes are owned and paid for by learning providers. An example of this is an ESOL class in Southampton which has used camera phones to record information outside of the classroom, and then send pictures, audio and text directly to a website through wireless internet and picture messaging. In one project, learners investigated migration in their town by taking photographs with their phones throughout the town. The tutor kept the group informed of how the other members of their class were getting on by text messages, and when they were next in the classroom they attached the photos to a physical timeline and carried out an internet-based task. Learners then wrote short texts to accompany the pictures and produced an informative poster from the timeline they had created.

It is reported that these learners, although experiencing some initial difficulties, found it particularly motivating and engaging to use the technology and were able to learn new vocabulary and gain confidence in their spoken and written use of English, thus a valuable form of learning. (Mellar and Kambouri 2004)

Concerns

When considering the adoption of m-learning, it is of course vital that any concerns that people have about mobile phones are taken into consideration. One area which respondents were worried about was the state of their health when using mobiles:

As for the [mobile] telephone, I don't have a telephone, I can't use a telephone, and I do think it is a worry for people's health. I mean, you can't tell me that you can have something transmitting at a certain frequency near your head, by your head, and they say, oh, that won't affect you...

(71 yr old retired male)

People were particularly anxious at the lack of conclusive evidence about whether or not mobiles are harmful to use. This led some to be reluctant to use a mobile phone at all, as with the above participant, and caused others to limit how much they used other technological appliances as well:

**Computers, I work on computers a lot but I sort of try and keep meself away from them a bit as well regarding like all the feedbacks what you get regarding mobile phones, cancer in the ears and blah, blah [...] Microwave, I won't use microwave as well, I don't agree with them.
(37 yr old full-time employed female)**

Evidently, such levels of confusion over the safety of using technology are a very real concern for some people, and these attitudes are not conducive to a governmental learning agenda which involves the use of modern technology. Individuals with feelings such as these are unlikely to change their minds about mobile phones and other devices overnight, and it is only through well-publicised independent scientific research into the health risks of technology use that some people will begin to make use of certain technologies.

At the same time, it needs to be recognised that the potential for health risks is too much of a worry for some people to adopt the use of mobiles, and thus expectations for a whole section of society to be willing to use a phone as part of their learning are possibly overambitious.

Another fear regarding mobile use is that of the individual's personal information being held on that phone and the potential for that phone to be stolen and information used against them. One young male participant explained his fears thus:

I think they're good, I think they're useful, mobile phones and the internet but I think they can be dangerous because they've got information about you on 'em, so if you lost it then it could fall into the wrong hands. (18 yr old male student)

Whilst this person has not been dissuaded from using a mobile phone, it is evident that his concerns are very real and valid. Informational concerns about mobile phone usage may impact on m-learning, as people could be unwilling to give out personal information over their phone, or liaise with a remote organisation. In addition to this, worries about personal safety need to be taken into account by those developing the learning content and modes of information exchange. Another interviewee shared his concerns about the ways in which phones can be used:

You know at the end of the day, a phone is just a phone. I think it's clever, the way they're developing 'em to take photos and that sort of thing, but I also think it's a bit Big-Brotherish you know what I mean, a bit frightening, 'coz you can do anything, you can be in the street,

someone can take a photo of you, download it to someone else, it's a bit frightening that. (39 yr old unemployed male)

Anyone embarking on some learning involving mobile phone support must be reassured that their details will be kept confidential in the same way as if they were embarking on a more conventional course in a college or adult education centre, for example. In addition to this, the risk that an "m-student" might have their phone stolen needs to be taken into account, and procedures put in place which ensure that any tests or other work they have completed on their mobile is not lost, and that they can pick up where they left off at some point in the future.

Working with mobiles

The main positive aspect of mobile phones is that of their usefulness – indeed, the popularity of the technology would not have exploded in the way that it has done if it were not considered useful by the majority of the population. One major area of life affected by mobiles is that of work:

Mobile phones, yeah, they're a super aid to work, a bind at times when the damn phone's ringing and you're doing something up a ladder, but er, yeah I use a mobile phone all the time, well it's on 24/ 7 is me mobile phone, er, they're not used to the upmost err well I just don't have the time, I mean, you can get email and Bluetooth and all that, yeah, but it's a lot easier just to ring and get somebody else to do it, the art of management – delegation.

(46 yr old full-time employed male)

Naturally, mobile technologies can make communications and business a more fluid and rapid exchange than in the past. The above person points out the advantage of being able to swiftly contact employees by mobile and delegate work to them. However, there are other participants in the study who have identified a negative side to the use of mobile phones for work. The following interviewee is a retired civil engineer who described the changes he saw in his profession after the advent of mobile phones:

When I started work...you used to go out, the tide was rising, the banks were...collapsing. [pause] and you had no way of getting in touch with head office, the phones never damn well worked. And actually had to make decisions [pause] well nowadays, when I got sort of senior...people went out with a mobile phone. It's so easy to ring up and ask for advice erm...I mean to be fair in the old days you made the thing, you often made a mistake but, it was never held against you, you've done the best you could do and you learnt a hell of a lot more with that. (67 yr old retired male)

In his opinion, before the invention of mobile phones, workers had to take responsibility for their own work as they were often unable to contact their managers in the head office to ask questions. Therefore, people learnt their job

through doing it and gained invaluable practical hands-on experience by making their own decisions and carrying the weight of the consequences. As he says, **'you learnt a hell of a lot more with that'**, intimating that people now often use their mobile phones to defer responsibility to others, and as a result are simply carrying out orders instead of learning through practice. His fears are that younger generations have not been brought up in a way which encourages them to take responsibility for their actions and to make decisions, and so ultimately his fears are also for future generations and the state of the workers:

I don't know what's gonna happen with the next generation because the ... where we had to make our own decisions, erm... now the generation's gonna retire sometime that are still making those decisions which should be made by younger people; but I say... you can't uninvent [technology]. Err, I can see it is a lot of use but, err, I can also see it isn't all gains.

Along a similar vein, interviewees discussed their perceptions of needing mobile phones. One person feels they are essential, but recognises that this wasn't the case in the past.

**Having mobile phones I suppose today they are a necessity, mind you we did without them for years.
(49 yr old male, unemployed volunteer)**

In contrast to this is another participant whose enthusiasm for technology is such that he pursues the latest developments and describes how it is entwined with his whole way of life:

**Generally, well yeah, I mean I have to have like the best kinda TV, DVD, videos, stereos and computers and internet access and mobile phones and be able to do all that, you know, I like to be able to use all this, erm, I say I could probably live without it, but I would rather not, I mean if my mobile phone's gone flat, in fact I haven't brought it with me now I feel a little bit like [shaky] [laughs], and if I haven't got access to my email for a day or so, you know, I start panicking but I suppose I'd get over that, you know.
(45 yr old part-time self-employed male)**

In looking to the future of learning using mobile technologies, the most important factor in its success or failure is how useful and invisible the technology is. During the testing of Palmtop handheld computers on children in both the school and the home, it was found that because the technology fitted naturally into the children's lives and had multiple roles to fulfil, it was a valuable addition to learning and play. (Mifsud 2004) If Hull is to teach its children, at least in part, by using mobile technology, it is essential that it is used as a natural part of the learning process and not magnified out of proportion.

Conclusion

There are several broad points which can be drawn from the respondents' comments about mobile phone use.

Firstly, people's experience of using mobile phones was found to affect their confidence in using them. Linked to the concept of biography, people have an individual and generational comprehension of mobiles and this has an effect on their attitudes and feelings towards them. However, this is not to simplify the range of opinions given in the study. For example, several older participants recounted how having been introduced to mobile phones at an appropriate time in their lives had led them to find it useful and adopt the technology as their own.

There was some negativity expressed by older participants towards young people and children using mobile phones, most probably in reaction to societal change. Particularly highlighted was the claim of the decline of young people's ability to use the English language appropriately through the employment of text-messaging. We would question whether m-learning is necessarily fit for the purpose of improving levels of literacy when text-messaging uses a non-standard, shortened version of English.

Respondents discussed the extra functions on phones which mean they can be used as a games machine, camera, way of connecting to the internet, etc. Some older participants found these superfluous, and were desirous of a phone to be used solely as a phone, whilst some younger interviewees showed enthusiasm about these extra functions. This can be considered as indicative that phones as a 'hook' may work for some younger people, but the issue of the expense of owning the latest phones was highlighted by participants, and this should be taken into consideration by those developing the learning content.

Several areas of concern about using mobiles were underlined by interviewees. The potential health risks of mobile phones were shown to put some people off using them at all, and although this was seen in older participants in the research, this could possibly be the case for some of the target audience for m-learning. In addition to this, interviewees discussed worries about their personal information being held on their mobiles and the possibility of this being obtained by others through theft. In light of this, procedures must be put in place to ensure that learners' information is kept confidential and m-learning systems can cope with the common situations of loss or theft of people's phones and people changing phones.

Participants discussed how useful mobile phones can be for work, and talked about the way in which they are considered as essential now, whereas in the past they did not even exist. An argument was put forward about the use of mobiles resulting in workers taking less responsibility for their own actions and making less decisions, due to the constant communication with superiors which is now possible.

Developmental or Destructive?

Games consoles and learning

Games consoles such as Playstations and Xboxes are known to be a popular way in which some people spend their leisure time, and their potential in terms of contributing towards learning has been recognised, although not at this stage fully realised. In an attempt to gauge how successful learning initiatives using consoles in Hull could be, participants were asked whether or not they personally used them.

Overall, 69% of interviewees stated that they did not use a games console at all. Out of these non-users, 19% explained that any games consoles in the household were used exclusively by children/grandchildren.

Whilst 11% of respondents said that they played on a console very occasionally, a further 20% said that they used one regularly. In total then, just under a third of the sample used games consoles at all. Those who used games consoles with any regularity were predominantly at the younger end of the age spectrum. Therefore, the idea of tailoring games with educational content to a younger market would appear to tally with these findings.

Other than this, interviewees were not asked any specific questions about games consoles, but comments about them were made in response to general questions about people's feelings towards technology and the issues arising from these are explored below.

As can be seen from the number of participants who do not use a games console, there are many people who feel that playing on one is not an activity they wish to take part in. Amongst this group, there appears to be a common consensus that games consoles are associated with children and young males. In relation to the notion of the biography of technology, games consoles are of course a relatively recent development and so are not a part of the familiar landscape for older interviewees, as they are for children and young people now. In addition to this, their association with particular sections of society make them unpopular with others. Typical comments expressing this view are:

**I don't do games consoles and things like that – it's not my thing really.
(18 yr old female student)**

**I'm not into erm getting Playstations and stuff like that, that just
doesn't float my boat really...
(34 yr old male on incapacity benefit)**

Children

The majority of comments about games consoles were about children's use of them. Several interviewees were unenthusiastic about children playing on consoles because of the limitations they place on their physical exercise:

I mean I don't know I probably sound terrible saying this but I just see this whole generation of young kids that live indoors and rely on, sort of, artificial stimulation, you know they don't go out and play they don't do anything physical I mean half of them look ill you know, I mean they're just not, they should be climbing trees and falling off roofs and things like that...

(45 yr old part-time self-employed male)

In light of the current concerns about the state of the nation's health, and especially regarding increases in the levels of obesity, such comments about children's heavy use of consoles cannot be dismissed lightly. (BBC News Online, 2002b) If there are health fears about the consequences of children playing on games consoles, these clearly need to be taken into consideration before the adoption of learning packages involving some console use.

However, it should be noted that not all participants view them as a danger to children's health – the below interviewee describes how in her opinion, the Playstation actually helps her daughter to keep fit when it is linked up to a Dance mat:

...my daughter has got a Playstation but she has a Dancemat which is brilliant because it is exercise for her because she doesn't get much exercise apart from sports [at school] and what have you. So she gets to keep fit doing that hopefully...

(38 yr old female, single mother on income support)

Although the above interviewee is not discussing learning on a console, she does recognise some benefit for her daughter, and thus has a positive view of the Playstation in relation to her child. This positive attitude would suggest that she may be amenable to any educational content of a game in the future.

In addition to unease about children's physical wellbeing, concerns about games consoles restricting children's mental activity were also common amongst respondents. One mother explains the reasons behind her prohibiting the use of games consoles in the home:

I'm just not one for being sat on the computer, going on a game whatever, I'm more for more active, more for the brain, do you know what I mean and that applies to the kids as well... I mean I have got a very, very intelligent son, but the other two are not as advanced for their age so I'm not encouraging the telly I'm not encouraging the games, I'm encouraging the books and writing. To other people it sounds cruel, but to me for my children to get better in life they need

that educating, they need to learn and that's what life's about; learning. So no, [games consoles are] not something that's active in our house. (37 yr old unemployed female)

Evidently, she does not view computer games' current content as being educational, as indeed, the majority of them are not intended to be, and thus discourages her children to take part in such activities. However, even if there were games with fantastic educational content, it is likely that people such as this would need to gain a fresh understanding of the purpose of a games console before conceptualising them as able to play an important role in the teaching and learning process. She clearly sees education for her children as important, and views learning in quite a traditional way, by encouraging the basics of reading and writing rather than anything technological.

When looking at parents' comments about games consoles in terms of their learning potential for children, some appeared unsure about whether or not their children were learning whilst playing. One father related how impressive he found these games, but could not say whether or not his son was learning:

Games consoles to me, if you can learn something, good, 'cause some of these games now are fantastic. My son's got an Xbox erm, he's on it all the time. I suppose he's learning, I mean he's got this tennis one, but they don't interest me... (47 yr old male on incapacity benefit)

For parents such as this, who see that their children enjoy playing on games consoles and have not aired any concerns about the activity, it may be likely that they would buy into "edutainment" style games for their offspring in the hope that they would add to their learning.

Other parents already see games consoles as beneficial to their children in terms of the skills it can afford them. A specific benefit of using games consoles was recounted by an interviewee about a child with attention deficit problems:

We use games consoles for [stepson] for his concentration... We use games consoles for him to help his concentration skills, 'coz he has problems with his concentration. (35 yr old female, at-home mother)

There is no doubt that a game which contributed to this participant's stepson's learning would be considered a bonus to something which, in her opinion, is already helping him to learn particular skills which he requires.

Research has shown that using games for those with attention deficit has proved beneficial (Larose et al 1989 in Mitchell and Savill-Smith 2004). In addition to this, games have been used to treat other conditions such as schizophrenia (Samoilovich et al 1992 in Mitchell and Savill-Smith 2004) and for promoting and developing motor skills (Sietsema et al 1993 in Mitchell and Savill-Smith 2004).

Is it possible to learn on a games console?

One of the most important things to establish is whether people conceive that it is possible to learn on a games console. If people do not think it possible, even when educational games involving graphics to rival popular games are developed, then they would have to overcome some psychological barriers before beginning to conceptualise consoles as a valid learning tool.

Whilst participants were not specifically asked whether they thought it would be possible to learn on a games console, some of their comments can be shown to give an indication of their feelings on the matter.

In terms of using technology as a 'hook' to attract learners, it is evident that this can work for some people. The following quotation is an example of a respondent who finds technology exciting:

**The potential there is just incredible, I mean especially things like virtual reality and stuff and you know artificial intelligence, yeah, I mean that's really wow! You know, cool.
(34 yr old male on incapacity benefit)**

It would be reasonable to assume that a person such as this, who is already very enthusiastic about technology on the whole, would be amenable to the suggestion of learning on a games console.

However, others have preconceptions about consoles which may not be easy to shift. Those who are uninterested in such devices are unlikely to start using them in order to learn:

**Playstations and all that sort of...I'm not interested in them at all they just, they just, they're just you don't learn anything from them they're just a game and I think they're pretty shit [laughs].
(39 yr old unemployed male)**

This participant does not belong to the age group which would be targeted with educational games, but any reluctance amongst middle-aged people to adopt such technology is bound to affect how widespread their use is amongst the younger generations, in terms of the types of games which are bought by adults for the children in their lives. If parents or grandparents do not consider consoles to be a useful learning tool, and think of them in terms of leisure and entertainment, they are more likely to purchase the games requested by their offspring. It is unlikely that their children will choose a game advertised as improving maths skills over one based on the latest blockbuster film!

Several people talked about how impressive games are in terms of their flashy graphics and how "real" they look. In terms of the development of games with some learning content, it is essential that their look and workings are just as impressive as their more leisure-orientated counterparts.

**I think that [consoles] are brilliant I do I think that they are absolutely fantastic, erm, the console is great because just playing the games in the console is great they are like real aren't they.
(38 yr old female on income support)**

Whilst the above participant is glowing with praise for games consoles, another interviewee offers a word of warning about people's expectations from games:

Yeah, basically people are expecting too much from games nowadays, they want a reality in a game, rather than just playing on a platform, 2D screen. I like it, but I don't really like do it if you know what I mean. I like to be able to actually get in the game and change the game to what I want. Consoles you can't do that, so that's where the PC comes in, you can edit the games, you can change 'em, consoles you can't, you just stick it in there, you play it, you finish it, you exchange it for something else. That's that. (18 yr old male student)

This young man's summary of playing on a games console highlights the simplistic journey a habitual games player makes time and again as they master a game and exchange it for a new one. His own creativity and PC know-how lead him to prefer playing games on a computer rather than console, so that he can manipulate them to suit him. This illustrates the difference between someone being IT literate on a computer and having a number of transferable skills across different programs, and someone able to play games on a console through a 'stick it in there' and play it approach. Computers afford people the opportunity to learn a range of directly transferable skills, whereas games consoles are considered by comparison to be limited in the way in which they work.

It seems evident that, for most people in Hull, games consoles are not currently seen as a valid learning tool. However, research into the potential of games for learning indicates that there are a number of skill areas which can be developed through game playing. These include the opportunity for independent work to be carried out, problem-solving, and persistence to complete a task. Elements such as the instant feedback a player receives on their performance in a game have been shown to improve the learning experience.

Additionally, the way in which young people will often play a game and then exchange it for another could support the notion of learning. Just as people currently swap a game for another one when they have completed it, so too could they swap it when they have completed the learning material embedded in that game, and go on to learn something further, or totally different, through another game.

As well as this, games players are also accustomed to the idea of having a number of challenges to complete and progressing through levels of difficulty – this is a useful mindset to have when thinking about learning being a progressive process, rather than a static state.

The reasons that computer games are considered an effective way of engaging learners are charted thus:

They motivate via fun [...]via challenge and via instant, visual feedback within a complete, interactive virtual playing environment, whereby ambience information creates an immersive experience, sustaining interest in the game... they put learners in the role of decision-maker, pushing them through even harder challenges, engaging the player in experimenting with different ways of learning and thinking (Gee in Mitchell and Savill-Smith 2004)

The striking graphics and levels of psychological investment put into games mean that some people perceive the virtuality of the game to become a form of reality. This relates to Jean Baudrillard's theory of the 'hyperreal', where the only form of reality is that which is reproduced through technology, using appliances such as consoles. (Baudrillard in Poster 1988)

Some participants' responses reflected this attitude, as they recognised the 'reality' as experienced through games, and rejected this for a non-technological form of reality.

Erm, well start with Playstations and computer games and things like that, I've got very very low interest threshold in things like that. I would rather do something for real rather than virtually, erm, you know, I just don't enjoy, I find it frustrating just sitting in front of a screen with a joystick or a keyboard, yeah and I've always felt like that, you know, I can't understand why people wanna play slot machines or all that kinda thing, you know, erm, I've always, I'd rather do something for real than...

(45 yr old part-time self employed male)

I think [playing on a games console is] a bad thing because what's the point of just sitting and playing on a machine. It makes you lose touch with reality I think.

(50 yr old white female on incapacity benefit)

Again, the age group of the interviewees giving these views is older than those to be targeted with games including educational content, but their point is an interesting one. If indeed games players do use consoles as a form of escapism, would they be willing to play games which could improve their skills and knowledge across other areas of their lives? Or is this dependent on the quality of the games themselves, and the ways in which the games could be marketed, to ensure that they are seen as appealing to the youth market?

One solution to this potential difficulty is to employ consoles as part of a blended approach to learning - it has been suggested that handheld devices such as the Game Boy Advance offer the opportunity for educational software to be developed which supports blended learning. Examples of how this could be useful include learning in a classroom linked to learning online, or outdoor activities like field trips (Mitchell and Savill-Smith 2004).

One person advocating the use of quality games in education is Ravi Purushotma, who argues for the modification of games already in existence to support learning goals. His example is the Sims, a game designed to simulate normal life where players control a virtual family through everyday tasks such as cooking and cleaning, finding a job and taking care of the finances. Having slightly altered the game, he has been using it as a German language learning tool and found it to be highly effective in vocabulary retention (Purushotma 2005). By using a game which was already developed, a large amount of time and financial resources can be saved, and the result is an attractive and complex game which can be used to support language learning. Purushotma does concede that the example of the Sims is particularly useful for learning, and that many other games have not been designed with any form of learning in mind for the player. Therefore, many other games may not be so suitable for incorporating learning into them, but by careful selection, manipulating games already in existence could be a valuable way of engaging some young people in learning.

Conclusion

Most of the participants in the study did not use a games console. The majority of those who regularly played on consoles were at the younger end of the age spectrum, and so therefore the notion that educational games should be aimed at the youth market tallies with our findings.

The majority of people's comments about consoles were about children's use of them. Concerns were aired about the lack of exercise, both physical and mental, when using games consoles. It was evident that it would be more difficult to convince some parents of the educational value of games than for others. Whilst some parents do not allow their children to play on consoles in the home at all, others were ambivalent about them. Those without strong feelings against consoles may buy into the edutainment style games for their children if they thought they would add something to their learning.

Some parents recounted advantages of games console use for their children; this included using them to improve levels of attention for a child with attention deficit problems, and another child getting exercise by using a Dancemat linked up to a PlayStation.

Interviewees usually held quite strong feelings one way or the other towards consoles. Judging by the strong negativity of the comments given against them, it would be incredibly difficult to shift some of these attitudes towards a more positive sense, either in terms of participants' own potential to learn on consoles or their children's. We posit that those who currently think it is impossible to learn on a console are more likely to purchase high-profile, high-budget games than those with learning content for their children. The marketing of educational games would have to take such attitudes into account if they are to be successful.

Another point noted was that games consoles are seen to be limited in the range of skills which people gain through using them, especially when compared to PC's. Therefore, whilst research may show that there is a huge potential in terms

of the learning which could be supported by games, people seem to believe that there is very little in the way of transferable skills which could be picked up by learning in this way.

Finally, if these games involving some learning content are to compete with popular high-profile games on the market, it is essential that their graphics and “stories” are comparable with them in terms of quality or they will not be bought by discerning youth consumers. One way around this is to take popular games already on the market and manipulate them for educational purposes, although care must be taken to ensure that the games are suitable in terms of their content and the goals to be attained throughout them.

References

Attewell, Jill and Savill-Smith, Carol (2004) 'Mobile learning and social inclusion: focusing on learners and learning', in *Learning with mobile devices: research and development*, pp.3-11, London: LSDA.

BBC News Online (2002a) 'Is txt mightier than the word?' <http://news.bbc.co.uk/1/hi/uk/2814235.stm> [accessed 14/02/05]

BBC News Online (2002b) 'Obesity will become the norm' <http://news.bbc.co.uk/1/hi/health/2253004.stm> [accessed 14/02/05]

M-learning project - <http://www.m-learning.org/index.shtml> [accessed 22/02/05]

Mellar, Harvey and Kambouri, Maria, (2004) 'Webquests, m-learning and CyberLabs' in *Reflect* Issue 1, October 2004, pp. 23-25. London: NRDC.

Mitchell, Alice and Savill-Smith, Carol, (2004) *The use of computer and video games for learning: A Review of the Literature*, London: LSDA.

Mifsud, Louise (2004) 'Learning 2go: making reality of the scenarios?' in *Learning with mobile devices: Research and Development*, Jill Attewell and Carol Savill-Smith (eds.) pp.99-104. London: LSDA.

Ofcom, (2004) *The Telecommunications Market 2004 – Telecoms*. http://www.ofcom.org.uk/research/industry_market_research/m_i_index/cm/cm/pdf/telecoms.pdf [accessed 16/02/05]

Office for National Statistics (2002) *Census: Snapshot of the UK's population* Available online at <http://www.statistics.gov.uk/cci/nugget.asp?id=185> [accessed 21/02/05]

Poster, Mark (ed.) (1988) *Jean Baudrillard, Selected Writings*, Stanford: Stanford University Press.

Purushotma, Ravi, (2005) "Commentary: You're not studying, you're just..." in *Language, Learning and Technology*, January 2005, Volume 9, Number 1 pp80-96. Available online at <http://llt.msu.edu/vol9num1/pdf/purushotma.pdf> [accessed 14/02/05]

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Jeni Edge, Nicole Fuller, Iain Springate, Cathy Walker
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