

Executive Summary

A Digital City?

Attitudes to technology and learning in Hull

To begin with...

This report is about attitudes to technology and learning in Hull. It has sprung out of a political climate that has seen government policies and initiatives promote the use of new technologies in the pursuit of more learners. The government makes clear economic and social arguments for trying to ensure that as many people as possible, and especially those from disadvantaged backgrounds, take part in education and training. Similar arguments are made for ensuring that even the most deprived communities have access to Information Technology, thus preventing a digital divide between those with the skills and resources to use digital technologies and those without.

These two policies have become merged into one and providing access to IT has also been thought of as a way of enticing people into learning. This Learners Forum research is based on two of the assumptions made by government policy; one is that there are things about new technologies which are inherently appealing to potential learners and as such the involvement of technology can hook people into learning. The second idea is that there are groups of people already using technologies like digital television, games consoles and mobile phones and so they are a captive audience if learning could be delivered through these already familiar mediums.

To find out the potential new technologies have to widen participation in learning in the city, Hull residents were asked about their thoughts and experiences of computers, online courses, digital television, mobile phones and games consoles. We have looked at the 'biography' of each technology by taking into account people's ideas about what each technology is for, in the context of how they have been used in the past. (Kopytoff: 1986)

An overall picture emerges of polarised opinions between the younger and older respondents. With the exception of TV, young people were more likely to be using new technologies. Although fewer middle-aged to retired people used computers and mobile phones, some had undergone a 'tech-conversion', usually as a result of a clear need or interest in these technologies.

The research involved contacting and talking face to face with 103 residents of Hull. Everyone was asked the same questions, but there was room to explore areas of interest as they arose with each respondent. The age and socio-economic background of respondents reflected, as far as possible, the overall population of the city.

The following sections will deal with the findings for computers; online courses; digital television; mobile phones and games consoles individually. The section on online courses is the most comprehensive. This is because, at the time of conducting the fieldwork, online courses had the biggest presence and most clearly developed strategy for widening participation in learning; therefore it was possible to ask more detailed questions on that subject.

Computers

The attitudes people had towards computers tended to reflect the exposure they had had to them. How and for what people had used IT impacted both on how confident people were using a computer and their perceptions of what computers were for; so that those with limited experience had limited knowledge of a computer's capabilities. Equally, people's perceptions about IT influenced the likelihood of them putting themselves in a position where they would be exposed to IT. There is a group of people who are either not very interested or not very confident about using Information Technology who distance themselves from that technology.

The key, however, is exposure. Computers were often associated with work and people who did not work often had less exposure to them. Computers were also associated with young people and so for elderly respondents or those out of work and not looking for work there was often no perceived incentive to learn about IT. Many people did have a sense of the importance of IT however, but its role was not always clearly understood and so some people were learning IT skills without really knowing why or what for: there was just a sense of it being something they 'ought' to do.

Although some people were anxious about using computers, generally people wanted to overcome their fears, especially when there was a clear need or benefit to doing so. This meant that if people did change the way they thought about computers, the journey most people made was from a negative to a positive attitude towards computers and IT generally. The exception to this was when someone had a bad experience of an IT course which put them off learning IT skills.

There was an issue about the way people tended to be exposed to computers; the skills people learnt, especially when they learnt them on the job, tended to be linked to specific tasks and were not necessarily transferable to home use or to other jobs. Limited exposure, therefore, does not necessarily enable people to bridge the 'digital divide'.

There were three different ways in which people learnt IT skills. The people that had the most confidence using computers tended to teach themselves IT skills. Other people took formal courses and these people tended to be learning about computers either to get a job, or out of interest in IT. The third way of learning

was informally through family and friends and this tended to be a method used by all levels of learner regardless of confidence and ability. Potentially, some people will not be able to learn in any of these three ways; if people do not have friends or family sufficiently skilled in IT to be able to teach them skills, and they do not have the confidence to teach themselves, or to enrol on a course they are far less likely to learn IT skills. These are the people who face digital exclusion.

Some older people thought that computers were just for the young and whilst parents, for example, tended to see computers as a 'symbolic good' of parenting in several cases it was only the children who used or knew how to use the computer. The potential dangers that children face using the internet were mentioned by several respondents, although those with more understanding of the internet were more able to put appropriate safeguards in place and therefore feel confident allowing their children access to the internet.

Widening access to Information Technology does help tackle any digital divide but what is clear is that whilst people may have access to computers in their local community, this does not necessarily transpire into a desire to use them. Furthermore whilst people may be using computers, they are not necessarily using them for learning. When people did use computers to learn it was because they had a clear need and purpose to do so. Also relevant is that some people thought they needed computers in their own home in order to be able to learn effectively.

Online Courses

Most of the respondents had never experienced an online course before and a few did not even know what one was. This means that this section is based on people's perceptions about online courses rather than first-hand experience; however, this is still important as individuals' perceptions are key to whether or not they will engage in online learning in the future. As many people did not have much experience of this type of learning the assumptions that they made were often not accurate, but when people had a good understanding of the internet and how it worked they were better able to weigh up the pros and cons of learning online.

There were different ideas about what it was possible to learn online and what an online course involved. For example, some people thought that an online course was just about computers and how to use the internet. Others questioned whether a practical course could be taught online, or whether learning online was more suited to basic or advanced level courses.

Attitudes to online learning were largely determined by age. Three categories, based on Prensky's (2001) model of digital natives and digital immigrants, emerged of attitudes to this technology. These are generalisations and should not be taken as absolute. The first category, digital foreigners, was made up of

people with no interest in computers or learning online. This group tended to be in the older age group heading towards, or being in, retirement and they were clear about what they enjoyed doing with their time and the way they liked to do things. The idea of using a computer to learn, or for other tasks was not attractive to digital foreigners.

The second category was digital immigrants. This tended to be made up of people from their late 30's to late middle ages. Digital immigrants had differing relationships to computers; some hung on closely to a non-digital culture because they had not had much exposure to computers. Other people used computers for work or for their own enjoyment, were confident of their IT abilities and therefore comfortable with the notion of learning online. They responded like immigrants more fully incorporated into a digital culture.

The third category was digital natives. They were almost exclusively younger people in their teens and twenties who did not have much to say about online learning. For the most part they were familiar with IT, and did not see it as a barrier or as a hook into their learning; essentially it was invisible to them. They made their decisions about learning based on what they thought would best provide what they wanted to know; IT *per se* was not a factor in that. Any reason they had for rejecting the idea of an online course related to the positive aspects of other learning methods.

At its worst, technology created a barrier for some people to get involved in learning as they would have to overcome their lack of confidence or lack of interest in using the technology first. Other people saw an online course as an opportunity to learn twice and become skilled in using IT as well as a subject of their choice. For others the technology was neither a hook nor a barrier, but was invisible.

There were several perceived disadvantages to learning online. Many people saw learning as a social activity and joined courses in order to meet new people, others felt that learning as part of a group gave them an essential form of peer support. These two elements were thought to be lacking in online courses and deterred people who wanted face-to-face contact with other learners.

Support from a course tutor was also a significant factor thought to be missing from online learning. Many people felt that they would have nobody to turn to if they were stuck, or did not understand something. Email contact was not seen by many to be an adequate substitution for face-to-face contact with a tutor.

In order to successfully complete an online course it was felt that learners would need to have a strong sense of self-discipline and motivation. As there would not be regular timetabled sessions to attend and less peer support many respondents thought it would be easier to put off work. Whilst an online course provides flexibility over when and where learning takes place, to learn online from

home would require a space relatively free from distractions; a space which many parents/carers, for example, may not be able to create.

Flexibility was both a disadvantage and an advantage. For time-poor individuals or those working irregular hours, online courses offered an opportunity to take a course which might not have otherwise been possible. Online courses were also seen in a positive light by some people who had had otherwise negative experiences of more traditional courses. For these people the new format offered them a 'new start' that was not associated with previous bad memories.

The concept of blended learning was also popular; many people did not want to lose the positive attributes of more traditional courses but could see the advantages of being able to access course material or email a tutor outside of scheduled class time. Several people mentioned that they made positive use of Virtual Learning Environments at the institutions where they were studying.

The practicalities of online learning were considered by those who had a clearer idea of what was involved or who had direct experience of doing an online course. The access a person had to a computer was critical; some felt that they really needed to be able to use a computer at home. The internet connection was also considered; some did not want to learn from home as they would have to pay for the cost of dialling up to the internet! Several people would only learn online if they had access to the internet via broadband as a dial-up connection was seen to be too slow and frustrating. Website design was seen as an integral part of creating a good learning experience; a poor design and the learning experience would also be poor.

Overall course content was the key to engaging learners. None of the respondents wanted to learn online for the sake of learning online; for some the flexibility offered was a good reason to consider an online course. However, generally people are attracted to courses by the opportunity to learn something relevant and interesting. Therefore the focus needs to be on creating relevant and interesting courses online, not on the 'wow' factor of the technology itself.

T-learning

Out of all the technologies reviewed in this report television has the longest history of providing educational content in the form of documentaries, for example, or Open University programmes. Digital and interactive television, however, opens up new ways of learning through this medium. Many respondents did not have digital television and a few were unsure what the term meant. Several people who had digital television had experienced using the interactive features, but only in a limited capacity, for example to play games or vote on reality shows such as Pop Idol.

Whilst nearly everyone we spoke to had access to a television, people watched it in different ways. Sometimes people were passive viewers who watched

whatever was on in order to relax or unwind, or in some households the television would be put on in the background to provide comfort. At other times people actively watched programmes; thinking about and questioning the content of what they had watched. Analytical skills aided active viewing and allowed the viewer to get more learning out of what they were watching, but they had often been developed through learning experiences other than television; it cannot be assumed that learners have this ability already or that it will be gained through watching television alone.

Active viewing was often shown by more selective viewing or video taping of particular programmes and a heightened awareness of the potential prejudices of programme makers. People were more likely to actively watch programmes that they were interested in and that were relevant to them.

People who watched television passively would only be likely to benefit from learning on a basic level that did not require high levels of analysis. In terms of widening participation, t-learning has the potential to be a first step into learning but analytical skills may need to be developed elsewhere.

The extent to which television was thought to be educational depended on the type of programme being considered. Long established documentaries and presenters have become part of people's lives and were more trusted to present real facts. Quiz shows were seen as learning by some people but were more often only seen as a test of knowledge. Any knowledge gained was not really seen as practical or useful; the quality of learning and the likelihood of retaining any information was questioned by some people. A few people did think quiz shows were useful on a limited level, for example giving facts that were interesting to chat to friends about.

Soap operas were mostly seen as not providing any learning, although some people felt that they did deal with topical issues and offered support through helplines advertised at the end of the show. Many people thought that soaps were purely entertainment and the idea of learning from them was derided by some (mostly men!). Some respondents with a sociology background felt there was opportunity to learn from this type of programme although prior to their course they did not necessarily see watching soaps as learning.

As with online courses, the practicalities of t-learning need to be considered. Only 35% of respondents had digital television and unless people have and use the interactive features they will be missing out on much of the content and learning that is potentially available through t-learning. The technology itself is also an issue; the speed at which it takes to download information, for example, will be critical to its success. The cost of purchasing digital television and then of using interactive features will also impact on learners; some people mentioned cost as a reason why they did not use the 'red button'.

Access to the television is also an important consideration. Whilst most people do have access in their own homes, they may not be in control of the programmes that are watched when it is watched as part of a communal activity. Whereabouts the TV is in the home is also crucial as this space might not be the ideal environment for learning.

Mobile phones

Whilst the use of mobile phones has reached near universal levels, especially amongst younger age groups, the biography of mobile phones is relatively new. Even newer are the variety of other functions, such as cameras and access to the internet, which have begun to be available on mobile phones.

Younger age groups were more open to the idea of a mobile having uses other than being able to make and receive calls and in particular were happy to send and receive texts and play the games available. At the time of interviewing, third generation video phones were only just appearing on the market and had not been used by any of the respondents. Camera phones had only been experienced by a few respondents.

Older respondents tended to have more negative views about mobile phones: they resented their use in public spaces, feeling that they looked messy and that text messaging caused youngsters to misuse language. When older respondents did have a phone they saw it as just that; a device to make and receive calls. Often their justification for owning one at all was as a security measure; a way of calling for help should they get into trouble. Some older people who had been resistant to using the technology underwent a 'tech-conversion' when they saw a clear need or benefit to having a mobile phone.

Given this biography m-learning is clearly more suitable for younger age groups, which suits the government's intentions of using mobiles to engage more youngsters into learning. However, there are practical issues to consider. Some young people mentioned the cost of owning and using a mobile and this needs to be taken into account. Others mentioned health concerns and it may be considered inappropriate to encourage the use of something that is potentially damaging to health. Confidentiality also needs to be considered; what if the phone is lost or stolen? What will happen to any work or information stored on the phone?

Other issues surrounding the use of mobiles for learning include the use of texting and fears that youngsters will not learn to spell and use grammar correctly if they communicate this way. Also relevant are parents' wishes on what they want their children to be involved with; they may discourage the use of mobiles at all.

Games Consoles

Games consoles, unlike computers, have a history of being seen as just for play with no potential for learning. They are also associated with certain groups of people; namely children and males and so are not all-encompassing in the same way as other technologies. Currently there are no high-profile educational games for the major games consoles available; PS2 or X-box. The production values for educational computer games tends to be much lower than PS2 or X-box games and they are therefore less attractive. If good quality games were developed for games consoles there is the potential to engage youngsters into learning through them.

Any educational games would have to contend with the negative image some people have of games consoles. For example, violent games are vilified for making children behave violently, whilst the sedentary nature of the activity means that children are at risk of not getting enough exercise and consequently suffering from ill-health. Despite this, several respondents did mention more positive aspects of games consoles; helping children with ADHD to increase their attention span, for example.

The fact that players are used to completing games, swapping them with friends and progressing to the next level can be usefully applied to educational goals, as can the way players already store the progress they have made in a game on a memory card. Regardless of the content, there are potentially several generic skills that people who play games consoles are developing; hand-eye coordination, the ability to make fast decisions under pressure, the ability to develop strategy and problem solving skills. All of these can usefully be applied in other situations whether at work, or in the home.