Defining 'Generation Y': towards a new typology of digital learners

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Introduction

Modern Higher Education has undergone radical and unprecedented change in the last 20 years (Educational Act, 1992; Dearing Report, 1997; Roberts Report, 2003). Today's learners come to University with very different prior experiences and technological skills. They also come with diverse expectations and assumptions about how, where and when technology may be used within their course. Descriptions of learners have tended to focus on whether or not they are the 'digital natives' from 'Generation Y', whereas in fact learners now represent vastly different demographics within an ever-changing heterogeneous community (Caldwell et al, 2006, Toman et al, 2005). We cannot rely on established definitions of 'digital natives' and 'digital immigrants' (Prensky, 2001); ideas which have been widely criticised as unhelpful (Siemans, 2007). There is also the risk that institutions, and those that work in them, make assumptions about what 'Generation Y' learners want from and do with technology (Oblinger & Hawkins, 2005). In terms of how technology is applied to modern experiences, 'universities should not assume that more technology is necessarily better' (Oblinger & Oblinger, 2005, p.2.11).

Our work at Bradford validates this complex picture. We have found that levels of digital fluency in social terms may not translate or generalise into educational contexts. This transfer may even be resisted: 'we <students> don't want you <staff> in our social electronic space'. We need a more sophisticated typology of our students' 'digital nature' which we can use to plan the most appropriate learning support and interventions and ensure students make effective transitions into University. This paper will review emerging evidence which draws on our extensive experience of working with digital learners. This experience includes:

- Bradford's annual first year experience questionnaire
- a HEA funded e-learning research observatory project which is evaluating systematic transition support into Higher Education
- our JISC-funded Enhancing Learner Progression 1 & 2 projects (www.elp.ac.uk)
- modules which have introduced web 2.0 technologies to incoming students.

The initial implications of our findings are that we need to be aware that not all students arrive with the same experiences of technology. We need a new typology of 'digital educational readiness' so that we make appropriate interventions and help first year students become effective learners in a modern digital age.

A New Typology

Longley, Webber & Li (2006) identified that use and consumption of technology in society is not homogeneous. Their 8 e-society user groups are further divided into 23 types, many of which represent the households of the students who are likely to arrive in our Universities. Many come from the 'e-marginalised' or 'becoming engaged' groups of e-users, and those from lower income households are less likely to have access to technology. With the increased widening participation agenda, institutions are faced with the challenge of engaging and supporting students with a wide range of technological confidence and skill. The e-expert group were highlighted as 'the types of people who are able to make use of personalisation and configuration options' (Longley, Webber & Li, 2006, p.47). The implication is that, in an educational world with increasingly personalised learning provided through the auspices of technology, a large group of students are currently not equipped to take advantage.

Building on this and similar studies, we have developed a new typology of digital learners. This typology addresses the different backgrounds that learners come from and their differing assumptions and expectations of what Higher Education will be like. It attempts to provide a framework for dialogue between the users (students) and tutors (staff). Implicit in the typology is the notion of a fourth online learning space (Hartley, 2007) that provides students with collaborative tools akin to social networking but within a safe institutional environment. Examples of this approach include Community at Brighton. Such a space would complement the other virtual spaces now common in HE:

- The institutional VLE, which may become more of a library or 'museum' where the formal learning is documented and stored
- Private student space where students can compile and store private reflections (e.g. the private aspects of e-portfolios, student hard drive space)
- Public and open access social networking, which may be described as the 'the wild west saloon of the Internet' (Hartley, ibid), the expanding Web 2.0 which includes Facebook, MySpace, Bebo and other similar tools, and which is very definitely outside institutional control.

The concept of a fourth space - social networking within secure institutional space – enables students to exchange ideas and promotes social contact in a secure environment combining elements of all three spaces above to allow greater student control, ownership and personalisation. This safe environment includes the best of web 2.0 technologies but within the institution's educational and social context.

Explaining the Typology

As illustrated in Figure 1, our typology is built on two continua. The first of these, experience of technology, poses two polarities: those who are confident and experienced with technology (and often don't even see it as technology but just the way things are done); and those who are not experienced or confident with technology and who struggle to adapt to using technology at all. The second continuum, the degree of contribution within an educational setting, looks at whether or not these learners are likely to contribute to and engage with technology and see the benefits of use in their educational experience. Learners at the other end of this continuum are more likely to just consume the resources that are provided within the technological solution. Furthermore at one end, technology enhances learning and is likely to be engaged with in collaboration with other learners. However at the opposite end, learners will use it if they have too but do not really see how it helps them learn.
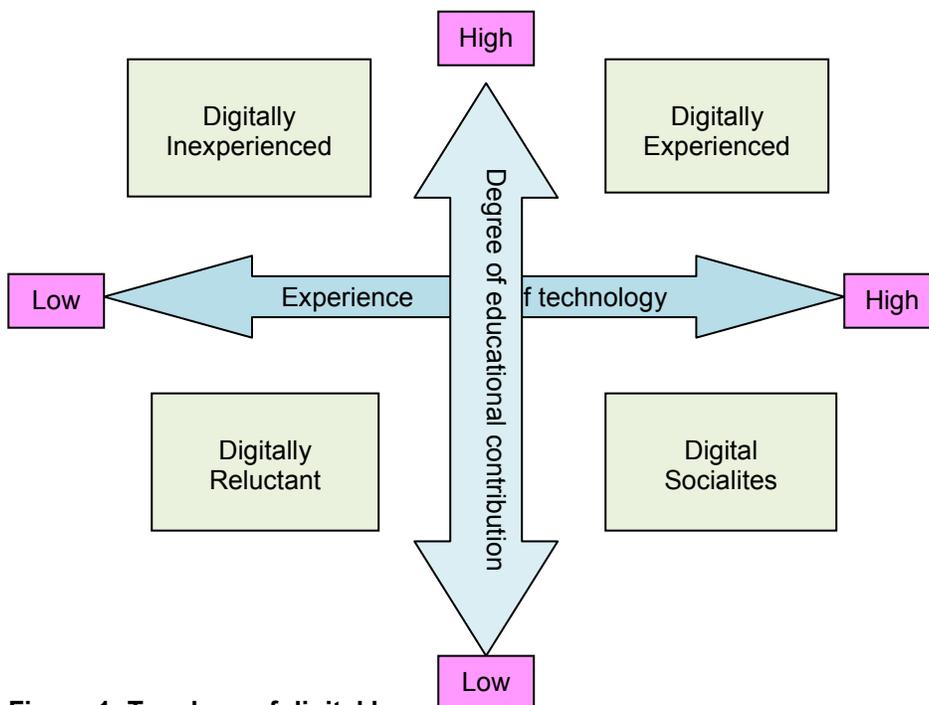

Figure 1: Typology of digital learners

The digital types

Each digital type brings their own unique expectations and experiences with them when they enter University. Examples of learner profiles have been provided to aid understanding. All names have been changed to protect confidentiality.

'Digitally Reluctant'
These learners fall into the lower end of both continua - they are not confident or experienced with technologically and can find the idea of technology frightening and off-putting. Their limited experience of technology means they cannot see the potential educational benefits. These learners might be considered

'dependent' learners. They are unlikely to use technology within an educational context as they lack the skills and confidence in order to be able to engage effectively. 'I've hardly used a computer before...I think this [using an e-portfolio] and the course will be too much', Carol. '[I thought] you don't know how to do it [use the online learning environment], just switch it off, get out of here', Lynne

Learner profile
Lynne is a mature student and this is her first experience of Higher Education. She has used computers in employment but uses them in very specific ways. For example, she can use the basic features of word processing and can send emails but rarely uses the Internet. Lynne finds using new web-based tools a big challenge and has limited knowledge of using technology for her own learning. She struggles to see how technology can help other than in similar ways to how she has used technology before.

'Digitally Inexperienced'
The 'digitally inexperienced' are willing to try using technology within an educational setting but lack the skills and experience to do so. They may be very enthusiastic about their learning and keen to engage with different approaches, but their lack of technological expertise is a barrier to their engagement. 'I was really keen to do it [a wiki] but I don't think I really understood what would be involved in it and how to use it properly', Liz. 'This is great...erm....how do I actually use it [online skills reflective activity]!?' Robert.

Learner profile
John is a postgraduate student with previous experience of Higher Education. John can see how collaborative technologies can be used but is very reluctant to engage because of his limited experience in online interactions. John is uncomfortable in an online social environment and giving his opinions in this way.

'Digital Socialites'
In our experience, these learners form the majority of University students. These are the 'Generation Y' learners who have grown up with technology but tend to use it for entertainment. They prefer face-to-face educational settings over e-learning (Oblinger and Oblinger, 2005). 'Digital Socialites' pose a challenge to course leaders in terms of engaging them in the e-learning process and capturing their imagination for using technology within an educational context. This group of learners divide formal and informal uses of technology and don't see links between what they do at home and socially and what they need to do at University. They are likely to be as described by JISC (2007, p.25) '...young people automatically think of ICT improving their learning through giving them more access to data and research resources, rather than imagining totally new methods of teaching, learning, or interacting with peers and lecturers'. They use technology to support aspects of learning but can't take full advantage of the opportunities afforded by the technology. 'Well it [course related blog] is specific to the academic so it's never going to be as widely used as Facebook,' Andrew. 'I have read your suggestions about how we should go about communicating with each other. I think you guys are right. Face-to-face is a lot better, and quicker as well,' Shabana.

Learner profile
Usman is a first year undergraduate student. Usman frequently downloads music to his mobile phone and watches numerous YouTube videos on his PC; he makes prolific use of synchronous chat tools (e.g. MSN Messenger) and his mobile for chatting/texting his friends and is happy to exchange thoughts with them about his latest music acquisition. He is not afraid of technology, however, when asked in an educational setting to view an online video and then discuss its contents in an online discussion group he finds it difficult to know what to post. He is inclined to ask the tutor what he needs to write. He might post a short sentence with fairly general thoughts and make no response to postings to others in his group, or, because he cannot think what to say for himself, he waits until others have posted and then posts a short statement along the lines of "I agree". Usman is unable to apply his day to day electronic communication skills within an educational context.

'Digitally Experienced'
For this group, technology is a major part of everyday life and they are comfortable with using different applications simultaneously and collaboratively. However, whilst their initial reaction to e-activities might be positive, the institution needs to be careful to address their needs for flexibility and personalisation. 'I actually like the technology, I like the freedom it gives me…I can look on Ning [social learning platform] and then I can be writing my essay or something in Word at the same time', Sophie.

Learner profile

Tony is comfortable with technology and is a self-directed autonomous learner. He can see the benefits of collaboration online and gets frustrated when his peers are reluctant to engage with him. 'I'm concerned, however, while some of us are having regular exchanges of views, other colleagues are keeping low profiles... such a small number of us are contributing [online] that I wonder what the point is sometimes'. Social learning is an important part of this student's motivation.

Implications

In order to be able to fully meet the different needs of these learners, Institutions need to ensure that they are able to provide personalised support appropriate to the individual learner's needs This poses a challenge for staff directly involved in supporting the learner experience as care needs to be taken to ensure continuity in support from taught inputs to additional support, and services need to be able to respond in an appropriate manner. Workshops and paper/online tutorials may no longer be enough to support the different needs of such a heterogeneous community. Some examples of the needs of these different learners are discussed below.

'Digitally Reluctant'

In order to engage these learners with using technology within an educational setting, work needs to focus on building expertise and confidence within the group and helping them develop their technological skills so that they can then engage with the relevant technology. Care needs to be taken not to overload these learners with complexity and jargon. One to one support is needed for these students to get them through the initial stage of engagement. This could be in the form of peer support but it may not be the case that these students will seek that out for themselves and we may need to provide opportunities for this. Jane had some experience of using the Internet and email but had never used collaborative online tools and had been out of formal education for some years. For the first semester she looked at the discussions but did not feel confident to take part. Her peers and tutors provided a supportive environment and encouraged her to get involved. When she finally took the plunge and posted a blog she got immediate and positive online feedback from other students and the tutor and she found the online tool was very easy to use for someone who had used the Internet previously.
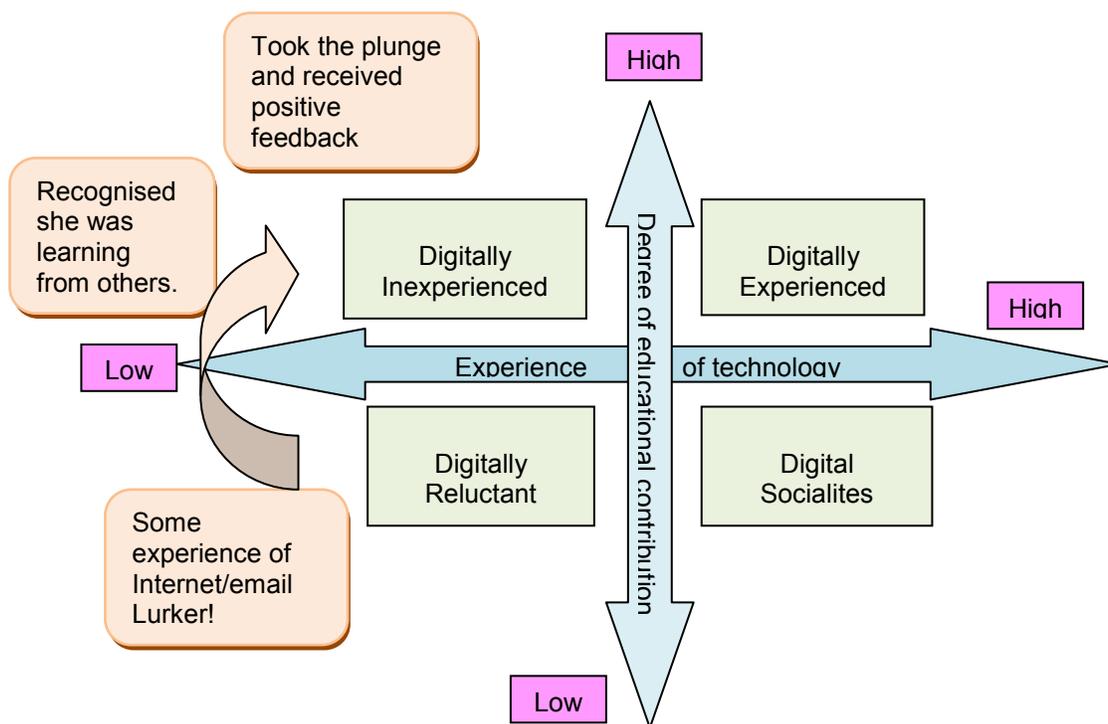

Figure 2: Jane's journey around the quadrants.

'Digitally Inexperienced'

In order to engage fully with technology, these learners need careful support and skill-development activities. Their competence needs to be developed in a supportive and explicit manner. The type of support typically required may involve intensive blocks of one-to-one activity until the learner feels secure in their use of the technology. Many of these learners may experience frustration with the technology and may at first even appear

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negative about engaging with something. However this negativity is not down to the technological activity itself, but is in fact a manifestation of their insecurity with their skill and confidence levels in using this technology. Many of these learners are enthusiastic about learning and this needs to be transferred across into using the technology within their studies. Their lack of skills needs to be overcome in order for them to be able to engage effectively. Some of these learners may have tried activities in the past but been put off by self-imposed barriers 'I can't do this, it's all too confusing' (Heather) and have made mistakes which have caused them anxiety and may have lost them time 'I've tried doing it the new way but it just doesn't work. I want to go back to the old way which I understood. Why do things keep changing every five minutes?' (Ralph). Imran is a good example of this type of learner. He needed to move from paper-based assignment submission to electronic submission for a module during the second semester. Initially he was enthusiastic about the process as it meant that it saved him time and money as he didn't need to build in time to get his work printed out. However, when it came to submission time he struggled to follow the complex instructions left by the tutor. Despite having reasonable levels of confidence with word processing software, he was very limited in his experience of using the VLE. This led him into a negative downward spiral of activity and caused problems with multiple failed submission attempts. Desperate for help as his deadline was looming, he approached a number of different people for help. However as this help was provided in a fragmentary manner (problem x was solved but in doing so created problem y) and with no concept of how to take an electronic 'step back' to see the bigger picture, he started to panic. A fellow student came to his rescue and patiently provided the intensive coaching support Imran required in order to see the process as a whole and in doing so develop his confidence in using the system. As a result he is now much more confident about engaging with the online environment even if he 'doesn't like doing it, but I can see the benefits of doing so and keep trying to get better at it'.

'Digital Socialites'
For these learners, course activities must develop deep learning and provide a clear and coherent rationale for their inclusion within the curriculum. Perhaps the most challenging group of learners, as they are very technologically capable, the institution need to address their needs and ensure that the learning activities they are asked to engage in address relevant issues and do so in a way that engages them. This is a tricky situation however as, if a course is built around the needs of these learners, other groups within the typology may be alienated. The development needs of this group are more about helping them become independent and autonomous learners so that they can apply those skills to their learning contexts. Activities such as PDP and support from their personal tutors/centralised learner development are crucial to the success and engagement of these learners; however, the whole course team has a part to play in encouraging and linking PDP activities with the curriculum. Take the example of Sarah. During the process of completing her skills profile and e-portfolio as part of the assessment for a skills based module, she asked what was the point of doing it. She had created a beautiful skills portfolio at secondary school that was not looked at by any of her tutors and was now sitting on the shelf. If tutors suggest at the start of their module that she refer to her skills profile and that she review it at various points during the module this would help to support her transition to realising that PDP is a tool to support her learning rather than something that needs the approval of a tutor.

'Digitally Experienced'
These learners have grown up being able to control the technology they use and adapt how they apply it to their learning and social situations. Therefore, asking them to engage with inflexible and tightly controlled institutional e-systems may cause these learners to switch off. The institution need to be able to respond to their needs for flexibility and ongoing support. There might also be a need to help these learners transfer their e-skills from other aspects of their lives into an educational setting. Tutors also need to be committed to supporting online learning and willing to make regular contributions. Using technology badly can affect these students' learning and motivation. Take the example of Rachel. She was all fired up to use the VLE to discuss her work with peers and tutors. She left the taught session and started posting. No one responded not even her tutor. Now she has stopped using online communication on the course and is somewhat disillusioned with the teaching methods employed.

Conclusion

The 'one-size-fits-all' approach to retaining students and providing them with engaging online learning environments will not work. A range of support is needed. The academic curriculum needs to be clear about what it is asking the learner to do and explicit about how this is to be achieved. Tutors need to have a good understanding of the different needs of learners and be prepared to adapt according to circumstances. Learners demand flexibility and control of their learning in order to make it more personal and achieve deeper learning. Institutions need to be able to respond to these needs in order to engage effectively with all learners. Staff need to think about where students fall within the typology in order to think about how they can best support them. Issues to do with digital literacy need to be addressed as part of pre-induction and transition activities – learners' expectations and assumptions should be identified in order to work with them to develop the required levels of digital fluency for their degree programme.

We cannot just use technology in our teaching and expect students to use it in an educational way (Currant & Whitfield, 2007). We need to support students in their use of learning technologies from a teaching and an institutional perspective. We need tools that make it easier for staff to create collaborative online learning spaces. Mandatory use of learning technology on all modules may do more harm than good, especially for the most technologically able students, and provide very little benefit to the more digitally reluctant. We need to be committed to using the technology in a way which fosters collaboration and dialogue. Hopefully, this typology of digital learning highlights differences in our learners and gives us a tool for thinking about how we use technology to engage students and enhance their learning.

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