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ALT-C 2008: Rethinking the digital divide

Digital divide or digital choices? Exploring the experiences of older students using new technologies

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1 Background
This project explores adult students’ everyday experiences of new technologies, and how they apply those to their learning. These students are on Openings courses, which are designed for adults with previous educational qualifications below traditional university entry requirements. These distance education courses have high study-skills content, and one-to-one tutor support over the telephone.

2 Description of approach used
The project combines quantitative and qualitative methods, to explore students’ use (or non-use) of computers. This paper discusses interview data from older learners, and some more recent work with younger students.

There were three stages of data collection:
1. A postal survey, sent to the students after course completion.
2. Semi-structured telephone interviews with six students aged over 55.
3. A second round of telephone interviews, with four students aged under 45.

3 Characteristics of interview participants
The first group of interview participants are known as A, B, C, D and E. Table 1 is adapted from Peasgood (2007). The second group are known as W, X, Y and Z (Table 2)

<table>
<thead>
<tr>
<th>Student</th>
<th>Gender</th>
<th>Age</th>
<th>Subject</th>
<th>Date of first study with OU</th>
<th>Main study goal</th>
<th>Internet use/access</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>F</td>
<td>75</td>
<td>Arts</td>
<td>1993</td>
<td>Intellectual challenge</td>
<td>Home broadband frequent use</td>
</tr>
<tr>
<td>B</td>
<td>F</td>
<td>61</td>
<td>Maths</td>
<td>2003</td>
<td>Intellectual challenge</td>
<td>Home broadband frequent use</td>
</tr>
</tbody>
</table>
### Table 2  Characteristics of interview participants – round 2

<table>
<thead>
<tr>
<th>Student</th>
<th>Gender</th>
<th>Age</th>
<th>Subject</th>
<th>Date of first study with OU</th>
<th>Main study goal</th>
<th>Internet use/access</th>
</tr>
</thead>
<tbody>
<tr>
<td>W</td>
<td>M</td>
<td>43</td>
<td>Environmental Science</td>
<td>New student</td>
<td>For pleasure or interest</td>
<td>Home broadband</td>
</tr>
<tr>
<td>X</td>
<td>F</td>
<td>24</td>
<td>Maths</td>
<td>New student</td>
<td>For pleasure or interest</td>
<td>No access to computer at home</td>
</tr>
<tr>
<td>Y</td>
<td>M</td>
<td>32</td>
<td>Environmental Science</td>
<td>New student</td>
<td>To help me in my present or future work</td>
<td>Home broadband</td>
</tr>
<tr>
<td>Z</td>
<td>F</td>
<td>42</td>
<td>Environmental Science</td>
<td>New student</td>
<td>To find out whether ready to do further study</td>
<td>Home dial-up</td>
</tr>
</tbody>
</table>

### 4 Discussion

#### 4.1 Some patterns from the first round of interviews (older students)

The first stage of coding of interview transcripts A to E identified some issues:

- Communication with the tutor – whether to use email or telephone, and student choices about which was most appropriate, depending upon the situation
- Anxiety about technology – is it reliable, do I trust it?
- A sense of personal or impersonal situations or media – the tutor was regarded as a personal link to the university, but the OU website might be seen as impersonal
- Student choices about the study environment. This may involve, for example, sitting in a favourite armchair, rather than at a computer, because it is more comfortable.

#### 4.2 More in-depth themes from the first round of interviews

The second stage of analysis of interviews A to E looked at the same transcripts, to identify deeper themes. Although this work is still in progress, the following themes have been identified:

- **Anxiety**: anxiety, worry or fear (or the lack of it, although this theme tended to be expressed in one direction). Note that confidence-anxiety may form a continuum, which is still being explored within the data
- **Control**: control, choice or the lack of them as experienced by the student
- **Independent**: expressions of a need for independence, or ‘doing it for myself’. Note that independence and control are closely related, so these themes may change as analysis progresses.
• **Personal/impersonal**: any experience that feels specifically personal or impersonal

• **Support**: mention of support or the lack of it from any source, including tutor, other OU staff, other students, members of the household etc.

Control, independence and a sense of the personal can often overlap within the same paragraph of the transcripts. This suggests that some students want to do their own way, to have control, but also choose personal contact when they need it. In describing his motivation to teach himself computer skills, Student D used the phrase ‘beating the machine’, revealing a need for control. The student also described how he has taught himself how to use Equation Editor, indicating a strong tendency towards independence in his studies. The same student then described a situation where he sought personal contact at his local library. He stated that he sees computers as impersonal, which is why he did not use online discussion forums. When asked further about potentially social aspects of computing, he emphasised the independence of his studies, but still referred to the need for personal contact when he chooses. Although he is willing to learn a computer package that directly relates to the subject (Equation Editor), he is less willing to learn to use a computer technology that is about ‘chatting’ to other people.

In contrast, Student C, who expressed anxiety about computers in general, but has learned to carry out specific tasks, such as word-process an essay, still feels very anxious about the ‘impersonal’ aspects of computing. This could be interpreted simply as an anxiety about trusting the technology, but this student states elsewhere that she sends emails and attachments to her friends in the same village, so there is another factor involved. If the student knows the recipient, and can check that the message has arrived, she feels confident to use the technology. When faced with a web-page or situation that feels impersonal, she has no sense of connection with the recipient and thus feels less confident in using the system. So this seems to be about control, in the sense of feeling able to cope with the system, rather than getting overwhelmed by it.

The need for personal contact and support was expressed by most of the interview participants, in different ways. Since studying Openings, Student A has moved onto a course that has face-to-face tutorials. She noted that her tutor gave very abrupt answers to email, but was very helpful face-to-face, illustrating the different perceptions that a student may have of the same tutor. She also managed her contact with the tutor, choosing whether to telephone or send an email, depending upon the nature of her query. She saw email as less intrusive upon the tutor’s time, but less suitable for more personal content than the telephone. Student C also valued the phone contact with her tutor, and made some interesting points about email. In particular, she sees the tutor as ‘personal’, in contrast to the impersonal ‘OU system’. Student E also valued timely personal support, in this case by telephone, and commented that he felt able to speaking more frankly over the telephone than in writing (email), which he saw as more formal.

### 4.3 An initial analysis of the second round of interviews (younger students)

An initial thematic analysis of the transcripts from the younger students has reinforced the findings from the older cohort. The need for support, and a sense that telephone is regarded as more personal than email, are present for both groups. The idea that email is less intrusive on the tutor’s time was also explicitly stated by two of the younger students. Although the younger students seemed to regard the computer as a familiar tool for studying, they also valued the telephone contact with the tutor. Anxieties about computer skills and the use of the internet were not expressed explicitly in the younger group. Anxiety surfaced in a different context: Student Y looked at his student record on the website to check that his assignment had been received by the university. This greatly reduced his anxiety (that particular assignment could not be submitted
electronically). A further two themes were present for both groups: the need to study independently and have control over the study environment. Both themes were indicated or implied in some of the younger students’ interviews, and stated explicitly by some of the older students.

There were some differences between the two groups, which require further analysis to explore more deeply. In particular, two of the younger students used the computer to write up their notes and assignments from hand-written originals. They stated that this was due to their poor handwriting, so the assignments could be presented to a higher standard. Even though web-based assignment submission was available, and the work was already on the computer, both of these students then printed out the assignment and posted it to the tutor. One of them, Student Y, a 32-year old, said that he was ‘too old-fashioned’ to use the online submission system. This contrasts with the enthusiasm with which Student A, a 75-year old, used the online assignment system, because it saved her a walk to the post office. The other younger student who posted a word-processed assignment had simply assumed that that was how it was done. She did not seem to be aware of the online submission system, although she used internet and email frequently. This is a possible example of a cultural assumption affecting student choices.

5. Conclusion

This paper has highlighted the need to consider the contexts in which students use computer technologies, in addition to access to hardware and skills. Affective and motivational factors can be a major influence upon students’ use of technologies. Peasgood (2007) indicated that students adapt their study environment to suit their needs, and this may influence their choices about whether or not to use a computer. They also make quite subtle and strategic choices about what form of communication to use under which circumstances. The need for personal contact, as perceived by the student, indicates the crucial role of the tutor as a motivator for students who are less confident with computers.

These findings have implications for course design, policy and practice in supporting older students who are new to computers. The findings also challenge some of the assumptions and stereotypes about the similarities and differences between computer use by older and younger students. A model is currently being developed that links the emerging themes with issues around student identity and choice of communications medium.

References