

Digital diversity in higher education (0213)

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## Abstract

The affordances of virtual learning environments (VLE) continue to be prioritised while the voices of the digitally shy and resistant are absent from a field which privileges e-learning over e-teaching. This research project applied an action research methodology to the development of an online teacher education programme creating a longitudinal study of VLE engagement by staff who teach and support learning. Participants developed digital confidence through critical reflection on a range of VLE tools and pedagogical approaches while their experiences were fed back into the iterative development of future course learning blocks and assessments. Data analysis confirmed shifts in attitude and behaviours, evidenced through an increased use of collaborative learning spaces. However, unexpected findings with regard to the digital diversity of student use of technology may need prompt attention if digital resources are to successfully enhance learning rather than diminish it.

## Digital diversity in higher education

The need to address digital literacies for staff who teach and support learning in higher education has been highlighted as essential if technology is to truly enhance student learning. However, research literature continues to privilege e-learning over e-teaching (HEA, 2014; UCISA, 2014; Beetham *et al.* 2009). Without targeted attention, divides are appearing between digitally competent and digitally shy academics. Observation of this digital diversity on campus, alongside the absence of their voices in the literature, have informed a doctoral study using an action research methodology. The research followed the development of an online teacher education course aimed at developing digital capabilities through collaboration with colleagues participating on the course who were also invited to assist in its iterative development.

Progress with digital adoption in higher education has been slow. High levels of digital enthusiasm have outweighed suggestions of low appetites for change (Heirdsfield *et al* 2011; Sheward and Hamilton, 2012; Watling 2009). As a result, digital reluctance has not been adequately explored. At a time of increased interest in blended, distance and flexible modes of higher education, the perceived challenges of e-learning remain similar to those barriers to adoption first identified over a decade ago (Bennett & Lockyer 2004, Johnson *et al* 2014, Watling 2014).

Teaching and Learning in a Digital Age (TELEDA) was explicitly designed to fill these identified gaps. The impetus was a 12 month HEA Change Academy Programme, Embedding OER Practice, led by the researcher and author of this paper, which investigated adopting the principles of open education as a whole institution initiative. OER engagement requires a range of digital literacies including searching, evaluating, downloading and storing internet resources. Initially the project highlighted differential levels of digital competence but participants were supported collegially and observed to improve to such an extent it was decided a project outcome would be the development of future opportunities for academics to develop e-teaching and e-literacies in supportive collegial environments.

The first Teaching and Learning in a Digital Age (TELEDA) course was accredited with 30 postgraduate credits and offered through the university's teacher education portfolio. Delivered and assessed entirely online over 24 weeks, it aimed to develop e-teaching competencies by positioning participants as students on the institutional VLE. Experiential learning cycles were applied to VLE tools with emphasis on building a sequential critically reflective journal. Summative assessment through a portfolio offered opportunities to demonstrate digital capabilities alongside a scholarly narrative of learning. A second TELEDA course, suggested by the external examiner, followed a similar format with focus on the use of social media for higher education and development of learning resources using video and audio.

The challenge of both TELEDA courses was to enhance digital capabilities, shift the use of VLE away from repository modes of learning to more innovative pedagogically sound practices (Lisewski 2004, Bennett & Lockyer 2004, Bell and Bell 2005) within an online community of practice where expertise could be shared and discussed. As befits an action research design, participants were encouraged to evaluate the effectiveness of the course throughout and invited to share the future development of each iteration. The decision to combine the evolution of the course with the researcher's doctoral study provided a longitudinal opportunity to explore the views and experiences of a cohort of staff whose voices were missing from the educational technology literature.

Data analysis revealed increased confidence with Blackboard and enhanced use of tools like wikis, journals and group working facilities. The data also included comments about the digital engagement of students. While this was not the subject of the research, it offered unexpected insights into student engagement with digital resources.

‘...you’ve got to slow up the digital environment which is a challenge. I think that’s the danger of virtual learning, that’s the difficulty, yeah, students are not really reading. I think virtual learning digital environments does somehow discourage deeper reading and it affects degrees. I think it’s that fundamental.

I know my students are digitally savvy, I only have to look at them in lectures, they’re always online, but since we adopted the policy of making module guides only available on Blackboard they don’t seem to be accessing them. It’s like they want us to push the information towards them and are not prepared to look for it.

Sometimes I think the internet is the problem. Many students express frustration at where to find things, to the extent that I think some give up looking.

The JISC and British Library investigated the searching behaviour of young people, the students of the future (CIBER 2008). Their report found possession of digital confidence did not equate with ability to evaluate search engine findings in depth or accurately assess the quality of content. Data analysis from TELEDA confirmed the value of going back to basics with academic staff by providing opportunities to explore the pre-requisites for e-teaching, as well as the pedagogical affordances of VLE tools, but also appeared to suggest the need to revisit the pre-requisites for successful e-learning as well. In 1997 the NCIHE reported '*C&IT will overcome barriers to higher education, providing improved access and increased effectiveness...physical and temporal obstacles to access for students will be overcome with the help of technology*'. (NCIHE, 1997: 13.4) Since then technology has moved on to become social, open and mobile but the field of educational

technology research has continued to focus primarily on the potential to enhance e-learning with attention to e-teaching being less well promoted. Assumptions about digital capabilities have resulted in digital divides which are less about equity of access and more about equality of use. This research on developing e-teaching has confirmed the value of providing appropriate pre-requisite support for academics to enhance their teaching practice, but also suggested e-learning may need to go back to digital basics as well.

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