Digitally literate or merely digitally competent? Exploring technology ownership and use among HE students in two non-UK environments (0056)

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Abstract:

With a starting point of the definition of digital literacy from Jisc below, this paper examines how far students in two non-UK HE environments - Australia and Germany - evidence the development of exemplar digital skills.

> 'By digital literacy we mean those capabilities which fit an individual for living, learning and working in a digital society. For example, the use of digital tools to undertake academic research, writing and critical thinking… producing, sharing and critically evaluating information (Jisc, 2013)

This short paper proposes that digitally literate students while owning much useful technology can be described as 'conservative' users, displaying passivity and consumerist attitudes in choosing digital communication tools as noted by Cochrane & Antonczak (2015). The author notes that similar outcomes were identified among UK students by White and Beetham (2013). Thus we query how pro-active digital engagement and critical approaches to digital material can be fostered among students.

Introduction

Recent studies have identified those digital skills which UK-located students entering HE are now demonstrating (White & Beetham, 2013; Pew, 2013). However, while students display high levels of functional skill or competency in digital media this may only be evidenced in a narrow corridor of involvement with social media and does not develop a comprehensive digital identity. Using digital devices informally does not necessarily foster the digital literacies required to develop critical thinking and evaluative research skills. This is in line with Beetham & Sharpe (2014) who suggest that: *'digital literacy looks beyond functional IT skills to describe a richer set of digital behaviours, practices and identities*.'

This perspective of wide-ranging digital competency but indeterminate levels of digital literacy amongst undergraduates was further borne out in the outcomes of two recent surveys, one undertaken in Australia (2012-3), reported at ascilite (Jefferies,2013) and one in Berlin in 2013-2014, not yet published. This paper examines the evidence for digital competency and literacy displayed by HE students in support of their studies. Students were questioned about digital ownership and their technology use in HE. Their use of technology for learning tended to be personally focussed, lacking evidence of active contribution to producing and critically evaluating material. In short, their contribution to sharing knowledge could be termed as passive and consumerist (Cochrane and Antonczak, 2015) instead of pro-active and collaborative.

Case Study 1 Queensland, Australia
A voluntary sample of undergraduate students (n=25), at an Australian campus-based university undertook a paper-based survey which asked them about their personal technology ownership and their use of technology for their studies. The aim of the survey was to take a snapshot among a group of Engineering students and a group of Humanities students of their ownership of different technologies and their engagement with online media. The immediate source of the questionnaire was the ECAR studies of HE student use of technology, with a small reduction in the types of technology included (Dahlstrom for Educause, 2012; Caruso & Salway, 2007).

The small sample of students surveyed at this university personally owned on average eight items of technology for learning. They all owned a laptop or netbook computer and a minimum of one USB portable memory stick and an average of 1.4 mobile or smartphones each. Students were clearly digitally 'savvy' and competent but their digital literacy skills were not as convincing. When their software use was considered, it was discovered that their use of learning technologies was largely consumerist in nature and self-focussed. They used social media avidly but it was concentrated around their own personal network of friends and associates.

> *'The current context is one where student ownership of multiple technologies is widespread. The results of the inquiry into their software use identified that they frequently accessed online material through YouTube and similar sources, but rarely posted any self-generated material to these sites or the MLE.' (Jefferies, 2013)*

Case Study 2 Berlin, Germany

In August 2013 a similar survey was organised for a Berlin technical university. Allowance was made for translation into a different environment with comparable questions used from the Australian study. The online survey gathered quantitative responses from students (n=275) across cohorts of Business and Engineering disciplines.

The survey responses were surprisingly similar to the Australian students in terms of the student approaches to learning technologies. There was wide-ranging access to technologies but ownership was at a lower level. 72% of those responding to the ownership questions claimed to own a computer (PC, laptop/netbook or iPad), while all of them were using computers for their studies. The pattern for software use showed frequent access to the university's LMS and high daily use of Facebook (74%) as their social media of preference. Students mentioned only occasional and sporadic access of Twitter (16%) and continuing low levels of uploading their own self-generated material. While 62% downloaded YouTube videos at least weekly, less than 5% would post videos online and only 7.5% contributed to a blog weekly.

Discussion:

Results from the two case studies reported above indicate a similarity in HE students' ownership and usage of learning technologies in developing personal digital literacy. Students with high levels of digital competence present as unwilling and unpractised at critiquing material further or engaging in the critical evaluation suggested as a key skill above. This issue was identified among UK HE students by White and Beetham (2013:3):

> *'Students rarely use technology for advanced knowledge-related activities or problem-solving unless they have been required to do so by their course or tutor'.*

Where students are freely pulling information to themselves from the LMS and other media they are not offering evidence of '*producing, sharing and critically evaluating information*' (Jisc,2013). Cochrane and Antonczak identified a similar issue of passivity and selective use of social media outlined here in their recent study.

> *'In contrast to the myth of the 'Digital Native' and the ubiquity of Facebook use, we have found that students' digital identities are predominantly social with their online activity beyond Facebook limited to being social media consumers rather than producers. (*Cochrane &Antonczak,2015)

Students in both countries (as well as these UK studies) demonstrate extensive ownership and use of technology to support their learning with a high level of perceived competency. What steps should now be taken to develop their critical faculties during their studies and ensure high levels of digital literacy as they graduate and seek employment?

Conclusion:

In spite of growing use of technology in schools (70% of UK secondary school pupils now use tablets according to Pew, 2014) students remain unprepared for the development of key digital literacy skills in universities. Multiple studies of developing digitally literate HE graduates indicate the need to move students on from their consumerist and passive culture to more pro-active engagement. The 'richer set of digital behaviours' (Beetham & Sharpe,2014) may be absent in their digital competency, but could a constructivist approach to managing collaborative student learning foster a wider co-development of digital literacy skills to improve graduates' digital practices and identities?

References:

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