Digital Enlightenment: The Myth of the Disappearing Teacher

David Longman & Kerie Green University of Wales, Newport

This paper argues that the emerging post-print digital culture of knowledge creation and dissemination in higher education is even more demanding of effective and committed teaching than hitherto. This may run counter to a widespread view that the digital environment reduces the need for a strong culture of teaching, to be replaced by an educational culture of independent, self-sufficient learners. However, evidence for the precariousness of this outlook is provided by many recent reports in the United Kingdom that have illustrated how the assumptions of a 'digital natives' perspective on students and academics are largely inaccurate. While acknowledging the phenomenal expansion of the cultural horizon that has been afforded to students and academics in the post-print digital environment of university learning, the crucial role of the academic in the creative use of digital technology in teaching should not be underestimated, or higher education may be rendered incapable of supporting effective learning. To substantiate this viewpoint the paper presents preliminary data from a small-scale pilot survey of the take-up of information and communication technology (ICT) for teaching in our own School of Education.

Introduction

In this paper, the authors discuss issues that may promote or hinder innovations in teaching and learning with information and communication technology (ICT) in higher education. While the innovation process may seem problematic for many, we take a more positive stance compared with the conclusions of many reports and commentators where the deficits in the capability and pedagogical practices of lectur-

ers are often emphasised more than their strengths or fitness for purpose.

It is difficult to see how the engagement and creativity of future generations of students can be fully realized without building our teaching on the digital tools of thought and communication in which we are now immersed. Higher education lecturers and learning support staff cannot sidestep the

application of ICT to pedagogical goals. There are parallels here to earlier generations of scholars who have in fact 'solved' these problems before in response to, among other things, new technological forms of communication that were becoming available to them (see Longman, 2010).

Michael Wesch (2009) presents an inspiring vision of how, by building on the culturally acquired digital skills and knowledge of his students, a more dynamic, creative and student-centred style of learning can result:

The media environment can be disruptive to our current teaching methods and philosophies. As we increasingly move toward an environment of instant and infinite information, it becomes less important for students to know, memorize, or recall information, and more important for them to be able to find, sort, analyze, share, discuss, critique, and create information and knowledge. They need to move from being simply knowledgeable to being knowledge-able.

Wesch (2009) actively embraces the newly emerging digital economy of learning that brings with it not merely a set of new tools to facilitate this new style of learning but also "new ways of relating to one another that entail disruptive changes in economic, social, and political structures." This is a significant challenge to established pedagogical practices in higher education.

Formulated initially by Marc Prensky (2001), the digital natives/digital immigrants debate has provoked much discussion about the perceived discontinuities and consequent inappropriateness of an education system where established teaching practices are ever more mismatched to the fundamentally different mindset of each new post-World Wide Web generation of students. Fortunately, this debate has become less sharply drawn as more balance and perspective has entered into it and the 'moral panic' has subsided

(Bennett, Maton, & Kervin, 2008). The Centre for Information Behaviour and the Evaluation of Research (CIBER) at University College London (2008) argue on the basis of evidence that the notion of 'digital natives' or a 'Google Generation' is overstated. In real terms, most young people and a significant number of academics are still working at a very basic level of information retrieval and interpretation. A more recent committee of inquiry in the United Kingdom (UK) agrees (Committee of Inquiry into the Changing Learner Experience or CLEX). Although young people entering higher education may have quite evolved expectations about the use of digital networks for a variety of personal and social purposes, these do not necessarily transfer to the kind of learning behaviour still expected at university (CLEX, 2009).

The debate has also moved towards describing challenges to the institutional integrity of universities, based as they are on 'pre-digital' organizational and delivery models. Bradwell (2009) echoes the viewpoint of CLEX:

The skills that students lack when they arrive at University are much the same as those that students have always needed to develop: the capacity to filter and analyse sources and to assess the validity and authority of material. The normalising of social networking in everyday life has not translated directly into better skills in a learning context. (p. 55)

Bradwell (2009) develops the case that universities must be aware of and respond to the challenges thrown up by the dislocation of learning from physical places that networking makes possible. Universities are fast becoming 'edgeless,' their function increasingly separated from their geographical location (while there are many precedents for such edgelessness Bradwell argues that it is becoming more mainstream). Of course, accreditation and the conferral of awards will continue to drive the business of higher education but in order to survive as an 'edgeless university' it must embrace networking in all its forms. Open

Courseware (see MIT 2010; OU, 2010) is one example of how higher education can respond in a direct way but, more importantly, the very idea of a university as a store of knowledge is challenged by the diversification of the World Wide Web. The challenge to universities and to academics is how to respond actively and positively to the perceived weaknesses in the formation of students' critical thinking through digital means. More than ever students are reliant on the guidance and expertise provided by academics for selecting, filtering, and interpreting this wealth of freely accessible data, information, and sources (for a more radical view of higher education without universities, see Kamenetz, 2010).

However, Crook (2010) identifies an interesting aspect of this debate that highlights a further tension in the UK context. This he calls the "myth of the disappearing teacher and the autonomous learner" which derives from a description of the 'new pedagogy' representing the new kinds of expectations that are placed on higher education. Teaching and learning is increasingly expected to serve such ends as constructivist styles of learning, collaborative learning, widening participation, personalised learning, learning, and valuing the student as a 'customer' whose engagement is measured in terms of satisfaction rather than challenge. Within this framework of expectations, Crook (2010) argues, the perceived role of the teacher shifts more towards a 'guide on the side' and is in danger of becoming subordinate to the 'autonomous learner.'

What use do Lecturers Make of ICT?

In spite of the many examples of excellent and innovative practice that integrate digital resources and that show what can be done (such as the approach of Wesch, 2009) the evidence for extensive and routine high order usage of ICT by higher education lecturers is generally disappointing. The results of the 2009 Faculty Survey of Student Engagement (FSSE) at Indiana University (2010) reveal that while over 70% of lecturers in the survey use course-management systems such as Blackboard or Moodle other more

direct uses of technology for teaching are much less common (Times Higher Education, 2010).

We undertook a preliminary investigation into ICT use in teaching in our own School of Education with a small pilot survey and follow-up interviews with colleagues in order to expand on the survey responses. Our results are consistent with the FSSE findings, revealing a similarly mixed picture of ICT usage with an emphasis on course management but also a range of emerging practices that make more direct use of ICT to engage students (Table 1).

The results from this brief questionnaire suggest a generally strong or positive attitude toward ICT within teaching but with a marked emphasis on the management of teaching by producing teaching resources or supporting the administration of teaching (Q1 and Q4). The data are more mixed for colleagues' expectations of students' direct use of ICT to support their learning in contact sessions or for directed study (Q2 and Q3). Direct facilitated use of ICT in contact sessions is not very common although there is a slightly greater expectation that students will make use of ICT in their directed study. Q5 and Q6 reveal an interesting contrast that awaits further probing. Perhaps our academic colleagues underestimate the impact of ICT on their practice (Q5), although a clear majority report changes to the content of their teaching (Q6).

Eleven interviews were conducted, with participants selected based on their availability for interview. It became clear during the interviews that lying behind Q5 and Q6 is an evolutionary rather than a transformative change. For 10 out of 11 respondents the use of ICT for teaching was no more than a supplement to the "explanatory method," an interesting phrase used by one respondent to depict the typical teaching method employed in much higher education teaching. The use of presentation software (PowerPoint), web sites (used but not made) or the University's course management system (Moodle) were almost the only direct uses of ICT in teaching, although all respondents agreed that the routine use of such common tools as wordprocessing and spreadsheets are a vital part of a student's learning toolkit. However, the expectation that students will use such tools as part of their learning is tacit rather

TABLE 1
Results of Online Survey of Staff

	N	Never	Occasional	Regular	Always
Do you use IT as a resource to support your teaching in contact sessions?	26	0%	4%	65%	31%
Do your students use IT as a tool or resource during a contact session?	25	16%	56%	24%	4%
Do you expect IT to be used by students for directed study tasks arising from contact sessions?	25	4%	40%	40%	16%
Do you use IT as a resource to support your teaching in contact sessions?	26	0	8%	46%	46%
		No difference	Little difference	Different	Very different
5. Do you believe that your use of IT has changed how you teach?	25	0	60%	32%	8%
		Yes	No		
Have you modified your curriculum to take account of the needs of increasingly IT literate students?	26	73%	27%		

than explicitly planned.

In only a few cases did we find ICT beginning to be used in more sophisticated ways for teaching and learning. Examples include a collaborative video project developed and successfully carried out as a means to enhance student engagement during course induction (Williams, 2010) or the use of Moodle to support part-time students on professional training courses particularly with effective structured learning activities for directed study. In another example, Second Life was used as a tool for presenting and engaging student participation on the topic of 'cyberreligions.'

While our interviews provided a limited repertoire of application by lecturers and little evidence of deep pedagogical change, they did reveal a healthy critical stance towards ICT and the pedagogical issues arising from its use. In particular, there was considerable emphasis on the active role of the lecturer in encouraging students to undertake and extend their learning. For example, one effect of widening participation is that lecturers must work

with a more diverse student body, many of whom are less 'ready' for learning at a university level. For example, reading for academic purposes was put forward by eight respondents as a key weakness among students. Thus, while ICT can facilitate access to content, teachers still need to provide strong direction to students who lack the tradition or culture of reading.

Critical reading is just one aspect of the issue of learning in higher education where greater independence in learning is a routine expectation. Not only do many students lack the motivation to work independently, but they also lack sufficient critical skills to filter and evaluate academic content. As reported in CIBER's research (2008) and by our own respondents, students are not adept at finding material for themselves. The process can seem daunting and they also tend to trust the outputs from their searching and related activities without even a cursory evaluation of reliability. This lack of criticality can lead to such problems as retrieving content that appears sound but, in the words of one respondent,

is the "BNP in disguise." Many students also exhibit an over-confidence in their ICT skills especially when challenged to apply them in new ways. Some respondents pointed out that lecturers may also be overconfident and insufficiently critical of their own higher order capability with ICT.

It would seem that students are certainly not driving change through their heightened expectations or acquired usage of ICT. On the contrary, our respondents were clear that students still need the guidance, direction, and role models provided by lecturers in order to ensure that they move beyond the passive consumption of data and information. However, while lecturers perceive and value the qualities of ICT and the advantages that it confers, the development of pedagogical practices to integrate these properties can be quite severely constrained by the wider institutional contexts in which learning and teaching take place (such as, for example, an overemphasis on course management systems rather than pedagogy).

Conclusion

Our interviews suggest that lecturers do adopt a positive but critical stance towards ICT for teaching and learning, even if their use of ICT remains limited. These findings suggest, however, that they are aware of and thus more likely to respond to the teaching and learning challenges that have been identified in the literature. Although take-up may be slower than some policy makers may like, in the long run this may lead to a stronger, more considered form of pedagogy.

Thus we conclude that while the rhetoric of the 'new pedagogy' (Crook, 2010) appears to disrupt the teacher's role by placing greater emphasis on the idea of the autonomous learner, our data indicate that our fellow academics do not see it this way – the teacher's role remains central to the fulfilling engagement of students in their learning:

Students were not concerned how they are taught (e.g. through lectures, seminars, or through a blended learning approach) so long as the instruction was good. This then raises the question of what is good practice in learning and teaching in different modalities. (Franklin & van Harmelin, 2007)

References

Bennett, S., Maton, K., & Kervin L. (2008). The 'digital natives' debate: A critical review of the evidence. *British Journal of Educational Technology*, 339(5), 775-786.

Bradwell P. (2009). The edgeless university: Why higher education must embrace technology. London: Demos.

Centre for Information Behaviour and the Evaluation of Research [CIBER]. (2008). Information behaviour of the researcher of the future. London: University College London. Retrieved from http://www.ucl.ac.uk/slais/research/ciber/downloads/ggexecutive.pdf

Committee of Inquiry into the Changing Learner Experience [CLEX]. (2009). Higher education in a web 2.0 world: Report of an independent committee of inquiry into the impact on higher education of students' widespread use of Web 2.0 technologies. Retrieved from http://www.clex.org.uk/CLEX_Report_v1-final.pdf

Crook, C. (2010). *Technology and practices of study in higher education*. Presentation at Centre for Excellence in Learning and Teaching, University of Wales, Newport.

Franklin T. & van Harmelin M. (2007). Web 2.0

¹ The BNP is the British National Party, a racist-fascist political group that like almost all such groups has a developed web presence and therefore can appear in search-engine results.

- for content for learning and teaching in higher education. Retrieved from http://franklinconsulting.co.uk/LinkedDocuments/Web2-Content-learning-and-teaching.pdf
- Indiana University. (2010). Faculty survey of student engagement. Retrieved from http://fsse.iub.edu/_/?cid=101
- Kamenetz, A. (2010). DIY U: Edupunks, edupreneurs, and the coming transformation of higher education. Vermont: Chelsea Green Publishing Co. Retrieved from http://diyubook.com
- Longman, D. (2010, December). Towards a digital enlightenment: Knowledge reproduction and creation in the post-internet university. Paper presented at the annual conference of the Society for Research in Higher Education, Celtic Manor Resort, Newport.
- Massachusetts Institute of Technology [MIT]. (2010). *MIT open courseware*. Retrieved from http://ocw.mit.edu
- The Open University [OU]. (2010). *Learning space*. Retrieved from http://openlearn.open.ac.uk
- Prensky M. (2001). Digital natives, digital immigrants. *On the Horizon*, *9*(5), Nebraska: NCB University Press.
- Times Higher Education. (2010). Students let down by the academic luddites. Retrieved from http://www.timeshighereducation.co.uk/story.asp?sectioncode=26&storycode=412958
- Wesch, M. (2009). From knowledgeable to knowledge-able: Learning in new media environments. Retrieved from http://www.academiccommons.org/commons/essay/knowledgable-knowledge-able
- Wesch, M. (2010). From knowledgeable to knowledgeable: Building new learning environments

- for new media environments. Retrieved from http://luna.ccs.ryerson.ca/stlhe2010/plenary-opening.php
- Williams, J. (2010, June). Do I do this in my own time? Student engagement during induction week.

 Paper presented at the annual conference of the Society for Learning and Teaching in Higher Education, Toronto, ON.

Biographies

David Longman is a Senior Lecturer in Information and Communication Technology and Education in the Newport School of Education at the University of Wales, Newport. His areas of interest are pedagogies and digital media, learning through computation, and the changing role of organised education in globalised society.

Kerie Green is the Academic Leader for Secondary Teaching programmes in the School of Education at the University of Wales, Newport. Her areas of interest are mathematics and mathematics education and personal development planning for undergraduates.