

## GLAD Conference 2009 Trigger Paper Submission

Title of Trigger Paper	Just because you can Tweet, it doesn't mean you should: Technological Determinism in Higher Education.
Brief description of the Trigger paper in no more than 150 words	This paper seeks to examine the relationship between teaching, learning and new technology. In recent years there has been a significant increase in the amount of technological tools available to the teacher. These tools have facilitated new practices such as writing wikis, blogs, texting, social networking and now tweeting. These developments have taken place alongside the introduction of virtual learning environments (VLE).
Please note that this description will be used as an abstract in conference publications and on the website	VLEs often attempt to replicate aspects of other social media, however it seems that both teachers and learners are supplementing their activities with tools that sit outside of these institutionally sanctioned environments. This paper will explore a perceived gap in expectation and reality for both teachers and learners.  The paper further proposes to frame a larger debate on deterministic practices in HE with the question: Is there a 'technological push' or 'technological pull' policy being introduced in Higher Education, and what implications does that have for learning?
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Brief description of  
CETL activity/focus

CEMP is a research and innovation centre based in the Media School at Bournemouth University. It was awarded its status in 2004 by the Higher Education Funding Council for England and is the only HEFCE-funded centre for excellence in media in the UK.

For the UK to maintain its position as one of the leaders of the creative industries, it is essential that media education can respond quickly and effectively to the pace of organisational, technological, social and cultural change which is sweeping through these industries. CEMP has positioned itself at the forefront of this response, engaging in advanced pedagogical research in media practice, creating original systems and tools to meet fresh technological challenges, and helping to identify, develop and guide the future direction of a fast-changing and dynamic industry.

CEMP is leading initiatives to address the need for:

- new pedagogic approaches to produce innovative practitioners with a real understanding of the potential of new technologies and media convergence;
- agile and tailored CPD programmes for the existing workforce, including enhanced management and leadership courses;
- tools, structures and mechanisms to support radically new personalised modes of study and which build upon the participative and collaborative nature of the world-wide web.

All of CEMP's work is underpinned by research, with the relationship between learning and creativity at the heart of the research agenda. We are interested in how people learn, and how creative activities can facilitate imaginative learning.

Our research reputation is based upon CEMP's contribution to higher education practice at national and international level, where Centre staff are researching in areas that have a direct impact on

	curriculum design and the student experience. These activities are complemented by the work of a number of doctoral students undertaking PhDs on related topics.
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## Just because you can Tweet, it doesn't mean you should: Technological Determinism in Higher Education.

In recent years there has been a significant increase in technological innovation in higher education. Indeed, in May 2000, the Higher Education Academy commissioned a comparative analysis of all virtual learning environments (VLE) in use in the UK. This report would be out-of-date within 12 months - Eriksen (2001) notes that the pace of technological change increases exponentially. So, this paper seeks to examine the relationship between teaching, learning and new technology. New media tools have facilitated new practices such as writing wikis, blogs, texting, social networking and now tweeting. These developments have taken place alongside the gradual introduction of virtual learning environments into higher education.

It is clear than the latest versions of learning environments often attempt to replicate aspects of other social media, however it seems that both teachers and learners are supplementing their activities with tools that sit outside of these institutionally sanctioned environments. For example, the BA Television Production programme at Bournemouth University's Media School has, at the time of writing, 59 Facebook groups associated with it – many of them to support group work. So, is this trend the failure of VLEs, or just a natural evolution of new media technologies and aligned social and cultural practices? What is the institutional argument in support of VLEs and 'technology push'? Are our VLEs already out-of-date? This paper then will explore a perceived gap in expectation and reality for both teachers and learners.

This paper will also frame a much larger debate on technological deterministic practices in HE with the question: Is there a 'technological push' or 'technological pull' policy being introduced in Higher Education, and what implications does that have for learning?

### Pre-History of the VLE.

Virtual learning environments are nothing all that new. In fact, they have been around in various forms since compulsory formal education began to be introduced in the US and Europe. As early as 1798, subscribers in the US could learn shorthand by being sent bespoke tutorials by post. Distance learning (via mail) became very popular through the 19<sup>th</sup> and 20<sup>th</sup> centuries, right up until it was appropriated by the web in the early 1990s. In 1909 – the year the first legislation for cinema was introduced – the prescient E.M Forster wrote about an electronic lecture in his short story, *The Machine Stops*. The first 'teaching machines' were manufactured from 1920 and in the year of Elizabeth II's Coronation in the UK - and the

subsequent increase in television ownership and rental – 1953, also saw the first televised educational programmes, transmitted live by the University of Houston on the KUHT public service channel.

From the 1960s learning technologies and tools became computerised with PLATO and Ted Nelson's Xanadu project. From now on, education and learning would be inextricably linked with the internet as Universities were quick to seize the potential of networked computers and virtual information. 1982 saw the emergence of Click2Learn and it was the European Physics Laboratory where Tim Berners-Lee conceived his World Wide Web protocol in the late 1980s. 1996 saw Jones International University becoming the first virtual higher education institution, and then from 2000 the environments we are perhaps most familiar with appeared such as Blackboard, quickly followed by the open source Moodle in 2001. At the time of writing, Blackboard is in use at 2,200 HEIs and Moodle has almost 50,000 institutional users globally. So, the history of the VLE is bound up in the history of all new media innovation. It is not something that is separate and autonomous so therefore needs to be examined with the same rigour that the histories of cinema, radio, television and computing all have. Many of these histories ask if technology has shaped society, and we should ask if the VLE has similar deterministic properties.

Raymond Williams (1992) argued that television was the result of a complex system of social and cultural changes, rather than the other way around. On the other hand, Paul Levinson (1999 & 2001) suggests that technological development is a natural phenomenon of evolution, with each new technology 'improving' the last – the VCR improved television for example. However, has the whiteboard improved the blackboard? Has Blackboard improved the blackboard? Has PowerPoint improved the OHP sheet? Are learning tools and technologies further distancing us from effective learning? Brian Winston (2000) argues convincingly that the best technologies are often suppressed, which is certainly the experience of those educators who have seen their bespoke learning environments replaced by 'off-the-shelf' systems like Blackboard. Many, such as Gillian Rose (2007) argue that technologies used in the making of a work of art can determine its form, meaning and effect. So, surely then learning technologies have had similar effects on learning? This is of course by no means a bad thing, but it could be perhaps if these learning technologies are imposed from above – at the institutional management level – rather than from below. It is clear that the way in which our students are using social networking tools as part of their learning, and how these practices have been readily adopted by teachers, that there is a gap between expectation and reality.

## VLE Policy in HE.

Paradoxically, many institutions, whilst imposing a VLE to aggregate and integrate all learning, also attempt to restrict access to new media technologies. There is an irony here in the lecturer who puts their teaching material on a VLE, but who bans mobile-phones, web browsing and tweeting in their sessions. Liz Kolb (2008) states that using new media devices as tools in teaching can improve their usage generally and that this can form part of a learner's digital etiquette. Stephen Heppell, Professor of New Media Environments at the Centre for Excellence in Media Practice (CEMP), agrees:

At the end of the lesson, a teacher can say to pupils 'You know the learning objectives; if you have suggestions on how the lesson could have been better for you, text them to this number (cited in Lacey, 2009)

Carey Jewitt (2006) proposes that, if used effectively, new media technologies can enhance and improve existing learning practices and experiences. Kolb, Heppell and Jewitt's positions are not deterministic, but they are certainly 'technology pull' and show how new media can be integrated into education if learners and educators are the drivers, rather than institutions, policy makers and non-teaching managers.

In addition, there must be sound pedagogic reasons for using a particular tool in a particular way; just because you can tweet, it doesn't mean you should. Also, just using technology to replicate an existing – and successful - practice is myopic. New tools and technologies should be used to facilitate new forms of learning and assessment. So, the pedagogic principles come first and the technology should follow on from that.

## CEMP's Learning Tools.

The Centre for Excellence in Media Practice, at Bournemouth University's Media School, has introduced this bottom-up 'technology pull' policy into its commissioning of new learning technologies and devices. The Centre's introduction of a Pedagogic Innovation Fund (PIF) has meant that Media School, staff, and associates, can bid for small grants (up to £1000) or larger sums of money (£1000+) for initiatives which will in some way improve media education in the School, and the wider sector. So, this scheme allows for individual lecturers, or groups of staff, to design and commission learning tools which will support and improve the teaching that currently takes place.

CASPAR: <http://www.cemp.ac.uk/caspar/>

Peer assessment is a key part of art, design and media education. Encouraging learners to manage the assessment and evaluation of their work, and the work of their peers is a fundamental part of any good learning journey. As a transferable skill, peer-assessment takes place right across the HE sector, in many different disciplines and areas. Computer Assisted Self & Peer Assessment Ratings (CASPAR) is a device whereby learners can carry out their peer-assessment online, and this can then be aggregated into the learning experience by the tutor.

Dialogue Boxes: <http://www.cemp.ac.uk/tools/dialogueboxes/>

Seminar and group discussion is a very important aspect of learning, but often it is difficult to initiate, particularly with increasing group sizes and timetable constraints. The Dialogue Boxes were created so that a tutor could begin a debate online, giving two opposing views, and then the learners can create their own avatar and place themselves on a spectrum of opinion. If this takes place before the seminar or group discussion, it can act as the initiative for live debate and discussion as it visually represents the group's collective opinion. Some tutors have found that getting the students to set the question(s) themselves is an equally effective model for initiating discussion, underpinning Jewitt's (2006) point.

Timelines: <http://www.cemp.ac.uk/tools/timelines/>

The Timelines bring together theory and practice. Many teachers in the art, design and media subject areas find this a particular challenge, as learners can view the theory as quite 'dry' compared to their practical and conceptual work. The Timelines allow for various theories and perspectives to be arranged chronologically and linked to key technological and institutional developments. All entries are linked vertically and horizontally across the three strands, so that learners can see that the theories underpinning their practice are key historical incidents, linked to the technological and institutional practices of their time. The content is deliberately biographical and contextual, as the Timelines are used as a guide by teachers and learners for further reading, reflection and exploration. Many tutors begin and end their lectures somewhere on the Timeline.

BOB: <http://www.cemp.ac.uk/tools/bob/>

The Box of Broadcasts (BOB) tool allows for both teachers and learners to request a recording of a radio or television programme either in advance, or from a rolling archive of constantly updated material. The programmes are recorded as Flash files, and therefore can be used in a range of teaching materials. subsequently both teachers and learners can isolate discreet clips and exemplars or examples and embed them into PowerPoint presentations and other applications.

Parashoot: <http://www.cemp.ac.uk/tools/parashoot/>

Increasingly in Higher Education, risk assessment is part of the learning culture. Many students undertake fieldwork of some nature, and in the art, design and media subject areas, the terrain is increasingly technological, with hazards associated with location filming, live exhibitions, camera, lighting, installations, performance and sound equipment. In this regard, art, design and media education goes some way in matching industry practice. So risk assessment is not only a safety issue, but can be a learning experience too. Parashoot is an online means of risk assessment, which can be accessed by tutors at anytime to make sure their learners are safe and secure. It is not just an educational device however, as it was tested

by, and is now used by, the wider media industries.

## New technology, new pedagogy?

So, it is clear then that the relationship between learning and technology now perhaps needs to be rethought and that policy needs to be reconfigured. There is an alarming gap between how institutions are imposing learning technologies and environments, and how learners are themselves using new media technology. For the teacher, there is often a pressure to use VLEs and other devices for the sake of it, rather than for sound pedagogic reasons. More worrying still, is the teacher that does have good pedagogic reasons for using a particular tool or technology in their teaching, but they find that the VLE in their institutions, and its associated applications, is woefully inadequate.

There is a clash of reality and expectation here, as new media by its very definition is open and inclusive. Web 2.0, in its simplest form means that all texts should be in Roland Barthes (1974) term, "writerly". The incremental change that new media has brought to teaching is moving education from 'readerly' practices. Now all learning should be 'writerly' and that is what our students now expect. If they are used to uploading video on YouTube and BlipTV, editing Wikipedia pages, blogging and tweeting to a potential audience of millions of other bloggers and tweeters, then they will quickly reject the VLE which only allows them access to a narrow band of units and modules and further restricts them from engaging with students from other areas and disciplines and using and embedding the social networking practices which already form a significant element of their lives. These practices need to be aggregated into learning as after all they are often language based and linguistic in nature.

Good teaching should always be innovative, but that does not mean that it should quickly try to adopt and absorb every new media technology. Instead, the technological development of learning tools should be seen as evolutionary, as Levinson (1999 & 2001) suggests, with each step improving in some way what has gone before. In the same way, each development in learning technologies should be used to improve the learning that has gone before. The experiment that the VLE would become the central educational technology has surely failed. Instead such environments should be viewed as part of a student's learning journey and they should be reconfigured to be more responsive and open and to align themselves with existing social and cultural practices, rather than trying to replicate or compete with them. The introduction and use of technology should be dictated by learners and educators in a 'technology pull' model rather than a 'technology push' one. So:

- how do we overcome institutional 'technology push' approaches?
- how do we know what students are learning from their cultural practices (e.g social networking)?
- do we need to know and aggregate these practices?
- is it therefore desirable or achievable to aggregate Web 2.0 practices?
- do we need to offer new spaces for learning and creativity?

The whole history of innovation shows us that. However, new technology will not improve poor teaching and learning, but it can improve the existing good practice which takes place all over the art, design and media area in UK HEIs today.

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