

The Editorial for Electronic Journal on E-Learning (EJEL) (2015) by Paul Griffiths

Volume 13, Issue 2, (<http://www.ejel.org/volume13/issue2>)

It is paradoxical that on the one hand the adoption of e-learning at higher education institutions is limited, basically due to the resistance of universities that are wary of undermining the brand equity of their degrees, and of faculty who see it as a threat to their jobs and to their Departments (The Economist, 2015). But on the other hand there has been significant progress in its research, as will be appreciated in the selection of papers in this issue of EJEL. So the same stakeholders who are investing their time, money, intellect and effort in researching it, are resisting its implementation. And what makes this paradox even more peculiar is that the findings of that research do not necessarily point towards the demise of universities or faculty. E-learning is not a narrow or linear application of digital technology to assist in delivering knowledge and engaging the learner. It is well established that success comes from optimal and customized combinations of face-to-face and digital to fulfil the needs of groups or even individual learners. This issue of EJEL attempts to go a step further and challenge the reader to think about the many different dimensions and approaches for applying digital technology to e-learning.

In the first paper Barber, King and Buchanan move far beyond the mere delivery of traditional learning methods through a digital platform, to turn around the whole learning process by exploring the relationship between problem based learning, authentic assessment and the role of community in fostering learning in digital contexts. The authors propose that one of the most significant outcomes of this combination of tools is its transformational effect on the nature of learning, on the role of the instructor, and the learners' attitude towards learning. Highly relevant in the authors' approach is the use of Digital Moments to develop the students' confidence in their social communities and to express their ideas in a multimodal form that the authors claim unleashes creativity well beyond that enabled by traditional text-based communication. As the authors themselves admit this derives in a non-tradition approach to learning that may be very difficult to implement by current institutions and systems. The questions that come to mind while reading this paper is if this highly inductive approach to teaching is suitable to students of all learning styles, and if it is not too extreme in going purely digital - would the approach not benefit from some degree of combination with face-to-face learning?.

Basitere and Ivala carry out a study on a sample of first year Chemical Engineering students to identify their knowledge gap in mathematics on entry, and design a programme to overcome the gap. They indeed confirm that the students in the study have a significant knowledge gap on entry, and design an "autumn course" based on face-to-face teaching complemented with a closed Facebook group to help in learning beyond lecture room time. Through a pre-test and post-test the researchers confirm that the "autumn course" had a significant impact on improving the minimum required mathematics skills, but they found no significant effect of the Facebook group usage in achieving that improvement despite considerable activity through this social networking tool in issues related to the course. The authors do not give any explanations for this apparent lack of effect of using Facebook. Should one infer from this that social networks do not contribute to learning? In other cultures it has been found that young individuals believe social networks are for personal use and tend to refuse using them for professional or educational purposes, but this does not seem to be the case in this study group as the authors present that there was significant use of Facebook on study-related issues. It could be that Facebook does not have a positive effect, but that other forms of social networking that the authors did not apply, such as blogs or wikis, might have had. Or it could be that the teaching method applied by the tutor was not designed to effectively synergise with Facebook or other forms of social networks.

Charbonneau-Gowdy carries out a piece of action research on a sample of ten pre-service English teachers (i.e., teachers in the third and last year of their undergraduate EFL degree course) to determine whether a guided reading programme using e-readers could positively influence the reading rates of the participants. This is a longitudinal study performed by the author who is a tutor of the programme on which the ten participants are enrolled. The author claims this is groundbreaking research because, although there are some studies on determining the implications of the use of mobile technologies on teaching (Gee, 2003; Baron, 2009) there are no known cases of having evaluated the effects of e-reader devices. The significance of the study, according to the researcher, is that the use of technology in the form of e-readers helped reverse the cultural capital shortage made evident in the participants' prior studies, and that its effect is sustainable in time after the initial intervention. This is valuable research carried out with rigour, but the reader is left

wondering if the effect is actually caused by the use of the e-reading devices, or was simply the result of putting the participants through the guided reading programme independently of the technology (the author does not appear to have controlled for this.).

With their paper on the role of Open Access and Open Educational Resources Hatzipanagos and Gregson bring to question the whole business model of present higher education. The research is a case study on the University of London International Programmes (UoLIP) that is aimed at raising awareness and understanding on what can be achieved in higher education by embracing the Open Access movement; at proposing actions that could be taken to improve institutional use of Open Access materials including Open Educational Resources (OER); and, finally, at examining the implications of such actions for Open Distance Learning and higher education in general. From this research emerges a synergy between Open Access and OERs because both have to address the issues of ease of search, quality and visibility. However the authors indicate that despite there being some commitment to adopting these initiatives there are no systematic institutional or cross-institutional approaches to draw together repositories. The paper does not tackle the issue of what the new business model will look like to overcome the resistance of universities that naturally want to overcome the risk of undermining the value of their degrees.

The issue of how to generate the changes required to move onto a student-centred learning environment by flipping around the lecture room is tackled by Hutchins and Quinney who place themselves firmly in the domain of blended learning. The paper explores the intersections between three strands, namely, research orientations, education strategies and technology enabled learning. The authors propose a framework that intertwines these three concepts into a 'triple helix' through which they believe it is possible to initiate the 'optimum disruption' towards transforming of both the student learning experience and the institutional culture. It is an original and compelling piece of work that indicates a feasible way forward but that leaves the reader wondering how this scheme can be transferred from the highly controlled case described to a broader and more general application.

Yet another completely different angle to the question of incorporating technology into learning is that of 3D as described in the study by Salajan, Mount and Prakki. Building on the combination of the Cognitive theory of multimedia learning (CTML) and Constructivist learning this study researches into how First Year Dental Anatomy (FYDA), a web-based 3D interactive application has been incorporated into the curriculum of a major Canadian university and assesses the perception of learning experience by the students that actually used it. CTML favours, enables and even promotes critical thinking which the authors reminds us leads to knowledge construction rather than just memorizing and putting "knowledge into learners' heads." This paper has many illuminating aspects to it, but one thing that strikes the reader is why usage of FYDA is so low for preparation for courses and for reviewing after lectures, and of relatively low usage during lectures. Its most intensive use is for studying for exams. This appears to reveal that the courses have not been designed to incorporate 3D into the essence of the learning process.

In their descriptive paper, Tan, Chang and Kinshuk address an even more innovative application of digital technology to learning, by researching into augmented reality (AR). The argument here is that meaningful knowledge is constructed primarily when the learning process integrates with social culture and life-context. More specifically, this study employs mobile devices to interact with real-life learning objects in a content-awareness mobile learning environment that is underpinned by the 5R adaptation concept for location-based mobile learning, which is stated as: at the right time, in the right location, through the right device, providing the right contents to the right learner. The mobile application identifies the real life object captured by the camera of the mobile device through comparison with a database of objects, and displays upon the image of the object the learning content which is aligned with the learner's "Personal Learning Status" (i.e., current course, current unit, content level.) This makes compelling reading, but it strikes the reader as if the application of this approach is limited to learning about tangible things but it is hard to see how it could be applied to learning about more abstract concepts.

I hope this set of thought provoking papers sheds light on the fact that achieving the holy grail of effective blended learning is not simple. Its high complexity is founded on that it is not just about combining face-to-face with digital, but actually combining it with many different technologies and approaches to their application. This complexity is what makes the field so interesting and what might explain the paradox of seeing much research but little adoption.