Chapter 5

Do I Know My Learners…?
The Conditions and Factors to Consider in Embedding Ubiquitous Technologies Into the Plan and Design of the Learning Process

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ABSTRACT

As digital technologies become an integrated part of our everyday lives, we need to consider how to harness their educational potential in higher education. However, despite considerable research into the use of technology in higher education, there still remains a gap between what teachers might perceive as valuable digital curriculum design and what students perceive as valuable digital learning experiences. One key component is how ubiquitous technologies can be harnessed to support students' learning experiences. In this chapter, the authors examine the implications of students' preferences and usage of u-technologies for designing teaching and learning curricula that positively exploit technology. This chapter builds on the research conducted by Daunert and Harteis that investigated pre-service teachers' preferences and experiences of u-technologies. The results of this cross-sectional survey are considered in relation to designing curricula in digital environments.

INTRODUCTION

Tomorrow is already here, in fact it probably arrived yesterday. Such is the pace of change in our modern digital global world; we always seem to be a step behind. We are in the middle of a digital revolution, where the pace of change is almost hard to chart. Nearly every week there is a new phone or device on the market and new applications appear on a daily basis. The internet now provides our daily news source as well as our communications, maps, calculations, encyclopedia, storage, health and well-being and a host of other things. And yet in higher education we still seem to brandish pedestrian, passive forms of education, fit for a bygone era. Western students arrive at our universities with a plethora of devices hoping to be excited by latest research and knowledge only to find that they are corralled into conventional teaching rooms where the most exciting use of technology they experience is PowerPoint. In fact, so great is the gap in understanding the educational potential of technology that students are often banned from using their phones in class. The argument being that it is a distraction: but in truth, it is not difficult to be distracted from a boring passive lecture.

As educators, we often ignore the potential and the ubiquity of technology at our peril. What kind of a world are we preparing students for if they are not well-versed in how to exploit technology in solving problems? We need to be preparing our students for a world in which they will have to answer questions not yet posed and where they will not yet have the knowledge to answer those questions. So future graduates will need to be able to harness the power of tomorrows technological advances in order to be relevant and effective in a digital global world. So how is our education currently preparing students for this future?

Without doubt, the explosion of digital devices that students can bring to their learning situation poses challenges for teachers. There are so many different devices that change with such speed and so many applications to know about and to use. So how would or could a teacher be knowledgeable about all of these? Perhaps that question belies a fundamental problem: do we still believe that a modern 21st century university education is best served by the 'sage on the stage' model? Is it our views of what constitutes a university education that is outdated and not fit for purpose? So perhaps it is the underpinning beliefs about higher education and the approaches to teaching that needs to change. So instead of teachers having to know everything about everything, they become the guide and the facilitators. That is not to say that teacher's knowledge of the subject matter is irrelevant – far from it. But

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