

## Chapter 12

# Learning Spaces for the Digital Age: Blending Space with Pedagogy

**Lynne Hunt**

*University of Southern Queensland, Australia*

**Henk Huijser**

*University of Southern Queensland, Australia*

**Michael Sankey**

*University of Southern Queensland, Australia*

### ABSTRACT

*This chapter shows how virtual and physical learning spaces are shaped by pedagogy. It explores the shift in pedagogy from an orientation to teaching to an emphasis on student learning. In so doing, it touches on Net Generation literature indicating that this concept has a poor fit with the diverse nature of student populations engaged in lifelong learning. The argument is that the skill set required for life-long learning is not age related. At the core of the chapter is a case study of the University of Southern Queensland (USQ) which describes a history of learning environments that have been variously shaped by pedagogy and the limits of technology. It refers to the concept of the 'edgeless university', which acknowledges that learning is no longer cloistered within campus walls, and it describes how USQ is engaging with this concept through the development of open source learning materials. An important point in the chapter is that the deliberate design of quality learning spaces requires whole-of-institution planning, including academic development for university teaching staff, themselves often ill-equipped to take advantage of the potential of new learning environments. The import of the discussion is that higher education learning spaces are shaped by deliberate design, and that student learning is optimised when that design is pedagogically informed and properly managed.*

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## INTRODUCTION

This chapter describes the journey from traditional learning spaces to contemporary, open learning environments, including Web 2.0 environments such as wikis, social networking spaces and virtual classrooms and worlds. The concept of ‘learning space’ is helpful in this respect because it provides a framework to explore emerging pedagogies and it broadens conceptualisations of learning beyond classrooms and lecture theatres. It also provides an opportunity to describe the potential of virtual learning spaces such as learning management systems and web-based learning opportunities. The term learning environment is also widely used and in this chapter the two terms are used interchangeably, as both refer to situations—physical or virtual—that are structured to assist student participation and learning. The contemporary higher education context increasingly requires flexibility of access for an increasingly diverse student cohort. Overall, therefore, this chapter argues the need for a carefully planned and appropriately managed design of learning spaces to maximise learning for all students. The key point is that pedagogy informs learning space design.

### Student Characteristics and the Design of Learning Spaces

There are many factors that influence the design of contemporary learning spaces in higher education. Some of these refer to students’ needs and wants, especially those of the so-called Net Generation or ‘digital natives’ (Prensky, 2001). That said, this chapter addresses learning spaces for diverse student populations and it draws on research that has convincingly deconstructed the discourse about the Net Generation (Kvavik, 2005; Kennedy, Judd, Churchward, Gray & Krause, 2008), arguing that it should refer to a skill set that *all* students need. Similarly, it is important to challenge the notion that lifelong learners are mature-aged students. Everyone, young or old, is a lifelong learner and

all students can be helped or hindered by learning design (Candy, Crebert & O’Leary, 1994). This reinforces the point that pedagogy is the driving force in the effective design of learning spaces.

The contemporary context of higher education has been described as ‘supercomplex’ (Barnett, 2000) necessitating learning environments that enable students to cope in a world that is “radically unknowable” (Barnett, 2000, p. 42). An important factor in this context is the changing political expectations of higher education, including a requirement for widened participation, which will clearly have an influence on how student learning is managed because it engages with notions of ‘lifelong learning’, defined as being “concerned with both flexible, convenient, relevant provision of learning opportunities and with curricula that promote lifelong learning qualities” (Walters, 2005, p. 2). In Australia, for example, the federal government has explicitly called for widening participation in higher education, firstly in terms of the numbers entering higher education, but more importantly in terms of greater participation of lower socio economic students (Heagney, 2009). Considerable incentives are planned to facilitate access to university and ambitious targets are being set. The implication is that there will be more students and greater diversity of students’ learning needs that can only be accommodated through the careful design of learning spaces. To function effectively in an ‘age of supercomplexity’ students require multidimensional thinking and critical analysis.

We now live in a world subject to infinite interpretability. It is this world for which universities are having to prepare their students ...a situation of complexity exists where one is faced with a surfeit of data, knowledge or theoretical frames *within* one’s immediate situation ... [but] professional life is increasingly becoming a matter not just of handling overwhelming data and theories *within* a given frame of reference (a situation of complexity) but also a matter of handling multiple frames of understanding, of action and of self-

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