

Chapter XXXVII

Emerging E–Pedagogy in Australian Primary Schools

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ABSTRACT

The purpose of this chapter is to provide some insight into the technology related changes that are occurring in Australian primary schools, particularly regarding pedagogy. It argues that the ways in which the digital generation use new technologies outside their school classrooms, to access information, communicate and learn, contrasts markedly with the more traditional pedagogies within the majority of Australian primary schools. Application of a research-based framework that allows the monitoring and description of the complex technology-mediated changes in pedagogy, has revealed that a small, but growing proportion of teachers are creating new learning environments that reflect some of the characteristics of the e-learners outside school. It is the intention of the author to encourage further exploration of this topic by providing background on the scope of the issues underpinning the development of e-pedagogy in schools, and a tool that can be used to examine changes occurring in schools.

THE DIGITAL GENERATION – REDEFINING LEARNING

The current generation of school-aged children in the developed countries have been called ‘digital natives’ (Prensky, 2001) because digital technologies are integral to their daily lives. Unlike their parents and grandparents, they have never known a world without instant communication and access to information through mobile phones and the Internet. However, young people do not all

use technology in the same ways. Four types of technology users have been identified in the report *Their Space: Education for the digital generation* (Green & Hannon, 2007) which draws on surveys and interviews of 600 parents and 60 children aged 7-18 years in England. While their findings cannot necessarily be generalised and not everyone fits neatly into a particular category, much of what they suggest is self-evident to anyone working with (or parenting) this age group. Awareness of the characteristics of the *digital pioneers*, cre-

ative producers, everyday communicators and information gatherers is surely of interest when considering the educational needs of this digital generation. The four identified groups of digital natives are described as follows.

- **Digital pioneers** lead the way in the use of emerging technologies and were doing things like ‘blogging’ before there were even words to name these actions. This relatively small group are self-motivated, feel a sense of ownership for their purposeful, creative contributions to the cyber-world and learn rapidly through peer-to-peer exchanges. Part of their identity is established through public venues such as YouTube and MySpace, as well as through characters they develop in online ‘games’.
- **Creative producers** engage in ‘active content creation’ such as building websites, producing movies, manipulating images, displaying photos and creating music playlists. They usually participate in active communities of interest, sharing their creations with friends, family and beyond. As well as providing an audience for their creative efforts, these informal networks provide opportunities for critical reflection and learning. They enjoy the entertainment value of digital technologies and are often keen ‘online gamers’.
- **Everyday communicators**, the majority of young people view basic digital technologies as ubiquitous, almost mundane. They use mobile phones and computers for regular, repetitive tasks - for texting, talking on MSN and for basic information searches - simply to make their lives easier. Many will also engage in some of the activities of the Creative Producers, such as uploading photos and downloading music, but focus on strengthening their existing personal networks rather than widening them.
- **Information gatherers** are avid users of search engines and are typically Google and

Wikipedia addicts. They are skilled in the craft of ‘cutting and pasting’ information to build ‘answers to questions’ that may be self-generated but are more often school related. They expect to find what they are looking for quickly and do not always critically assess the reliability of the source or the content.

While the adults and decision makers in society either worry about possible adverse effects of technology on childhood or get excited by the newness of technology itself, young people just quietly go about adopting technologies as basic tools and naturally using their own ways of acquiring knowledge and developing new skills, that is, e-learning. As a result, a new paradigm of learning is emerging, which Prensky (2007) says is based on the following principles -

Find information you think is worthwhile anywhere you can. Share it as early and often as possible. Verify it from multiple sources. Use the tools in your pocket – that’s what they’re there for. Search for meaning through discussion.

Critical elements in such a technology-resourced, dynamic learning environment are the “speed and connectivity of multidirectional digital communication networks” (Wood & Ashfield, 2008). In other words, access to quality technology and infrastructure, such as high-speed Internet or reliable mobile phone networks, is essential.

Learning Inside Games

An increasingly researched medium for e-learning is the complex digital game, particularly the multiple-player online game (Shaffer, Squire, Halverson & Gee, 2004). The significance of these games lies in the opportunities they create for thinking in new ways, and in the large numbers of the digital generation engaged in playing. Through inhabiting these virtual worlds, players

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