"See you after school?" How informal virtual learning environments are influencing formal education

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There are two forms of e-learning environments: formal and informal. E-learning that provides formal education is led by a trained academic, teacher or instructor, meets certain pre-established standards, and is designed to lead towards the attainment of a conferred award. Informal e-learning can be considered as learning environments which are exploratory and self-directed. Popular virtual gaming environments, for example, are visually rich, player-centred environments. These are now shaping the way in which neomillennials wish to engage in formal education, blurring the distinction between formal and informal learning. Doctoral research examined learning style preferences in visual and verbal modes of communication. The results of the research support the argument for the inclusion of visual communication in formal e-learning environments. This is achieved by maintaining a balanced approach in learning design by not foregrounding one communicational mode (verbal) over another (visual).

Keywords: informal learning; formal education; visual learning styles; multiliteracies

Introduction

When I was 13, my friends and I used to meet after-school at each other's homes to talk and socialise. Now my son is 13. He 'meets' his friends after-school in the online virtual society of *Runescape*, where they chat, solve new challenges either individually or collaboratively, and learn new skills through exploration, through peer demonstration and guidance, and at times via the instruction of experts in the virtual world. I now also 'meet' my colleagues in the virtual world of *Second Life*. These are some of the significant educational landscapes of the new millennium. They are visually rich, player-centred environments, and they are now shaping the way in which neomillennials wish to engage in formal education.

E-Learning

E-learning is defined by Bowles (2004, p. 19) as "a learning experience involving the acquisition or transfer of knowledge delivered or transacted through electronic means." Moreover, e-learning is web-enabled and involves the use of network technologies. As such, e-learning supports interactivity beyond that which would be provided by a single computer, and separates e-learning from the computer-based training solutions of the 1980s (Schneider, 2007). There are two facets of e-learning: formal and informal variants. *Formal* learning situations are usually provided by an institution, led by a trained academic, teacher or instructor, meet certain pre-established standards, and are designed to lead towards the attainment of a conferred award. Buckingham (2007) argues that formal learning environments tend to be rigid and conformist. They also tend to be based on persistent technologies which foreground text-based communication (Philips, 2006). *Informal* learning, on the other hand, includes all activities that fall outside the definition of formal education. Australia's Department of Education, Employment and Workplace Relations defines informal education as "the acquisition of knowledge and skills through experience, reading, [and] social contact" (DEEWR, 2008). 'Informal' learning takes place in a wide range of e-learning environments, such as the social virtual worlds of *Second Life* or *Runescape*, are extremely popular immersive sites where participants take on the persona of their avatar (or virtual being) through which to explore those worlds. Activities in these sites focus on the acquisition of skills and/or the learning of new knowledge through exploration, experimentation, and collaboration. It also involves the complex use of multiliteracy skills (Buckingham, 2007; Kress, 1997). This is the landscape of neomillennial learning.

Research on visual and verbal learning preferences

Learning style research examined learning preferences in e-learning environments across four domains using Felder and Soloman's *Index of Learning Styles (ILS)* (1991, 1994). The third domain of the *ILS* examines a learner's preference for how information is received, from a strong preference for visual learning at one end of the continuum, through to a strong preference for verbal learning at the other. Visual learning is defined in the *ILS* as 'pictures, diagrams, flow charts, demonstrations' whilst verbal learning is defined as 'written or verbal explanations' (Felder & Brent, 2005, p. 60). The quantitative data was gathered from three cohorts of research participants: novice undergraduate e-learners (n=45); graduate e-learners (n=9); and educators working in or designing e-learning environments (n=28). Comparisons of quantitative results on the domain of visual and verbal learning style preferences are displayed in Table 1. There is a heavy skewing towards medium to strong preferences for visual learning across all three cohorts.

Table 1: Three-cohort comparison of data on visual-verbal learning preferences

Cohorts	Visual Learning			Verbal Learning		
	Strong	Medium	Weak	Weak	Medium	Strong
Undergraduate e-learners	23.9%	39.1%	23.9%	10.8%	2.1%	0.0%
Graduate e-learners	44.4%	33.3%	0.0%	11.1%	0.0%	11.1%
Educators	27.6%	34.5%	10.3%	6.9%	10.3%	10.3%

Multiliteracies and neomillennial learning

The results of the research support the argument for the inclusion of visual communication in formal e-learning environments. Mayer (2001, pp. 67-68) has proposed the theory of multimedia learning as a contrast to the traditional information-delivery (transmission) view of education. In this theory, he argues that humans possess two qualitatively different channels (verbal and visual) for processing material. The two are different but when combined, can reinforce knowledge-building. Mayer argues that whilst the same material can be described in words and depicted in pictures, verbal and pictorial representations are not informationally equivalent. They complement each other, but are not substitutes for one another. According to Felder (2007), the aim for educators is to help their learners in becoming proficient in both verbal and visual literacy. This is achieved by maintaining a balanced approach in learning design by not foregrounding one communicational mode (verbal) over another (visual). In this way, learners have the opportunity to learn and express themselves through multiple communicational channels, and as such, become better equipped for life in the new millennium.

Conclusion

Changes in e-learning are in part driven by rapid changes in technology, and in part by broader changes that are happening in culture and society (Meredith & Newton, 2004). Of the societal changes that are contributing to a push for change in traditional approaches to formal educational environments is the influence of 'informal' virtual learning environments. Indeed, *Second Life* is now both an environment for informal learning and formal education. In these environments, verbal communication (speech and text) still has an important role, but it is not privileged over visual communication.

The socio-cultural matrix of the new millennium is based on multimodal communication, incorporating visually rich information in all media forms. This drive for change in formal education contexts brings with it the desire to move away from text-dominant, teacher-driven environments towards learner-centric, social, and visually-inclusive educational environments. In these environments, however, verbal communication (speech and text) still has an important role, but it is not privileged over visual communication. This is the world of neomillennial learning.

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Please cite as: Willems, J. (2008). "See you after school?"How informal virtual learning environments are influencing formal education In *Hello! Where are you in the landscape of educational technology? Proceedings ascilite Melbourne 2008*. http://www.ascilite.org.au/conferences/melbourne08/procs/willems-poster.pdf