# Virtual worlds as an architecture of learning

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Virtual or "Synthetic" worlds such as "Second Life", and online games such as "World of Warcraft" open up the possibility for new and enriching experiences as both an entertainment and an educational medium. For educators Virtual Worlds have the potential to extend the boundaries of when, where and how learning can happen beyond the realm of the traditional classroom. Presently, these virtual worlds are being widely adopted by corporate interests and the military to do business or to simulate war. It is our view that educators need to re-think their position on the place of this type of technology in their repertoire of pedagogic practices and help to claim these spaces for social and educational purposes. In this poster presentation we will outline some of the pedagogical activities we have been utilising in a VicHealth-funded project based in a secondary school in inner Melbourne. In particular we will describe the architecture of learning underpinning our work in this specific school setting.

## Architecture of learning

When analysing the emergent field of Virtual Worlds the concept of the "architecture of learning" provides us with a useful frame with which to examine the educational possibilities of this technology. The architecture of learning refers to a range of learning objects such as cognitive tools, practice tools and scaffolding tools which may be embedded within a piece of software or in the case of a Virtual World – literally erected within the environment for the purpose of learning.

The initial introduction to the environment provides the first example of a structured learning experience, which introduces users to the technology and how to successfully navigate the world. A number of these environments provide users with a space within which to experiment with interacting with other participants and the various in-world tools at their disposal. Users are also introduced to the various modes of physical movement and transportation available within the environment. Depending on which Virtual World they are experiencing, it is in this initial phase that users are introduced to their various abilities; walking, running, swimming and even flying. Users of these Virtual Worlds also learn how to communicate with other participants and how to buy and sell things; objects, body parts. Whilst in this orientation space within a Virtual World users are also required to create their own personally tailored Avatar.

The process of creating an Avatar involves a number of choices; choices such as; what will the Avatar be called; what gender will the Avatar be; what physical attributes will the Avatar possess; what colour or species will the creation take the shape of. According to Bechar-Israeli (1998) these choices are influenced by the real world life of users, their real identity and real life motivations play a significant, if not central part in the process of Avatar creation (Bechar-Israeli, 1998).

## Virtual worlds: Playing in the sandbox

One of the most significant characteristics of a Virtual World is its ability to use it as a "sandbox" within which simulations, models, artefacts and scenarios can be created and tested. The flexible nature of Virtual Worlds provides Teachers with a set of tools with which to create a range of tasks, simulations or scenarios. This is a highly significant learning opportunity when positioned within the context of the ongoing debate about the emergence of a digital divide between what Prensky (Prensky, 2001) describes as the generation of "Digital Natives" - young people who do not know a time when the internet or PCs did not exist; and "Digital Immigrants" – those of us who have had to learn to adapt to the new digital landscape.

**Figure 1: Creating an avatar in *Second Life***



**Figure 2: Students Interacting in *Second Life***

The sandbox metaphor provides us with a starting point from which to extend the boundaries of traditional education through the use of this new technology. Within this sand box activities can be constructed which engage young people in a range of activities aimed at helping them to work through questions of place, identity, peer-group relationships and self image. Virtual Worlds can also supply a setting within which simulations can take place.

For example, a Virtual World simulation can be set in a room, which exactly replicates a classroom right down to the colour of the walls and the posters on display. Avatars can be made to look like young people and they can then be given a scenario to act out, role-play in order to work through a specific issue or problem such as bullying, or some other significant matter. The sandbox nature of many Virtual Worlds means that simulations can be run, modified and re-run in a timely manner. The use of the Internet to access these spaces means that users can participate either whilst at school or from any other site which has the requisite broadband access and a PC with a modest video card.

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