

Immersion Technology: Current Patterns of Usage and Examination of Its Potential for Expanded Usage in the Classroom

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ABSTRACT

Classroom technology utilization and its nature are increasing at a breathe-taking rate. Looming on the horizon is a new technology which has the potential of greatly impacting the teaching environment. Immersion technology is a term which has been coined to describe a stage in the evolution of the internet that is characterized by introducing the ability to create virtual spaces which are inhabited by individuals (called avatars) who have the ability to move, speak, and act in ways that their creators and masters (in this case students and instructors) control. ThinkBalm, a think-tank dedicated to studying immersion technology, has defined the Immersive Internet as “a collection of emerging technologies combined with a social culture that has its roots in gaming and the virtual worlds.”

For a number of years, online games have been extremely popular around the world. These highly sophisticated online games have attracted players of all ages and ethnicities around the world to play fantasy-like games; in addition, many “sims” programs have the ability to allow participants to role play many activities in the virtual world. *The Sims* is an American strategic life computer game developed by Maxis and published by Electronics Arts game and was created by game designer Will Wright, also known for developing SimCity. It is a simulation of the daily activities of one or more virtual persons (“Sims”) in a suburban household near SimCity. *The Sims* was first released on February 4, 2000. By March 22, 2002, *The Sims* had sold more than 6.3 million copies worldwide, making it the best-selling PC game in history. By February 7, 2005, it had shipped 16 million copies worldwide.

The next significant development in the march toward classroom compatible online technology was the launch of the game called World of Warcraft, which is often referred to as WoW. This is a massively multiplayer online role-playing game (MMORPG) which is produced by Blizzard Entertainment. With more than 11.5 million monthly subscriptions, *World of Warcraft* is currently the world's most-subscribed MMORPG and holds the Guinness World Record for the most popular MMORPG by subscribers. In April 2008, *World of Warcraft* was estimated to hold 62 percent of the massively multiplayer online game (MMOG) subscription market.

As with other MMORPGs, players control a character (avatar) within a game world in third person view (with the option of playing in first person) exploring the landscape, fighting various monsters, completing quests, and interacting with non-person characters or other players. *World of Warcraft* as a real-time strategy game takes place in a 3D representation of the *Warcraft* universe that players can interact with through their characters. These two games have been briefly discussed because they help us more fully understand the capability and richness of the technology that can be used to develop online material as well as the large numbers of students who have experienced actually being familiar with the technology.

Another development in this fast-changing virtual world has recently emerged; an international community of faculty members, researchers, staff, administrators and students are uniting their efforts to work on an Immersive Education Initiative so that they together might define and develop open standards, best practices, platforms, and communities of support for virtual reality and game-based learning and training systems. One of the recent innovative products that have emerged from this group's initiative is the recent announcement of a breakthrough in interactivity, the Immersive Education Mixed Reality Table (iED Table) which merges 3D virtual objects and environments with physical objects from the real world. The iED Table dramatically changes the way in which students interact with computer-based learning environments by combining, or 'mixing,' the real world with the virtual world. Using either a traditional computer display, or by wearing 3D goggles, students can interact physically with a 3D immersive virtual environment that "pops up" from any 2D surface, such as a table, desk, wall, or even the floor.

Educators are constantly searching for new, more effective ways to engage students in the learning process. This new technology may offer instructors another means for using the internet in ways that are more interesting and may appeal to and facilitate more effective learning for many students whose learning styles are more compatible with this approach.

A major goal of this study is to examine how this new technology is being adopted by various organizations with a specific focus on educational applications. A preliminary examination of the literature has revealed that its use is rapidly being incorporated into non-game applications such as managerial and organizational processes. For example, Angel Learning in a cooperative effort with the Second Life Educators community has created Angel Learning Isle as a place for faculty and students to experiment with use of virtual collaboration technologies in online learning. A first stop by a faculty or student on this island would be to a visit a location called "SLED Orientation Garden"; this space would serve to introduce the visitor to basic navigation and camera controls in the virtual world. A further press of the button would generate a virtual classroom complete with slideshow tools. Another location is called the "SLED Educators Gallery" which offers instructional designers and educators a variety of tools which may be copied for use by the visitor. A "SLED Sandbox" is an area where educators can learn basic principles in order to learn how to build objects in Second Life. The basic building blocks are called "prims" which are the building blocks needed to

create the objects such as the chairs, instructor's podium, or whatever else one would want in the learning environment in which avatars interact. Angel Learning, as a major player in eLearning software, is interested in research and development in the use of Second Life because of its potential for extending the Angel Learning platforms.

Finally we would like to examine the potential advantages and disadvantages which may either escalate the adoption rate or impede its utilization in classrooms and online courses. What barriers would need to be overcome in terms of the learning curve for classroom instructors as well as students? Would this technology fit the distance-learning environment better than the face-to-face classroom? Perhaps it could be blended into both course delivery approaches equally well. Also, this study will address the possibility of future research possibilities. How much value would be added to the classroom? Does behavior in the virtual world transfer directly into the "real" workplace environment?

References furnished upon request.