Too far ahead of the curve: Ashland University’s decision to hold off on investing in virtual worlds.

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Abstract: This paper discusses the decision making process in the consideration of pursuing a virtual campus at Ashland University. Areas of student engagement and accessibility, in terms of disabilities, were explored as well as the congruency of virtual worlds as a learning environment with the universities’ identity. It was concluded that this type of instructional delivery mode was too far ahead of the curve in terms of student engagement and social networking and lacked elements of accessibility that are key to student success.

Keywords: Virtual worlds, student engagement, Second Life, accessibility, institutional identity

Background

Virtual worlds, that is, online virtual reality based environments have been touted as the next big thing in distance education for universities and colleges. As Kamel Boulos, Hetherington, and Wheeler (2007) observed, “a virtual world is a computer-based, simulated multi-media environment, usually running over the Web, and designed so that users can ‘inhabit’ and interact via their own graphical self representations known as avatars” (p. 233). Dede (1995) noted that the strength of delivering instruction in virtual environments is that the process evolves, beyond technology-mediated interactions between students and phenomena to technological instantiation of learners themselves and reality itself shifts the focus of constructivism: from peripherally enhancing how a student interprets a
typical interaction with the external world to “magically” shaping the fundamental nature of how learners experience their physical and social context. (p. 46)

Virtual worlds may be attractive to the so called millennial generation of students as the environments act much like other Web 2.0 social networking sites such as Myspace, Facebook and Orkut. Kamel Boulos, Hetherington, and Wheeler (2007) observed that “virtual worlds like Second Life can be considered as 3-D social networks, where people can collaboratively create and edit objects in the virtual world . . . besides meeting each other and interacting with existing objects (p. 233). Virtual worlds do differ though in terms of engagement where most social networks rely largely on a text based communication flow between participants asynchronously through the posting of messages, virtual worlds employ computer rendered avatars, or virtual proxies of the individual user communicating in real time via text chat or streaming audio. Dillenbourg, Schneider, and Synteta (2002) noted that virtual worlds are designed information spaces where students actively co-construct the virtual space, where social and educational interaction occurs, and that integrate heterogeneous technologies and multiple pedagogical approaches. In terms of online learning theory this brings into play the notion of social presence; how individuals project themselves into the environment. Online learning interfaces have been criticized as being overly text-based which may breed student disengagement and act as a barrier to the establishment of social presence in the online forum. One would think that virtual worlds would hold great promise for the establishment of social presence online in that communication is occurring in real time, in a shared environment, and while using a virtual self (avatar).

The Dean and four faculty members of the college of education at Ashland University sought to answer the question of whether virtual worlds measured up to the praising rhetoric that surrounds them. This research focuses on the research of two of the faculty members dealing with the following issues:

1. Whether social presence occurred in online colleges and universities by observing student-faculty and student-student engagement and the nature of communication between members.
2. Whether diversity was being accommodated in the virtual environment, particularly issues surrounding accessibility for college and university students with disabilities.
3. Whether the identity of our particular university was congruent with behaviors that occurred in the environment and partnerships that had been formed between colleges and universities and community.

The virtual world that was chosen as the environment for this project was Second Life as it is “perhaps the most popular virtual world platform in use today, with an emphasis on social interaction” (Kamel Boulos, Hetherington, & Wheeler, 2007, p. 233). Kamel Boulos, Hetherington, and Wheeler (2007) noted that the population of Second Life had more than doubled since January 2007, and, as of May 2nd, 2007, had reached more than six million virtual citizens. We felt that
Second Life would be an adequate research site as it was both an expansive and expanding virtual environment with ample participation.

**Assessing Virtual Worlds**

Ashland’s inquiry started out by forming a study group of four faculty members in the college of education, each who was provided a work study student for ten hours per week. The intention was to immerse our students into the virtual culture for a 15 week period doing guided field observations in the virtual environment known as Second Life. None of the students had previous experience in Second Life so all of them had to learn how to navigate the virtual world from the ground up.

**Assessing Whether Second Life was Right for Student-Faculty and Student-Student Engagement**

Chickering (1969) identifies three main factors in college enculturation: (1) students’ entry characteristics, (2) structural and environmental factors of the college, and (3) interactions between students and the primary agents of socialization on campus (i.e., faculty and peers). Chickering’s model was adapted for the field observations but still followed the original spirit of his work;

(a) **Institutional Objectives** were observed in manifestations in the virtual world,

(b) **Institutional Size** was assessed by approximating how many avatars were present at the time of observation as well as distinctions between faculty and students,

(c) **Student-faculty relationships** were observed by looking at the degree of extensive and varied interaction among faculty and students facilitates development.

(d) **Curriculum** was observed by looking at the structures created in the environment to assess sensitivity to individual differences, diverse perspectives, and to help students make sense of what they were learning.

(e) **Teaching** was observed as to presence of active learning either with faculty student interaction or peer-peer interaction occurring in the environment,

(f) **Friendships and student communities** were observed to see if friendly exchanges in the environment between students occurred and whether an attempt of diverse student community building with individuals of shared interests had been created within the environment,

(g) The presence of **student development programs and services** was observed,

(h) **Integration of work and learning** was assessed to see if manifestations of collaborative relationships between businesses and the college being observed were present.
(i) Recognition and respect for individual differences was observed to see if diversity was addressed in the environment.

(j) Finally, the cyclical nature of learning and development was assessed to see if there were manifestations of challenges or even discomfort by students in the environment.

Data from the field observations from five institutions of higher education (Bradley University, Bowling Green State University, University of Cincinnati, Kent State University, and Ohio University) within the same state (Ohio) with established Second Life learning environments suggest the following:

(a) Public dissemination of institutional objectives of the universities’ presence within the virtual world, and in general, was not present with the exception of Bowling Green State University. Bowling Green State University’s objective was observed to be the following: “The Bowling Green State University Second Life virtual campus was established in April of 2007 as an environment where students, faculty and staff can begin to explore this interactive, collaborative, online world.”

(b) The range of the number of avatars present in each of the university’s virtual campuses was between 0-2.

(c) Observation was inconclusive in this category as very little activity occurred in the virtual campuses during the 15 week observation. Structures had been constructed in the virtual campuses such as faculty offices and classrooms but the use of these structures only occurred in two of the universities’ campuses. Chickering (1969) noted that students need to see faculty in a variety of situations involving different roles and responsibilities; this was not the case in the virtual campuses observed.

(d) In terms of curriculum and meeting both diversity and individual differences, observation indicated that virtual campuses possibly catered more to these aspects than do real-life campus. For instance "diversity" was seen as welcomed through visual manifestations such as billboards (marketing the SL campus and its programs) that pictured numerous avatars from varying racial backgrounds as well as architectural manifestations in design as in Bradley University’s SL campus where a Japanese Shinto Shrine: Zen Garden & Pagoda” had been constructed. On Bradley University’s real-life campus, a "construction site" exists, but no references to such a Japanese structure can be found. Therefore, it can be concluded that Bradley University is trying to build a larger virtual outreach by focusing on inclusion of Japanese themes and structures to attract students.

(e) At no time during the 15 week observation was teaching observed. Peer learning was inconclusive as too few avatars populated the virtual campuses to assess the extent.

(f) Similarly, concerning friendly exchanges in the environment, no exchanges took place between avatars during the observation period. In terms of community building, signage and structures in the virtual campuses attempting to promote diverse student community building (see item d), were present across all virtual campuses.
Established classroom settings and faculty offices allude to a focus on student development, but similar to diverse student community building, results are not demonstrable within the virtual campuses because of lack of faculty, staff, and student presence. Traditional university offices that cater to student services were not present.

No instances of the integration of work and learning were observed.

Recognition and respect for individual differences manifested as signage and artistic renderings with the campus sites.

Finally, the cyclical nature of learning and development could not be assessed because of the lack of student presence within the environment.

**Assessing Whether Second Life was Right for Our Students**

The institution in which this study took place believes that students should be educated and challenged “to develop intellectually and ethically, to seek wisdom and justice, and to prepare for the rigors of living and working as citizens aware of their global responsibilities” (Ashland University, 2007a, ¶ 2). Therefore, while planning to develop a virtual campus environment it was deemed important to ensure that a virtual campus be accessible to all students so they can grow and develop according to the University mission. This premise lead to the investigation of the Second Life virtual world to see if accessibility features were possible and necessary in this environment to ensure full access to the virtual campus.

A work study student was given the task to join Second Life and to explore the environment observing accessibility features that would benefit or create barriers to students using the virtual world. Peters and Bell (2007) noted that:

Virtual worlds can level the playing field for people with disabilities or medical conditions. These people can create avatars or personas of their choice and can do everything in the virtual world that others can do. But some virtual worlds are totally inaccessible to individuals with certain disabilities. (p. 38)

As the exploration of Second Life began, it was observed that avatars can easily walk, run, teleport, and fly in the virtual world. The individual who builds his or her avatar can choose how they look, so it can be a true representation of self or built to represent how one would like to be perceived. With that being said, the individual can choose to move around the virtual environment using a wheelchair, such as those that may be freely acquired on the Virtual Ability Island within Second Life.
To further investigate the notion of creating a persona in Second Life different from one’s reality of having a disability, a wiki was identified within Second Life that specifically spoke to accessibility issues. According to the moderator, the goal of the wiki was to “collect and share accessibility resources which make Second Life easier to use” (American Foundation of the Blind, 2008, ¶ 1). As is the norm for wikis, resources were added by users on a variety of topics, but specifically of interest to this research were topics related to visual impairments, mobility, and hearing impairments. Having found a reference to a location in Second Life that was deemed by the wiki participants as highly accessible because of accessible builds (no stairs) that offered recreation and social areas to its users, observation indicated that there was a greater presence of avatars using wheelchairs and guide dogs. This lead us to speculate that if the development of locations in Second Life were more universally accessible that perhaps individuals with disabilities would be more likely to utilize an avatar that represented their reality; for instance using a wheelchair because of lower limb dysfunction.

We quickly realized that our speculation was false in that within Second Life having superhuman capacities like flying is a standard. Mobility in Second Life is somewhat easy to take for granted as avatars using wheelchairs can fly just as well as those with bipedal abilities. Architecturally, some islands have addressed mobility more universally by building ramps to facilitate access of avatars using a wheelchair, but since avatars can maneuver easily through built constructions, ramps or stairs do not make a difference in terms of accessibility. Therefore, the team soon realized that accessibility features needed to be analyzed in terms of users not necessarily what the avatar can or cannot do in the virtual world.

Exploration of the virtual world lead to the fact that most of the information available in Second Life is text-based. Individuals with visual impairments or who are Blind cannot easily navigate through the environment as text to speech software available on the market are not compatible with Second Life. For the purpose of this study, the screen reading software we attempted to use was
Universal Reader to examine accessibility of text to speech. Qi (2007) shared the same findings in a debate on accessibility of virtual worlds; “Accessibility software does already exist but much of it is not currently available in SL [Second Life]” (¶ 6). Joshua Linden, a primary developer of the Second Life virtual world stated that Linden Labs is:

Deeply committed to making Second Life usable by everyone. A large number of second life residents have “First Life” disabilities and enjoy the freedoms that a virtual world offers – from communication to movement. However, we're still a small company and have limited development resources, so we have not been able to do everything we want to – yet! That includes standard interfaces for accessibility tools. (Second Life Accessibility, 2007, ¶ 35)

Further, the developers of Second Life suggest that individuals who build on their platform ensure program accessibility in order to allow their clients full access to content material while navigating in Second Life. The bottom line is that for the time being, since it is a user created world, then the onus falls on the individual site developer within Second Life to provide accessible features.

Assessing Whether Second Life was Congruent with Ashland University's Identity

The identity statement of Ashland University is the following:

Ashland University is a comprehensive university, associated with the Brethren Church, where Judeo-Christian values are the foundation of the educational and social environment. The University promotes the liberal arts and sciences as well as professional development for undergraduate and graduate students. Founded in 1878 in Ashland, Ohio, the University serves a diverse student population through its main campus, regional centers and Seminary. (Ashland University, 2007b, ¶ 3)

Further, Ashland University is observed to be a conservative mid-west institution of higher learning. Ashland’s Information Technology department consulted on this project and had several reservations about the university being involved in instructional delivery through virtual worlds because of possible negative student experiences. Part of creating these types of learning environments relies on the aspect of social networking inherent to virtual worlds. Avatars can teleport in and out of the environment with the hope of attracting individuals of similar interests and goals; in essence universities want visitors to the virtual campus to help recruit new learners. The problem arises when individual chose not to follow rules posted on the virtual campus and act to disrupt and hinder learning. For instance, if an avatar were to appear during a virtual lecture and start harassing participants. The problem is that open access and security of our students’ well being, as well as our institutional image become at odds because of this fact.

A further incongruence with Ashland’s institutional image has to do with the fact that Second Life is big business. Money is exchanged for virtual goods and services online. We became increasing concerned with the idea of requiring our students to participate in this virtual world but at the same time taking no onus for
them straying to other parts of Second Life where they could end up spending money or getting involved in activities that may negatively impact their experiences in the virtual world or their education at Ashland in general.

Conclusion

In conclusion, observation led to the belief that virtual worlds for learning, and in particular Second Life, may be too far ahead of the current needs of faculty and students in higher education institutions. Although structures were observed to be present to facilitate faculty-student and peer engagement as well as to address individual differences and diversity, the utter lack of social presence on the five virtual campuses which were observed failed to prove a case for student engagement.

In terms of accessibility in Second Life, research shows that some islands have tried to incorporate accessibility features into the development of the virtual world, while others do not attempt to include these features into the construction of their sites since avatars can move freely in Second Life independent of disability. Some assistive technology seem to work with Second Life while others do not which limits access depending on the genre of the user’s disability.

Finally, in looking at the congruency of what can happen in virtual worlds with our institutional identity we decided to go forth with caution thinking first about how we want our students to experience higher education and Ashland University. Virtual worlds hold great promise in terms of both simulation and social engagement; we will put the proverbial pin in pursuing Ashland’s virtual campus at this time with full knowledge that we will continue to research, scrutinize, and act in the best interest of our students and the institution.

References


