

3-D Avatar-Based, Virtual World Learning in a Second Life Educational Metaverse

Final Project Report - April 14, 2008

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Project Web Site: www.sl.uidaho.edu

Statement of project goal:

The new tools of the WWW allow for enhanced social, collaborative, and interactive learning. The overall goal of this project is to advance 3-D interactive, avatar-based, collaborative learning environments to increase student access and learning. To achieve this goal we proposed activities in four project areas that included objective a: development of Second Life "*Idahonia*"; objective b) student interactive activity; objective c) peer-to-peer training of faculty; and objective d) assessment.



Idahonia, 2008

Discussion of project results and extent to which goals were met:

We were able to meet and exceed the project's goal and our four objectives. To accomplish objective a: development of Second Life "*Idahonia*", we obtained a University of Idaho island in Second Life (SL) and designed in-world resources that allowed for a blending of creativity and functional practicality that would enhance teaching and learning. Our construction included open space and architectural resources that linked our campus identity but fully utilized the 3-D resources of SL. To enhance student, faculty, and visitor SL understanding and *Idahonia* access, we created a root university web site at www.sl.uidaho.edu that contains background information, tutorials and a direct link (SLurl) to our space in SL. This resource is enhanced by streaming video that quickly introduces the site visitor to the SL experience.

On *Idahonia* we created formal structures that include media-enhanced meeting rooms and assembly areas as well as informal gathering areas. For formal class work, we created a Skydome classroom complex 250 meters in the sky above the island. The Skydome contains two fully media-enhanced, voice-enabled classrooms that accommodate up to 75 students and an assembly area that will house student project displays and art exhibitions. We developed and coded a unique "HUD" tool for teaching that allows for students to raise their hands and for the teacher to immediately know the identity of that student and how long their hand has been raised. This tool also allows for easy control of slides and video in the classrooms.



Idahonia Skydome classroom complex.

Our SL resources were sufficiently developed that we were able to teach two toxicology courses in the Fall 2007 with SL adjuncts. This satisfied objective b of our proposed work to enhance student interactivity beyond the more passive and isolated traditional online course resources. The enrolled students represented on-campus and distance students from as far as Australia and Alaska above the Arctic Circle. This SL experience was a once-a-week discussion section meeting of on-campus and off-campus students enrolled in these online and web-assisted streaming video lecture courses ([Food Toxicology](#) and [Environmental Toxicology](#)). The lecture notes for these courses were directly available to students from kiosks in the Bighorn Classroom of the Skydome complex.

Our third objective in the project was peer-to-peer training of faculty. A project brief was sent to all faculty and college administrators at the University of Idaho in August 2007. Later in October, a one hour presentation and SL demonstration was delivered to 70 new faculty during their orientation seminar series. A formal campus presentation "Digital Aristotelian Peripatetics" was delivered to a packed house at the UI Interdisciplinary Research Colloquium. By far the largest impact was in the recruitment of two UI Virtual Technology and Design (VTD) faculty who have since purchased another neighboring island and heavily integrated SL into their courses such that about ten students are now conducting cooperative VTD projects in SL. Several additional campus units including the School of Law, the College of Business and Economics (CBE), and the College of Agriculture and Life Sciences (CALs) have begun activities in SL.

Our substantial assessment activities targeted in our final objective provided valuable feedback and guidance for future activity. We used online survey tools for the upper division toxicology students and found that they see 3-D virtual worlds as having value for enhancing social learning in the near future. There are significant hardware and bandwidth considerations that may impede short-term progress. A cooperative survey of over 200 CBE students showed that usage of social computing does vary significantly with age, with younger students far more active in this arena. Twenty-eight percent of the surveyed students use social computing tools "too many times to count" during a typical week.

Impact of project/future plans:

This project clearly generated campus excitement at several levels and we consider it a large-scale success. Indeed, we were able to acquire \$47,000 in additional funding from the Idaho State Board of Education and we will hear shortly about another \$49,000 request. To augment the social learning ability of 3-D virtual worlds, we plan to use live streaming video of lectures and video presentations on course related case studies; some of this work will be delivered in the Fall 2008 term. We judge this effort catalyzed by NWACC proof-of-concept funding to be sustainable through the near-future and perhaps beyond due to campus buy-in, student feedback, and availability of additional development funding.

Using College of Art and Architecture funds, the VTD program established an SL island resource for their students adjacent to our general campus *Idahonia*. VTD 457 Capstone Design Studio I (Fall 9 cr) and VTD 458 Capstone Design Studio II (Spring 9 cr) were (are) taught with *Second Life* adjuncts. In cooperation with UI New Student Services, one of the design teams is developing a resource area in *Second Life* for Virtual Vandal Thursday



UI Student Affairs campus build in SL with housing, recreation center, student athletics and academic program information resources.

on April 17th. Organized by the UI Student Affairs, this SL experience will allow prospective students to interact in

real time with advisors, peer mentors, and participating faculty. High school teachers around Idaho have been given instructions on accessing this SL event. As an example of campus buy-in, the Associate Dean of CALS plans to spend several hours in-world during Virtual Vandal Thursday.



UI BAP Members at *Idahonia*.

The Associated Students of the University of Idaho (ASUI) and several student groups are moving to adopt SL to enhance student activities and outreach. For example, UI Beta Alpha Psi (BAP), our Finance honorary society student chapter, will be simultaneously presenting in RL and UI SL on Saturday April 19th in Portland at the regional best practices student competition. They are proposing that the International BAP Society create a space in SL for in-service learning. During this presentation there will be professional visitors from Deloitte, a global financial services firm, as well as campus students and faculty logging into UI SL.

URLs of any related Web sites:

<http://www.sl.uidaho.edu/>

Summaries/URLs of any publicity the project has gained:

During development

“Learning in a Virtual World”, <http://www.uiargonaut.com/content/view/3343/37/>

University of Idaho Argonaut, February 2007.

Podcasting and 3-D courseware interview, Tara Roberts

“Region's universities test podcasting; Professors using new technologies to connect”

http://www.spokesmanreview.com/tools/story_pf.asp?ID=176178

Spokesman-Review, Spokane, WA, February 2007.

Podcasting and 3-D courseware interview, Shawn Vestal

Fall semester campus introduction

“UI Gets Second Life”

<http://www.uiargonaut.com/content/view/4180/1/>

University of Idaho Argonaut, August 2007

Comprehensive article on the NWACC funded initiative introducing the SL resource to the campus community, Christina Navarro

National /International Press

Interviewed by MSN reporter for one hour on the academic applications of *Second Life*. Story is due out in mid-May 2008.



Skydome Bighorn classroom set up for April 19th BAP presentation in Portland.