10-1-2008

Using Virtual Worlds to Launch Ideas, Research and Teaching

Anne-Marie Armstrong  
Wayne State University

Darryl Shreve  
Wayne State University

Joshua Neds-Fox  
Wayne State University, dp5745@wayne.edu

Recommended Citation
Available at: http://digitalcommons.wayne.edu/libsp/74

This Article is brought to you for free and open access by the Wayne State University Libraries at DigitalCommons@WayneState. It has been accepted for inclusion in Library Scholarly Publications by an authorized administrator of DigitalCommons@WayneState.
Editor
Karen Swan

Managing Editor
Alison Bland

Advisory Board

Joseph Bowman, Ph.D.
State University at Albany

Cheryl Lemke
Metiri Group

Rosemary Du Mont
Kent State University

Robert Muffoletto, Ph.D.
Appalachian State University

Ricki Goldman, Ph.D.
NYU

Elliot Soloway, Ph.D.
University of Michigan

Aliya Holmes
St. John's University

Review Board

Kadee Anstadt, Perrysburg City Schools
Mary MacKay, Wake County Public School System

Savilla Banister, Bowling Green State University
Theresa Minick, Kent State University

William Bauer, Case Western Reserve University
Jason Schenker, Kent State University

Sebastian Diaz, West Virginia University
Chris Simonavice, Murray State University

Evelyn Goldsmith, Kent State University
Karen Swan, Kent State University

Albert Ingram, Kent State University
Mark van 't Hooft, Kent State University

Jan Kelly, Mogadore Local Schools
Maggie Veres, Wright State Universit

Annette Kratcoski, Kent State University
Yin Zhang, Kent State University

The Journal for the Research Center for Educational Technology is published twice a year by RCET (http://www.rcet.org). It provides a multimedia forum for the advancement of scholarly work on the effects of technology on teaching and learning. This online journal (http://www.rcetj.org) seeks to provide unique avenues for the dissemination of knowledge within the field of educational technology consistent with new and emergent pedagogical possibilities. In particular, journal articles are encouraged to include video and sound files as reference or evidence, links to data, illustrative animations, photographs, etc. The journal publishes the original, refereed work of researchers and practitioners twice a year in multimedia electronic format. It is distributed free of charge over the World Wide Web under the Creative Commons License (Attribution-Noncommercial-No Derivative Works 3.0 United States) to promote dialogue, research, and grounded practice.
An Introduction to the RCETJ Special Issue on Multimedia, Media Convergence, and Digital Storytelling  
Gordon J. Murray  

Video-Based Additional Instruction  
Mark Franciszkowicz  

Design and Assessment of an Online Prelab Model in General Chemistry: A Case Study  
Juan-Antonio Llorens-Molina  

The iPod Project: A Mobile Mini-Lab  
Nikhil Sathe and Jörg Waltje  

Media Convergence in a College Newsroom: A Longitudinal Study of Identification and Commitment to a Collaborative Web Site  
Fred Endres  

The Educators Coop Experience in Second Life: A Model for Collaboration  
Leslie Jarmon and Joe Sanchez  

The Creation and Refinement of a Sustainable Multimedia Process in a Higher Education Environment  
Megan Bell and Larissa Biggers Schraff  

Using Virtual Worlds to Launch Ideas, Research and Teaching  
Anne-Marie Armstrong, Darryl Shreve, and Joshua Neds-Fox  

Electronic Portfolios: Engaged Students Create Multimedia-Rich Artifacts  
Gail Ring, Barbara Weaver, and James (Jim) Jones, Jr.  

Using Online Media to Track Censorship and Prior Review of Student Publications  
Candace Perkins Bowens and Audrey Wagstaff  

Digital Storytelling as a Gateway to Computer Science  
Amy Csizmar Dalal  

Journal of the Research Center for Educational Technology (RCET)  
Vol. 4, No. 2, Fall 2008
Using Virtual Worlds to Launch Ideas, Research and Teaching

Anne-Marie Armstrong
Office for Teaching and Learning, Wayne State University

Darryl Shreve
Computer and Information Technology, Wayne State University

Joshua Neds-Fox
New Media and Information Technology, Wayne State University

Abstract

Wayne State University’s Office for Teaching and Learning (OTL) co-hosted an all-day symposium called Virtual Citizenship. This symposium was part of an ongoing, multi-faceted study of the intersection between information technologies and the practice of citizenship. The OTL, with the help of the New Media Consortium, was able to provide the resources and technical knowledge needed to produce this forum while showcasing new technologies. Prominent speakers presented their views and research live in the university’s auditorium and simultaneously via video streams into Second Life and the university’s web site. This article describes the procedures leading up to the broadcast and includes technical requirements, recommendations, and lessons learned. It has the instructions and checklists for similar projects in the future. Screen shots, videos of the Second Life Symposium and links to the podcasts of the presentations are also part of the article.

Introduction

With so many changes taking place weekly and daily in the worlds of academia, technology, and political engagement, it is no wonder convergence of the three was inevitable. A routine request for assistance to the Wayne State University’s (WSU) Office for Teaching and Learning (OTL) for a planned symposium provided the impetus for that office to leap into global learning and instruction using the flat web, social networking tools, virtual environments, and good information dissemination practices. This is a description of how that request became our successful venture into the virtual world and how we were able to integrate the university’s present media services and technologies with that world. This narrative, along with the checklists provided, can serve to assist other schools who want to use these new technologies in both appropriate and innovative ways.

The Project

In the fall of 2007, an interdepartmental committee was formed to sponsor a symposium on what citizenship means in the 21st Century. The committee had vast experience in organizing these types of events that take place in the traditional manner on campus (click here for planning sheet). Speakers were invited, venues found, accommodations made, host assignments made. Administrative staff coordinated the event, set up registration, and sent out press releases and campus-wide publicity. As the committee reviewed the speakers’ topics, the title for the event evolved. It was called “Virtual Citizenship and New Technologies.” With this overarching theme, the seminar’s organizing committee sought the use of complementary mediums that would model the symposium’s messages and the speakers’ topics—collective activism, participative politics, new networks, and people power in the future. Given the budgets and resources available the committee proposed using streaming video, web sites, blogging and a simulcast of the speakers in the virtual world of Second Life (SL).
OTL Role

The previous winter the University had already tested the waters of virtual worlds during another conference, the Humanities, Arts, Science and Technology Advanced Collaboratory (HASTAC). Second Life had been used to demonstrate the provision of educational presentations to a global audience.
Leadership from the Libraries who had sponsored HASTAC was more than willing to volunteer to continue this exploration into virtual worlds for educational purposes. The OTL, being a part of the Universities Libraries, took on the active role of launching the virtual aspects of the traditional seminar. The director of that office is responsible for university television and the Libraries' web site and had encouraged research into training faculty to use Second Life. These three media and a blogging component complemented the speakers who delivered the traditional seminar. Narratives covering the media usage follow. The same information is in checklist form in the appendix.

The Web Site

The nature of the project suggested building a small site to act as a brochure advertising the symposium; a location to which other sites could link; an alternate location to stream the symposium live and to host archived video; and a virtual place to bring together and acknowledge the various parties collaborating on the symposium.

Hosting

The web site needed to have sufficient server space and power to handle the requirements of streaming video and Second Life, and to link together the event, the speakers, the larger University population and the world audience. The University Libraries' solid web server infrastructure, experience in creating standalone sites for various projects, and lack of red tape between idea and execution, made them a natural choice to develop and host the site. The committee was able to leverage the Libraries' existing web architecture and resources to develop, mount and update the site quickly.

Design

The design elements need to reflect the subject matter and the current memes in the online community. The thin banner was modeled from the social networking site Virb; rainbow gradients were suggested by the postmodern rock band Radiohead, who had recently self-released a new, free, online recording; and the black/white grid came from New York Times site designer Khoi Vin's blog, Subtraction.

![Figure 3: Web Site for Virtual Citizenship Symposium](image)

Content
The site began as a simple one-page site giving date, location, a map, and a short description. When New Media Consortium (NMC) agreed to host the symposium virtually in their Second Life space, we added credit to them, a SLURL (Second Life URL) to their virtual amphitheater on their island, and a linked page with directions for getting a free account in Second Life and getting to the virtual symposium. Presenter profiles and links referencing their more permanent online presences were added. When presentation titles and a schedule of the day’s offerings became available, they were added along with a mechanism for symposium registration. It was planned to provide links to the files containing the presentation slides on the web site so that online attendees could download the files ahead of time. However, the presenters either did not have the final files available before the start time or used other means for illustrating their presentations and this content had to be uploaded afterwards.

The site became a handy reference for other groups promoting or noting the symposium and incoming links were made from HASTAC, the New Media Consortium, WSU’s Pipeline news system, and WSU public computing desktops.

University Television produced and hosted the streaming media and provided a discrete Quicktime .mov file for embedding in the site. It linked to the stream and broadcast the symposium in real time from this site. Following the symposium, the live stream page was retooled to become an archive for Windows Media format videos of each of the four presentations. A link to the live blogging done by one of the symposium’s hosts, Kevin Deegan-Krause, WSU’s Center for the Study of Citizenship, was also added. The archived streams are currently available from http://www.lib.wayne.edu/virship/stream.htm. The blog was removed from this archived site and redirected to the College of Liberal Arts and Science.

Streaming Video

There are three phases to any video production—pre-production, production, and post production.

Pre-production

It was decided to film with two cameras and stream the video from the main camera live into Second Life and then onto a corresponding website. The video format chosen was Quicktime after testing proved it to be the most reliable format for Second Life. The secondary camera was able to send a live feed into an overflow room. The audio video department set up the differing lighting and sound configurations prior to production. A decision was made to not use lavaliere microphones for the speakers and to make certain that they stayed in the lighted areas.

Production

The conference was filmed and streamed live in one day. Three camera people rotated throughout the day. The audio feed was handled by the University’s audio/visual department. The main camera (Panasonic HVX200 digital) primarily filmed close-up shorts. The secondary camera (Sony DX30 Betacam SP) filmed wide shots. The video signal was sent via firewire directly to an Apple laptop for compressing, and the stream was sent wirelessly to the server. A link was generated from the server with the streaming video and this address was sent to both the Second Life site and the symposium web site.

Questions from the audience were handled with one cordless microphone. All of the mics fed an audio mixer and this signal was sent to the main camera and the public address system for the main room, as well as to the overflow room. The image from the computer was projected in the WSU auditorium using a Panasonic projector. Sound from the laptop was fed directly into the PA system.
Post Production

Slides, titles, and graphics were added to both camera shots and editing was done using Final Cut Pro. This required syncing of footage from two different sources. The footage was color corrected. After completion of the edits of all four lectures, video was streamed using Windows Media Player. Multiple speeds were used to accommodate more machines: 48kbps, 112kbps, 259kbps and 369 kbps.

Figure 4: Video streaming live into Second Life

Second Life

Using Second Life as one of the media delivery tools for the symposium was a deliberate choice. The need for social engagement among participants who, although they share ideas, are strangers and who differ in many ways could be met in the SL environment where there are fewer barriers to interaction between strangers and where the culture encourages commentary and dialog.

Choosing a Site

Second Life was chosen to provide the virtual experience of the symposium to a global audience. The WSU Libraries System is a member of New Media Consortium (NMC), an international 501(c)3 not-for-profit consortium of nearly 250 learning-focused organizations dedicated to the exploration and use of new media and new technologies. The NMC maintains the largest educational presence in Second Life and its campus is available free for use by its members.

Contact with New Media Consortium was made via email and subsequent piloting and testing was arranged. NMC provided a location on their Sim in their amphitheater that contained pre-built objects suitable for video streaming and posting of PowerPoint slides. NMC also promoted the symposium on their web site and on at least two listservs.
Instructions for Using the Virtual Site

Instructions for getting a free SL membership and for teleporting to the NMC were prepared and posted on the Virtual Citizenship web site. Our instructions are listed here.

Hosting the Virtual Symposium

During the symposium several staff people from the OTL used their SL avatars to act as hosts, provide technical support, and to collect and disseminate information. It was anticipated that some of the people who attended would not be familiar with the virtual world, and because the live presenters were not represented in SL with avatars, the host avatars were able to channel the participation of the SL attendees. Communication between virtual world and real world was accomplished via the SL chat function and voice communication with the presenters on stage. The host avatars who used the chat function to talk with the SL attendees were also available to solve technical problems during the day. They relayed instructions and technical requirements and gave the location of the web site to those who, for whatever reason, could not view the video stream in SL. At least one of the OTL staff maintained a presence in SL and in the real life auditorium. This person could verbally deliver questions and comments received from SL to the presenters onstage during the Q&A session. Other functions that the hosts performed were documenting the virtual session with SL snapshots and participating in the lessons learned portion of the project.

Blogging

A site for blogging from the symposium was established on a WSU server and the sights, sounds and happenings were transmitted during and after the symposium. One person took on this duty but it could have been accomplished by more than one and on more than one blog.

Traditional Symposium Logistics

The traditional logistics needed by any event taking place on campus physically were enabled and enhanced by these various media. The web site was used to register participants, provide up-to-date content, and as a home page that served as an easily downloadable flyer that was distributed throughout the campus. The web site continues to serve as the archive of the event. Video streaming from the web site and from SL increased the number of people who viewed the symposium and allowed global participation in real time.

Lessons Learned

In the fall of 2008, the symposium on Virtual Citizenship will again be held at Wayne State University. Plans are underway to repeat the outreach of the symposium to the global and to the virtual community. The blend of topics, speakers, and media will continue to provide a dialogue for discussion and a repository of ideas. Plans include expansion of the topics to explain how service is a vital part of citizenship.

The 2007 symposium acted as a “proof of concept” for the upcoming 2008 one. All of those responsible for the technology are still at the University and prepared to assist the new production. Advance notification to the internal and external players has been increased and preparation time will be reduced, because of the experiences gained by personnel and the processes that are in place. We plan to continue using the NMC’s Second Life site and their network will be utilized for publicity and announcements. However, other outlets will be found to publicize the event globally and will be initiated to gain a broader audience.
Symposium registration was handled through phone and email. To better manage growth of the event in the future, an online registration tool that can automate both the process and the data gathering will be used.

Although most of the symposium's virtual attendees were able to see and hear the streaming media, certain users running Microsoft Windows experienced problems stemming from Active-X permissions on their local machines. Since controlling for the wide array of user platforms can be difficult, the 2008 web site will contain instructions regarding compatibility with users' systems and recommendations for the streaming mechanism for the 2008 symposium.

In 2007, the speakers did not actively participate with the attendees in Second Life. They had to use an intermediary. This will be rectified by providing a laptop on stage where the presenters can view their SL audience, and respond to text messages and audio questions. The 2008 presenters will be encouraged to use an avatar to augment their presence in the SL venue.

The biggest change will be the provision of the speakers' slides (prior to and during the presentations) and other materials to the global audience using the web site which is in place and the SL auditorium. Unlike in 2007, the cameras and operators will be able to send the speakers' images and voices along with their slides to the SL auditorium, utilizing three screens, and to the live video stream on the web site.

A welcome message will be given to our global participants. It will be posted on the web site and will be handed individually for the Second Life visitors in the form of note cards. The names and numbers of virtual participants will also be collected. Any questions that cannot be answered during the symposium, as well as the comments and answers, will be available on a linked blog.

The web site of the 2008 symposium will provide the archive from 2007 and new materials related to the speakers and their topics. The lessons learned during the first symposium will be applied and this should result in better broadcasting, dissemination, staffing, and hosting in both the real world and virtual world.

Summary

The team that was brought together for this project met its challenges and tested its abilities to use complementary media to deliver the symposium's message to a global audience. It provided multiple means by which participation was maximized and learners could interact with experts who in turn could test out their ideas. The team also succeeded in documenting the project and procedures utilized so that future projects could benefit. In addition to this documentation and the archived material, a checklist was produced and is found in the appendix.