

Using Web 2.0 Tools to Deepen Student Engagement & Faculty Collaboration

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1) Original objectives and strategies, and revisions to same

This project piloted the use of appropriate Web 2.0 social software tools across business courses offered by faculty at UMass Lowell and Dartmouth in an effort to more deeply engage students in the learning process while, simultaneously, developing and sharing successful techniques and activities with faculty peers. Project goals included:

Goal I – Develop a series of Web 2.0 enhanced business course assignments that will be shared and used by faculty at each campus. Each PI will develop a minimum of three Web 2.0 enhanced assignments for use in their fall 2007 and spring 2008 courses, a total of nine new course assignments.

Goal II – Share the Web 2.0 resources developed by the Co-PIs with their fellow faculty at UMass Dartmouth and Lowell. The PIs will use the EOutcomes WebCT Vista group to share these new assignments with each other and with colleagues from their respective campuses.

The focus of this project remained close to the original intent. The PIs used a variety of Web 2.0 and multimedia tools, including Camtasia, Wimba, Podcasts, Blogs, Video clips and Wikis, to develop both in-class modules and out-of-class assignments. A slight tactical shift involved an increased use of multimedia tools in our course assignments. Many of the Web 2.0 social software tools required the creation and sharing of audio and video clips, tools such as YouTube, iTunes and Flickr. Therefore our lectures and assignments required the development, editing and storage of this media (as reflected in the purchase of DV cameras, editing software, blank media and backup tools) when creating new course assignments. Camtasia was used extensively to record audio/video clips from the Internet for use in the classroom and YouTube was used as an academic resource for an assignment on outsourcing in IT.

We also decided to use a wiki to share our course materials rather than the EOutcomes WebCT Vista site. A wiki is a Web 2.0 tool that allows users to create and edit content posted through its web-like interface. The give and take atmosphere of the wiki is much more open than the restricted spaces of a WebCT/Blackboard Vista site. The site was created at <http://comwiki.uml.edu>. One PI has already begun sharing samples of Web 2.0 assignments created for this project on the wiki while the others will follow suit this summer. Finding an easy to administer wiki did take some time, slightly delaying the creation of the site. However the wiki will grow as we add additional material to it over the coming few months.

2) Activities Conducted

1. *Recorded five guest speaker presentations* in a Managing Innovation course. Combined audio, video and PowerPoint presentations in Camtasia and posted as a Flash file to the course website and to the College of Management Wiki http://comwiki.uml.edu/index.php?title=Managing_Innovations
2. *Developed an ethics case study assignment* in a Leadership Processes course that required students to listen to audio and video podcasts of Tom Delay from both NPR and Fox News. Students were then required to respond to a series of questions in written form for individual case grade.
3. *Recorded six student team "Rocket Pitches"* in class, then posted on website in .MOV format so students could view their performance before the final course performance and competition (Managing Innovation).
4. *Recorded six "how to" Camtasia files* for successful navigation around WebCT4.0
5. *Identified and presented a series of YouTube video files in class* in order to supplement topics covered in a senior level MIS class
6. *Developed a Management Information Systems course assignment* where students found their own YouTube resource (created their own content) for exploring IT outsourcing resulting in a short paper and class presentation.
7. *Used Camtasia to download video from vendor websites* (e.g., Microsoft and Oracle) in order to add currency and supplement a senior level Management Information Systems course. These videos will be incorporated into the PowerPoint lecture slides for next semester.
8. *Created PodCasts of current lecture materials.* Current lectures were recorded for student review at a later time.
9. *Created blogging activities in two WebCT Vista courses.* The blogging feature was used in both a graduate online class and a traditional undergraduate class.
10. *Videotaped and uploaded student presentation materials.* Student presentations were uploaded for student review and comment to a class website.
11. *Added multimedia content to distance education courses* administered through WebCT. Short "how to" Camtasia based screen shots were added to current WebCT based online classes.
12. *Used Wimba as an audio communication tool during chat sessions* in online distance education classes.
13. *Organized and presented a guest IT speaker from South Africa simulcast to UMass Lowell and UMass Dartmouth business students using Wimba.* Students were able to interact and ask questions.
14. *Began development of a Web 2.0 course Wiki* where sample instructor materials are uploaded and organized. The Wiki was created as a temporary location for

grant developed materials. We will continue to explore how best to share a repository of modules across campuses in order to plant the seeds for a Community of Practice.

3) Project Deliverables

This project had two major deliverables, 1) the development of nine Web 2.0 enhanced course assignments across the PIs business courses and 2) the development of a Web 2.0 resource website within WebCT Vista, available to the Management Information Systems and Management faculty at both campuses. As outlined above in Activities Carried Out, the PIs exceeded the first deliverable, creating over 12 different types of Web 2.0 assignments and course activities. These ranged from student-generated media, blogs and presentations to use of the tools to communicate important course topics and to integrate opinions from guests outside the class. These activities used the range of Web 2.0 tools, including audio and video podcasts, Wiki's and student blogs.

In regard to the second deliverable, the PIs developed a Web 2.0 Wiki in place of the WebCT Vista course site. This choice provides greater access not only to UMass Dartmouth and Lowell faculty, but also to all faculty interested in how these tools can be integrated into coursework. This wiki contains links to examples of some of the activities conducted to date, with additions planned over the summer.

In addition to media development, we have or will present our results at three venues:

- The University of Massachusetts Technology Conference, April 2008,
- The Annual Meeting of the Northeast Decision Sciences Institute, March 2008, and
- The 33rd International IUT (Improving University Teaching) Conference in July 2008.

4) Assessment: What can you say about the effectiveness and/or impact of your work, on what bases?

As for the effectiveness of our project, we relied primarily on short student surveys using both 5-point Likert scales, and informal feedback from the students. Most results were very positive [i.e., agree or strongly agree to the effectiveness of the usage of a tool or liking the assignment] on the scaled questions, and positive on the open-ended questions [thanks for introducing podcasts, I really enjoyed hearing a teacher from another country, hearing you speak (through Wimba), really enriched this class.]

We are currently refining the use of these tools in our classes, and plan to increase the use of formal surveys to gather student feedback regarding the use of these tools in our courses.

5) Issues and further questions raised by your work – things you'd like to investigate further or would leave for others

While Web 2.0 is heralded as social software, software tools that encourage sharing of individual perspectives, it is also media rich software. An unanticipated aspect of integrating Web 2.0 tools into our coursework was the amount of time and technical expertise required to create the media that helps to engage our students. While some production work could be outsourced to student assistance, much of the design, media creation and selection required our personal involvement.

In addition while some materials can be located and repurposed from the web (e.g., YouTube videos, podcasts, trade publications) a significant amount of new media had to be created. The creation and storage of the many audio and video files created for this project required not only technical expertise, but also unanticipated technical resources such as backup hard drives, DVD storage and replication tools, MiniDV tapes, etc. The organization and storage of course materials becomes a critical issue in order to ensure the use of these materials across our courses.

A point mentioned in our Interim Report was the time commitment each instructor must make to finding, creating and integrating these tools into our courses. Overall, each PI found that creating and grading Web 2.0 assignment typically took 3-6 times longer than creating and grading traditional exams and research papers. Faculty must balance the time and effort that is expended in developing Web 2.0 activities against the many other demands placed on both the instructor and the students' schedules.

6) Disposition of Funds

Total Grant Funds Received	\$7900
Total Grant Funds Expended to Date	\$7600

UMass Lowell: Steven Tello and David Lewis

Total Lowell Funds Budgeted		\$4,850
Student Media Support Staff	40 hrs x \$12.50/hr	500.00
Apple iPod with Belkin TuneTalk (80 GB Video IPOD w/Belkin Tune Talk)		309.00
Multimedia Software & Blank Media (Adobe PhotoElements, DVD Conversion, File Backup Software, MiniDV Tapes)		330.84
Canon Lide600 Photo Scanner	\$155 x 2	310.00
Support scanning of cases, photos for enhancements		
Kanguru US DVD Duplicator (Duplication of Student DVD Presentation, Guest Lectures)	\$269.95 x 2	540.00
Canon Prosumer GL-2 MiniDV Camera, Tripod, Warranty (Higher end MiniDV camera for student presentations & guest lectures)		2360.00
Sony VRDMC5 DVDDirect DVD Recorder (Direct to disc DVD recordings, include blank DVDs)		232.85
250 GB Portable Backup Harddrive		256.00
Total Lowell Funds Expended		\$4,839

UMass Dartmouth: Timothy Shea

Total Dartmouth Funds Budgeted		\$3,050
Graduate Assistant, .5 FTE, 2 semesters		1500.00
Camtasia Multimedia/SnagIT		251.90
Apple iPod		249.00
WebPod Studio		9.97
Belkin Tunetalk		49.86
Sony DCR-SR45 30GB Handycam Camcorder (Deluxe Starter Kit, 2 nd Battery, 2 year protection plan)		699.94
Total Dartmouth Funds Expended		\$2,761
Dartmouth Funds Remaining (to be spent in July 2008)		\$289

7) Closing Comments

Using technology in the classroom always takes more time than anticipated. It is often left to the instructor to solve any technical issues that occur. We believe that the overall grant program is essential to the possibility of trying out new technologies. Without the necessary funds, it is most likely that we would not have spent the money necessary to try out the new tools. Of particular importance, the grant provided monies for student assistants who can help the faculty with the time it frequently takes to test and use technology for the first time or in new ways. It also allows us to interact with and collaborate with our colleagues at other institutions, while upgrading our tool kits to meet the needs of today's students. Thank you very much for support of our project.