Project Overview

This research project will examine use of wikis and blogs as learning and staff communication tools in higher education. The researchers will attempt to discover if use of these social media tools in a learning environment can facilitate powerful, long-lasting learning outcomes, in which learners are encouraged to:

- think critically
- synthesize prior experiences with new information
- collaborate as teams

They will also look at how these tools might enhance campus communications between administrators, faculty, staff, and students.

Project Summary

This project will attempt to define viable pedagogical and team-building outcomes for wikis and blogs within a constructivist framework, in both the classroom and educational organization. The project will move beyond the tools themselves—to how the tools enhance team learning and allow intended outcomes throughout the learning community.

What is constructivist learning, and what does it have to do with social media?

Constructivist learning theory posits that each learner constructs knowledge for him/herself, and that new material is constructed on the scaffold of existing knowledge. Instead of simply being able to repeat new information, learners build their own understanding, incorporating new knowledge with existing beliefs and knowledge. In a study: BELTS or Braces? Technology School of the Future, J. Miers from Australia described constructivist learning as follows:

- Active and manipulative
- Constructive and reflective, enabling students to integrate new ideas with prior knowledge
- Intentional, providing opportunities for students to articulate their learning goals and monitor their own progress
- Authentic, challenging and real-world
- Cooperative, collaborative, and conversational, providing students with opportunities to interact and share ideas, to seek assistance, to negotiate problems, and discuss solutions
It has been noted by many educators that social media tools like wikis and blogs, by their very nature, encourage constructivist learning behaviors such as collaboration, exploration, and experimentation. These learning outcomes can be experienced not just by students in the classroom, but by other members of the learning community, as well.

**The Promise**

Today’s recent high school graduates are ideal candidates to use social media learning applications in their college classrooms and online courses. They have grown up online. According to the 2008 Washington State Draft Technology Plan, these ‘digital natives’ are “less linear and sequential, and more likely to multitask—to chat online, monitor the news, and listen to music while they study. They expect constant interactivity and collaboration. They both consume and build the Internet by writing their own blogs, maintaining their own social networking pages, and contributing to sites like YouTube.” These students have little patience for lectures, or for instructors who are not up to speed with technology. “(They) prefer exploration, conversation, inquiry, and active engagement. . .”

**So what’s the problem?**

*Digital Natives, meet the Digital Immigrants: they are your instructors (and many of your fellow students)*

Today’s recent high school graduates live in a separate reality from their instructors, most of whom grew up in a very different world. Web 2.0 technology is simply not part of the hard-wired learning style of most college faculty—or that of college administrators, who guide course development and technology/facilities planning.

Even early technology adopters among faculty, faced with limited budgets and lack of integrated technology, may be slow to use Web 2.0 tools in their classrooms. Even though Web 2.0 applications are generally free, support collaboration and interaction, are responsive to the user, and, according to McGee and Diaz (and others) are often even designed specifically for teaching and learning, these “emerging” technologies are often not offered as part of current course management systems.

**Graph: Technology Transformation**
*Task Force Report, May 28, 2008*
Many of today’s community and technical college students are also digital immigrants

Community and technical colleges’ open door admission policy accepts all comers, no matter where they are on their educational journey. In practice, that means an instructor may find in one classroom: high school dropouts, new immigrants, mid-career college graduates seeking new skills—and ages between 16 and 75 (or more) years old.* Many of these students are digital immigrants—learners who formulated their way of learning and working before the digital age; they approach technology as if it were a difficult foreign language—which for them it is.

*According to the Ford Foundation’s IPEDS Fall National Enrollment Survey for Fall 2002, adults between the ages of 25 and 64 represent 35 percent of full-time equivalent enrollments at two-year public colleges compared to 15 percent of FTE undergraduate enrollments at four-year public institutions

Why this matters

It’s like riding a bike—only don’t forget the training wheels.

Encouraging faculty and staff to use social media tools means changing learning and teaching styles, as well as attitudes about the value of social media. It’s not enough to put a software program, or even a content management system (CMS) into the curriculum design process, or into the college internal communications stream. If faculty, staff and IT personnel aren’t comfortable with the software, or don’t plan for the time needed to learn to use the tools, the tools won’t be used—or won’t be used effectively. This is particularly true for older staff and faculty, who have spent much of their careers doing just fine, thank you, without social media tools in their arsenal. (Gyambrah, Martin K. (2007), and others.)

Students may think they know more than they do

Although most students ‘live’ to use social media in their daily lives, their understanding of the full benefit and flexibility of the tools may be quite limited. Faculty and staff need to be at least as proficient and comfortable using social media tools as their students. They need to be practiced in the nuts and bolts—how the tools work—so they can actually help students use social media as a tool, rather than ‘just for fun,’ or conversely, as another barrier to communication and access.

The users must help write the rules, or they won’t be followed

The people who create and use a social media tool should decide the ‘House Rules’ for that tool. That’s the only way it can work. Wikipedia operates successfully because, even though its Global Policy is: “Ignore all rules,” etc., there are in practice detailed ‘rules of engagement’ that keep the unofficial dictionary from falling to anarchy. Simple philosophies such as ‘behave;’ ‘be civil;’ and ‘cite references,’ are followed by long detail that, if not followed, can result in having your post removed by Wikipedia editors. Wikipedia even has grammar and usage rules, which users are never-endingly fond of using to make little edits to contributions posted by others.

Revised hypothesis

As so aptly described by Shirky in Here Comes Everybody, “Revolution doesn’t happen when society adopts new technologies—it happens when society adopts new behaviors.” So, the question to be answered is: Under what circumstances can wikis & blogs be used as effective learning tools in higher education? How can these social media tools be used in a learning environment to facilitate powerful, long-lasting learning outcomes, in which learners develop skills of critical thinking, synthesize prior experience with new information, and collaborate as part of a team of learners?
Plan of Work

Conduct primary qualitative research on attitudes and current practices regarding wikis and blogs as learning tools

The researchers will interview faculty and academic administrators for qualitative data on adoption of wikis and blogs, from policy makers to instructors who are presently using wikis and blogs in their individual classrooms. The researchers will also review classroom wikis and blogs that are posted on the world wide web, and evaluate their production and collaboration from a constructivist learning perspective.

Items surveyed may include: use of tools, what tools are used; where tools are used; teaching approaches; satisfaction with tools; satisfaction with teaching approaches.

Demographic information to be included: age, gender, program(s) of study

Conduct Peer surveys. Teachers who are using wikis and blogs as a knowledge tool in their classrooms, and have posted their sites on the Internet, will be located by searching online using tags and keywords. Five of these teachers will be interviewed, using a common survey tool such as Zoomerang or SurveyMonkey. Teachers will be asked to evaluate student learning using this tool, and also by surveying students who are currently using wikis and blogs in their classrooms. Items to be evaluated will include, though not necessarily limited to: evidence of critical thinking; synthesis of prior experience with new information; evidence of team collaboration to solve a problem.

Survey decision makers and planners. Survey questions may include: knowledge of Web 2.0 social media tools; attitudes about social media and its use in society; knowledge and attitudes about using social media tools as learning tools in the classroom.


Sources from Washington’s community college system:

Andreas Brockhaus, manager of learning technologies, UW Bothell, publishes on learning technologies and presented at Educause 2007 in Seattle.

Geoff Cain, Instructional Designer for eLearning, Tacoma Community College. Geoff facilitates weekly faculty workshops and seminars on instructional technology, and works with instructors to move courses from face-to-face to full-online and hybrid online formats; he conducts training in instructional technology and multimedia, and conducts quality assurance reviews of course materials and outcomes.

Dr. Cable Green, Director, eLearning, SBCTC

Martha Groom, faculty @ UW Bothell, received national attention for assigning students to write Wikipedia articles http://arstechnica.com/news.ars/post/20071030-prof-replaces-term-papers-with-wikipedia-contributions.html

Joe Huang, Vice President for Information Technology, Green River Community College

Jean Kent, faculty @ North Seattle Community College, presents regularly around the state on distance education issues

Noreen Light, director of faculty development, SBCTC

Mark Lentini, faculty @ Highline Community College, serves on distance learning council, helped set up the Washington Blackboard User Group, blogs about issues in instructional technologies

College Technology Transformation Task Force members, State Board for Community and Technical Colleges, Olympia.

Washington Online (virtual campus for Washington’s community and technical colleges), interviewee to be determined
**Surveys**

**Internal Higher Ed Student Survey:** Conduct survey of MCDM students regarding use of wikis and blogs in their studies. These students have access to a survey on effectiveness of course learning tools; currently posted on the MCDM website.

**Other Higher Ed Surveys:** Locate surveys conducted by Washington Online (the online teaching consortium for the CTC system) on distance education technology tools. The most statistically valid research (but likewise the most challenging to undertake) might come from running parallel sections of a course, taught by the same instructor, with and without use of wikis and blogs. Students would be surveyed at course completion with a follow-up of one year (to evaluate the persistence of the learning). This would likely provide interesting results and is technically feasible to undertake at Lake Washington Technical College, but would require funding.

**Focus Groups:**

**Focus group #1:** Create a focus group from the pool of 300 multimedia students at Lake Washington Technical College. Student population is very diverse, representing more than a dozen countries, age range 16-70, prior education from high school dropout to graduate-degree holding, with widely varying work experience. Recruit representative sample from this population. Teamwork requirement is built into the curriculum; students have used wikis and team website pages.

**Questions might include:** Did the social media tools help you learn the materials? If so, how? Did the stools pose a barrier to your learning? If so, how? Did they improve team interaction? Describe your experience. Did they hinder group participation? Describe your experience.

**Focus Group #2:** Create a focus group from the COM 529 class. This class has been required to blog weekly during the quarter. The questions asked will reflect whether blogging has increased their learner participation, and whether having an audience who reads and comments on their blogs has translated into constructivist learning.

The class focus online survey was created using SurveyMonkey and is presently posted on the MCDM website (but the researchers recognize it needs revision).

**Just Do It!**

Redesign the Tacoma Community College staff bulletin—from a monthly, one-way newsletter-style publication to a blog-style continuously updated, online publication. In the new format there will be three blogs with all-staff ability to comment within a walled garden. Two of the blogs are already in existence, but not used effectively. The third will be populated by the M&C director, and will be on the topic of who our audiences are and what they need to know to effectively use the community college system.

This re-formatted campus communication tool will be developed by Karil Farkov, the college web designer. Content for the new bulletin is being developed by the communications staff. Blogs will be maintained by Communications staff, with the exception of the President’s blog, which is currently maintained by the president's executive assistant.

A pre-launch survey of the current bulletin will be made available to all faculty/staff, and will be conducted during the week of June 16-20, 2008. The survey will be offered both online and in printed format to include as many responses as possible. A post-revision survey will be conducted in the fall of 2008. Questions about the content and usefulness of internal newsletters, and the use of internal blogs as campus communication tools, will be included.

**Facilities and Equipment**

All focus groups and surveys will be conducted within the college system in Washington State, (with the exception of the Peer Survey of instructors/students currently using online blogs/wikis as a classroom management tool, accessible on the world wide web). Equipment and software used by students as part of this survey are owned by Washington State or by the students. Researchers will use Washington State community college facilities—office space and classroom space— at no extra cost, for the research.
Personnel Qualifications

**Nancy Dick** is a full-time, tenure-track member of the Multimedia faculty at Lake Washington Technical College. She holds a B.S. in Mass Communication/Journalism from City University and an A.A.S. in computer graphics from Lake Washington Technical College. Nancy has nine years teaching experience, six years experience teaching online classes, and extensive writing experience as part of her position as a higher education instructor. Over the last three years she has taught faculty development courses in distance education at LWTC and statewide at the Teaching and Learning conference.

Nancy also has 20 years experience in the publishing industry (technical, academic, and advertising publishing). Her experience as a researcher includes grantwriting, curriculum development, employment data, and projects pertaining to MCDM courses. She has provided faculty input for LWTC’s proposed Bachelor of Applied Technology (B.A.T.) degree, and has twice received the Exceptional Faculty Endowment award at her institution. Nancy is a candidate for the Master of Communication in Digital Media at the University of Washington/Seattle.

**Sidnee Wheelwright** is Communications Coordinator for Marketing and Communications at Tacoma Community College. She holds a B.A. in English Education from Denver University; is a TEPFO teacher certification graduate from the University of Washington/Seattle Dept. of English; holds an A.T.A. in Photojournalism from Everett Community College; and an LLD teaching endorsement from Seattle Pacific University. She has taught in the Mukilteo Public Schools and for Sylvan Learning.

Sidnee has worked in public information, communications and marketing within the Washington State community college system for over 10 years. During that time she has been responsible for both internal and external college communications, marketing, and web content development, and has conducted numerous surveys and focus groups of past, present and future community college students. Sidnee has been a writer and researcher for over two decades, and is the author, photographer, and/or editor of numerous articles; she is a recipient of the Washington State Governor’s Writers Award (1993). Sidnee is a candidate for the Master of Communication in Digital Media at University of Washington/Seattle.

Project Budget Proposal

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**Tertiary Sources**


Constructivist approaches suggest that learning is accomplished best using a hands-on approach, and students learn by experimentation, accessing new information by building upon knowledge they already possess. Atherton cautions instructors to detect and correct gaps of understanding inherent in constructivist learning.


A thorough introduction to constructivist learning theory and how to apply it. Academic and authoritative in tone.


A major theme of Irving’s novel is that all rules are local and their effectiveness depends on whether or not they are understood and believed in by those expected to follow them.


According to the authors, “Companies have found wikis to be useful internally as a collaboration tool for teams working on a document or specification.” The authors note on page 26 that *Groundswell* was written and edited on a wiki.


Moore is one of the best-known and respected authorities on distance education. This is a widely-referenced book by Moore and his partner.


References the well-known (in education circles) *Seven Principles of Undergraduate Education* (first released in 1987) and applies them to web-based courses. Example: the first principle is to encourage contact between students and faculty, and the article discusses the specific application to asynchronous and synchronous computer-mediated communication (CMC).


This text describes the “art and science of peer production.” The authors describe how organizations can “harness collective capability and genius.” Written from a corporate perspective, the ideas are useful in any learning environment.

**Secondary Sources**


A look at blogging, which links to constructivist and connectivist learning theories.


Steve Downes is a Canadian educator and researcher, and leading expert on online learning. His website has over 700 blog links. He is a proponent of free and open software through which: “content is created, distributed, and owned by the consumer.”


List of web-based resources for faculty including how-tos for educators, resources from the Open Content project, including an analysis of when to use a wiki vs. a blog; anecdotal stories of using instructional technology from teachers, technology tool resources with an educational focus.

Slightly dated, but still applicable look at online collaboration tools.


This PowerPoint presentation to the Washington State Technology Transformation Task Force analyzes a technology survey of all Washington state CTC faculty; it reveals, among other things, that faculty and students alike are limited by infrastructure, training opportunities, and time to learn technology applications; and that students, although they are often early adopters and digital natives, may not know the technology well enough to use new technology effectively.


The authors explore how to use classic team building models, such as clear team objectives and the SMART approach to goal setting. Say the authors: "Technology is not enough," and cite Lu Ellen Schafer's training program: "How to Make Remote Teams Work" describing five essential components: Shared team objective; knowledge of what to do; equipment to do it; ability to do it; desire to do it... Without all of these components in place teams will... ultimately fail.


Connecticut high school student Avery Doninger describes teachers and administrators as "douchebags" on her blog. An appeals court has upheld the school district's punishment against the student. Should a student be punished for this type of speech conducted on the student's own free time? This podcast addresses the issue of school administration's position that remarks made in this environment, in terms of the types of learning resources activities and supports that it makes available.


Harvard Business School faculty blogs are a forum for presenting and encouraging discussion of ideas and activities related to research, course development, and teaching conducted under the auspices of Harvard Business School. In this faculty blog, McAfee considers the value of social software like wikis and blogs for knowledge workers: "Evidence suggests that wikis let strongly-tied collaborators get their work done better, faster, and with more agility than was previous possible. With a wiki, what's emergent is the document itself, with 'document' defined broadly... Enterprise social networking software lets our prototypical knowledge worker stay in touch with a large network of colleagues, allowing her to keep up to date with what they're doing, working on, and producing. It also lets her tell this network what she's up to."


Discussion of the digital divide, the endless technology adoption cycle, lack of integration, and other issues familiar to faculty dealing with these issues. Has a very useful blueprint on data-gathering techniques that would be helpful for our research question.


This research paper by Jackie Miers, Magill PS, Australia, argues that the e-learning context in terms of a learning management system or a suite of e-learning tools that students use as a starting point for their e-learning is just as critical as their access to good e-learning content. It examines what qualities an e-learning environment needs to have to support constructivist learning and then explores how constructivist pedagogy may be facilitated in this environment, in terms of the types of learning resources and supports that it makes available.


A well-researched, timely online e-seminar via Apple Elluminate that provides solid background, strategies and pedagogical reasons to adopt blogs and wikis in college courses.


This is a very accessible, hands-on guide to developing online curriculum. Her analysis of faculty adoption motivations/reservations was the clearest one I've found in looking at many sources. Plan to use some of the rubrics in the distance learning grant Nancy Dick is involved in.


The move by some large universities towards digitization and open sharing of content indicates that value...
comes from “a particular learning community that uses content in creative, interactive, and meaningful ways.”


Primary Sources


Gyambrah conducts extensive research on social media used in educational settings; data and survey results are published in his dissertation as annotation. One point: When using evolving technologies it is important that both instructors and students feel comfortable with the tools. Says Dr. Gyambrah: “Institutions should not select technologies because they exist but also think of how e-learning activities may vary based on the phase of e-learning entered into and the technologies available to assist and support learning and institutional delivery.”

Welker’s Wikinomics is “an experiment in learning the Wiki way,” a collaborative online tool for understanding concepts in Advanced Placement Economics at Shanghai American School. Jason Welker’s class wiki won “Best Educational Wiki for 2007” awarded by EduBlog. It includes Rules of Conduct, which echo closely Huettner, Brown and James-Tanny’s ‘team objectives’ model in Managing Virtual Teams.