PEDIGOGICAL PORTALS:

A STUDY IN THE USE OF SOCIAL NETWORKING WITHIN THE CLASSROOM

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Abstract

The typical freshman college student is proficient in the use of Web 2.0 technologies. Many students have personal computers prior to entering college. The use of social networking sites such as Facebook, MySpace, and various other social networking sites is increasing exponentially. Facebook alone grows at a rate of 3% per week. This single site now boasts over fifty-nine million active users. Over half of the members use the site daily and spend an average of twenty minutes per day logged into their accounts. Facebook was launched as a networking site for students at Harvard University in February 2004. It soon grew to include other Ivy League schools and then expanded to college networks in general. In September of 2005, it expanded to include high school networks, again in May 2006 to include work networks, and finally in September of 2006 to allow for open registration.

Today's students are comfortable with technology. They maintain communication with friends through PDAs and mobile phones. They are one of the only age groups that regularly use many of the features of their multi-function digital devices.

Many students find "virtual world" communication fun and beneficial. Of the several virtual world web sites, Second Life is the most popular. Second Life has been used for job interviews and a few are exploring its use for classroom.

This paper reports the results of the use of several pedagogical techniques (Facebook, Course Wikis, and Second Life) in undergraduate and graduate public administration courses at the State of Georgia's Public Liberal Arts University.

Introduction

On Wednesday, January 16, 2008, "College students across the state [of Georgia] no doubt let out collective screams of horror … as Facebook, the wildly popular social networking site, went down on some college campuses."[1] While it was only a brief outage service that was restored by that evening, it was still noticed by enough individuals to earn the event multiple mentions in the statewide *Atlanta Journal-Constitution.* It should come as no surprise that such an interruption would not go unnoticed.

The use of social networking sites such as Facebook, MySpace, and various other sites is increasing exponentially. Facebook alone grows at a rate of 3% per week and the site now boasts over fifty-nine million active users. Facebook was launched as a networking site for students at Harvard University in February 2004. It soon grew to include other Ivy League schools and then expanded to college networks in general. In September of 2005, it expanded to include high school networks, again in May 2006 to include work networks, and finally in September of 2006 to allow for open registration.[2]

In an age when students are so immersed in new technologies, it is only prudent to adopt them into pedagogical portals. Social networking technologies are now being used in marketing, in political campaigns, and, of course, for entertainment. The next logical step is to include them in the classroom. If techniques can be developed to use these portals for the impartation of knowledge, it is probable that students will be more receptive than through only traditional assigned readings or classroom lectures.

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[1] Jones (2008).
[2] "Facebook - Timeline" (2007)

Already, social networking sites have been found beneficial in other arenas. Political campaigns have incorporated social networking utilities into their overall communication plans. Campaigns, from the presidential frontrunners to city council races, now find a home on Facebook, Myspace, and others. Major corporations have also started using social networking sites as an advertising medium. Apple Computers, Ticketmaster, American Eagle, Southwest Airlines, and Pepsi are among the hundreds of companies who use social networking sites to convey their marketing message. Many of these sponsored groups have well over twenty thousand members and some reach to over four hundred thousand members.[3]

Campaigns and marketing agents both use social networking sites to convey their message; so how can the same technologies be integrated to the classroom? This study will set forth a strategy to extend learning beyond the traditional classroom by integrating the portals of web-based, user-generated content.

The first two portals are traditional classroom lecture and assigned readings. Technology cannot fully replace these proven techniques, nor should they replace them. In many cases, these traditional methods are quite effective. But, just because a certain technique is effective does not mean that it cannot be improved. This study is meant to examine methods of supplementing those traditional methods with new and promising methods of instruction.

The third portal is Facebook. Through its "Groups" feature, it allows instructors to post links to new stories and other webpages applicable to the course, moderate forum discussions, and send group or individual announcements to students. The groups can be restricted so only members view see the information. Membership would be managed by the instructor, who

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[3] "Facebook: Sponsored Groups."

would have to confirm membership requests. Students would be able to communicate with each other and with the instructor without outside interference.

The fourth, and final, portal to be examined in this study is WetPaint Wikis. WetPaint consists entirely of user generated content. It provides a forum where students can compare notes, discuss chapter material, and generally collaborate and expand classroom discussions. This site also allows the instructor to control who accesses the information, monitor the content, and participate in the discussion.

Literature Review

Born into the Internet revolution and raised in an environment saturated with television and computer graphics, the current generation of students come with technological skills never seen before in higher learning classrooms. Dr. Carl Berger, Director of Instructional Technology at the University of Michigan argues that "technology motivates students to spend more time on their work, and the variety of experiences available through technology actually improves the quality of the educational experience."[4] Some educators also assume that today's technologically savvy students will retain more information through visual or computerized instruction and will enjoy their educational experiences at a higher level if it is enhanced by visual stimulation.[5] Still others claim that because of the broad ranges of individual learning styles of students, more advanced teaching tools could help accommodate these differences by catering to the different learning styles of individual students.[6] Conversely, the growth of computerized delivery of information affords the instructor an "unprecedented opportunity to take advantage of

[4] DenBeste (2003)

[5] Jordan and Sanchez (1994)

[6] DelGaudio (1999)

technology to elaborate upon his or her traditional role as mentor, guide, source of knowledge, and authority."[7]

Society's dependency upon technology grows at an exponential rate. Because of this fact, some claim that high-school graduates bound for college are increasingly part of an "information age" in which success in a competitive world economy is greatly affected by these advances. If some current higher learning institutions are reluctant to grow with the rest of the world, several suggest that "failing to incorporate technological training in the instructional process serves as a kind of educational malpractice."[8] Wadsworth (1997) reported that 80% of parents thought that teaching media technology and computer skills was essential in public schools. Raven Lee and Johnson (1998) argue that students will increasingly select "universities with the best computer facilities and faculty who use technology to provide innovative instruction." No matter what a student's career path, most all employers now require a competitive skill level in word processing, spreadsheet applications, presentation skills, and even Internet publishing. The responsibility of preparing the student as much as possible for these challenges now falls into the hands of the higher learning institutions.[9]

Although the idea has not become popular until now, technology has been considered as an option to improve learning for decades. Interestingly, one of the earliest proponents for technology in the classroom was Thomas Edison, who predicted that one day educational films would be a common feature in the modern classroom. In the 1950's, psychologist B.F. Skinner published several opinions stating that one day "teaching machines" would make education

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[7] Young (1998)

[8] Flowers, Pascarella, and Pierson (2000)

[9] Yaure and Christiansen (1999)

much more efficient.[10] In 1964, Oliphant published an education article stating that "the application of televised instruction to classroom teaching would appear to be a highly attractive resource for higher education--a resource that would materially assist a college in meeting the demands placed upon its faculty by a rapidly growing enrollment."[11] Also in the 1960's, several classrooms used the Dictaphone sound recording device along with Dictabelt technology to record lectures during class sessions. Ironically, teachers that used this technology described the machine as something that "enhanced good teaching" and "made learning fun."[12]

With the revolutionary introduction of the computer came a whole new world of possibilities in the classroom. The concept of the "CD-ROM" brought with it "brilliant, motivating lectures that captured and synthesized the essence of a subject"[13] as well as the "advantage of making a highly theoretical and abstract construct more tangible for students."[14] Subsequently, the Internet and the use of the World Wide Web opened up new doors and endless opportunities to connect with the rest of the world. Suddenly students all over the globe had access to primary source documents that otherwise would not be available to them, and they could use e-mail to communicate efficiently. To students who were intimidated by public speaking, this alternate form of communication not only acted as a remedy but also served to increase student-teacher contact.[15] Researching opportunities grew with the internet, as loads of information became available for students. According to DenBeste, "In our increasingly media

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[10] Angrist (2002)

[11] Oliphant (1964)

[12] Brown (1966)

[13] Bates

[14] Harknett and Cobane (1997)

[15] Harknett and Cobane (1997)

and information saturated world, students are inundated with television, radio, internet, and advertising every day. It is more important than ever that students learn to assess sources, to separate the good from the bad and to decide what they need to know and what is just taking up 'air time.'"[16] Usage of the Internet in higher learning now challenges students to acquire the discriminating research skills needed to sift through great amounts of information.

As the world watches the internet grow at an amazing rate of speed, websites are becoming increasingly common in the modern classroom. Now exceptionally user-friendly to create, homepages can be very powerful instructional resources for students since reference materials, course content databases, writing tools, and style manuals are easily posted by the instructor. Especially in the case of more complex sites, these homepages can also motivate students to explore the course further through hyperlinks.[17] Other instructors are exploring the possibilities of advanced technological access in different ways. For example, with the aid of a multimedia map program called *Centennia,* Harknett introduces the concept of change to his students. In his class surveys, students rated the exercises involving *Centennia* as "highly beneficial to their learning process." Eighty percent of the students "agreed" or "strongly agreed" that the map program assisted in their understanding of the concept of change. His students also exhibited "an increase in the conceptual use of the ideas of change, fragmentation, and integration" in comparison to essays written by previous classes that did not experience the multimedia program.[18] This brief study further supports the need for increased technological use in today's classrooms.

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[16] DenBeste (2003)

[17] Vess (1997)

[18] Harknett and Cobane (1997)

A recently popular method of giving lectures in a more multimedia-based world is through the presentation application PowerPoint. First appearing in math, science, and business classrooms, PowerPoint gives students a visual source that can be projected for the entire class to view. DenBeste states that her presentations serve to "augment a lecture, to encourage discussion and to investigate visual sources" as well as acting as a "perfect medium for student projects and presentations."[19] In Hacknett's classes, after using PowerPoint with his students then giving a survey, he found that over 80% of the students surveyed felt the slides were beneficial. One student indicated that the slides improved his recall. He wrote, "During exams I was able to picture how information had been presented." From a course management perspective, Hacknett found that "computer slides proved easier to edit and update and thus a more convenient method of presentation."[20]

In addition to the possibilities of PowerPoint, homepages, and other multimedia applications, perhaps the most interactive Web 2.0 technology used in the traditional classroom setting today is the usage of discussion boards. Online discussion boards are opportunities for extended discussion of course material, questions about exams, and any further direction the instructor wishes to post.[21] In DenBeste's experience with discussion boards, she believes they "can foster a sense of community among students, encourage students to come prepared to class, encourage the development of reading and writing skills, foster critical thinking, act as a strong community builder, and reinforce content." She also states that most students "enjoyed

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[19] DenBeste (2003)

[20] Harknett and Cobane (1997)

[21] Wach (2002)

continuing classroom discussions online," and that other students "preferred discussion board communication rather than in-class communication."[22]

Although the case studies involving technology use in the classroom and student achievement levels are limited, some of the studies that have been documented have shown that technology usage in instruction has a small but positive impact on student success. In Jordan and Sanchez's small, controlled experiment, students were shown short video clips about some basic concepts in American government to determine if it would enhance their ability to learn and retain information. They found that on the first exam given on the material, the results showed that the students in the video sections on average scored 9.3 percentage points higher than the students in the two traditional sections, with a significance level of 99.8%. Other exams were also fairly similar, but in sum, Jordan found that the video segments had a small but positive impact on the students' ability to understand the concepts.[23] Another case study performed upon economics classes from fifteen institutions and thirty instructors over a period of two semesters showed that extensive technology usage "has a small but positive impact on student performance." In addition, these results also indicated that some uses enhance student performance and others do not.[24]

The Model

The motivation for this study was to explore methods for integrating Web 2.0 technologies into the modern classroom, mainly in the areas of public administration and political science. Tim O'Reilly offers the following definition:

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[22] DenBeste (2003)

[23] Jordan and Sanchez (1994)

[24] Sosin, Blecha, Agarwal, Bartlett (2004)

> Web 2.0 is the network as platform, spanning all connected devices; Web 2.0 applications are those that make the most of the intrinsic advantages of that platform: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an "*architecture of participation*," and going beyond the page metaphor of Web 1.0 to deliver rich user experiences.[25] (Emphasis mine)

These technologies focus on user generated content. Instead of traditional websites only providing a one-way flow of information, much like a textbook, these new sites allow for a free flow of information, much like an in-class discussion. Students can ask questions, which can then be answered by either the professor or another student with a greater understanding in that area. The professor can pose a question and students can answer and discuss it among themselves, even from the comfort of their own home.

These tools are now widespread and highly popular among college students. Social networking sites are quickly growing in popularity and are now specializing in major interest areas. There are now social networking sites focused on certain demographics. Currently, in addition to the general networking sites, there are sites focused on those with political interests[26], educational background[27], group membership[28], or professional status[29].

Facebook is based around a user's profile. This page holds the basic information about the user. Facebook has highly adaptable privacy settings so users can control who sees what information. The profiles are sorted by networks which are based on a geographic region, workplace, or school.[30] Users can join multiple education networks, but only one geographic network. For example, an individual who obtained her undergraduate degree at Georgia College

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[25] O'Reilly (2005)
[26] Trigg
[27] Spiller, and Spiller
[28] "The Crossings: About"
[29] "What is LinkedIn?"
[30] "Press Room: Product Overview"

& State University and her graduate degree at the University of Georgia and is now working as a

congressional staffer could be in the GCSU and UGA education networks, the US Congress

employment network, and the Washington, DC regional network.

Facebook was selected to be a part of this case study for several reasons. One of the

primary reasons was its popularity. As previously mentioned, this single site now boasts over

fifty-nine million active users, over half of which use the site daily and spend an average of

twenty minutes per day logged into their accounts.[31]

Another feature that made Facebook attractive was its groups. The groups provide a

discussion forum, a section to provide links to other useful websites (such as the publisher's

textbook site, news sites, and public administration associations), and an area to post class

announcements. There is also a feature where the administrator can message all the members,

which is often more efficient than over an official school e-mail[32]. The instructor can create a

group for each class and then acts as administrator of the group. The administrator can set the

group up in a manner in which students can find the group, and request to join, but they must be

approved by the administrator. Non-members would not be able to see the discussions, links, or

posted items of the group[33].

Another portal used in this case study was Wetpaint. Wetpaint is based on the same

theory of the popular, if academically questionable, Wikipedia. However, Wetpaint has a

tremendous advantage. Like Facebook groups, the instructor can limit access to the site to those

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[31] Ibid
[32] "Facebook Help: Groups"
[33] Ibid

in a certain class. This protects the integrity of the information presented, allows for open

discussion of class topics, and lets students pose and answer each other's questions.[34]

The Wetpaint platform is quite easy to use; its controls are based on a typical word

processer. There is a tutorial during the registration process to familiarize students with the

platform which is highly customizable. It allows as many subpages as is necessary to organize

the presented information. For the classes in this study, the main page included a course

description and links to the more commonly used pages. There was also a page with the course

syllabus to supplement the copy distributed in class.

Another system which was considered was Second Life. Second Life is a three

dimensional "virtual world" created by its users, known as residents.[35] The site allows for the

creation of special zones in this world for educational purposes.[36] The Second Life platform

boasts of its safe environment for experiential learning, accessibility and ease of use, and

scalable options.[37]

However, several obstacles arose to the inclusion of Second Life in this study. First, it

requires an application to be installed on the user's computer. This application has rather

stringent hardware requirements[38] for its operation. Many students in a university setting are

using low end notebook computers which are not capable of operating this application.[39]

Furthermore, use of the platform requires either a DSL or cable internet connection. While high-

speed internet is a staple of college campuses, many commuting students have only dial-up

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[34] "About Wetpaint"
[35] "What is Second Life?" (2008)
[36] "Education and Non-profit organizations" (2008)
[37] Ibid
[38] "System Requirements" (2008)
[39] This conclusion is based on informal conversations with several students in the class and the authors' experience
        with the software.

capabilities or perhaps a satellite broadband connection, which do not support the use of the

program.   In many cases, computer labs are not a viable option for Second Life use, mainly due

to the requirement for the installation of additional software. Due to these exclusionary factors,

Second Life was dropped from the final study. However, as technological improvements

continue with time, Second Life may be reconsidered as a forum.

Finally, traditional instruction completes the model. These new technologies are not

intended to replace it, but rather enhance it. With this expanded approach, students continue to

receive the benefits of traditional education. They still receive the classroom lectures, have the

same assigned textbook readings, and have classroom discussion. But now, they also have new

forums for the free and open exchange of ideas. Students can easily post questions about class

material which can be answered by other students or the instructor. If a student finds a news

story which relates back to class material, she can post a link so the other students can also read

it and be prepared to discuss it either in class or in a discussion forum on Wetpaint or Facebook.

Allowing students to actively engage in the educational process increases student

learning. This active engagement leads to what M.W. Jackson calls "deep learning" as opposed

to "surface learning."[40] The difference is described in this way:

> For example, a student engaged in surface learning approaches the task of
> learning as reproducing what the teacher does without trying to understand. If I
> write a passage from Jean-Jacques Rousseau on an overhead projector, the
> reproductive student will copy it to reproduce it later. In contrast, deep approaches
> to learning aim at meaning. When Rousseau's words are displayed, students using
> a deep approach will relate it to what they already know, including other elements
> of the course or other courses. When asked to describe what they do when the
> overhead projector is used, these students say they think about the material in the
> course and relate it to their life experiences, real or imagined.[41]

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[40] Jackson (1995)
[41] Ibid

Using the model described, every student has the ability to bring her own life experiences and how she shapes her perceptions of the material to the classroom. Until now, this exchange of information has been limited to either the classroom or perhaps one or two outside study sessions. The hypothesis of this case study is that using the Web 2.0 pedagogical portals will increase student performance. Allowing students to have an open forum for the exchange ideas, giving them a place to showcase their work, and having one source to go and check for course information will help them improve their retention of information and their engagement in the course.   This case study will follow the use of several sections of undergraduate and graduate political science and public administration courses.

The Case Study

Facebook

Groups were created for each class involved in the study. This allowed for the exchange of information between sections. There are several decisions which must be made before creating the groups. There are two screens of options when creating a group. First, the instructor must decide upon a unique group name. In this study, the course number and instructor's name was used, ie, "POLS 1150 – Wilkinson" and "PUAD 3338 – Wilkinson." The network option should be set to global in case some students have not joined the school's network.   Then, a group description must be entered. For this study, the course description was used. Under group type, select "Student Groups" in the first dropdown box and "Classes & Departments" from the second. The rest of the fields are optional, but suggested. On the second page are group options. These options should be set to the preferences of the individual instructor. For this study, the cover of the primary textbook was used as the group image and all options were left at the default with the some exceptions. The option to "Show related groups" was disabled and the

group was set to "closed." These two departures from the default options were to protect

students' privacy. The information shared on the groups was meant to be for others in the class,

not the general public.

Facebook was primarily used to distribute class announcements to the students, post links

to news stories and opinion pieces, and use the forums to discuss material. Another unpredicted,

yet welcomed, feature was the ability to link student's names to photos. This ability was

exploited through the creation of an "Introduction" thread in the forums. Much like the

introductions which are typical on the first day of class, the short student-written biographies,

combined with their name and profile picture, allowed the students to quickly get to know each

other and find common ground. Since it was written by the students, they mentioned things

which they want public. Once they felt like they knew each other, there was more interaction

both online and in person.

Wetpaint

Wetpaint received more use than the Facebook group. In the beginning, it was intended

to be a place to post the syllabus and chapter terms. However, it soon expanded to include

sections for chapter summaries, the syllabus, and basic course information. Sections where

students could "publish" their research projects (after the submission deadline) for a limited peer

review also evolved on the site. Instead of an assignment sheet for projects being passed around

in-class, students signed up for their topics on a page of the Wetpaint site. Videos of some

conference presentations were also presented for student discussion.

The site was set up with a basic outline format. In this outline, each level was a separate

page with attached subpages. The outline was setup in this manner.

- The Syllabus
- Assignments

- o Case Studies & Signup
  - ▪ Student 1
  - ▪ Student 2
  - ▪ Student 3, etc…
- o Research Papers & Signup
  - ▪ Student 1
  - ▪ Student 2
  - ▪ Student 3, etc…
- o Chapter Summaries
  - ▪ Chapter 1
  - ▪ Chapter 2
  - ▪ Chapter 3, etc…
- Study Guides
  - o Notes
  - o Book Recommendations
  - o Film Study Guide
  - o Articles
  - o Video Articles
- Class Announcements
- Group FAQ

This configuration was an effective organization of the included data. A menu along the

left side of the page makes the entire site easy to navigate. The website itself is also easy to use.

The controls for formatting posts are similar to those of traditional word processors, and there is

also a detailed tutorial for users to learn how to utilize site features.

Conclusions

While the case study is ongoing, there have already been some notable observations.

First, the primary users of the web resources seemed to be the students who were the most

concerned with their grades, that is, students who are either determined to pass the course or to

maximize their grades in the course. This allowed the more successful students in the class to

assist each other, as well as assist those most in need of help.

One rather unforeseen benefit of these resources was having everything in written format.

One of the classes in the case study had an exchange student who had difficulty understanding

spoken English. She made frequent use of the Wetpaint site to pose questions about the lecture

and fill in where she had missed information in her lecture notes. Having the information in written format allowed her to keep pace with the rest of the class.

It is expected that as the study continues, the students will show increased interest in the use of the web resources both as study guides and as a showcase to present their own work. The ability to collaborate with other students as the final exams draw near without being restricted to group study sessions will be an invaluable tool.   This ability is projected to increase student achievement on the final exam and overall retention of class information beyond the conclusion of the semester.

One thing is certain. Technology continues to advance at a rapid rate. This advancement has progressed from blackboards to basic video clips on televisions to advanced audio visual systems in the classrooms. The newest technology available is web-based user-generated content.   If those in the teaching profession wish to continually improve their methods of instruction and constantly challenge their students, they must seek ways to integrate these new technologies into the classroom.

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