Teaching for Mission Using Information Technology to Support Instruction

Juli-Ann Gasper, Ph.D.
Department of Economics and Finance
College of Business Administration
Creighton University
2500 California Plaza
Omaha, NE 68178 U.S.A.

Abstract: This paper uses the mission statement of the College of Business Administration at Creighton University, Omaha, NE, USA, to illustrate some of the tools, processes, and products that can result from putting the mission at the center of an IT implementation for course instruction in standard business administration courses (i.e., not information systems curricula, but courses like finance, accounting, marketing).

Key-Words: Mission, Teaching, Information Technology, Value-Centered, Transformational

1 Introduction

One of the difficult things about adopting significant innovations in the use of information technology (IT) in teaching is to use the new tools in ways that enhance the mission of the university. In a Catholic, Jesuit university, the mission statement nearly always encompasses some expression of “cura personalis”, “taking care of the whole person”. Those who decry the use of IT call up this expression to support their position that we should not “lose” the traditional nature of collegiate education by “alienating” students through insistence on the use of “isolating” technologies.

It is this author’s contention that the use of IT tools can have the opposite effect:

1) traditional collegiate education can be enhanced by increasing the “connection” of our students to the Academy, to each other, to the intellectual world, and
2) the professorate gains tools that can enhance our abilities to teach for mission in the university setting.

This paper uses the mission statement of the College of Business Administration at a Jesuit university to illustrate some of the tools, processes, and products that can result from putting the mission at the center of an IT implementation for course instruction.

2 The Mission Statement

Our college mission statement is to “Educate for Business Leadership”. The leaders of the next decade will be those who can move into the new economic environment of the world and be comfortable and aggressive in changing the way that business is done. This means graduates who are comfortable in the “e-world” of commerce and information. Undergraduate students already see that IT is “the place to be”, through their job interviews, internships, and in classroom experiences and learning assignments. The goal in the use of IT in teaching and learning, then, is for students to graduate with the capabilities and attitudes necessary to be leaders in this new environment.

The modifying phrase following “to educate for business leadership” is “…in a dynamic, transformational, and value-centered learning environment”. In courses where IT is fully integrated (such as will be demonstrated in this paper), there is often a real transformation in a student who has never really “lived digitally”, but has used the technology only as a required tool to do standard assignments. Students often do not like an approach that requires them to change the way they learn. In talking about how and why we do this, it is easy to include discussion of the values we espouse in the College.
We must become the change we want to see.  Mahatma Gandhi

There are three central components to a successful implementation of teaching for mission using IT: Building a Body of Knowledge and Resources (Section 3, below); Broadened Horizons: New Tools for a New World (Section 4); and Access Anywhere Anytime (Section 5). The following discussion is based on the “full-service” course web sites developed by the author to support the teaching of upper level finance classes in computer-equipped classrooms. These sites attempt to provide, on the internet, all resources and digital tools for interaction and communication, while accomplishing the goals of teaching for mission in a dynamic, transformational, and value centered learning environment.

3 Building a Body of Knowledge and Resources

We are made up of layers, cells, constellations. Anais Nin, The Diary, Vol. 4

3.1 Community of scholars

The “community of scholars” concept rarely entered into the undergraduate education experience of a business student two decades ago. Today, with the tools of connectivity so nicely developed, we can bring a collective, collaborative, developmental experience to the standard three credit, undergraduate course. Web-enhanced courses greatly facilitate the collection, exchange, and production of information and original documents for undergraduate students. Students can build on previous classes’ work. Team projects are easier; common depositories for resources can be created; work-in-progress can be made available for perusal and revision; communication and scheduling issues are easier to deal with. Final results can be presented “to the world.” (A value from the mission statement). When only the professor and your mother read your work, there is far less incentive to really excel, than when you realize the world will have access to your work. As more student work goes onto class web sites, students begin to see that a real contribution is possible and that they must accept the praise or criticism that comes from others seeing and using your work. Students begin to understand the concept of peer review!

3.2 Examples

Content-rich student-created web sites: For three years, students in the Financial Institutions Management course have been creating content-rich web sites on course topics. During the spring semester, 1998, seven sites were developed; only four were substantive enough to warrant posting on the course site. In the spring of 1999, ten sites were developed; all are posted, although the content of some is marginal. During the spring, 2000, semester, 11 projects were posted. Three teams chose identical topics, lending a competitive nature to their sites’ development. Three teams chose topics from the previous classes and have incorporated those sites into more comprehensive, better organized sites, while adding substantial content of their own.

Analysis of current business practices: Students in Advanced Managerial Finance use a Wall Street Journal article (usually pulled from the current semester’s Journal) to show how businesses actually use the principles and techniques being studied in the course, and how the ethics and values positions of the company involved make a difference in performance. The best analyses are posted on the course web site for all of the world to read. Posted also is a compilation of all the topics covered by the students in their analyses.

Online library of risk management practices in different industries: Students in Principles of Insurance and Risk Management must select an industry for two presentations to the class; the first deals with risks that are relatively unique to that industry and the second with the risk management techniques that industry uses. Over the course of three years, we now have nineteen industries represented. Students will encounter many of these same industries in other courses, and particularly in the integrative senior level capstone courses that often involve case analyses of businesses in various industries. This “library” of risk management
presentations will become, over time, a valuable resource for these case analyses.

Course without a textbook; Internet Resource Bookmark Files: Economic Security and Social Insurance is a course without a textbook. Students use original sources and internet resources. Each semester, the class develops an "internet bookmark file" for an additional topic in the course. So far, the topics include Poverty and the World’s Great Religions, Medicare, and Unemployment Insurance. This type of assignment lends itself to a discussion of the values espoused in a college’s mission statement. Standard textbooks for the mass market do not often address the values and ethics questions in the specific way that a particular college would approach the discussion.

Student presentations on the web: The Lecture Support page for the same course provides dramatic evidence of the development of a "Community of Scholars" with these undergraduate students. Students are actively involved throughout the course in researching and presenting material, as well as learning revision skills through substantive revision of the work of previous classes. All presentations by students are loaded before class and used during class. In addition, two countries are added each semester to the “Retirement Support Around the World” section.

4 Broadened Horizons: New Tools for a New World

| A ship in port is safe, but that’s not what ships are built for! Grace Murray Hopper |

One of the author’s colleagues said, "You don’t teach your students how to surf. Instead you teach them how to make waves!" Employers tell us that they need students who have skills to be productive from the first day of work and who know how to find information, (in addition, of course, to knowing the content and skills of the discipline). One can build technology skill development into the tasks relating to learning the content, so that each assignment accomplishes both sets of needs. “Dynamic” and “transformational” are two descriptors in the College mission statement, describing the desired nature of the learning environment. Learning how to do the old things in new ways (the “dynamism”) leads to learning how to do new things in new ways (the “transformation”).

4.1 Examples

Resource access: Students access the classics on the web and apply the lessons learned from philosophy and history to their understanding of financial statements and processes. A typical reaction of students required to “reach back” to their core liberal arts courses is to complain that these have no relevance to the subject at hand. After completing the assignment, they are often amazed that Socrates or Descartes really did have some secrets for business success.

Search skills: Students learn search skills for real-world problems, including access to the actual resource being listed in the search engine (through e-journals and digital publication of standard academic journals, accessed from the web sites of university libraries). Then they must apply the content of the resource to the content of the course.

Company background research: Guest speakers walk into most undergraduate classes with the students knowing very little about the speaker or the organization represented. Web resources allow the students to "preview" the company or organization, in a manner more attuned to their “way of looking at the world”. In the past, we always suggested that students go find a copy of a company’s annual report before a speaker came to class. Few, if any, students did so. The web resource allows more intelligent interaction with the expert, as the students find not only the company’s financial statements but also links to jobs available, a company’s ethics policy, product lines, and company history.

Web-based productivity tools—Class calendar: Students develop the capability to use web resources as productivity tools. Some of these are professor-created “How-to” handouts and lists of resources that are posted on the web, freeing up class time for content discussions. Some are shareware or freeware products or productivity tools on internet portal sites. For example, using AOL’s When.com web calendar, students can post group meetings and the professor can post class events.
Web-based productivity tools—on-line digital storage: The last year has seen dramatic development of on-line digital storage facilities. Individuals, study groups, project teams, and classes can initiate accounts with virtually unlimited storage capability. Uses include:

1) Student teams doing research on a topic can deposit internet resources they have found.
2) In-progress papers or presentations can be accessed by all members of the project team, for addition or revision of material.
3) Student assignments can be turned in for digital access by the professor, anywhere, anytime.
4) The professor’s academic and professional presentations can be stored for access at the meeting place.

Web-based productivity tools—discussion webs: The continuous availability of the web means that students can participate in meaningful interactions amongst themselves and with the professor at any time and from any location with internet access. Anecdotal evidence suggests that participation in a discussion web is far less threatening for some students than in-class contribution. For discussion of sensitive issues, an on-line discussion can open the voices of students who otherwise would be silent.

Teaching revision skills: New graduates in entry level finance positions will often be required to revise reports, analyses, documents created by their predecessors. Teaching of "revision skills" requires access to previous student work. Posting of student work on the web greatly facilitates this process. Of course, revision of previous students’ work also entails learning the skills of the particular software used to create the document in the first place.

5 Access Anywhere Anytime

If we want students to take more personal responsibility for their learning processes, if we want to disrupt the "spoon-feeding" mentality with which they often approach classes, then it is important to develop ubiquitous access to class materials, resources, and the professor.

5.1 Course Websites

Over five years an evolution has taken place in the teaching of classes with use of digital access, as course resources have moved from classroom-only presentation and handouts to shared folders on a campus intra-net and then to course websites and on-line file storage.

5.2 Discussion Outside of Class

The Mission Statement of the College of Business Administration requires us to take a hard look at issues of relationships, diversity, honesty, integrity, trust, spirituality; all these topics are much more personal than income statements, debits and credits, target audiences, and internet service providers. The opportunity for under-represented experiences and opinions to be brought before the group can be enhanced with the use of discussion groups, email listserves, and scheduled chat rooms.

“Respect for self and others (embracing diversity and dignity of all individuals)” from the mission statement. We value diversity at Creighton, but, like at many U.S. universities, the diversity of faculty, staff, and students is not present to the degree that most of us wish. As students become more skilled in “being digital” they can reach much farther out into the world to learn about other peoples and cultures and the issues facing these groups. In some cases, the digital nature of interaction allows in-depth discussion that would be very difficult or even impossible face-to-face. Embracing diversity and the dignity of all individuals has both dimensions—the reaching out to discover new cultures and the reaching in to understand those close to us.

5.3 Email and Virtual Office Hours

The Creightonian (October 8, 1999, p. 2) recently reported a self-proclaimed "technology-free" professor as saying, "My students come to my office for help and I'm always available for them; they don't need to e-mail or leave messages.” This person misunderstands the power of email as a communication tool. It is clearly not the case that he lives 24 hours a day in his office, and if the truth be known, he probably is OUT of his office far more hours.
during a school day than he is IN, and even more so on weekends and holidays.

An email message can be received and responded to at least as fast as the student might find an opportunity to catch the professor in the office. Just as more “truth” can be discovered in a discussion web, a personal email can allow a student to be far more honest about the reason for missing class, about disagreement with something said in class, about pointing out what he or she considers to be errors, than was ever true in the past when such personal communication required a face-to-face office visit.

All of this is not to say that the "virtual professor" is really not present physically at the university. The point is that it DOESN'T MATTER! You can be physically present or not, but the communication can still occur.

5.4 Homework
One aspect of "being digital" in the instructional process that has been troublesome is figuring out a way that students could turn in and receive back their graded or in-progress work, while maintaining privacy and protecting the integrity of each student’s work from plagiarism and vandalism by others. The author has worked through five "solutions" to this issue, including diskettes, email attachments, intranet shared folders, webCT (an on-line course tools proprietary software), and on-line file storage.

Another aspect of this topic, however, is the issue of cheating. It is so much easier to copy material, use some one else’s file, or plagiarize data or text in a digital world. Addressing these issues takes us right to the heart of the statement of values guiding the actions of the College: “personal and professional success—built on integrity, honesty, trust, justice, and compassion”. Our admonitions to students about academic honesty are empty without the accompanying discussion of values.

6 Conclusion
Life in the digital world is more complicated than any view of the world we might have imagined 15 years ago. One can bring the issues of connectivity and management of the multiple dimensions of living in a digital world into classroom discussion and individual student meetings. A very large percentage of our students grew up in traditional families that, over the last two decades, have been faced with changes relating to family structure, economic crises, job transitions, etc. They are still struggling with understanding how families are going to “operate” in the new economy. The faculty have the opportunity to provide role models of a full family life embracing technology and connectivity, to help the next generation of adults find a way to be successful parents while being responsible professionals and business leaders.

The central tenet of the Creighton University mission statement is that of “cura personalis”, a concern and care of each individual person such that multiple aspects of the person’s life (specifically, intellectual, social, spiritual, physical, and recreational) are recognized and developed in a way consistent with the belief system espoused in the University’s Mission Statement. The use of information technology in teaching enhances the possibilities of accomplishing this concern and care. It is the lived experience of the author that a digital “connection” between individuals dramatically enhances the personal touch, rather than diminishing it.

Isolation can be defined as a physical condition that would not be alleviated by the use of information technology, but probably a far more important isolation is psychological or emotional isolation from people, from issues, from the real content of our academic disciplines. Information technology has the capability of tremendously reducing these forms of isolation, even within the milieu of a traditional college classroom or college course, which seems to be a face-to-face situation. When we combine this capability with the understanding and the living of the underlying mission and values of our respective institutions, we can create an educational environment that is not only content-based, but is also dynamic and transformative.

1 The author is the recipient of the First Annual Information Technology Award from Creighton University for
innovative use of technology in teaching (February, 2000). Most of the projects, student assignments, teaching tools and techniques, as well as more detailed discussion of the mission and values of the College of Business Administration, Creighton University, can be explored at the web site created for the award, at http://genteel.creighton.edu/award.

2 Creighton University, Omaha, NE USA

3 The author teaches primarily undergraduate students. The examples and inferences, then, are based on the typical business administration student who is 18-22 years old, more than half female, and about 75% finance and accounting majors.

4 http://genteel.creighton.edu is the author’s web site. There are quick links to all of the course web sites referenced in this paper.

5 To view the web sites described, see http://cobweb.creighton.edu/finance361/projects.htm

6 See the presentations link at http://cobweb.creighton.edu/finance340/IndustryAnalyses.htm http://cobweb.creighton.edu/finance343/lectures.htm

7 Click on the buttons to the left to access the student-created bookmark page for each topic.

8 A hidden benefit to this process is that students gain problem-solving skills as they have to learn how to deal with technology “failures”, on-the-fly, so to speak. Nothing is so frustrating (or exciting when the problem is solved!) as a file that doesn’t load properly or a computer that refuses to recognize your software.

9 The typical undergraduate student does not save textbooks, especially those from “When am I ever going to need this?” courses such as Philosophy and Classical Literature. Indeed, it is the author’s contention that the saving of textbooks is probably a predictor of propensity to become a college professor!

10 See a finance application of Plato’s allegory, the Shadows on the Cave Wall, at http://cobweb.creighton.edu/finance301/plato.htm

11 Stanford University announced this spring that publishers of the journals hosted by its Highwire Press will provide free online access to the full text of more than 137,000 articles, making Highwire home to the second-largest free full-text science archive in the world.

12 An example is the Power Plant Risk Analysis project in Principles of Insurance and Risk Management. Students prepared detailed bibliographies of library and internet resources on specific risk sources in nuclear power plant operations and then analyzed two of them with respect to course text material. See the assignment at http://cobweb.creighton.edu/finance340/power_plant_risk_analysis.htm

13 See live links for guest speakers from Ameritrade and WorldPac to an Advanced Managerial Finance class, at http://cobweb.creighton.edu/finance401/topics.htm.

14 The author is one of the most sophisticated users of online storage by professors and classes, and has been quoted in articles in The Industry Standard and FORBES magazines. The implications of this tool are far-reaching. For additional discussion, contact the author at jgasper@creighton.edu

15 The author uses idrive (http://www.idrive.com) for online storage. To see the idrive in action, and to view a presentation about how it works, go to http://www.idrive.com/jgasper and click on the idrive project folder, in which you will find a PowerPoint presentation.

16 After a guest speaker about intimate violence, (at which discussion some students voiced the opinion that “this happens to other people and we should be sensitive to that, but it doesn’t happen here at Creighton”), a student in the class posted on the class discussion web a fairly graphic description of the intimate violence to which she had been subjected. Students were stunned to find that one of their own had been beaten. This is not a discussion that could have taken place in the classroom.

17 About half of the student presentations in the Social Insurance course of the author are revisions from those of previous classes. See http://cobweb.creighton.edu/finance343/lectures.htm

18 “Existing or being everywhere at the same time”, Merriam-Webster Dictionary