

SUCCESSFUL INTEGRATION OF WEBCT INTO A SMALL BUSINESS SCHOOL

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ABSTRACT

The purpose of this article is to contribute to the dialogue regarding higher education and the integration of technology by reviewing the process that helped to successfully integrate technology into a small business school. This case study is based on the Clark Atlanta University (CAU) School of Business, which is a small, private institution located in Atlanta, GA. Recently, the CAU School of Business successfully integrated the use of WebCT into their normal course administration. The WebCT course webpages for all of the School of Business undergraduate courses were reviewed to determine what type of activity was taking place. In the Fall of 2005, the results indicate that over 80% of the courses in the CAU School of Business were utilizing WebCT as a part of course administration. The key elements that contributed to this school's successful integration were following a strategic management process, having the adequate technology, and faculty training.

INTRODUCTION

The purpose of this article is to contribute to the dialogue regarding higher education and technology. It will discuss a case study that reviews how a small business school successfully integrated WebCT into regular course administration. This case study is based on the Clark Atlanta University (CAU) School of Business. CAU is a small, private institution, which is predominantly African-American and located in Atlanta, GA. In Fall 2005, the CAU School of Business successfully integrated the use of WebCT into course administration. The results indicate that 83% of the undergraduate courses in the School of Business utilized WebCT as a part of course administration. The key elements that contributed to this school's success were following a strategic management process and having the adequate technology available. Through clear direction, effective communication, clear objectives, and effective follow-up, the school has been able to effectively incorporate WebCT into normal course administration of the undergraduate courses. This paper will provide an overview of WebCT and similar technologies, strategic management and higher education, and how the CAU School of Business utilized strategic management principles to implement the WebCT technology into everyday course administration.

WebCT and Similar Technologies

To begin this discussion, it is important to review how higher education is using WebCT and similar technologies. Generally, higher education has lagged in its use of technology when compared to other industries. However, many colleges and universities are beginning to incorporate technology into every step of the educational process. Specifically, the following discussion will review the importance of technology and the use WebCT and similar technologies in higher education.

Importance of Technology

In today's society, the use of technology is being integrated into all aspects of life. Miller, Martineau, and Clark (2000) state, "Technology permeates our lives both inside and outside of institutions of higher education" (p. 228). The use of technology has become an important factor for most institutions of higher education, as many traditional colleges and universities are using technology in all aspects of doing business. Surry, Ensminger, & Haab (2005) suggest that higher education is beginning to make increased use of the growing and expanding capabilities of technology. Similarly, an article in *The Chronicle of Higher Education* ("Higher Education," 2005) suggested that technology has altered almost every aspect of higher education, from libraries, to teaching, to student life. At every stage along the educational system, students, teachers, and administrators are utilizing technology more and more everyday.

Having the adequate technology to support daily educational activities has become an important aspect of providing education in today's environment. It has become so important that the incorporation of adequate technology can sometimes make the difference between the success and failure of an institution. McCredie (2003) states, "An inadequate IT infrastructure in higher education will result in a decline in the quality of students, faculty, and research in the short-term and probable extinction in the long run" (p. 17). Owen and Demb (2004) suggest that the pressure to incorporate technology is coming from both internal and external factors and that the consequences of such incorporation are substantial. Finally, Hiltz and Turoff (2005) state, "We predict that the surviving institutions will be those that increase their emphasis on providing a high-quality education using the best technology available, and ensure that permanent faculty play a major role in this

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process and are appropriately rewarded for excellence in this endeavor” (p. 63).

Another important aspect of incorporating technology into higher education is associated with student expectations. Students in today’s society have higher expectations regarding technology than students from previous generations. Most undergraduate students have known a world that has been filled with technology. For many of today’s students, their world has been filled with personal computers, game consoles, cellular phones, iPods, etc. The list goes on and on. In order to meet the educational needs of today’s students, it is important that institutions of higher education incorporate technology into the learning process. McCredie (2003) suggests that student expectations have changed and that students expect a school to have a good IT environment because they have grown up in a world with the World Wide Web (WWW), PCs, and fast-paced interactive games. McCafferty (2006) suggests that students today weren’t necessarily raised on paper communication, so the goal should be to find a way to communicate with students effectively and capture their attention. Finally, Meerts (2004) states, “Students have very high expectations about the availability, reliability, and ubiquity of information technology” (p. 5). Thus, many students entering college in today’s environment have expectations that are directly linked to technology.

Incorporating technology into higher education has become an important aspect of providing a good education. Colleges and universities are incorporating technology into every aspect of the educational process, because a failure to do so can have major implications for the institution. If institutions of higher education do not keep pace in the area of technology, there is a risk of becoming less competitive and not meeting student expectations.

Use of WebCT and iPods in Higher Education

Colleges and universities use technology to assist in accomplishing almost all aspects of university administration. Some of these activities include applying for college online, registering for classes, applying for and receiving financial aid, daily communication, course

management, and course facilitation. However, providing better communication between faculty and students is also an important objective for many institutions. Miller, Martineau, and Clark (2000) suggest that the use of technology in the curriculum can facilitate learning by providing more relevant learning opportunities, changing the orientation of the classroom to student-centered, preparing students for employment, increasing flexibility and access, and potentially satisfying demands for efficiency. As a result, many institutions are investing in technologies that are focused on improving communication between faculty and students and providing students with better access to academic tools of success.

These types of programs are called “course management systems” (CMS). A CMS functions as an integrated platform where class materials can be posted, live chats can take place, discussion threads can be formed, students can submit their homework, and instructors can post grades (“E-Education,” 2002). In an environment where technology has become so important, numerous CMS programs have become available to higher education. Some of the most popular CMS programs include WebCT, Blackboard, Desire2Learn, and eCollege. Recently, WebCT and Blackboard merged and have a combined user base of more than 3,700 higher education, K-12, corporate, government, and commercial academic institutions (BlackBoard, 2005). Other CMS providers include Anlon, IntraLearn, Angel, Jones e-education, and Open Knowledge Initiative (“Higher Education,” 2002).

As stated previously, WebCT/Blackboard provide CMS programs that service educational institutions. This technology can be very helpful in assisting with course management in today’s environment. Ashley and Gard (1998) suggest that WebCT can be used to create a complete online course or publish supplemental information for a traditional face-to-face course. Osman (2005) states, “WebCT provides an interface that facilitates course construction, and a set of communication and management tools such as access control, grade storage, chat, discussion area, group presentations, and student progress tracking, etc.” (p. 355). David Rosenbaum, the Senior Director of

Table 1
Sample of Schools that Use WebCT/Blackboard

School	Licensed Since	Number of Students	Number of Faculty	Number and Percentage of Faculty Using WebCT
Auburn University	1999	6,000	320	161 (50%)
University of Georgia	1997	33,200	2,794	3,429 (123%)*
University of Maryland	1998	34,933	3,661	807 (22%)
N. Carolina State Univ.	1999	29,957	1,638	522 (32%)
Villanova University	1999	7,373	511	197 (39%)

*Includes course designers

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Market Development at WebCT, suggests that WebCT can also be used to provide (1) campus wide data that can be leverage to improve degree programs and boost student satisfaction and (2) access to data at the course level, which can help to facilitate the continual learning process (Blackboard, 2005). “Nearly 75% of the 129 universities listed as “America’s Best Universities in 2005” in the US New & World Report use WebCT/Blackboard services” (Blackboard, 2005, Higher Education section, ¶ 1). Some of the universities that use WebCT include Auburn University, Georgia State University, University of Maryland, University of Georgia, North Carolina State, and Villanova University (Blackboard, 2005). Please see Table 1 for licensing, number of students, number of faculty, and percentage of faculty using WebCT at these universities.

Another form of communication technology that is gaining popularity on some of the more technologically advanced universities is the use of iPods. Using iPods to communicate is known as podcasting and refers to the use of a technology where digital audio content is stored and accessed from the Internet via an MP3 player such as Apple’s iPod (Hurd, 2006). Although there aren’t many, some universities have become very creative with the use of podcasting. For example, in the Fall of 2006, the Education majors at North Carolina Central University started using Apple’s iPod technology and iTunes software to download classroom materials via the internet (Roach, 2006). Other colleges and universities are also using this tool to notify students of acceptance into their institutions. Two examples include Creighton University and Fitchburg State College. In the Fall 2005 semester, Creighton University gave students the option of receiving their acceptance letters via text message and subsequently notified about 700 students of their acceptance via podcasting (McCafferty, 2006).

The integration of technology has and will continue to be an important aspect of success for most institutions of higher education. Successfully incorporating the adequate technologies into the educational environment can help keep the institution functioning effectively and satisfy the changing needs of a modern student body. Thus, the use of WebCT and similar technologies can help higher education keep pace with the ever changing market dynamics and student expectations.

Strategic Management

Although strategic management and technology do not appear to go together, the use of strategic management is becoming an important aspect of integrating technology into institutions of higher learning. Without the appropriate direction, information, and goals, achieving desired outcomes for some institutions can be a daunting endeavor. The use of a process that incorporates sound strategic planning principles can help colleges and universities to achieve institutional goals and specific outcomes associated with the use of technology. Technological advances can cost an institution millions of dollars. However, a sound strategic process can assist with the integration and

utilization of technological resources, which can help make it a worth while investment. As such, the following discussion will provide an overview of strategic management, how strategic management can be applied in higher education, and how strategic management can be used as a tool to successfully integrate technology into institutions of higher education.

Overview of Strategic Management

Strategic management is a commonly used method to accomplish desired organizational outcomes. Although there is some disagreement on how to best incorporate strategic management into an organization, it is generally regarded as an important factor in achieving organizational success. Strategic management is generally defined as the systematic process that enables an organization to attain its goals and objectives (Lumby, 1999; Tapinos, Dyson, & Meadows, 2005; Kettunen, 2005; Watson, 2005; Thibodeaux & Favilla, 2006). Although strategic management is not always used, it can be a useful tool that can help organizations to stay competitive. Richardson (1994) states, “Modern organizations need to operate at all times from a comprehensive strategic management basis” (p. 27). Watson (2005) suggests that organizations that achieve their goals in the long term “plan their work and work their plan” (p. 4). Frigo (2004) suggests that the most successful organizations have a process of strategy and execution that is continual. The use of strategic management assumes that the organization will develop a strategic plan, implement the plan, evaluate the results, and make the necessary adjustments for continual improvement. Kettunen (2005) suggests that the use of strategy helps to move an organization, from its present position, as defined by its mission, to a desirable position, its vision.

Strategic Management and Higher Education

The strategic management process can also be an effective tool in higher education. Thibodeaux and Favilla (2006) state, “The strategic management framework can be used effectively by organizations in both the private and public sectors” (p. 190). Welsh and Nunez (2005) take a much stronger stance and state, “Strategic planning is one of the most pervasive and, arguably, most important management activities for higher education at the beginning of the 21st century” (p. 20). Similarly, Navarro and Gallardo (2003) suggest that it is important for universities to use strategic management in a dynamic, changing environment that requires highly complex organizations, such as universities, to be flexible and adapt in an environment of continuous change. However, when compared to corporate organizations, many institutions of higher education have lagged in the use strategic planning. Edge (2004) suggests that corporate America has been using strategic planning since the 1950s, but that it is only in the last decade that educational systems have begun to use this method in decision-making.

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Although there has been a lag behind the corporate sector in this area, academic environments are more readily embracing strategic management principles to achieve organizational success. Thibodeaux and Favilla (2006) suggest that educational institutions are increasingly becoming more aware of the importance of using strategic management in their operations. Additionally, colleges and universities are becoming well versed at considering the necessary factors that can lead to effective strategy development and implementation. Kettunen (2005) suggests that as a part of a strategic management, educational institutions can use a balanced score card approach that is derived from external and internal considerations that can help the institution to achieve its objectives.

Strategic Management and Technology in Higher Education

An effective strategic management process can also help colleges and universities to incorporate the necessary technology that can assist in achieving organizational goals. Woods, Tapsall, and Soutar (2005) suggest that successful implementation of technology solutions in higher education require strategic integration into administration, communication, and teaching processes. Jones and O'Shea (2004) suggest that educational environments have underestimated the complexities associated with e-learning and that a more strategic approach is necessary to ensure that it has the best chance to succeed. To maximize the benefits associated with integrating technological systems into the educational environment, institutions of higher education should consider embracing strategic management to accomplish this task. With a clear vision, well-stated objectives, and good implementation, institutions of higher education can successfully integrate the necessary technology to assist in achieving organizational goals.

Some examples of utilizing strategic principles to integrate technology into academic environments can be found with the University of Wisconsin and the University of Georgia. In 1998, the University of Wisconsin used strategic principles to integrate new technological services into the library system. Frazier (1998), from the University of Wisconsin, states, "Our goal was to integrate a technological infrastructure of the library's information systems so that users would have seamless access, from any workstation in the campus library, to databases stored on a variety of platforms using a gateway that is convenient, powerful, and intuitive" (p.67). The author believes that linking these activities to the university's strategic plan was an essential part of its success. Furthermore, Frazier (1998) suggests that aligning the goals of the electronic library with those of the university helped its successful implementation and subsequent effectiveness. The University of Georgia also utilized strategic management principles when making its decision to select WebCT as the course administration tool for the university. After the university determined that it needed additional educational technologies, the university appointed a faculty and staff committee to evaluate the

needs of the university, select some alternatives, recommend a tool, and provide feedback in the selection of the appropriate tool. In the Spring of 1997, a campus wide group of staff and faculty selected WebCT to provide web-based instructional resources for the university, resulting in hundreds of courses at the university incorporating this classroom management system as part of the course administration (Ashley & Gard, 1998). These examples illustrate how institutions of higher education can use strategic planning to achieve the desired outcomes associated with technology.

The next section will discuss Clark Atlanta University, its use of strategic management, and how the School of Business used strategic management to incorporate WebCT into course administration.

Clark Atlanta University

This section will provide an overview of CAU and how strategic management activities played a major role in the successful integration of WebCT into the School Business. Specifically, this discussion will review the current technologies at CAU, how CAU and the School of Business used strategic management, and the successful results in the School of Business.

Technology at CAU

Clark Atlanta University is a small, predominantly African-American institution that is located in Atlanta, Ga. The university is the result of the 1988 merger between Clark College and Atlanta University. As of Fall 2005, there were about 4,200 students attending the university (CAU Factbook, 2005). Overall, CAU is making great strides at keeping pace in the area of technology. Although the institution is not podcasting, the use of technology has become a part of the everyday functioning of the university. This includes using online services for college admissions, email, course registration, bill payment, payroll, grades submission, and course administration. For example, the university recently announced that it would no longer mail payroll stubs. That's because payroll and other employee information is readily available online via the Bannerweb system. The Bannerweb system is a platform that integrates all of the different databases used at the school into one convenient location. It is the world's most widely used collegiate administrative suite for student, financial aid, finance, human resources, and advancement systems that includes a tightly integrated suite of proven applications on a single database (SunGard Higher Education Solutions, 2005).

The use of technology has been integrated into almost every step of the educational process at CAU, which has allowed for better access to and easier distribution of information. Additionally, the university has remote library, email, and WebCT access. As a result, CAU students, faculty, and administration have 24-hour access to the majority of their information.

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Strategic Management at CAU

Although CAU has integrated technology throughout the university, this has not always been the case. A few years ago, CAU was lagging behind and needed several improvements to meet the status quo. Historically, there was a lack of use of technology at CAU. Like many other small, traditional colleges and universities, there were funding concerns. In addition, the university's administration was primarily focused on providing a quality education at the school. During this time, there was almost no widespread use of technology in the school. For example, in the Fall of 1999, many professors who were more technologically advanced had to use personal resources to provide online access to students (i.e. personal webpages). However, by 2001, the university began focusing on technology, as technological advancement became one of the key objectives for the university in the 2000-2001 Strategic Plan (CAU Strategic Plan, 2000).

Once the university invested in the technology and it was working properly, the administration began developing objectives that would encourage and require faculty to utilize the updated technology. In particular, there were two policy changes that helped to shift the use of technology at CAU. The first policy change, which came in the Spring of 2004, required all faculty to submit their grades via the Bannerweb system. The second policy change was associated with performance appraisals. Beginning in AY 2005-2006, as a part of faculty evaluations, all faculty would be evaluated based on their use of technology in the administration of their courses. Although the new focus on using technology at CAU would not be described as cutting edge, the university has made great strides at trying to keep pace in this area. By investing in the necessary technology, focusing on technology as a part of the Strategic Plan, and setting objectives associated with technology, the university has been able to integrate technology into almost every step of the educational process.

Strategic Management in the School of Business

In the School of Business, there were some additional factors that led to increased use of technology. A CAU School of Business Strategic Planning Committee, which was comprised of faculty members, developed a strategic plan that included objectives associated with technology. In their efforts, the committee analyzed the major external and internal factors regarding the implementation of technology. The Strategic Planning Committee determined that there were two primary external factors that played a role in the desire to increase technology utilization in the School of Business, accreditation and competition.

First, the Association to Advance Collegiate Schools of Business (AACSB), which is one of the primary accrediting bodies for business schools, has clearly stated that business schools should be actively working towards the use of strategic management and integrating technology into the curriculum (AACSB, 2006). Hedin, Barnes, and Chen (2005) also suggest that, to maintain AACSB

accreditation, a business school will need a supporting information technology solution that will enable data to be acquired, collated, sorted, analyzed, interpreted and disseminated for managing the overall service process relating to the delivery of management education and the supporting administrative service processes. Second, in order for the CAU School of Business to stay competitive, it was necessary to successfully integrate technology into the curriculum. In many institutions of higher education, the business schools are very advanced with the use of technology. To remain competitive, the CAU business school shifted its focus toward better integration and use of technology. This included upgrading the current computer labs, putting in wireless routers, and building a new stock trading room. Eventually, the entire school will be upgraded and expanded with state-of-the-art equipment.

Some of the internal factors that were considered include the current technologies available at the university, objectives set by the university, and the ability of business school faculty to work with technology. First, the WebCT technology was available, but was being under utilized. Therefore, there were no administrative, funding, or technological issues preventing the integration of WebCT. Second, the university began to set objectives that were linked to technology. As a result, the faculty and the business school were now being held accountable for objectives that were linked to technology. Therefore, it was important to develop a strategic plan that was linked to the university's objectives and helped the business school faculty achieve those objectives. Finally, the ability of the faculty to effectively utilize technology was evaluated. Most of the faculty in the School of Business actively used some type of technology. Therefore, the current ability of faculty to use technology was not viewed as a barrier. However, most of the business school faculty were not familiar with WebCT and how it worked. In fact, most faculty had never heard of WebCT.

After the School of Business Strategic Planning Committee set the vision and evaluated the internal and external factors, they developed a strategic plan. This plan included objectives that were linked to university's objectives, utilized the current technologies available, steps to effectively communicate the vision to faculty, training faculty on WebCT, and an evaluation process that would measure the results. At the Fall 2005 Business School Faculty Meeting, faculty were informed about the new emphasis on technology and the objectives regarding the use of technology. In addition, faculty were provided a training session on WebCT and other new software programs.

The faculty objectives included posting their course syllabi and the School of Business Policies and Procedures on WebCT within four weeks of the date of the faculty meeting. One of the most important aspects of this plan was to provide the appropriate training for faculty. Since the business school faculty were required to be at the Fall meetings, the training session was incorporated directly into the meetings. Faculty members received a 2-hour training

Table 2
CAU School of Business WebCT Usage

Course Activity	Fall 2005	Fall 2006
# of Courses	69	68
Course Materials on WebCT	83%	69%
Syllabus on WebCT	78%	64%

session on how to use WebCT. Specifically, they learned how to personalize the webpage and how to post a syllabus and other documents. In case faculty wanted more training, they were also provided with a list of additional WebCT training sessions. After receiving this training, faculty were now able to use WebCT, which allowed them to meet the established objectives.

Successful Integration of WebCT

Overall, the integration of WebCT into the CAU School of Business was very successful. In the Fall of 2005, the webpage for each undergraduate course in the school of business was examined to determine what type of activity was taking place. Overall, WebCT was being utilized as a part of course administration in 83% of the undergraduate courses in the business school. For example, many faculty had posted the course syllabi, lectures and discussion questions, set up links to relevant information, and administered quizzes. The courses that did not use WebCT were taught by professors who either did not attend the training session or were generally resistant to using technology.

The results continued to be positive in the Fall of 2006. Although the usage in the School of Business courses had decreased to 69%, the majority of the undergraduate courses continue to have WebCT as a part of course administration. The most recent decrease in activity is generally attributed to new faculty who did not receive training the previous year, faculty who were new to the business school in Fall 2006, and the technical issues associated with WebCT at the beginning of the semester. In Fall 2006, WebCT was upgraded from version 6.0 to 7.0. During this process, WebCT was not functioning for the first two weeks during the semester. Unfortunately, this down period had an adverse effect on WebCT usage. Please see Table 2, which provides a summary of WebCT usage in the CAU School of Business for Fall 2005 and Fall 2006.

For the CAU School of Business, pressure from the university, competition, and AACSB accreditation were key factors that led to a new focus on technology and its successful integration of WebCT thus far. However, there were also some other factors that played an important role. First, the university provided the necessary technology. The university had invested in WebCT and was encouraging faculty to use the technology. Second, the university and the business school used strategic management, which helped to motivate and provide support for the integration of technology. Finally, the faculty were trained on how to use WebCT. With the appropriate training and support, the

majority of faculty were able to utilize WebCT and meet the established objectives.

CONCLUSION

Many colleges and universities have begun to use technology at all steps in the educational process. By doing this, many colleges and universities are able to increase efficiency and effectiveness and distinguish themselves from their competition. To continue to effectively meet the educational needs of today's students, colleges and universities need to incorporate technologies into the classroom setting. The CAU School of Business was able to successfully integrate WebCT into the majority of the undergraduate courses. Among other factors, this was accomplished by having adequate technologies available, utilizing a strategic management process, and providing faculty with the necessary training to meet established objectives.

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