

How Users Experience WebCT: An Ethnographic Study

A Report by the Students of ANTH 4610.016/5610.005
"Ethnography of Product and Technology Use,"
Professor Christina Wasson,
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Class Members: Paula Brant-Proffer, Chad Campbell,
Brian Canny, Deborah Davis, Amy Durham, Kristan
Hunt, Greylin Jones, Layli Pham, Norma Ramon, Misty
Sedillo, Jason Swartwood, Laura Williamsen, Kristi Young

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1. The Project by Christina Wasson

This is a study of how users at the University of North Texas are experiencing WebCT, the technology used by the university for distance learning. The project was carried out by students in ANTH 4610.0016/5610.005 "Ethnography of Product and Technology Use." I taught this course at UNT during Fall 2002.

A study of WebCT is a timely topic for UNT, since the university is rapidly expanding its online course offerings. In doing so, UNT is participating in a larger shift that is taking place in colleges across the nation. As Philip Turner has put it, "The greatest threat to institutions of higher education will be the failure to adapt to the changes in the market engendered by the emerging technologies" (2001:13). UNT is actively engaged in positioning itself to succeed in the new educational economy.

Research Approach

The class used ethnographic research methods to learn about the experience of users. Such an approach is becoming increasingly widespread in human-computer interact and related fields (such as computer supported cooperative work and other types of design). Its strength lies in its ability to uncover users' actual, everyday interactions with a product (as opposed to what they say they do, or what they do in laboratory settings). Such methods also place the human-computer dyad in the larger context of use: they reveal how users' interactions with an interface are linked to their interactions with coworkers, other tools in their environment, and broader organizational structures and processes. I use this approach in my consulting work.

Working in pairs, students interviewed users in the settings where they usually used WebCT. Students asked their subjects to identify the tasks they accomplished with WebCT, and then had them actually engage in those activities. Users were also asked a variety of background questions, based on interview guides that the class had designed beforehand. The interview guides are included as an appendix to this report. There were separate questions for each of three user groups: professors, TAs, and students. The entire interview/observation was videotaped. We deeply thank our subjects for their time, insights, and willingness to participate.

As described in the next chapter, the greatest challenge we encountered was getting students to participate in our study. I worked with professors who were teaching three online classes. The professors were most helpful, but nonetheless we had difficulty obtaining student volunteers. I believe that this has interesting implications for the challenges of distance learning. In analyzing the causes in class, we concluded a key factor was our inability to establish personal connections with online students. We did, however, through perseverance succeed in obtaining interview subjects in the end, as detailed in subsequent sections of the report.

2. When Volunteers are Nowhere to be Found by *Kristan Hunt and Chad Campbell*

Introduction

Many problems were encountered in identifying volunteers for this project. The hallmark difficulty is that with virtual communication there is **virtually** no way of knowing whether the proper information was received in a timely manner. It is, indeed, at the receiving party's discretion as to when a second party's message is received and appropriate action initiated.

It is safe to say that people really appreciate their personal time. With this in mind, one can understand why researchers have a difficult time finding volunteers. For example, it is very typical for many people to be sitting at home and answer a random telephone call requesting opinions or descriptions of his or her personal life. For some, not only is revealing details of his or her life potentially offensive and a bit too personal, but it is a deduction from the little amount of free time that some individuals actually have. These are some of the issues that we endured while attempting to find volunteers. I mean, it does not take a trained anthropologist to figure out that, although the end result of research is hopefully applicable, the volunteer's view is that many times volunteering can be stressfully time consuming and cumbersome.

The reality of our search for volunteers was joined by the fact that we were dealing with college students. As many may agree, college students make up a truly diverse range of individuals, who maintain many different obligations, rituals, attitudes, interests and schedules. For researchers, these potential combinations of lifestyles bring on the heightened need to accommodate the volunteer's needs, especially when a deadline is in place.

At the Beginning

At the infant stages of the project, we found ourselves throwing around various ideas about how to attract volunteers to our study. This was when we mostly all assumed that finding volunteers might be a task done with ease. I recall a few of the beginning classes that reminded me of a writer's staff sitting around brainstorming a new company slogan. As one idea would fly out, it would be complemented by another or totally ruled out. There were three Web CT classes that were designated for analysis. This helped us narrow down our target participants. After a couple of weeks of low volunteer response, we eventually decided to produce a short video that would hopefully win the volunteers over on our humor and excitement. As said before, we were working with a deadline, therefore the time dedicated to video production was to be kept to a minimum. In actuality, the only sound benefit the video served was to help keep our spirits up about the research. I don't think that we can accredit attaining one volunteer from that video.

Along with this approach, we decided that people had to have an incentive that he or she could use in the very near future; something more materialistic. This led us to offering vouchers with five dollars worth of dining at The Tomato, which is a local pizza parlor. Ultimately, the pizza voucher is what helped save us.

Out in the Field

The PHED class seemed to be the more difficult one for most of us to approach. It could have been that we did not properly schedule a meeting, but that did not always seem to be the case. One researcher reported that after he spoke to a PHED class of about 60 students who were totally apathetic and gave no interest. This report prompted us to regroup and we agreed that we needed to really try to “sell them” on the study. This basically only meant that we would try to remind them that they were (are) both UNT and WebCT students, therefore they should be interested in the changes and decisions that occur, which affect them. We also tried to remind them that the course of their education is improved by their opinions and that school is not only an investment of time and energy, but is also a financial investment. This seemed to somewhat increase the number of participants. The professors and TA’s who participated were more welcoming to inquiries, which might have been due to an interest in the betterment of campus changes because they are likely to be here longer than 4 or 5 years. Another reason why our process of finding volunteers remained sluggish was because the individual research groups had difficulty finding mutually favorable times to conduct interviews. Many people claimed they were reluctant to volunteer because he or she simply lived too far away and assumed it would be too time consuming. This seemed to be the case initially, but ultimately many of the participants lived off-campus. Near the end of the research, some groups still had not completed all of their interviews, because they were unable to find enough volunteers. This led a couple of groups to interviewing students who were in other UNT distant learning classes. Many researchers did notice that the older students were more likely to volunteer. This may create the assumption that many older students possess higher interest in positive and long-term change. This might be coincidental, due to the small sample size. One of the three classes designated for analysis is based on volunteering, which did not possess a high volunteer rate, and that, well, is funny.

The Solutions

To lessen the tedious task of the volunteering process the research groups incorporated in this project these solutions:

- **Video project explaining the nature of the study**
The research groups combine their efforts to produce a video piece explaining the nature of the interviews in hopes to recruit volunteers for the webct project. The video would be placed on the tutorial page of the webct site,
- **Face-to-face contact with the students**

Several members from research groups volunteered to meet with several section of phed 1000. Due to the many section of the largest web based course observed for the project covering all the section proofed to be a problem of scheduling. This technique did prove fruitful as student some from phed 1000 expressed interest in participating in the interviews.

- **Pizza coupon**
The interview subjects, who participated in project, were given a Five dollar pizza coupon to The Tomato (a popular pizza restaurant). This also proofed to be a satisfying technique.
- **Face-to-face contact with teachers' assistants and professors:**
Dr. Wasson appealed to the Professors and Teacher's assistant for possible prospective students to interview. These techniques prove most beneficial in recruiting subjects to interview for the slis5440 and comms4400/5500 webct courses.
- **Widening the scope of prospective interview subjects**
The last solution to the dilemma of recruiting volunteers was to solicit students of any and all webct courses to participate as interview subject. The were two interviews acquired using this method

Results and Conclusion

The results of applying the five steps taken to recruit students were the interview subjects detailed in the previous section.

The hallmark difficulty is that with virtual communication there is **virtually** no way of knowing whether the proper information was received in a timely manner. It is, indeed, at the receiving party's discretion as to when a second party's message is received and appropriate action initiated.

3. Description of Interview Subjects and Their Classes by Misty Sedillo

Description of Participating Classes

- PHED 1000 Scientific Principles and Practices of Health-Related Fitness**
 A comprehensive presentation of the scientific fundamentals of developing a healthy lifestyle, including the epidemiology of disease and mortality in the United States, effects of physical activity and fitness on health, proper nutrition, addictive behaviors, prevention and treatment of obesity, mental health related to healthy lifestyles, and musculoskeletal health and disease. Instructional modalities include lecture, physical activity experiences, computer-assisted instruction using instructor-developed software and Internet resources and assessment of health risks and fitness. Satisfies the Wellness requirement of the University Core Curriculum.
- COMS 4400/5400 Volunteer Management Concepts and Applications**
 Analysis and review of day-to-day applications of management principles to the administrative and operating practices of contemporary volunteer programs in the public, not-for-profit, and for-profit sectors. Focuses on volunteer program management and organization, including targeting, recruiting, training, supervising, motivating, counseling, retaining and recognizing volunteer workforces.
- SLIS 5440 Youth Programs and Storytelling**
 This is a dynamic and comprehensive graduate-level course that looks broadly at storytelling as a narrative art form, an artifact of culture, and a tool for education and research. Students will participate in a variety of course activities including online course modules, discussion forums, live chats with the professor and guest artists, streaming video performances, as well as opportunities to participate in learning and telling stories.

Lists of Interview Subjects

Professors and TAs

Female, COMS, tenured, director of department and program, open and personal

Female, SLIS, passion for the success of WebCT, very outgoing, highly involved in class

Male, PHED, tenured, advocate of WebCT in department

Male/TA PHED, progress of getting masters, may continue to study for Ph.D.

Course	Pseudonym
PHED 1000	Rocky
PHED 1000	Eric
PHED 1000	David
PHED 1000	Lisa
PHED 1000	Cari
PHED 1000	Donna
COMS 4400/5400	Janeane
COMS 4400/5400	Tiffany
COMS 4400/5400	Helen
COMS 4400/5400	Cindy
SLIS 5440	Will
SLIS 5440	Liz
PSYCH 1000	Doug
ACCT 2020	Jim

Characteristics of Participating Students

The students that participated in the WebCT project range from undergraduate to graduate level, had both employed and unemployed status, commuter to non commuter, and parental roles. We found that there are many reasons why people take online courses, and that often affected the approach they had towards the class and WebCT as a whole. Over the course of the semester, as a class, we have learned the significance of field research and have applied concepts such as face-to-face interviews, and observation of natural setting to better understand the users as well as identify the strengths and weakness of WebCT. Knowing and understanding the user and their needs is perhaps the most important step to designing and implementing a successful tool, software, or any other marketable item.

Undergraduate vs. Graduate Users

Important factors that we discovered concerning classification range from the levels of engagement, course load, and interest of the students.

Undergraduate VS. Graduate Users

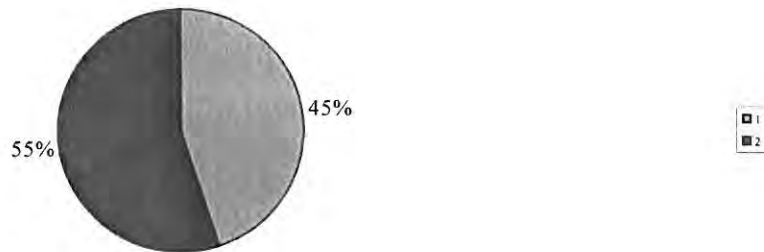


Figure 1

Employment Status

Another important consideration is the amount of time that the user has to effectively use the program as well as multitask other obligation such as studying, and working.

UnEmployed VS. Employed User

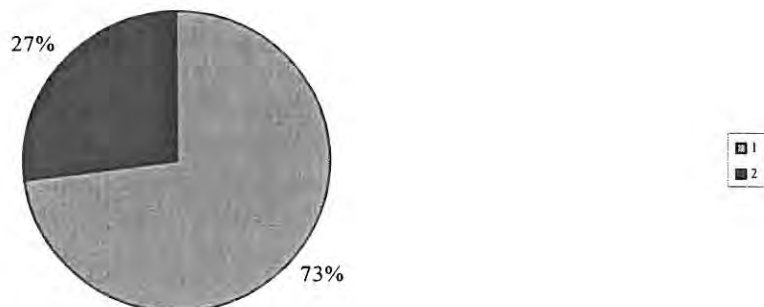


Figure 2

Non-Commuter and Commuter

The amount of time that the user spent driving to and from school weighed heavily on the value of WebCT. We found users all over the metroplex, and locally in Denton. Even those the shortest distance from campus benefit from the ease and availability of the

online courses. Without WebCT some of the users would not be able to take college courses due to their busy schedules.

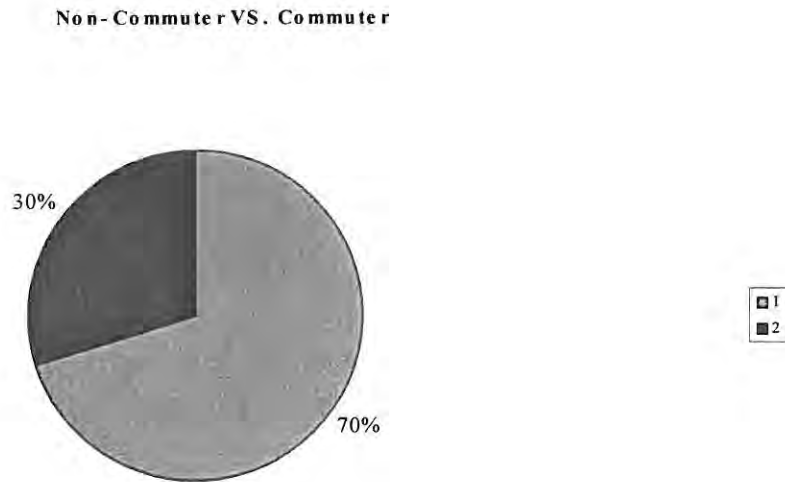


Figure 3

Conclusion

The overall conclusion that is found from the demographic is that students today have very busy lives. In scheduling the interviews themselves we found availability to be a challenge. Education today is taking on a whole new vision from that of the traditional classroom to a more technology based virtual classroom. In almost all cases students held full time jobs, and lived off campus. WebCT has allowed these users to incorporate both their busy daily lives and the progression of their education. The service that is provided through WebCT has proven to be valuable and vital for the participants.

HOW STUDENTS EXPERIENCE WEBCT

4. WebCT Helps Students Manage Busy Lives by *Brian Canny and Jason Swartwood*

The Busy Lives of Students

Judging from reports in the media, Americans in general are feeling a greater time burden on their in all facets of their lives as they try to juggle work, family, and longer commutes. These overall trends certainly apply to a growing majority of college students, who have the added burden of rising tuition costs. A survey of UNT students in Spring 2000 found that 72 percent of UNT undergraduates and 84 percent of UNT graduate student are employed in some fashion. Regarding undergraduates, the percentage of working undergraduates who work more than 20 hours per week rose from 25% in 1996 to 40% in 2000 (Clark 2000).

This rise in student employment at UNT is part of a nationwide trend that has more students working more hours. According to the Association of American Colleges and Universities, based on findings for the 1999-2000 school year, "46% of all full-time working students work 25 hours or more per week," with one in five working 35 or more hours per week (Association of American Colleges and Universities 2002).

The need for a college degree has increased dramatically in the past quarter century, but along with it, the cost of that degree has also multiplied in the last 25 years. As a result of this increase in tuition more students have had to hold part, or full time jobs to be able to support themselves and manage all the expenses that come along with being a full time college student. Also, many people who were already part of the post-academic working world are finding themselves in need of obtaining a first, or even a second degree in order to keep the job they already have. There is a strong possibility that a good number of these people already have families to support, and schedule a lot of their time around. It is quite hard for a mother to attend classes, work, and manage her children at the same time. Yet some are forcing themselves to do it, no doubt at a cost to the welfare of their family.

There has also been a decrease in the amount of students receiving financial aid over the previous decade. The amount of scholarship money awarded has also declined in a time when it is needed more than ever. Since tuition is ever increasing, one would figure that the amount of financial aid given out to students would increase along with tuition, maybe to keep the balance. But tuition continues to increase nationwide, and financial assistance for students has decreased continually as well. It is no wonder students to not have time to even attend the classes that they work so hard to be able to afford.

Table 1 Statistics on University of North Texas Education

- College tuition has gradually, but constantly increased across the nation over the past decade, the University of North Texas is no exception.
- From 2000 to 2001, tuition at UNT went up around \$450 for in state, and \$410 for out of state (UNT fact book 2000, 2001).

- As tuition has increased at UNT, the amount of students that receive financial aid from the school goes down.
- In 1993 there were 12,395 applicants, and 8,662 recipients. Roughly 70% of students who applied for financial aid received it (UNT fact book 2001).
- In 2001 there were 24,401 applicants, and 12,156 recipients. Roughly 49% of students who applied for financial aid received it (UNT fact book 2001).
- For the year 2001, roughly 15.3% of the students who attended UNT were above the age of 26. All of the people that fall into this category are more likely to have family to look after than the average younger college student.
- Out of the people that were interviewed during this semester, roughly 70-73% of them had jobs outside of school hours. This means that most of them benefited greatly from being able to access their course content at any point in time during the day, and not have to show up for class.

This environment does not bode well for academic achievement, for these students are caught in a double-bind. According to the State PIRGs' Higher Education Project, nearly half of all full-time working students are working enough hours to hurt the overall quality of their education. At the same time, the majority of these students (63%) reported that they would not be able to attend college if they did not work (King and Bannon 2002; Marklein 2002). The reason for this can be attributed in part at least to the rising costs of tuition. The Wall Street Journal reported in November 2002 that the average tuition at a four-year public school has increased 117% between 1981 and 2001, while increases in financial aid have lagged behind at 112% and the inflation-adjusted median family income rose only 25%. Due to these disparate increases, it is currently estimated that while a university student in 1974-1975 had to work 25 hours per week at minimum wage to pay for school, a university student in 1999-2000 would have to work 46 hours to do the same (Tomsho 2002).

Time dwindles more so when employment is considered alongside residence statistics for UNT students. The Spring 2000 survey found that 80% of students live off-campus, with 34% living outside of Denton and 33% who travel more than 20 miles to get to UNT (Clark 2000). Currently, the Special Interests section for off-campus housing on the UNT Web site reports that more than 23,500 students commute to UNT, with more than 16,500 commuting from outside Denton County (University of North Texas 2002).

Given all these factors, time can be a precious commodity for students, with study time squeezed in between driving and working, and among the thirteen students we interviewed for this project, they were all keenly aware of the time benefits that WebCT affords them. Even one student in an introductory psychology class who could think of no other major advantage to the program cited "time saving" as the primary and – from his perspective – only benefit to WebCT. Among these students, ten lived off-campus, with six living outside of Denton and commuting from towns such as Sanger, Hurst, Decatur, and The Colony. Six students were also employed, working in some capacity either full-time, part-time, or occasionally, and among the positions included a part-time substitute teacher, a worker in a disaster-relief agency, a full-time student assistant, and a security guard. Even among those who did not have a job, one music major noted that WebCT saves him time considering the high demands of his chosen major, and a student

who commuted from Sanger appreciated the freedom WebCT affords in that he can access the course whenever he has a spare hour or two.

In short, WebCT allows students and professors to access the course at their leisure and gives them some flexibility regarding access location, as long as there is a computer available with an Internet connection. (The latter also relies on proper configuration of that computer; we discuss the technical issues regarding WebCT access in a later chapter.) These wandering habits created a challenge to our research. Our intention was to observe students logging on to their WebCT classes from their common point of access – in short, to observe these interactions in their natural setting, wherever they normally access the course – yet many of the off-campus students did not have a single, definitive location. At least six of the thirteen students interviewed would check their WebCT courses from multiple locations during the day, even though they often had a computer at home. These locations included at work, in any one of the on-campus computer labs, at home, and even while traveling – simply wherever was most convenient when they had an hour or two to spare.

One such person was Janeane, a graduate student in her late 50s, who works an erratic schedule for a disaster-relief organization, often long ten-hour shifts at a time. She has aspirations to get a Ph.D. one day, but due to the demands of her job, she rarely knows when she will be needed at work, which precludes her from taking traditional classroom courses. (Two other non-traditional students, both of them with young children at home, echoed the sentiment that they could not have stayed in school without a distance-learning option.) Janeane is currently taking two graduate-level classes on WebCT (and is signed up for two more next semester), and she estimates that she logs on to her courses 4-5 times each day. When she is at work, she will check her classes 1-2 times a day, during a break or at lunch. In addition, she will log on to her courses again when she comes home at night.

Temporal and Spatial Flexibility: The Benefits of WebCT

Janeane is but one example of a student who has adapted to the spatial and temporal flexibility that WebCT allows. This flexibility provides the double benefit of being able to integrate class work into a busy schedule and allowing both professors and students to craft the environment in which they access and interact with the class.

Similarly several students cited the time displacement of online class discussions as an additional benefit. Asynchronous communication in the classes allowed them to more carefully construct one's contributions to the class. Whereas one student saw a burden in this as well, stating, "When you have to type it, you have to think about it more because you don't have body language or other such markers, so its more difficult for people to understand what you were attempting to say or meaning to say," other students appreciated the time they had to perfect their statements to the class. Rather than rambling on, or feeling the pressure to spit out the correct answer in front of the whole class, they are able to edit their comments, taking care to properly phrase their comments

so the point is clear. A student who described herself as “shy” or “silent” said that she were more inclined to participate and offer up her opinions, so the temporal flexibility in relation to class participation was often a benefit that increased their interaction with the class.

The freedom in regard to where one could access the class also stimulated some students. In contrast to the relatively Spartan environment of the computer labs, or the arrangement of a typical classroom where students attention is fixed and directed at a single, common point (typically the professor), the students who could control their point of log-in, whether it be a dorm room, their home, or an office, often crafted their study area into a comfort zone, often filled it with visual stimuli just beyond the iridescent glow of their computer’s monitor. One student had a lava lamp next to the monitor, a pair of students had filled their dorm room walls covered with posters (among them a picture of Audrey Hepburn from *Breakfast at Tiffany’s*), and one thirty-four year old library science major had her computer room right next to her young daughter’s room so she can look after her toddler while she was doing her class work. Two students and a professor had music playing in the background while logged on to their respective classes. Janeane in particular had an established arrangement when she came home: she has set up a side table next to her computer desk, so she relax and eat while doing her class work, keeping the food to the side so she doesn’t get crumbs in her keyboard. Given this degree of personalization with the WebCT experience, Janeane had naturally come to characterize her relationship with her WebCT classes as “intimate.”

Spatial Flexibility

Definition: If something has spatial flexibility that means that it can be obtained, interacted with, or used in whichever matter it is meant to be in a multitude of different locations. Instead of being limited to one physical place where this resource is available from, spatial flexibility provides the user with the convenience of access at many different locations. So instead of having to go all the way to campus to use, or access WebCT like you would have to do to attend class, you can access it from your computer at home, or from anywhere else where there is a computer that is hooked up to the internet.

Examples: There were some students that our class interviewed that mentioned their satisfaction with the amount spatial flexibility that WebCT let them have. The first particular individual was David, who was a PHED 1000 student. One of the attributes of WebCT that David found the most appealing was that he could access his account from any computer lab on campus. It did not matter where he was on campus as long as he was near a computer lab when one was open, he would have no trouble accessing his account.

Another student that greatly appreciated the added spatial flexibility that WebCT contributed to his schedule was a SLIS student named Will. Will was a nontraditional student as far as his age is concerned. He has a wife with whom he loves to travel. Taking courses over WebCT allowed Will the convenience of traveling and taking courses at the

same time. As long as there was an internet café or public library, or somewhere he could access his account from, he could travel and take classes all simultaneously. Now the advantage of spatial flexibility that WebCT has over face to face classes should be explained thoroughly, and it should be obvious why people like the spatial flexibility that comes along with being a student taking WebCT courses.

Temporal Flexibility

Definition: Like spatial flexibility, temporal flexibility is also a convenience that comes with being a student involved in WebCT courses. Instead of providing easy access at numerous physical locations, temporal flexibility gives the user access to his or her account at any time of the day. Say a student needs to work all during the day, so she cannot take day classes, and the ones she needs are not offered at night. She can take WebCT courses and access the course content, or do her homework, or even take a test at any point in time during the day. This feature lets many students complete their course work at their own pace and time, where before they might not have been able to attend classes because of their busy work schedule, or familial duties they are responsible for.

Examples: Many students specifically mentioned that they took full advantage of the increased temporal flexibility that was offered to them through WebCT. The first example is Cindy, who is a COMS student. She stated that if it wasn't for WebCT she would not have been able to finish her college education because of her full time work schedule. Cindy also mentioned that she was not satisfied with the amount of courses that were offered at night, and that there should be more face to face courses offered at non-conventional times of the day.

Cari and Tiffany are two other students who needed the temporal flexibility that WebCT offered them. They are respectively PHED and COMS students, both interviewed by Misty and I, who have busy lives outside of attending school. Cari works full time at Sam's Club, and needs to keep working full time in order to be able to support herself. Tiffany is a full time parent with two children. Her husband has relocated to another city where she will move after they have sold their house. If it wasn't for WebCT, neither of these individuals would have been able to complete their college educations and still keep their private lives in order. WebCT allows Cari to work full time while also being a full time student. WebCT allows Tiffany to be a full time parent and take classes at the same time. We all know relatively how time consuming being a parent can be.

Multitasking

Janeane's act of eating while doing her class work, as well as the example of a student monitoring her child while logged into her course, are examples of students multitasking while doing their coursework. The term "multitasking" has become a buzzword as of late, often taken as a symptom – or a cure, depending on one's perspective – of increasing

workload and responsibilities that individuals must endure in their family and professional lives.

The term multitasking has its roots in the computer industry, often referring to the ability of a computer operating system (OS) to manage multiple tasks at once (SearchSolaris.com 2002), and as the processing power of computers has increased, they can allow a user to run more and more applications at the same time. The term has since been adopted (and is now commonly associated) with business and corporate workers, who find that they are working on multiple tasks simultaneously in order to manage an increasingly overwhelming workload. The practice (and the term itself) has become so preeminent in business thinking that magazines such as *Fast Company* have written articles meant to instruct people in “the art of multitasking” (Overholt 2002), and the American Psychological Association’s *Journal of Experimental Psychology: Human Perception and Performance* has published results of a study meant to determine the effect of multitasking on personal productivity. (They determined that multitasking is counterproductive due to the time lost when one has to switch tasks.) (Anderson 2001).

In our study on WebCT, the term multitasking refers to students who are doing class work and simultaneously engaging in another activity that is separate and unrelated to the class (Wasson 2002), such as eating, minding one’s children, etc. A theme in the following chapter addresses the multiple levels of engagement which WebCT enables; however, the act of multitasking should not be interpreted as a sign of disengagement from a class in and of itself. One student interviewed, who was in a freshman-level core class, was by no means a multitasker – from the moment he sat down at the computer, he would work through his class work without diversion. He would not look at other Web sites; he would not check his e-mail. But he adopted this straight-laced approach because he simply wanted to get his course work done, so he could move on to other things that he considered more important.

The lack of a central situational focus common in a traditional classroom setting would seem to invite diversion among the students, where they would lose the focus on their class work. Yet one must remember that many of the students who did admit to multitasking (although they did not refer to it as such) also said that they would not be able to take classes at all without WebCT. As with recent studies regarding virtual meeting in large corporations (Wasson 2002), WebCT and distance learning creates a different educational context for these students. For them, practices such as multitasking and seemingly desultory access habits arose from the time squeeze created by factors such as a long commute, longer work hours, and the demands of family. (Even one professor admitted to multitasking, describing a scenario where she would often be on the phone with one student, checking her class e-mail, and checking another student’s assignment all at the same time.)

For instance, Tiffany, who was mentioned in the temporal flexibility section, was a fluent multitasker when it came to using WebCT. The fact that she has two kids was already mentioned, and it should come as common sense that you don’t even get a break from being a parent when your kids are asleep. Tiffany mentioned the fact that she would

always have to deal with issues that surrounded her children while she would be involved with her WebCT course. WebCT would allow her to do both at the same time. She could read her course content, or be involved in some other part of the course all while taking care of her children, or maybe cooking them a meal or something. She would only run into problems when doing timed exercises such as a quiz, or a test. If something came up with her kids that required her immediate attention during one of these time periods, she would have to go deal with this issue, and would not be able to reset her attempt without consulting with her professor. In the interview Tiffany mentioned this as the only place where WebCT could be a little more flexible.

There were exceptions of course to this sense of productivity in multitasking – in one instance, two students would be downloading music files in the background while doing their homework. (Interestingly, these two students would do their WebCT course work at the same time, each doing his separate work, so they turned what was often a seemingly isolated practice computer-based course work into a social event – yet another example of students adapting their interaction with WebCT to fit their particular circumstances and desires.) However, the majority of multitasking instances that we observed showed not a de-centered approach to their coursework but rather an integration of computers and the WebCT program with the other, sometimes overwhelming demands in their daily lives – and it was symptomatic of the time constraints many of these students felt in trying to balance family, work, and school. Accordingly, the incidence of multitasking increased as we moved from the lower-level classes to the upper-level and graduate classes. Here were also a higher number of non-traditional students (that is, older students, generally over 25 years old, employed, and married and often with children still living at home – four of the 13 students interviewed would fit into this category, all of them in the upper-level or graduate classes). These were not students who took their education or their courses lightly, but through distance learning, these students could blend the program with other actions in their daily lives, and in so doing, WebCT and distance learning became highly valuable to them. As mentioned before, three students said that the distance-learning program has allowed them to stay in school, which comes from its ability to integrate coursework into an already busy schedule while offering them educational opportunities that would otherwise not be possible.

Reliability is Fundamental: When One Part Breaks Down, the Whole System is Disrupted

In order to encourage and enhance this connection, WebCT must be reliable. Janeane recounted one instance when WebCT was down, yet without receiving any notification of the outage – and her professor was unaware of the problem – she spent needless hours trying to uncover the cause of the problem so she could turn in an assignment on time (she assumed that she was doing something wrong). WebCT loses its privileged position once it becomes disruptive within the integrated system of her schoolwork and her job. She and other students trying to balance work, family, and a long commute do not feel that they can lose even an hour trying to get WebCT to work; therefore, more than any other factor, reliability is key to this budding relationship, which becomes more

challenging when considering that one cannot predict how, when, or where these students will be accessing their courses. Therefore, as is stated in the section of this report regarding technological difficulties, we would recommend that UNT and WebCT clarify the technical requirements for the program and create stronger links between the different entities responsible for technical support at UNT, so students have a better understanding of the resources available to them when encountering technical problems.

The students' desire for reliability even extends to the course interface. One student, a full-time student who was a mother of two children, expressed a desire for a standard format for all WebCT classes, so she would not have to hunt for the right icon or search the screen for the e-mail function or the discussion list. In a similar vein, Janeane wanted control over the screen display so she could match the icon arrangement for both of her classes, with the most icons at the top and the unnecessary ones removed or at least moved to the bottom. Reliability trumps creativity in creativity design. Time management has become so central in their lives that even the extra minute it takes to find a misplaced icon seems like a terrible waste. This desire for personalization comes not from a need to express one's individuality through the course interface but to streamline the process, creating an even fit between WebCT and the other demanding aspects of their lives, and we believe that the possibility of such functionality within WebCT and UNT online classes should at least be explored.

Students Interviewed (13 total)

Employment	Employed, either full-time, part-time, or occasionally		Not Working/ Unknown
	7		7
Residence	On-Campus	Off-Campus, in Denton	Off-Campus, Outside of Denton
	4	3	7

5. The Social Ramifications of WebCT

Many students across the nation are pulling up a seat in a one-person classroom and using their right-clicks to raise their hands. Access to a computer is all that's needed to be a part of the new trend in online classes. The recent explosion of online education across the nation, especially at the University of North Texas, is helping many non-traditional students achieve degrees, such as those with families and difficult work schedules. The nature of distance learning, however, begs to question whether online classes remove the humanness and personal contact of regular classes? Is WebCT a blessing in disguise? This chapter will discuss WebCT as a campus environment and tool for online learning, and will examine education as a commodity for the disengaged student.

The implementation of WebCT raises obvious questions. In "The College Experience in an Online Environment" by Kristi Young, the problem addressed is this: what is online distance education doing to the university student and social development? In light of this, WebCT must not be perceived as only a tool for learning, but must instead be understood as a college campus that is interested in the development of living skills. The technology of distance learning and its affects on the university experience are observed in relation to the student's changing perception of campus life.

As the image of the college campus evolves, so does its innermost component: the classroom. Grey Jones in "The Space Between the Student and the Instructor" ponders the nature of academics without a classroom, without the images we most often associate with education. WebCT has redefined the university setting and, therefore, the myth, regarding the space between students and instructors. The relationship has been simplified; there are no desks, no podiums, and no chalkboards on a web page.

Fittingly, infinite physical distance between WebCT users limits personal interaction. "Class Communication in Online Learning" by Laura Williamsen, asks "is student communication necessary" given individual intent? Because a university's physical environment cannot whole-heartedly exist without student interaction and participation, the lack of communication between students takes on a new importance when online. In this article, Williamsen cleverly examines how WebCT is transforming the university's community.

What is distance learning doing to the university purpose? "Choosing to Engage or Disengage" by Paula Proffer is concerned with student's varying levels of engagement and how this is shaped by the meaning of education. Does WebCT reduce education to a commodity? Is a particular type of student attracted to this capitalistic reasoning? It is ultimately a game of opposites: the life long learner versus the goal oriented one, course content versus process, and practical education versus vocational training.

A. The College Experience in an Online Environment by *Kristi M. Young*

Introduction

It is true that the nature of education has been changing rapidly since the introduction of the virtual classroom and that the campus experience itself is not static, but one must consider that there is more to going to college than going to class.

The first year of college for most students is life changing. It is a new experience that encourages similar tasks amongst them: making friends, getting good grades, establishing future goals, managing time, establishing identity, being on one's own without friends or family, and maintaining physical self (Williams 1). These are common for "face to face" traditional students but need to be addresses for the new type of student whose collegiate experiences will be more affected by online courses with unstable and less sociable internet communities.

Voluntary vs. Involuntary WebCT Participation

Distance learning, via WebCT, guarantees not only a wide range of engagement in courses, but also in the learning environment itself given that students are physically removed from the university campus. This guarantee is, in some cases, actualized voluntarily. Many upper division students have a choice of whether or not to take an online course and are able to evaluate their desire and capacity to perform in one before enrolling (SLIS, COMS). COMS 4400/5400 professor Pamela Sybert offers this insight. Taking or teaching an online course versus a face-to-face course depends on what you want to accomplish. "If you need to talk to a friend do you call them on the phone or show up at their house?" Being that her class is an upper division course, her and her students were able to choose to participate in online learning based on their awareness of exactly what it was they wished to accomplish in the process. Consequently, the theme for this class is not disengagement, but is instead total involvement (Fieldnotes, Young and Durham).

Oftentimes, courses offered on WebCT are mandatory and there is no other alternative for obtaining proper core credit hours, for example, PHED 1000- a freshman level course generally taken by first year students who are not familiar with an "onground" college experience and, therefore, are not aware of exactly what they wish to accomplish. (Neither David, Rocky, nor Donna have declared a major.) For forced online classes similar to this one, the qualities needed to do well in a WebCT course are not considered and some students may be destined to fail before they ever begin. A personal assessment of qualifications, however, as it is presented by WebCT and by the University of North Texas, is misleading, and dependence on this alone may yield analogous, disastrous

results. WebCT presents these ten essential characteristics that a student must possess in order to do well in an online course:

1. **Be open minded about sharing life, work, and educational experiences as part of the learning process.**
2. **Be able to communicate through writing.**
3. **Be Self-motivated and self-disciplined.**
4. **Be willing to "speak up" if problems arise.**
5. **Be willing and able to commit to 4 to 15 hours per week per course.**
6. **Be able to meet the minimum requirements for the program.**
7. **Accept critical thinking and decision making as part of the learning process.**
8. **Have access to a computer and a modem.**
9. **Be able to think ideas through before responding.**
10. **Feel that high quality learning can take place without going to a traditional classroom.**

If the student feels that a traditional classroom is a prerequisite to learning, they may be more comfortable in the traditional classroom. Online is not for everybody. A student that wants to be on a traditional campus attending a traditional classroom is probably not going to be happy online. While the level of social interaction can be very high in the virtual classroom given that many barriers come down in the online format, it is not the same as living in a dorm on a campus.

Figure 1 WebCT's Ten Essential Characteristics for Students

UNT, on the other hand, assumes intellectual ability, determination, and computer competence as the main points of focus, all of which ignore previously mentioned social expenses, particularly number ten on the list above. This next list is posted on UNT's distributed learning web page. It is a list of character traits needed in order to be successful in an online course, as well as a few questions that should help a student decide if WebCT is right for them.

1. **Self-Motivation**
2. **Ability to Cope**
3. **Independent Worker**
4. **Time Management and Organizational Skills**
5. **Take Responsibility for my Learning Experience**
6. **Resourcefulness**
7. **Active Class Participation**
8. **How will this fit into my schedule?**
9. **How good are my reading skills?**
10. **How comfortable am I about asking for help?**

Figure 2 UNT's List of Character Traits

New students generally do not perform with such an advanced level of discipline. Isn't this type of development a facet of collegiate education and major concern of professors? Yes, it is! Professor Figa of the SLIS class, an upper level course, feels that "the undergraduate experience of going to class...and interacting with others is an important

part of the college experience and that communication skills are learned in college. She said that it would be best for online courses to be offered at the graduate level only. Dr. Figa wants college to be a learning and growing time” (Fieldnotes, Sedillo and Swartwood). There is obviously a major discrepancy between honing academic competence and skills that encourage ultimate maturity, because the latter are expected to already be established. How will this effect the development of living skills in beginning college students?

Social Ramifications of Involuntary Disengagement

WebCT has taken the liberty of weighing the pros and cons of it’s distributed learning software and recognizing the impact it is expected to have on universities who use it (Figure 3). The “Impact” and “Value” columns are of particular interest, as they do not include any social consequences, be it pro or con. For students, positive impacts are said to be “course completion” and “grades”, which is evidence for “improved learning”. Learning, however, is difficult to measure, especially out of context, and both course completion and grades may be a result of several other confounding factors and not the system itself. For example, three of the PHED 1000 students (Eric, Rocky, David) used the term “cram” to refer to how they study. They spend minimal time on the course material as possible, with Rocky spending as little as ten minutes per week. But even though they are the epitome of disengagement and procrastination, they are expecting an “A” in the course. Donna tells us that the exams for the class are easy. Her reviews tell everything that is on the tests. She would recommend the class as a way for a student to keep his/her GPA up (Fieldnotes, Williamsen and Jones). Is this the type of “learning” UNT aims to endorse?

Transforming the Educational Experience

Administrators	+ Expands academic capacity + Student performance tracking	+ Student Retention + New Revenue Streams - Expense Management	+ Rapid ROI
Faculty	+ Course Management + Content Management + Assessment Tools	- Preparation Time + Content Availability + Content Sharing	+ Increased Productivity
Students	+ Personalization + Academic Support	+ Course Completion + Grades	+ Improved learning
IT Professionals	+ Scalability + Standards-based architecture	+ Campus-wide Deployment + Integration	+ Increased Efficiency

Figure 3 <http://www.webct.com/transform>

When students who do not possess the qualifications in Figure 1 are forced to take an online class, they are not trained to gradually mature as they truly learn academically [note taking skills, critical thinking, writing] or in life [time management, goal setting, values clarification]. This further alienates these students from course material, because they do not know how to think about the class, and the university environment, because there is a slight deficiency in social skills.

“I did not see any indicators of distance learning being a catalyst for social isolation. Nor did I see it encouraging social engagement in this setting” (Fieldnotes, Brant-Proffer and Canny). This is true when analyzing each interview individually, but it must be noted that a large percentage of WebCT students are taking more than one online course, which inevitably increases the amount of time spent each week in an environment that does not provoke social interaction.

WebCT as an Effective Tool

WebCT is allowing some students to choose to withdraw from “onground” education while others do not have a choice to take an online class versus fully participating in traditional learning environments and benefiting from the richness of the college campus experience. This may result in social deficiencies, as has been mentioned, but it also makes available a mechanism by which students can prioritize their education and social

engagements. Distance learning provides those students who feel a disinterest towards certain subjects or who may not accept the educational value of core classes a chance “to disengage with certain subject matter” and to not simultaneously jeopardize their academic careers (Fieldnotes, Brant-Proffer and Canny).

Suggestions

My goal is to reveal that online education is not for everyone, yet everyone does not have the option to choose otherwise; Adults generally do not live on campus and are more active in their professional and family lives than in academic circles; Core classes are becoming too large to house in a traditional classroom and must instead be conducted in cyberspace. But is there “a way to retain the ‘traditional’ college experience while incorporating the technology of distance learning?” (Fieldnotes, Sedillo and Swartwood)

This situation is incredibly sensitive but does not reject solution. It is necessary for the university to address the differences in online education as opposed to traditional learning with new students, i.e. freshman/transfer orientation. New students might not have the intellectual and technical skills required for this mode of learning and should be introduced to active learning techniques as well as time management before they ever enroll in a WebCT course. Objectives that are typically focused on in campus orientation are campus life, relationships, and diversity, which are irrelevant to an online course. Donna, a first year freshman, didn't even know she was signing up for a web class when she enrolled in PHED 1000, let alone what was expected of her. Tremmelle Jones (COMS 4440) doesn't use class communications much and she has never used the guide to WebCT, the library services, or student tools. She admits that it took her a few weeks to make the online adjustment, and she initially fell behind (Fieldnotes, Jones and Williamsen).

Instead, students should become aware of community building and how to use the internet and online library services for research. Equipped with this information, new students, not just adult and upper level students, would be able to adapt their online classes to their own personal lifestyles, instead of simply to their degree plan.

B. The Space between the Student and the Instructor by Grey Jones

Where Is the Classroom?

Can students understand the nature of academics without a classroom? There is no apple for the teacher, no desks in single filed rows, and no chalkboards with dirty erasers that need to be cleaned at the end of each class. There are no spit balls, strange noises from the class clown, no fist fights, and no Columbine killings. Online, there is no one to tell you to keep your gaze to the front of the class. “No looking out of the window,” teachers have and will continue to yell at their face to face classrooms, but online, distractions can come, interrupt, disrupt, and altogether disengage a student from their work, mostly to their disadvantage. Conversely, students are free to multitask and even incorporate distractions, relevant to the lesson, into their online study session.

Is this Perpetual Homework?

One online professor insists that students should spend just as much time on the WebCT course as they should with any other class. One of his students agrees that the lessons are time consuming. Although the student agrees with the length of time needed to stay abreast with the flow of the class, he constantly remarks that the lessons are a waste of his time. Oddly, it was not decided whether or not the student did not like the course content or the course itself, considering that his major of study was in a different academic field from the course.

This blurred line between dislike in content and course parallels the blurred line between what is class-work and what is homework. Although, this area of the study was not investigated, perceptions of homework versus perceptions of class work and how they play within the minds of students should be contemplated. Today, there is a demand from employers to acquaint students with “real-life” work conditions. Is it possible that WebCT provides some of this real-life conditions. By working at their own pace without direct supervision students learn necessary skills for executing projects independently. Self management of time is critical in today’s management style which incorporates wide span of control.

Interaction between Student and Instructor

Community Building

WebCT provides the convenience of time, but does it provide the convenience of relationship. Is a WebCT instructor still an instructor, or does the instructor become something else? Is a WebCT student still a student, or does the student become

something else? Some would insist that pondering such a notion is absurd - of course, an instructor is the same and so is their student. While the basic concepts of the teacher-student relationship remains, should this process of limited physical interaction constitute some other description than has been previously appointed.

How WebCT Facilitates Communication

Some WebCT classes encourage community. Others do not. Chat rooms are available on WebCT, so are discussion boards. Instructors can arrange for classroom chat room meetings, although none have used the chat room as a place for classroom engagement within this study. Discussion boards seem the most reasonable arena for group participation, and it has been employed by two of the classes involved in the study.

Instructors' Reactions to Students

Students are no longer tardy to class while on WebCT. They are not dressed foul or inappropriately. Racism disappears, unless the instructor's knowledge of names includes race associations with particular names. Unfortunately, sexist and ethnic discrimination can still occur for students, and teachers for that matter, based upon name associations, but the WebCT system probably comes closest to achieving a meritocracy in academic spheres.

Teachers and students are blind to each other's reactions. They must assume what the "real" implications of online dialogue are suggesting. An instructor in a face to face setting, usually determines classroom comprehension from the occasional nods or even periodic dozing off of students. When an instructor does not get that immediate feedback, lessons are perceived as competent and comprehensible, although it may not be.

For boring lecturers, WebCT may be the saving grace of their teaching career. Research oriented professors can now provide a sampling of their expertise without regard for the student's ability to understand their presentations. Complex research issues can be explored at the students' pace and not jumbled into an over-sophisticated audible rambling.

Interview Example: Dr. Sybert

- She is the director of her department's program and is only teaching this course this semester. She is passionate about volunteerism and takes her position as a teacher seriously.
- She states that her department is soon going to have a common instructional designer so that classes will look more alike. She also communicates with her students via discussion boards and this is the second thing she checks after logging on. This allows the students to communicate with each other as well.

The class is divided into groups after an initial icebreaker and pretest which she uses to assess personalities and learning styles. She uses the discussion boards as a meeting place for the groups which builds deep online communities. She posts interviews online that she conducts with people who work in the field. They are similar to guest lecturers in a face to face class

- She likes that weekly assignments are auto-released based on the time frame she enters and she can release to individual students
- She doesn't know anything else and it is serving it's purpose
- For example, "Big brother is watching"! She thinks it's neat that you can track every move your student makes while on WebCT but is not interested in doing so. It is a good feature to use only when she hasn't heard from a student in a very long time
- She sees the stronger students helping the weaker students, and the weaker students are often weak because they are insecure and afraid that the professor didn't receive an assignment or for other basic phobias associated with the internet.
- Wednesdays are considered her online "office hours".
- She still does not use the chat function and prefers e-mail simply because the class is so large
- This was a wonderful interview and it seems as though the theme for this class is not disengagement, but is instead total involvement. She is especially interested in building little communities and relationships with her students online.

Students' Reactions to Instructors

In large core courses, instructors are often administrators. TAs are facilitators. Unless the instructor has made a deliberate effort to engage students in participation, most students will read their lessons and move on to other things. What seems to be a normal mode of communication in large, auditorium seating classes, appears to be more normal when online. Student interest in their instructors are usually initiated by the student. It is no different online. One instructor remarked about having online office hours. It was not asked whether she had much response, but the fact that she did not mention anything unusually different from keeping face to face office hours validates that students contact her just as frequently in both situations.

Interview Example: Eric

- We found it interesting that he said it was rare to come across a really good professor when he is a freshman and this is his first semester at any college or university. Is it possible that many people are flocking to web courses because they feel that professors are inadequate teachers? Could this WebCT phenomenon be a result of professors failing in the classroom? It is obvious that Eric really only spends a few minutes per week on PHED assignments unless there is a test the next day. He seems to be happy that he can get

through a core course so easily and with little, if any, interruption to his music schedule and with very little actual participation.

Interview Example: Tiffany

- She feels like this feeling of anonymity gives her access to so many opinions that she would not usually have the opportunity to hear.
- Some of the teachers take huge creative liberties to make their courses much more exciting, and in some cases, more interactive for the students who participate in them.

C. Class Communication in Online Learning by *Laura Williamsen*

Developing a New College Experience

It's no secret that the college experience has changed significantly over the past several years. The student body is no longer just comprised of young adults living on or around campus. Because getting a four-year degree has become so necessary in order to compete in the job market, enrollment numbers are always increasing and many adults are going back to school to begin or to continue their post secondary education. While many schools still offer the traditional liberal arts education, an increasing number of institutions are now focusing on offering job training because students are seeking not only a higher education but also a high degree of marketability. Students are more likely to be juggling school with full time jobs or careers, as well as family, and classes often have to be worked into an already full schedule.

College is traditionally thought to be a place where students come together to learn and to share ideas. But the conventional student experience, which includes shared living and social environments, is not the experience of many of today's students. UNT, though it is a state university, is considered by many to be a "commuter school". According to the University Student Survey from Spring of 2002, 34% of students live outside of Denton, either with relatives or on their own, and 45% of students travel more than five miles (one way) to get to UNT. Many students have turned to distance learning in order to work school into their lives. What this physical detachment does to the classroom dynamic that has, in part, characterized the college experience is an important issue to address, and our research this semester has provided a range of answers.

Is Student Communication Necessary?

There are a number of ways to foster class communication online, including email, message boards, posting discussion questions and responses, and having live chats. However, not all classes require that students communicate with each other at all. Whether or not class discussions and student communication are necessary is determined by the nature of the course—its size, the subject matter, the course material, etc. Our research shows that classes that are more focused on content than on process are more likely to facilitate and promote student interaction and discussion. Similarly, classes that simply fulfill a university requirement show lower levels of engagement, and some students have said they prefer to take these core classes online so they don't have to participate socially.

For example, students enrolled in the PHED class liked that they could do the required work on their own without having to sit through a lecture and have discussions. David, a PHED student, said he doesn't interact with classmates, except to ask when assignments

are due and things like that. (I should also note that this interaction is face-to-face, since the class meets twice per week.) David also said that WebCT was good for completing core requirements, since it makes it easier to 'get them out of the way'. Donna, Eric, and Rocky, also PHED students, said that they would study (and cram) with friends, but that they didn't use any communications tools offered on WebCT.

In contrast, many of the students interviewed from the other two classes said that class communication was a big part of their course work and that much of their online time was spent using the class communications tools. Several students say that online discussions allow them to participate more fully in the class dialogue since they aren't comfortable speaking up in class. Students have more time to perfect what they want to say, and to state opinions directly without having to worry about being interrupted or stumbling over their words. This goes to show that distance learning does not necessarily promote social detachment, but can actually encourage greater involvement.

For example, several students from the COMS classes mentioned how much easier it was to participate due to the anonymity that WebCT provides. Tiffany, a COMS student, is a rather quiet person, and she said that she participates more in a web format than she normally would in a traditional classroom. Janeane, another COMS student, likes that she can develop her thoughts before posting them on the discussion board. Commenting that she uses the Class Communications tool the most out of all the tools in her course, she says she has a regular dialogue with a certain group of classmates, and she feels intimately involved in the course.

Dissimilarly, one student from the COMS class said that while it was her favorite class and she kept in regular contact with her professor, she didn't feel the need to communicate with her classmates and she never used the chat options.

Liz, a student from the SLIS class, used email regularly to communicate for group projects. She said she did not use the chats because it was hard for her to coordinate meeting times with other students. She also agreed that WebCT has increased her class participation.

Can Online Communication Methods Create the Type of Social Environment Students Want (or Need)?

It's apparent that there are a number of ways students can communicate online, but do these methods really create a social environment comparable to that which is formed in a traditional classroom? Many students said that while they did participate in the discussions, often more than they would in face-to-face meetings, they still wished that they could put names with faces. It seemed important to many of the students that there be a more personal interaction than what the computer allowed.

However, Pam Sybert's COMS class did seem to offer personal elements. Dr. Sybert created an initial ice breaking exercise that allowed students to talk about their interests

and personal goals. This exercise also helped Dr. Sybert assess the learning styles of her students. Her class also had a joke-posting contest that promoted greater interaction and participation among the students.

An interesting point was made by Dr. Figa, the SLIS professor, when she expressed how important it was for undergraduates to get the traditional classroom experience. Learning face-to-face communication skills, actively sharing ideas, and building a rapport with classmates and professors is invaluable to students and should be an integral part of the overall learning experience. Her suggestion that distance learning be exclusive to graduate programs is understandable given these points, but since undergraduate classes and core requirements will undoubtedly continue to be offered online, perhaps more attention should be given to making student interaction integral in the course work so students don't miss out on opportunities to build communications skills.

D. Choosing to Engage or Disengage by Paula Brant-Proffer

High/Low Course Engagement

It is important to establish a comprehensive framework in order to contextualize emerging trends in the use of WebCT for distance learning education. Essentially this means characterizing today's students, their different purposes for learning, their varying interests, and understanding today's students as 'consumers' of education.

Themes explored in this section:

- Selective engagement
- Enduring the process
- Challenging the core curriculum
- Working for "easy grades"

Comparing our themes with the findings of Arthur Levine and Jeanette S. Cureton (1998) *When Hope and Fear Collide*, a strong correlation between the two studies allowed me to produce a framework for some of our research results.

Re-Centering Education

One key difference in today's students, as compared to those of the past, lies in the role of the university. For many college students today the 'university' is not in the center of their lives. Today, "students don't work their way through college; rather, they work college into their lives." (118)

More often than not, classes are one of many activities with work and/or family overriding in importance. This becomes recognizable as 72% of undergraduates are employed while attending UNT, 87% of those employed are employed off-campus. Forty percent are employed at more than 20 hours per week and 42% report that they work outside of Denton. For the graduate students, 84% were employed, 53% work outside Denton. (UNT 2002 Spring Survey)

Student choices to attend UNT were affected overwhelmingly by cost then location with their main motivations as getting a good job or getting a better job. This is in contrast to a desire for scholarship or learning as a purpose. (UNT 2002 Spring Survey)

Point and Purpose

Student's having high or low levels of interest might best be described as the life long learner verses vocational "goal-oriented" learner. (see: SLIS: Dr. Figa) The conversations with students on either side of the spectrum agreed in expressions of learner choice and autonomy but divided in action or purpose. The highly engaged students seem to embrace subject exploration, incorporating involvement into their schedules, and at times literally cultivating their relationship to the course. (see COMS; Janeane, SLIS; Will) However, the lesser engaged student often made references to tasks, duration, and process indicating an endurance or 'unspoken' means to an end. (PHED: David, Cari, Wes)

Levine, described the less engaged student as vocational learners and very goal oriented. 'They are enduring the processes and in some cases 'reject learning for learning's sake. Their educational goals are clearly instrumental. So, hard work equals an intellectual orientation. Time spent means achievement attained. There is no distinction between quantity and quality.' (124)

Security in the Curriculum

Another trend, in our study, found relevant and engaging content as highly valued by most students and in some cases affects their approach to the subject matter. (See: Phed Eric) While this might seem like a contradiction at first glance, relevance, once placed in context, makes sense. Today's undergraduate students are very 'issue oriented.' They are hardworking, but in general less secure of their purpose and more insecure about their ability to succeed after graduation, than their predecessors. Some students' question the importance and meaning of "redundant" core curriculum courses or irrelevant tasks within a course. Levine & Cureton account for this by saying undergraduates are 'very much aware of the world changing quickly around them'. He says they 'want to be assured that their curriculum is updated and they have a desire to discuss the changes.' (120-129)

Consumer Orientation

The students often evaluated course experience in much the same way they might explain any other consumer service they receive. Consumer oriented learning turns out to be another key concept in explaining and defining the student views and their approach to formal education through distance learning. When they are able to get in, get the service they need and get out hassle free, it is an accomplishment. (See: Acct, Jim) This materialized in the Phed. interview with Rocky, "He is almost proud of the fact that he spends only ten minutes a week actually doing work for the class" (Fieldnotes, Young and Durham). There is no doubt that student's want convenience with flexible scheduling and no hassle access. So, the "ease" of a class may be determined by a course saving them time and money. It could also be an indication of preference for concrete learning styles.

Learning Style and Grade Security

Levine and Cureton reveal that students exhibit a preference to concrete and active methods of learning. At times this can contradict the way faculties are 'predisposed' to teach from more 'global or abstract methods' and 'may be a source of frustration for both students as well as faculty'(129). Most of the students we interviewed commented on the organization of courses and appreciated predictability. From the very engaged student, to the ones who were enduring the process, they gained security from feeling more 'tangibly' organized and 'knowing' the process. (see: SLIS, Dr. Figa)

In many ways WebCT is meeting the modern needs of a society in transition. It is a tool which is able to battle the 'dueling needs' of the institution or faculty who is seeking to maintain or information which they feel is 'intellectually vital' and providing useful or practical education to the more vocational 'specialized' focused students. (165)

Relevant Survey Findings

Undergraduate Characteristics

According to Arthur Levine's study, as a group, current undergraduates might be described as having the following characteristics.

- Frightened
- Demanding of change
- Desirous of security
- Disenchanted with politics and the nation's social institutions
- Bifurcated in political attitudes between left and right; the middle is shrinking
- Liberal in social attitudes
- Socially conscious and active
- Consumer oriented
- Locally rather than globally focused
- Sexually active, but socially isolated
- Heavy users of alcohol
- Hardworking
- Tired
- Diverse and divided
- Weak in basic skills and able to learn best in ways different from how their professors teach
- Pragmatic, career oriented, and committed to doing well
- Idealistic, altruistic, and committed to doing good
- Optimistic about their personal futures
- Optimistic about their collective futures
- Desperately seeking to maintain the American Dream

Levine and Cureton: What undergraduates feel it is essential to get from a college education: 1969, 1976, 1993. (pg.118)

	Percentage of undergraduates saying essential			Change since	Change since
	1969	1976	1993	1969	1976
Benefits of a college education					
Detailed grasp of a special field	62	68	71	+9	+3
Training and skills for an occupation	59	67	70	+11	+3
Well-rounded general education	57	57	57	0	0
Formulating the values and goals of my life	71	62	50	-21	-12
Learning to get along with people	76	66	47	-29	-19

Source: Undergraduate Surveys (1969, 1976, 1993).

UNT Comparison Surveys (Condensed)

A. What is Important to Students at UNT, Spring 2002 Survey

		Great	Somewhat	Little	None	Mean	Delta Mean
78	Course schedule that allowed a flexible work schedule	47%	30%	10%	10%	3.14	-0.52
84	Meeting expectations	31%	39%	16%	14%	2.86	-0.35
87	Feeling connected to the UNT Campus	21%	36%	24%	19%	2.60	-0.42
89	Major that fits academic goals	64%	24%	7%	5%	3.47	-0.52
95	Maintaining family relationships	48%	29%	11%	12%	3.14	-0.16
105	Making academics a priority	43%	35%	12%	10%	3.11	-0.36
106	Active social life style	27%	35%	18%	26%	2.68	-0.08

B. Why Students Choose UNT, Spring 2002 Survey

2002 Yes		2002 No
Academic reputation of UNT	24%	76%
To obtain a degree that will provide entry into my chosen field	68%	32%
To prepare me for graduate school	20%	80%
To get a high-paying job	35%	65%
To make progress in my ability to think analytically and logically	23%	74%
Low/Moderate Cost	57%	43%
Availability of co- curricular activities	2%	98%
Available jobs while attending classes	10%	90%

ORGANIZATIONAL AND TECHNICAL ASPECTS OF WEBCT

6. WebCT Resources: A Tale of Distributed Knowledge *by Norma Ramon*

Knowledge about and Responsibility for WebCT are Highly Distributed

The wide range of WebCT users require that there are various WebCT resources and an easy access to these. This causes WebCT's responsibility to be highly distributed with one main source, The Center for Distributed Learning, and a few sub sites with varying degrees of resources for WebCT users. These sub sites are disjointed in that they vary in the information provided and in their association to other resource sites. Because of the nature of Distributed Learning, some sub sites are more readily available over the Internet instead of over the phone or in person.

Examples of these are the main WebCT site at <http://www.webct.com> (not specific to UNT), and The UNT WebCT Faculty and Student Resource sites which can be accessed by following the links at <http://webct.unt.edu/>. Additional sub sites which are not limited to internet access include the UNT ResNet office found at <http://housing.unt.edu:8080/>, or contacted M-F - 9AM-7PM at 940-369-7766 and the UNT Computing Center Help Desk which can be found at <http://www.unt.edu/helpdesk/> or contacted M-R 8am-midnight, F 8am-8pm, Sat 9am-5pm, and Sun 1pm-midnight by phone at 940.565.2324 and in person in the Information Sciences Building, Room 119. Although these sites seem to cater to all types of communicators, both personal and impersonal, these are still underused.

Lack of Cohesion in WebCT Resources

The various WebCT resources seem to be independently run and lack a smooth transition from one to the next. They are all working toward the same goal of creating a user friendly, positive and engaging learning experience for all students in each of the diverse courses. Yet, each resource seems to only have partial information on the various resources. For example, the ResNet resource page which many dorm room residents use in order to have Internet access, does not have a "Links" page with links to other resource sites such as the Computing Center's Help Desk and the WebCT Student Resource site. These sites would benefit from having a consistent links page where students could have all the resources on one page.

Multiple Types of Users and Stakeholders in WebCT

The Center for Distributed learning is the hub of WebCT and the source of Faculty training (Online Course Design, Interface Design/Multimedia, etc), workshops such as the Distributed Learning Strategic Planning, and informational presentations such as the CDL Brown Bags. The CDL is specifically geared toward the needs of faculty in that

they provide consultation on course design and administration, production of media design, schedules, and cost analysis, marketing of programs and courses, and information on copyright issues.

These training and technical sources give professors the option of creating a rich learning experience on WebCT. If utilized, these resources can provide an immensely interactive and positive learning experience for the student. In addition, training and consultation allows professors to provide “perks” such as an easy navigable online course, discussion groups that save students from having to read hundreds of messages and convenient ‘drop boxes’ for students to turn in homework and receive a confirmation email that their work was received.

For specific technical questions, faculty, TAs and students may utilize the main WebCT site, which answers general technical questions but also provides a searchable WebCT Support Knowledge Base and an “Ask Dr. C” where users can post questions. The only drawback is that most of the problems posted are specific to the course and the user is advised to contact their professor. CDL also employs one person to provide WebCT Student Support.

~~These sites partly address the specific needs that the various WebCT users require. The WebCT resource site, which has different links for Faculty and Students, and the Computing Center Help Desk site provide the most comprehensive source of Trouble shooting information. These two sites have a vast amount of information that is being underutilized.~~

Of the students interviewed, few used the resources available. The rest either did not care to look at the resources or did not know about them.

- Helen COMS and Janeane COMS, stated that they had used the WebCT resources such as the Computing Center help desk.
- Jim ACCT, Cari PHED, Eric & Rocky PHED, and David PHED were aware of the student resources page but had never used or even looked at it,.
- Tiffany COMS, had glanced at it but decided to figure out the problem on their own.
- Liz SLIS, was confused as to who the “Technical Person” was and thought the TA in her online course was the main technical person.
- Will SLIS, had no idea who to contact in case of technical problems.

Most of the students contacted the professor or TA, usually through email, when they experienced technical problems. Although this may have solved the problem for them, it ignored the extensive amount of information available.

Likewise, the tutorial was underused by most of the students. Only three students (Jim ACCT, Janeane COMS and Will SLIS) had used the tutorial. All three said that it was beneficial and that they recommended it.

- Of those students who took the tutorial, one, Jim ACCT, only completed it because he thought it was required.
- Two students, Helen COMS and Liz SLIS, did not have the time to take the tutorial. Helen who said she took a WebCT class to save time, said it took her about 3 hours to figure out how to use WebCT on her own (about the same length of time as the tutorial).
- Likewise, Liz, a SLIS student said she did not have that much time to do the tutorial, she only had short sporadic moments of time so she choose instead to learn it on her own which took her about 3 weeks.

Most students, like Helen and Liz, choose to learn to use WebCT on their own even though this method took just as long and sometimes longer than the length of the tutorial. There seemed to be an aversion to using the tutorial as an integral part of WebCT. A more thorough study of the tutorial and WebCT resources would be needed to find out why these valuable tools are not being used as much as they should.

Perhaps a counter could be added to the page which would record the number of times each resource page had been looked at or searched for. This could provide some valuable information as to what resources are actually needed and useful. Likewise, a study of the number of human errors made on WebCT such as when homework gets posted on the wrong site, could help in determining what kind of resources to offer in order to make them more useful. Although rich in information, these sites are not very popular with students and need to be studied further.

Conjunction of WebCT and its Resources

Even though there are massive amounts of resources for the WebCT user, its potential is diminished by its lack of cohesion. If these resources were centrally located, at least in cyberspace, they might be more utilized. Also, perhaps a study of the tutorial would shed light on why it is not being used as much as it should be. It is obviously a source of beneficial information as has been the experience of those who have taken the time to use it, but for now it is not being used. Further study could develop more widely accepted tools.

7. Learning to Use WebCT by Amy Durham

Learning to use any new product can be time consuming and a bit unnerving. Now imagining that a grade (or in the future your very job) depends on you learning in a such a way that you are efficient and effective. Unfortunately we can't all be experts. There are however tools that we can utilities that allows us to not only accomplish our goals but to use the new skills and apply them to elsewhere. WebCT has those tools, but is anyone using them? If they are being utilized is there a way to make the learning experience faster and more effective?

Learning styles can differ from person to person. Even at the university level, the teaching style of each educator prevents the method of learning to be the same across the board. WebCT is no exception to this. WebCT is and can be as individual as its creator. The program itself is consistent until the content of the class is added and the educator stylizes it to her or his own likening. This in itself can be seen as advantageous. However since the interface is altered so much after the course content is added, there can be confusion. So then how do the students and the educators learn to use WebCT? Let us First examine the course creators as their role will be to change the interface and mediate the content between themselves and the student.

Course Designers

Most often the course content is from the professor, however their content might be placed or stylized by another better trained person or one more comfortable with WebCT. How do the course designers themselves learn to use WebCT? First we should be familiar with they ways one could learn to use WebCT. The following is a list of responses to how the they learned to use WebCT:

- The course designers' tutorial located on <http://courses.unt.edu/webct/faculty/faculty.htm>
- Personal help from the Center for Distributed Learning (CDL)
- Other professors or course designers
- Learn as they go

Most often the design of the course has been left to the discretion of the educator. Though the WebCT personnel are helpful in providing outlines/guidelines, each of the professors from this study elected to create the course on their own. Though it should be noted that each of the course creators did comment on the fact that WebCT people helped them a great deal and were very helpful. Only one of the professors mentioned taking the tutorial, and she noted that she took it a few times with the expectation of forming a class. When the class did not develop for that semester she retook the tutorial until the class was in fact formalized. Another professor expressed that she chose to design her own course Although the CDL personnel do offer standardized course designs.

Students

The way students learn can be and often is different from the way professors learn. Two of the most prevalent themes to emerge from the data collected in regards to learning WebCT were

- Time management
- Interest in the subject

Time management is and will continue to be an issue for students who are just learning to juggle classes with work and trying to keep up active social lives. The overall interest in the subject matter is the second theme prevalent in the data. Though it should be noted that this was mainly an issue with the PHED classes as this is a required course. Almost all of the students reported some general lack of interest or apathy towards this class. The upper level classes had some degree of choice freedom in taking the class.

For students, WebCT was primarily a “learn as they went” process. In the PHED class, students are initially exposed to WebCT through a tutorial the first day of class. Only this class actually met face-to-face (once or twice a week depending on schedule, for the “lab” where students engaged in physical exercise).

The following is a list of the ways the students learn to use WebCT as reported to our interviewers:

- PHED students learned mostly from the mini tutorial given by TA’s the first day of class
- Learned as they went
- Help from professor
- Help from other students
- Called Help Desk (though they only help with the sign in procedure)
- Utilized tutorial

Only one student reported that they actually used the WebCT tutorial. This may be because the tutorial itself is lengthy. Another student (Donna) noted however that though she did not take the tutorial she spent a comparable amount of time trying to figure WebCT out on her own. One of the students, Tremmelle Jones reported that the tutorial was too long. These two students felt that the tutorial would take too much time.

Analysis of Data and Some Recommendations

The students all seem to be able to work their way through WebCT as it noted to be somewhat user friendly. The Center for Distributed Learning is of great importance to the professors and/or course designers. They play a major role in the support of the professors for mostly technical assistance but the content and design of the courses seems

to be individualized by the designers themselves. Time or lack thereof seems to be the main reason for not taking the tutorial for both student and professors.

The following is a list of recommendations and/or comments from interview subjects and researchers:

- Some instructors may assume that WebCT is self-explanatory, assuming all students have same computer literacy. This is not necessarily true and the professors should plan course content accordingly
- Most students will not want to take a 3 hour tutorial. Most prefer to learn on their own or have an introduction to the class such as the PHED students get.
- First day of class idea: face-to-face meeting for at least one class. This is to help put faces to names.
- If this is not possible, personal profiles with pictures and a biography would be helpful.
- Make video of first day, send to students who are more than 50 miles away
- Instructor teaches students WebCT if there is a meeting time
- Instructor collects alternative email addresses or contact information in case of WebCT problems

- Freshman orientation should have a training session for WebCT (a brief overview of WebCT and its advantages)
- Orientation for individual classes (maybe hold multiple orientation sessions for big classes)

8. Technical Evaluation of WebCT by *Debbie Davis and Layli Pham*

Introduction

The vast array of computer technology available makes using a common technology challenging in some cases. WebCT provides technology-based education to users who have a myriad of levels of technological resources ranging from technology released in the early 1990s to the most recent. Although the minimum requirements for WebCT appear to make the technology usable on the most outdated of computers, many of the classes use additional technology that requires newer equipment in order to be proficient.

It became clear from observing students taking WebCT courses from The University of North Texas that quite a few students as well as faculty were having various technical problems with WebCT. This observation led to a detailed investigation of the technical information available to students, minimum requirements for technology, problems with plug-ins, problems with browsers that were listed as being supported, issues with class design options, and WebCT downtime.

A thorough test of Windows 98, Windows NT, Windows 2000, Windows ME, and Windows XP concluded that the operating system used is not the cause of any of the technical difficulties identified during the study of WebCT.

The technical research has been broken down into the following categories:

- Minimum System Requirements
- Shockwave Difficulties
- DLS/Cable Modem users verses Dial-up users
- Acknowledgement of Assignments
- WebCT Outages
- Log Off Button
- Web Browsers
- Training Issues

Minimum System Requirements

The University of North Texas (UNT) does not require students to have a computer, which is a good thing. Students are free to use personal computers at home or computers in the various computer labs around campus for homework, research and of course WebCT courses. During our research of WebCT's technical side, we found that the minimum requirements listed on the UNT distance-learning page will not support the WebCT classes.

Many of the courses offered via WebCT require plug-ins such as Shockwave, Real Player One, and Adobe Acrobat Reader. Graphic intense programs require a significant amount of computer resources. Shockwave for example, recommends at least a Pentium II with 32 megabytes (MB) of memory and Real Player One recommend a minimum 233-megahertz (Mhz) Pentium II computer with 64 MB of memory. On UNT's distance learning center's website the system requirements are listed as Windows 95 or higher, a 486 100 Mhz with 16MB of memory:

System Requirements

The following are the minimum system requirements for using WebCT as a student or designer:

PC Platform:
 Windows 95 or higher
 CPU: Intel 486 100Mhz
 Memory: 16MB of RAM

Figure 1 http://courses.unt.edu/WebCT/student/WebCT_trouble.htm#system

Unfortunately, these minimum requirements do not meet the minimum recommendations for Shockwave, Real Player One, QuickTime, and Adobe Acrobat Reader, the plug-ins used by the various classes. Table 1 lists the various plug-ins and their minimum requirements.

Software	Minimum Requirements	Memory Used when Running
	Windows 98 or higher	13,300 idle
	PII 233 Mhz 64 MB memory	15,000 playing a small video.
Real Player One	Recommended requirements: PIII 300 Mhz 128 MB memory	
Shockwave	PII or higher 32 MB memory	
Quicktime	Windows 98 or higher	13,132K idle
	Pentium 32 MB memory	16,000 playing a 1.4MB file
Adobe Acrobat Reader	Pentium Windows 98 or higher 64 MB memory	21,060K

	30 MB disk space
Internet Explorer	3,280K idle 27,000 playing a 1-minute streaming video clip.

A student researching whether their computer meets the minimum requirements for a WebCT course will be misled by the requirements listed on UNT's distance learning website. The minimum requirements listed on the UNT website are not enough to display the graphics and run the plug-ins. The minimum requirements should match that of the highest minimum requirements of a plug-in or other required software. In addition, the disk space required for the plug-ins or other software for the course should be listed as well.

Shockwave Difficulties

The biggest technical issue with the PHED 1000 class is with Shockwave. While interviewing the PHED 1000 instructor, he himself was not able to get Shockwave to download on his office computer; however, he stated that he did not feel that students experienced many problems with the PHED WebCT course. It should also be noted that Shockwave is required to take any quiz in the PHED course.

The PHED 1000 TA stated that many students who access the class from home do not have Shockwave installed on their computers. A couple of the students interviewed were not able to get Shockwave to work during the interview. However, one student who accesses the PHED class from various computer labs on campus was not even aware of the Shockwave downloads.

PHED students like Donna, Rocky and Eric had minor difficulties with downloading Shockwave. Many times Shockwave would freeze up and the computer would have to be re-booted. This occurred during our interview with Doctor Jackson, the PHED instructor and during many of the interviews. During the interviews, we noticed that students had to download Shockwave each time they wanted to work on the interactive Anatomy guide. When checking the Shockwave website for download problems, we found that Shockwave is usually pre-installed on most browsers. When upgrading to the latest Shockwave player there can be a conflict, which causes the player to freeze.

An earlier version of Shockwave Player is pre-installed with most popular Internet browsers. Sometimes, damage to the Shockwave Player that's already installed can prevent your upgrading to the latest Shockwave Player. This can usually be fixed by uninstalling, then reinstalling, Shockwave Player.
 Note: In some cases, it's actually the browser which is preventing the successful installation of Shockwave Player. In such instances, simply reinstalling Shockwave Player may not work. Reinstalling or updating the browser, then

installing Shockwave Player should take care of this.
(http://sdc.shockwave.com/support/shockwave/ts/documents/playerfaq.htm#4_2)

Another possible reason for the error is the ActiveX controls in Internet Explorer. In some security settings, ActiveX controls cannot be installed. Future attempts at installation will end in an error.

When Internet Explorer on Windows encounters a request from a page to download a new ActiveX control, an option is provided to allow the user to prevent the specified ActiveX control from ever installing in the future. If this option is selected when you encounter Shockwave or Flash Player ActiveX controls, future installation attempts of these controls will fail.
(http://sdc.shockwave.com/support/shockwave/ts/documents/playerfaq.htm#2_2)

DSL/Cable Modem Users vs. Dial-up Users

During our observations and interviews one of the questions we had was concerning modem verses dial-up. Were dial-up students at a disadvantage? Some of the courses required students to download lectures and graphics, upload files, and even download and install software. In PHED 1000 there is a shockwave based interactive Anatomy tutorial. In the SLIS 5400 class, the students use Real Player One and Voice Scripting software for the streaming videos and class assignments.

The PHED 1000 Instructor stated that he felt that his students would not have any trouble with the PHED class using a dial-up connection. However, this does not appear to be the case. One PHED student accessed the class from an older computer with a dial-up connection and felt that it made completing the class a bit tedious.

A SLIS student with a DSL line complained of the choppiness of videos in his class although he had a high-speed connection. He stated that the video and audio often were not in sync in the streaming videos they were required to watch for the class. A COMS student stated that she does not access her class from home because her dial-up connection is too slow.

If a student does not have the software on their computer, the software must be downloaded. For students using the computer labs on campus download times would not be a problem. However, for students using a dial-up modem at home downloading could be a problem in two ways.

The download time of the files is very time consuming. As shown in figure 1, Intel estimates that a 3 MB file on a 56K modem would take 9 minutes to download. In Table 2 you will see that 3.2 MB is the smallest file the students have to download. Depending on the student's dial-up agreement with their ISP, downloading a large file may use up a student's allotted time on-line and tie up the phone line.

The second drawback is that streaming video could be near impossible to view. One SLIS student, Will, has a cable modem and reported the streaming video was choppy in some places and could not imagine taking the course with a dial-up modem. Although there is streaming video compression software that would help in this area, UNT should highly recommend that students taking a WebCT course have DSL or cable modem. Requiring WebCT students to use the computers on campus would defeat part of the reasons for taking WebCT... flexibility of time and space.

Below is a table prepared by Intel regarding download times.

The following table will give you approximate download times for different modem speeds:

Approximate Download Times

Modem Speed	Small Graphic (30 KB)	Full Size Movie (1 MB)	Application (3 MB)
28.8 kbs	10 seconds	5.5 minutes	16.5 minutes
56 kbs	5 seconds	3 minutes	9 minutes
T1 Line	1 second	30 seconds	1.5 minutes
Cable Modem *optimal value	.5 seconds	5 seconds	15 seconds
DSL	5 seconds	5 seconds	15 seconds

**Intel assumes no responsibility for errors or omissions which may occur. Intel in no way makes any warranties or endorsements, express or implied, pertaining to the above documentation(s).*

Figure 4 <http://modemsupport.intel.com/knowledge/root/public/inbb8.htm>

Table 2

Software	Size	Approximate Download Times*	
		28K modem	56K modem
Real Player One	7.10 MB	36.6 minutes	21.5 minutes
QuickTime	4.3 – 10MB	22.1 – 51.5 minutes	12.1 - 28.1 minutes
Shockwave	3.2 MB	16.5 minutes	9 minutes
Adobe Acrobat Reader	8.6 MB	44.3 minutes	24.2 minutes

*Based on Intel's table of approximately 5.15 minutes a megabyte for a 28K modem and 2.81 minutes a megabyte for a 56K modem

Acknowledgement of Assignments

Another common concern we heard from the students was they did not receive an acknowledgment when an assignment was completed. A PHED student expressed concern about there not being any homework confirmation. A SLIS student stated that after a student submitted an assignment, if the due date had passed and the instructor had not graded it, WebCT displayed a message stating that the assignment had not been received. The COMS instructor stated that she personally responds to students to let them know that she received their assignments.

WebCT version 3.8 does allow the instructor to set-up the acknowledgement feature. In the assignment settings section there is an option to acknowledge a student's submission of an assignment (see figure 3). It should be noted that this would have to be turned on for each assignment.

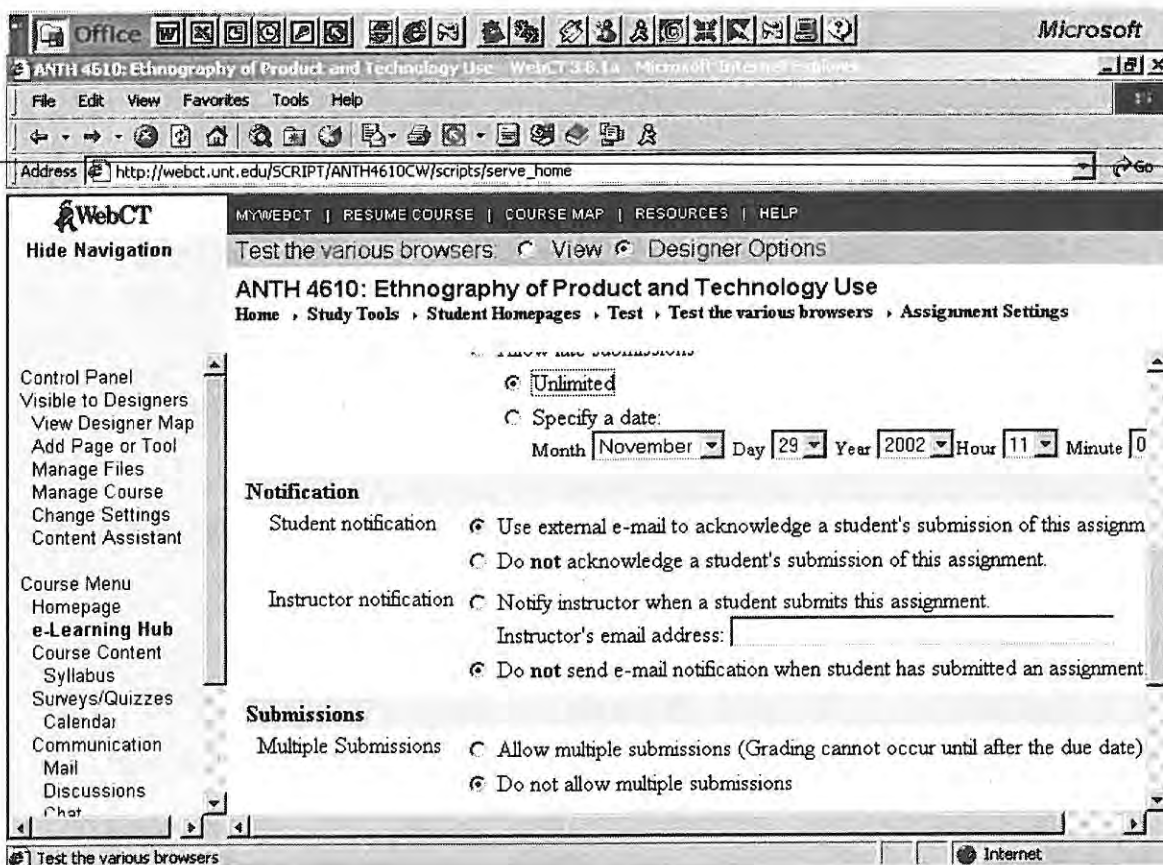


Figure 3

When this feature is turned on, the students will need to provide an E-mail address for acknowledgements (figure 4). Perhaps all assignments should have this feature enabled and the student may decide if they want the acknowledgement.

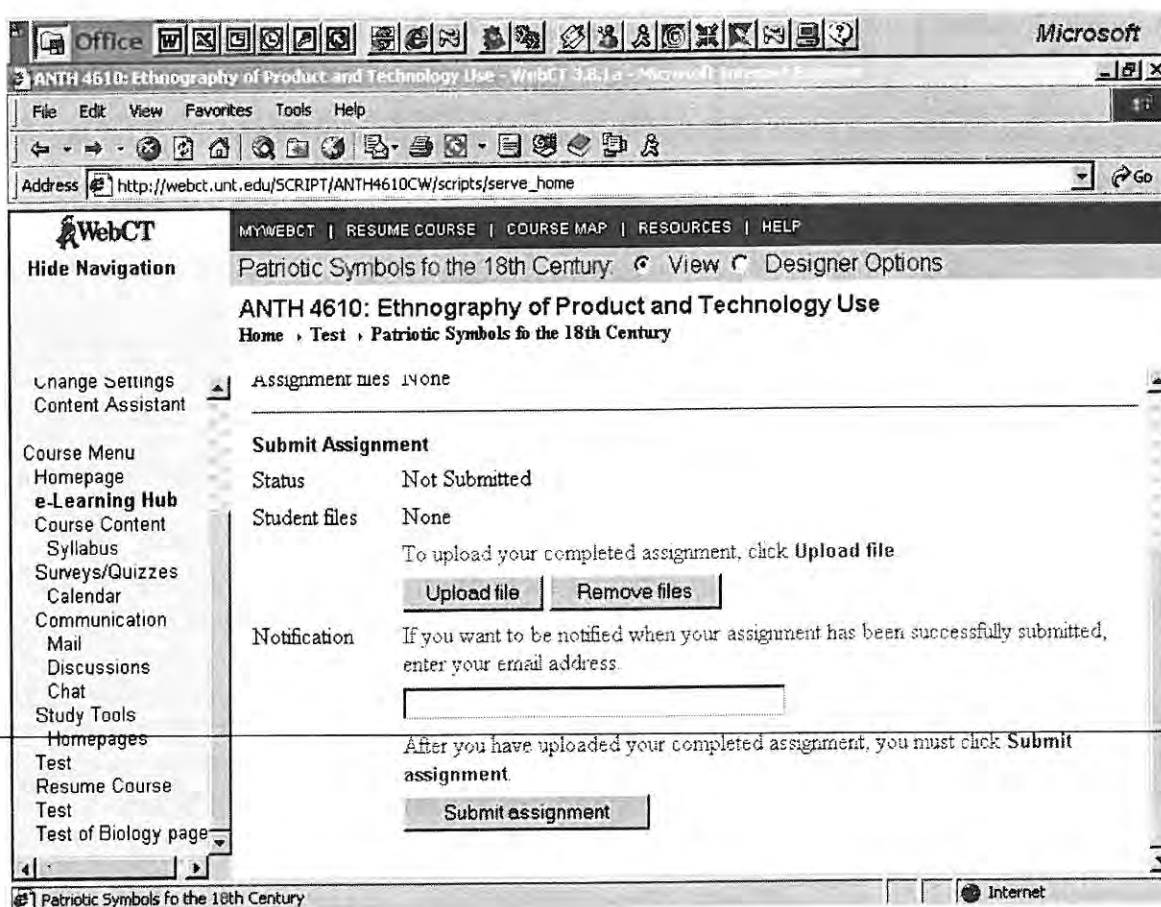


Figure 4

WebCT Outages

We all get that sinking feeling when we attempt to turn an assignment in before the deadline and get the dreaded “unable to connect to server.” Part of WebCT is the hardware and as we all know hardware will fail at some time or another. During our research, the SLIS professor expressed needing an alternative way to contact students when WebCT is down. During her interview, she stated that WebCT had been down that weekend and she had an assignment due for her class. She needed a way to e-mail their personal e-mail accounts in order to let them know that the system was down and they could turn in their assignments when the system was back up. Another issue that arose was that it would be nice for an e-mail to be sent to all WebCT student’s e-mail of choice when the system is down.

UNT’s WebCT page offers suggestions but one has to navigate through several windows to find an answer. For example, to get to the section “When Technology Fails” the student has to click on the Student Resources link on the WebCT web page, navigate to WebCT and find out what to do. Or the student has to click on the WebCT General

Information and Troubleshooting link for information. Several things may be done to alleviate the sinking feeling when WebCT is down.

1. Use a dedicated voice mail system that students may dial into to listen for system outage information.
2. On the WebCT homepage, put in huge red letters **Network Down**
3. On the WebCT homepage, put a system status section:
 - System status – Network is up
 - System Status – Network is down
 - System status – Network is up. WebCT will undergo scheduled maintenance Saturday, December 7, 2002 from 0200 – 0400 hrs.
4. Professors could send group e-mail to their students, using an outside E-mail address, advising the students of the outage.
5. ITS could send a group e-mail to the faculty when there is going to be scheduled maintenance. The faculty in turn, could notify the students.

6. Instead of having to navigate through a series of web pages put “When Technology Fails: Emergency Instructions on the WebCT homepage.

Logoff Button

During our initial research of WebCT, we found there was no log-off button. This raised concerns for us about security. During the interviews, a PHED student said it concerned him that there was not a log out button and he was concerned that someone else may access it. A COMS student also mentioned concern about there not being a logoff button.

The logoff button is part of the programming and although there is nothing the UNT distance learning staff can do about adding one, perhaps a reminder to close all the way out of their browser would help to alleviate the security concerns.

Supported Browsers for WebCT 3.8 and WebCT Vista

Two issues involving web browsers arose from the study of WebCT. The first was that some students were confused or had inaccurate information on what versions of the browsers were supported. The second issue appeared to be that even some of the supported web browsers either had problems or were hard to obtain. The following is the list of supported web browsers on the official WebCT web site followed by a few issues we discovered while testing WebCT on various web browsers.

The UNT WebCT page provides a link to the following WebCT page: “WebCT Browser Tune-Up” which gives detailed information regarding which browsers are supported by different versions of WebCT. UNT currently uses WebCT version 3.8 but will be moving to WebCT Vista.

WebCT 3.8

- Netscape 4.76, 6.2.1, 6.2.2, and 6.2.3 (PC & Mac)
- Internet Explorer 5.0 to 6.0, except 5.5 Service Pack 1 (PC)
- Internet Explorer 5.0 and 5.1 (Mac OS 9.x)
- Internet Explorer 5.1 (Mac OS 10.1)
- Internet Explorer 6.0
- Internet Explorer 6.0 Service Pack 1

-
- AOL 7.0 (PC & Mac)

WebCT Vista

- Netscape 6.2 (PC & Mac)
- Internet Explorer 5.x and 6.0 (PC & Mac)
- AOL 7.0 (PC)
- AOL 5.0 (Mac)

Problems Identified While Testing Browsers

Problem with Pop-Up Windows in Internet Explorer

A common problem in Internet Explorer is that if there is another window minimized, any links for pop-ups will open in the minimized window but will not pop-up on the screen. This problem may lead the user to believe that the link does not work. This problem exists in supported browser versions of Internet Explorer.

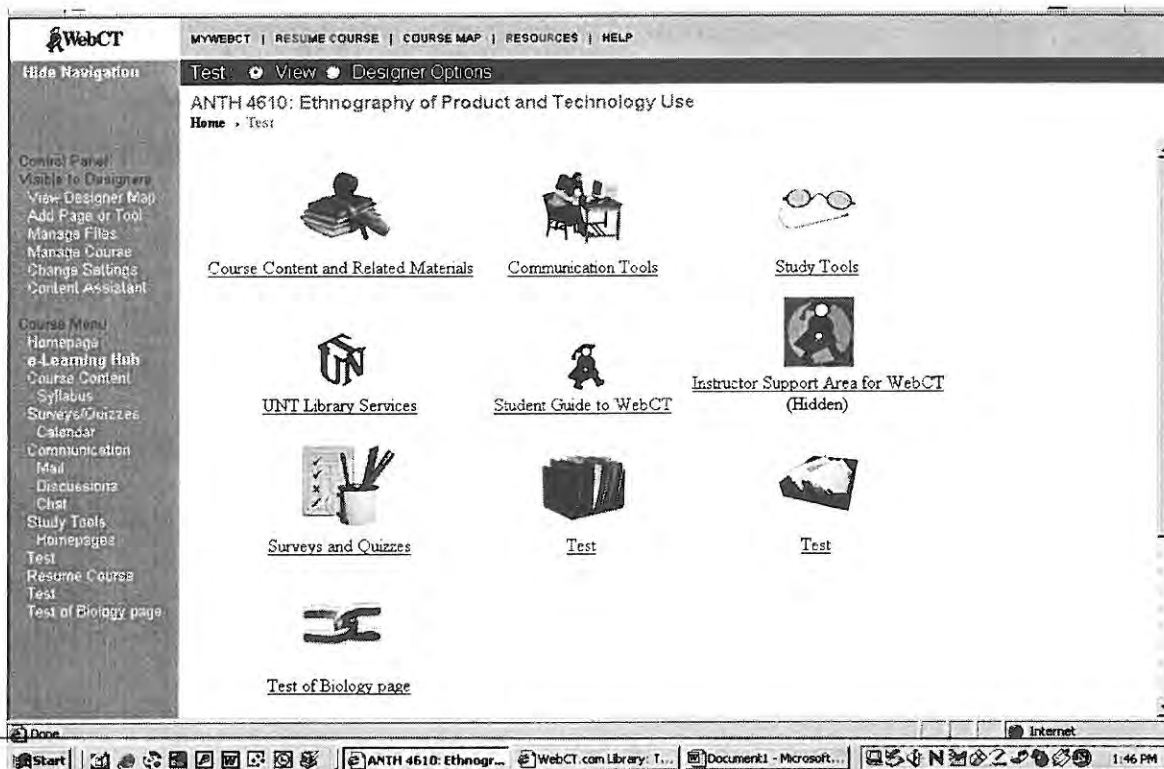


Figure 5 Screen after clicking on "Test of Biology Page". The page opened in the minimized Internet Explorer browser window.



Figure 6 Screen with second browser window minimized before clicking on link.

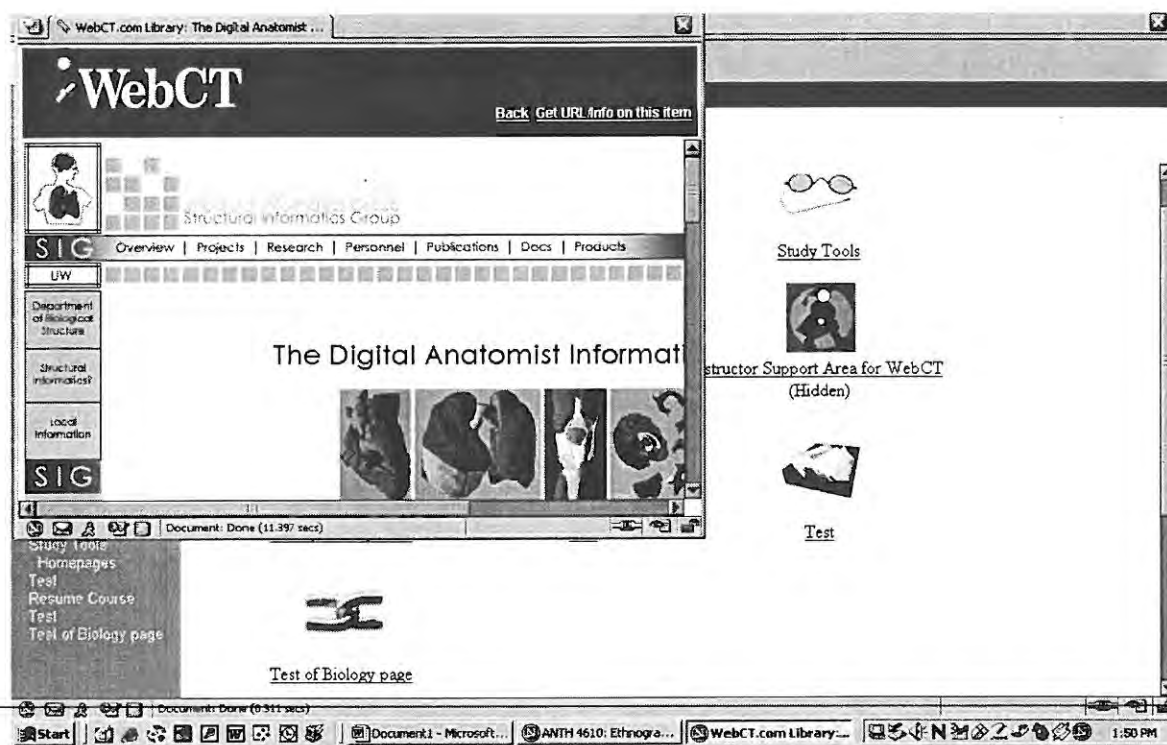


Figure 7 Screen after clicking on link.

Problems with Right Clicking on Toolbar for Pop-up windows in Supported Versions of Internet Explorer.

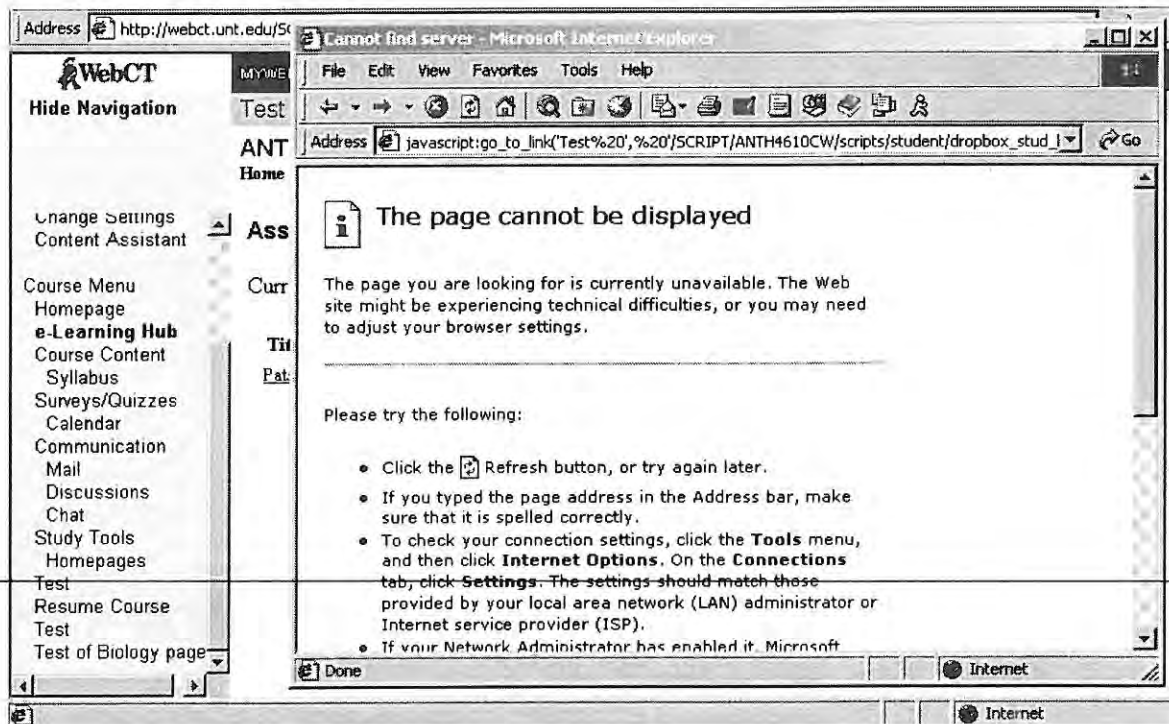


Figure 8 This error was the result of right clicking on a toolbar link in Internet Explorer.

Problem with Netscape

Netscape.com provides Netscape 7.0 for downloads from their main page. Older versions of Netscape, which are supported by WebCT, are located in their archives but are not easy to find. The “Student guide to WebCT” link within WebCT does provide information on how to locate the older versions of the browsers. Netscape 7.0 is not supported by any version of WebCT.

Training Issues

The Instructor training for designing WebCT classes appears to be inconsistent which is apparent in the design of the courses. Some instructors take the online training while others learn on their own. It became apparent from the complaints of the students that some professors were not aware of some helpful design features in WebCT. Other students who took multiple web classes were frustrated that features they used on a

regular basis were in different locations for each class causing them to spend time searching for the feature.

A PHED student expressed frustration over only being allowed to open one window at a time in a particular part of her WebCT class where it was necessary to have multiple windows open in order to view all necessary information. A COMS student expressed the desire for all of her classes to have consistent layouts or she would like the ability to rearrange her icons herself to have consistency between her classes and clean up clutter on the screen. The COMS instructor stated that inconsistency in class setup causes students to post assignments in the wrong place or be confused. We believe that consistency in training of course design could lead to less frustration among students and better use of time.

Conclusion

As a whole, WebCT is a good tool for presenting and having on-line classes. Some institutions have on-line courses but do not use WebCT. Attempting to accommodate thousands of student's technical needs and hundreds of faculty member's technical needs is a huge project. ~~UNT appears to be doing a good job. As with any venture, there are~~ always ways to improve our tools. Sometimes simply changing the location of a help file, adding a more stringent recommendation, or expanding upon the FAQ file could enhance UNT's WebCT. We hope this study will be the beginning of technical improvements to WebCT.

Re-Cap of Major Recommendations

- The minimum requirements should match that of the highest minimum requirements of a plug-in or other required software.
- The disk space required for the plug-ins or other software for the course should be listed.
- Recommend students taking a WebCT course have DSL or cable modem.
- All assignments should have this feature enabled and the student may decide if they want the acknowledgement
- Use a dedicated voice mail system that students may dial into to listen for system outage information.
- On the WebCT homepage, put in huge red letters **Network Down**
- On the WebCT homepage, put a system status section:
 - System status – Network is up
 - System Status – Network is down
 - System status – Network is up. WebCT will undergo scheduled maintenance Saturday, December 7, 2002 from 0200 – 0400 hrs.
- Professors send group e-mail to their students, using an outside E-mail address, advising the students of the outage.

- Move the FAQ file to the main page and improve it.
-

Appendix: Interview Guides

A. Interview Guide for Professors

B. Interview Guide for TAs

C. Interview Guide for Students

WebCT Interview Guide - Professors

Who are you?

- How long have you been teaching?
- How long have you been at UNT?
- How many WebCT courses have you designed and taught? What are they?

Distance learning

- What do you see as the advantages of distance learning over classroom instruction?
- What do you see as the instructional challenges in distance learning?
- What kinds of classes do you think distance learning is best suited for?
- What do you think UNT's motivations are in promoting distance learning?
- What do you think the implications of distance learning are for the future of education?
- Overall, do you think that students are getting the same level of education online that they would get in a f2f class?

WebCT

- How and when did you first hear about WebCT?
- What was your initial reaction to it?
- What do you see at the strengths and limitations of WebCT?

Technology comfort

- Do you feel comfortable using computers and the internet?
- Have you increased your computer knowledge from the course?
- Are you aware that there is a faculty resource page in WebCT? Have you used it? When, why, how often?
- Who handles the technical problems for your class?

Students' perspective

- What is your general sense of how students feel about distance learning?
- Are students different in your on-line courses from f2f courses?
- Do you feel like you're more or less accessible to students compared to a f2f course?
- Do you feel that students are getting in contact with you when they need you?
- How does WebCT accommodate different learning styles?
- How does WebCT accommodate students with disabilities?
- What are the most common problems students report?
- How do you build flexibility into your course for the

technical problems of students?

Origins of the course

- How did this class come into being?
- What were the motivating factors?
- Is there pressure within your dept or school to develop online courses?
- How long did it take to develop the course?
- Did you receive some kind of compensation?
- What resources were available to you as you were developing it?
- What kind of training did you receive? What did you think of it? Strengths? Limitations?
- What are the differences in designing a f2f versus an online course?
- Do you feel that on-campus elements are necessary for this course? If so, what elements? Why?

Describe the course

- Could you tell us about this course? What is the topic?
 - How many students are there?
 - How often have you taught it?
 - Is your course self-paced? How much do you control the speed of students' progress?
 - Are your evaluations online different from f2f?
 - If you have a TA, what does the TA do versus what do you do?
-

Time/place of use

- What are the places where you usually access WebCT? [state where they are – home, work, etc.]
- What time of day?
- How long each time?
- Did you have to configure your computer any differently to make WebCT work?
- Do you use Netscape or Internet Explorer? What version?

Show us the course on WebCT

- What are all the elements of this course in WebCT?
- [For each aspect] Could you show us?

Suggestions

- Do you have any suggestions for improving WebCT?

WebCT Interview Guide - TAs

Who are you?

- How long have you been at UNT?
- What's your major?
- What's your focus within the program?
- Do you plan on going into academia?
- Do you see yourself using WebCT in the future for your own classes?
- How many WebCT courses have you TAed? What are they?
- Have you taken an online course yourself?

Distance learning

- What do you see as the advantages of distance learning over classroom instruction?
- What do you see as the instructional challenges in distance learning?
- What kinds of classes do you think distance learning is best suited for?
- What do you think UNT's motivations are in promoting distance learning?
- What do you think the implications of distance learning are for the future of education?
- Overall, do you think that students are getting the same level of education online that they would get in a f2f class?

WebCT

- How and when did you first hear about WebCT?
- What was your initial reaction to it?
- What do you see at the strengths and limitations of WebCT?

Students' perspective

- What is your general sense of how students feel about distance learning?
- Are students different in your on-line courses from f2f courses?
- Do you feel like you're more or less accessible to students compared to a f2f course?
- Do you feel that students are getting in contact with you when they need you?
- How does WebCT accommodate different learning styles?
- How does WebCT accommodate students with disabilities?
- What are the most common problems students report?

Designing the course

- Do you know if there's pressure within your dept or school to develop online courses?
- Did you have input in designing the course? This year's version?
- If yes, what resources were available to you as you were developing it?
- What kind of training did you receive? What did you think of it? Strengths? Limitations?
- What are the differences in designing a f2f versus an online course?
- Do you feel that on-campus elements are necessary for this course? If so, what elements? Why?

- Describe the course***
- Could you tell us about this course? What is the topic?
 - How many students are there?
 - How often have you TAed it?
 - For SLIS, do you think that the students' creativity is hampered by not being in a classroom discussion?
- TA role***
- What do you do? What role do you play, as compared to what the professor does?
 - Do you find it easier or harder to TA for an online class?
 - Is your time spent more communicating with students? With the professor?
 - What are your most common frustrations?
- Technology comfort***
- Do you feel comfortable using computers and the internet?
 - Have you increased your computer knowledge from the course?
 - Are you aware that there is a faculty resource page in WebCT?
 - Have you used it? When, why, how often?
 - Did you go through the students' WebCT tutorial that's on the UNT Center for Distance Learning page? Do you think it would help the students?
-
- Time/place of use***
- What are the places where you usually access the course? [state where they are – home, work, etc.]
 - What time of day?
 - How long each time?
 - Do you use your own computer?
 - Did you have to configure your computer any differently to make WebCT work?
 - Do you use Netscape or Internet Explorer? What version?
- Show us the course on WebCT***
- What are all the elements of this course in WebCT?
 - [For each aspect] Could you show us?
- Suggestions***
- Do you have any suggestions for improving WebCT?

WebCT Interview Guide - Students

Who are you?

- What is your major?
- What year are you in your program?
- How old are you?
- Why did you volunteer for the study?

Decision to take WebCT class

- Why did you choose to take a WebCT course?
- Have you taken a WebCT course before?
- How did you hear about internet-based classes?
- What preconceived ideas did you have about WebCT before taking the course? How is it different from your expectations?
- Would you take another WebCT course? Why/why not?

F2f versus distance learning

- Do you feel that there are any advantages to taking a WebCT course over a f2f class?
- Do you think the class is well suited for the internet or is it better suited for the classroom?
- Have you learned as much from this course as taking it in a classroom setting?
- Do you feel it affects your grade? How?

Technology comfort

- Do you feel comfortable using computers and the internet?
- Have you increased your computer knowledge from the course?
- Are you aware that there is a student resource page in WebCT?
- Have you used it? When, why, how often?
- Did you go through the WebCT tutorial that's on the UNT Center for Distance Learning page? Did it help you?

Solving technical problems

- Have you ever had a technical problem? If so, how did you deal with it? Playing around with it or asking for help? Which is more helpful? [elicit stories]
- Who do you think is responsible for solving technical problems if you have them?

Interaction among students

- Is there a place for you to communicate with your fellow students in the course? What is it? [discussion]

board, email...]

- Have you had any difficulty finding it?
- Have you had any difficulty entering it?
- Do you take advantage of it?
- How interactive are you in the class? Do you take part in discussions?
- Does WebCT increase or decrease your class participation compared to a f2f class?

Attention from professor

- How do you communicate with your professor? How accessible do you feel s/he is?
- Do you feel that you get personal attention from your professor?

Time/place of use

- What are the places where you usually access the course? [state where they are – home, work, etc.]
- What time of day?
- How long each time?
- Do you use your own computer?
- Did you have to configure your computer any differently to make WebCT work?
- Do you use Netscape or Internet Explorer? What version?

Show us how you use the website

- What are the things you do on WebCT in this course?
- [For each aspect] Could you show us how you do that? Would you be willing to go through a lesson [or whatever] now, explaining what you're doing to us?

Suggestions

- Do you have any suggestions for improving WebCT?

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