

COLLEGE STUDENTS, INTERNET USE, AND PROTECTION FROM ONLINE IDENTITY THEFT

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ABSTRACT

The Internet has experienced phenomenal growth in higher education. In addition to many pedagogical benefits, there are potential risks to the student users, including identity theft. This study examined the extent to which selected online practices that could minimize the risk of financial identity theft are used by college students. Data were collected from over 7,000 students at one Midwestern university. Multivariate analysis was used to analyze students' ability to identify a secure Internet site, and to buy from a secure site. Gender, age, and race were among the significant variables. The results have implications for educating students about Internet related risks.

INTRODUCTION

The Internet has become increasingly integrated in higher education, and provides opportunities for distance learning, the ability to access a world of information, enhanced communications with teachers and peers, as well as other applications (Zhang, 2003-2004). Most college students have Internet access, and the total number was estimated to be over 16 million in 2005 (Berman, 2001). The phenomenal growth in the Internet has led to research examining the role of this technological innovation in higher education (Daughtery & Funke, 1998; Karchmer, 2000; Zhang, 2003-2040). In addition to exploring how the Internet can be used in meaningful ways in education, negative consequences that can arise from excessive Internet usage have also been examined (Malaney, 2004-2005).

However, there is one growing problem related to the Internet that, although a potential risk to the public at large, may be a particular risk to college students. It is identity theft.

Identity theft is one of the fastest growing white collar crimes in the United States. It is estimated that approximately 10 million Americans are affected by identity theft annually and the dollar volume of the crime is in excess of 52 billion dollars (Federal Trade Commission, 2005). In addition to financial losses incurred as a result of the crime, there are also time, financial, and emotional costs associated with reclaiming one's identity (Foley & Foley, 2003).

Identity theft is defined as the appropriation of someone else's identity to commit fraud or theft (Federal Trade Commission, 2001). Typically, a victim of identity theft will have their name, address, social security number, and bank or credit card account number stolen. There are three main types of identity theft crimes that affect consumers: financial identity theft, criminal identity theft, and identity cloning. Financial identity theft occurs when the imposter uses personal identifying information, typically a social security number, to establish credit in the victim's name. The thief may buy merchandise, open new credit cards, apply for phone service, etc. This category of identity theft also includes the take over of credit or checking accounts. Criminal identity theft occurs when the imposter gives another person's personal identifying information, in place of their own, to law enforcement officials. Identity cloning occurs when the imposter uses personal identifying information to establish a new life, and actually works and lives as that person (Foley & Foley, 2003).

In 2003, the Identity Theft Resource Center, a nonprofit organization, conducted a study using a sample of individuals who had contacted that organization regarding an identity theft crime during the previous 2 years. The results indicated that the most common type of consumer identity theft encountered among the subjects was financial (72.7%). Among those who experienced financial identity theft, the most common uses of their personal information were to: open new credit account(s) (73%); purchase new cellular phone service (37%); make charges on an existing credit card account(s) (27%); and make charges over the Internet for goods/services (23%) (Foley & Foley, 2003). It is expected that online identity theft will increase since it is easier and more efficient for thieves than traditional offline methods (Katyal, 2001). College students have been found to be more likely than the general population to use the Internet to make purchases (Milne & George, 2003). This potentially puts them at greater risk as online identity theft becomes more prevalent. Milne, Rohm, and Bahl (2004) found that students are actually less likely to protect themselves from online identity theft than non-students. Research has also shown that differences exist between student and non-student groups with respect to engaging in general activities that can minimize the risk of becoming a victim of identity theft (Milne & George, 2003).

Given the growth in identity theft, the prevalence of financial identity theft, and the widespread use of the Internet among college students, the purpose of this

study is to examine the extent to which selected Internet related practices, which could minimize the risk of financial identity theft, are used by college students. The specific objectives are to examine:

1. the extent to which students can identify a secure Internet site;
2. the extent to which students buy from secure Internet sites; and
3. the extent to which the personal characteristics of college students affect these practices.

Empirical research on identity theft is in its infancy, and little is known about the ability of college students to protect themselves from this risk. As Internet applications become more prevalent in higher education, it may be partially the responsibility of educators to help their students understand identity theft, and how to avoid it.

REVIEW OF LITERATURE

Internet usage among college students has been found to vary based on demographic characteristics. Males have been found to spend more time on the computer than females (Northern Virginia Community College, 2000). They also use and explore the Internet more often than females (Nachmias, Mioduser, & Shemla, 2000; Ford & Miller, 1996). Females were found to access their e-mail more often than males (Northern Virginia Community College, 2000). Gender and age have been shown to affect attitudes toward the usefulness of the Internet and enjoyment derived from the Internet (Zhang, 2003-2004). In general, females and younger students (under the age of 30) enjoyed using the Internet and found it more useful than males or older students. These results suggest that age and gender may be important considerations in developing educational programs using the Internet, as well as in Internet-related research.

A recent study by Malaney (2004-2005) analyzed how undergraduate students use the Internet, the amount of time they spend online, and problems they encounter from spending excessive amounts of time on the Internet. Data were collected in 2000 ($n = 593$) and 2003 ($n = 606$). In 2003, almost 100% (99.7%) of the students reported using the Internet during the week prior to the survey, and those who did not were excluded from the analysis. In addition, almost 98% owned their own personal computer. Ninety percent accessed the computer every-day. Males spent an average of 29.20 hours per week on the Internet, while females spent an average of 27.23 hours on the Internet weekly. During the one week period prior to the survey, students spent time on the Internet participating in the following activities: Instant Messaging (10.57 hours); doing coursework (5.16 hours); surfing the Web (4.21 hours); checking e-mail (2.38 hours); downloading music (1.78 hours); and shopping or browsing for merchandise (1.78 hours). Time spent in all other activities was less than an hour, on average, for each activity (Malaney, 2004-2005).

The students reported having some trouble controlling the amount of time they spend on the Internet, at least occasionally. Almost 30% had “tried unsuccessfully to control, cut back, or stop using the Internet” (Malaney, 2004-2005, p. 63). Students also reported missing class, work, or appointments, losing sleep, and having grades suffer due to their excessive use of the Internet (Malaney, 2004-2005). Thus, although the Internet has many positive benefits to offer students, there are problems. As Malaney suggested, there should be educational programs developed to educate students about potential problems that can arise from using the Internet. Identity theft is another problem that needs to be considered.

Educational materials are available from a number of different sources (FTC, 2001; Foley & Foley, 2003) that provide guidelines to help consumers minimize the likelihood of becoming a victim of identity theft. Based on recommendations published by the FTC (2001), Milne explored the extent to which consumers protect themselves from identity theft (Milne & George, 2003). In this exploratory study, both student ($n = 61$) and non-student ($n = 50$) samples were used. A preventive behavior index was developed based on 13 items that reflected recommendations for preventing identity theft (FTC, 2001). The student and non-student samples had similar responses on some of the theft prevention items. In general, both groups tended to shred their credit cards before disposal, did not carry their pin numbers and passwords in their wallets; did not provide merchants with their social security number when cashing checks; and shredded their credit card receipts before throwing them away. Areas where both the student and non-student samples could benefit from additional consumer education to minimize identity theft included: not providing personal identifying information before finding out how marketers will use it; being encouraged to deposit outgoing mail in a PO collection box or at a PO; creating a password that does not use familiar personal information; picking up their new checks at the bank (rather than having them mailed to the home); and ordering a copy of their credit card report (Milne & George, 2003). In addition to identifying areas where consumers might benefit from further identity theft education, Milne also suggested that with the advances in technology, identity theft through the Internet and wireless technology are areas for future investigation (Milne & George, 2003).

With the growth in the Internet, online identity theft is a growing concern, and it is anticipated that online identity theft will increase. Milne, Rohm, and Bahl (2004) examined consumers' online behavior practices that affect the risk of online identity theft. Surveys were administered to three different samples: a national cross section of adults ($n = 2,468$); college students ($n = 300$); and non-student Internet users ($n = 40$). The results indicated that consumers could be carrying out many more behaviors to help protect themselves from online identity theft. The results did indicate that a greater level of privacy concern was positively related to taking actions to protect oneself online. Based on the results from the cross-section of adults, younger consumers and males were more

likely to engage in online protection behaviors. However, when comparing the student and non-student samples, students were less likely to practice measures to protect themselves (Milne et al., 2004).

METHODOLOGY

Data Collection Procedure

For this study, data were collected on selected Internet practices, financial management, risk behavior, and demographic characteristics of college students using a Web-based questionnaire. Data were collected from students enrolled in a major land grant university located in a medium-sized Midwestern town. To distribute the final questionnaire, all graduate (including professional students) and undergraduate students ($N = 27,003$) were contacted by e-mail. The e-mail invited the students to participate in the study. Interested students had to click on a Web address to be able to complete the survey. The survey was posted for 30 days on a computer server. At both 10 and 20 days, additional follow-up e-mails were sent as reminders. As an incentive to participate in the study, students were offered the opportunity to enter their name in a drawing for one of three \$150 gift certificates. A total of 7,342 questionnaires were returned for a response rate of 27.19%.

Dependent Variables

One way to avoid online identity theft is by not providing personal information (e.g., credit card numbers, social security numbers, etc.) over the Internet unless using a secure site. With a secure site, consumers can be confident that their information will be protected. However, consumers are not always aware that there is a distinction between secure and unsecure sites, and how to tell the difference. The dependent variables used in the analysis were related to the identification and use of secure Internet sites.

Identify Secure Site

Each respondent was asked "Do you know how to recognize a secure site on the Internet?" This variable was coded as a "1" if the answer was "yes," and a "0" if the answer was "no." A "yes" response indicates a higher level of protecting oneself.

Buy from Secure Site

The respondents' who made purchases on the Internet, were asked "When you make purchases from Internet sites, how often are your purchases from secure sites?" The responses ranged from very often (= 1) to never (= 5). To make

the interpretation more intuitive, this variable was reverse coded. Thus, a higher score indicates a greater level of protecting oneself.

Independent Variables

Three broad categories were included as independent variables: financial management practices; risk-taking behavior; and demographics. The financial management variables included credit and debit card ownership, financial independence, concern with establishing credit, and credit card usage. The risk behaviors included involvement in drinking, unprotected sex, smoking, and use of seat belts. The demographic variables included parent's income, gender, age, and race/ethnicity.

Credit Card Ownership

The students were asked whether they own a credit card. This dummy variable was coded as a "1" if they did own a credit card, and a "0" otherwise. It is hypothesized that credit card ownership will be positively related to online protection. It is assumed that people with credit cards are more likely to be aware of the risks associated with them, and to take measures to protect themselves.

Debit Card Ownership

Debit card ownership was coded as a "1" if the student indicated they owned a credit card, and a "0" otherwise. It is possible that students who own debit cards may be more financially experienced than those who do not, and this may be reflected in certain behaviors. Specifically, it is hypothesized that debit card holders will be more likely to buy from a secure site (if they make purchases). It is not clear what the relationship will be with identifying a secure site.

Financial Independence

Students who are financially independent from their parents were expected to be more financially savvy due to their experience with handling finances. This is expected to extend to awareness of how to protect oneself from identity theft. Thus, financial independence is expected to be positively related to both dependent variables (where 1 = financially independent and 0 = otherwise).

Establishing Credit

Students were asked the extent to which they agreed with the following statement "I am concerned with establishing credit." For this analysis, a higher score (on a 5-point Likert scale) indicates stronger agreement with this statement. It is hypothesized that students concerned with establishing good credit will be more concerned with protecting themselves from identity theft that could

adversely affect their credit rating. Thus, this variable is expected to be positively related to both dependent variables.

Credit Card Usage

The items needed to develop the credit card usage measure used by Roberts and Jones (2001) were included in the questionnaire. The credit card usage items were measured on a 5-point Likert scale ranging from strongly agree to strongly disagree. An overall score on credit card usage is obtained by summing the responses to the individual items. The ratings were reversed so that a higher score indicates more irresponsible credit card usage. The reliability ($\alpha = .80$) was slightly higher than what Roberts and Jones reported ($\alpha = .77$) (Roberts & Jones, 2001). It is hypothesized that more irresponsible credit card use will be associated with being less likely to be able to identify a secure site, or purchase from a secure site.

Drinking

Students were asked the extent to which they drank alcoholic beverages with a higher score, on a 5-point scale, indicating more frequent consumption. Engaging in drinking can be viewed as a risky behavior. It is hypothesized that the more willing a student is to engage in this behavior, the less likely they will be to protect themselves from identity theft.

Unprotected Sex

Students were asked the extent to which they engaged in unprotected sex, with a higher score, on a 5-point scale, indicating engaging in unprotected sex more frequently. Engaging in unprotected sex can be viewed as a risky behavior. It is hypothesized that the more willing a student is to engage in this behavior, the less likely they will be to protect themselves from identity theft.

Smoking

Students were asked the extent to which they smoked with a higher score, on a 5-point scale, indicating more frequent smoking. Engaging in smoking can be viewed as a risky behavior. It is hypothesized that the more willing a student is to engage in this behavior, the less likely they will be to protect themselves from identity theft.

Seat Belts

Students were asked the extent to which they wore seat belts with a higher score, on a 5-point scale, indicating more wearing of a seat belt. Since wearing a

seat belt reduces risk, it is hypothesized that students who wear seat belts are more likely to protect themselves from the risk of identity theft.

Parent's Income

It is expected that income could play a role in the extent to which individuals protect themselves from identity theft. Since many college students rely on their parents for financial support, parental income was used to measure this variable. Dummy variables were created with the following categories: < \$25,000; \$25,000-49,999; \$75,000-99,000; \$100,000-149,000; \$150,000 or more. The omitted category was \$50,000-74,999. It is expected that income could play a role in a couple of different ways. First, it could be a proxy for education. Those parents with higher levels of education can be expected to be more aware of the issue of identity theft, and how to take precautions to guard against it. To some extent, these precautions are likely to be passed on to their children. Second, parents with higher incomes may have more experience with money management, and greater incentive to protect their credit worthiness, including taking precautions against identity theft. If a student indicated they were unsure of their parents' income, they were not included in the regression analyses.

Gender

Males were found to be more likely to protect themselves against online identity theft (Milne et al., 2004). Thus, it is hypothesized that males are more likely than females to engage in online protection behaviors.

Age

Younger consumers were found to engage in online protection behaviors compared to older consumers (Milne et al., 2004). This is also hypothesized in this study for the two dependent variables related to the Internet.

Race/Ethnicity

Race/ethnicity was included, although there is no indication from prior research about the effect of this variable on identity theft. Thus, a specific hypothesis is not stated.

ANALYSIS

Two regression equations were estimated. Using the full sample, a logistic regression equation was estimated for whether or not the student could recognize a secure site. Logistic regression is appropriate when the dependent variable is truncated (Maddala, 1983). For students who make purchases on the Internet,

ordinary least squares regression was used to estimate an equation for the extent to which the student bought from a secure site. The same independent variables were used in each equation.

DESCRIPTIVE STATISTICS

Almost 80% of the sample were undergraduate students (see Table 1). The average age of the sample was 22.05 years. Over two-thirds were female, which is different from the proportion found in the student body population (52.4%). Caucasian students comprised over 85% of the sample (compared to 81.2% of the student body population). Over 67% of the students owned credit cards, while almost 87% owned debit cards. About one-quarter of the sample came from households with an income less than \$50,000, and approximately another one-quarter came from households with over \$100,000. One-third of the sample was financially independent. Between 70–80% can recognize a secure Web site on the Internet, or tend to buy from secure sites. Most students do care about establishing credit, don't smoke, and do wear seat belts. Some students do engage in drinking, and/or unprotected sex, with drinking being more common.

RESULTS

Two equations were estimated to examine factors affecting the extent to which students take precautions to protect themselves against online identity fraud. In general, the variables that were significant across both equations were variables related to credit, financial independence, use of seat belts, income, gender, age, and race.

Students who were male, have at least one credit card, have a debit card, were financially independent, had higher income parents, were concerned with establishing credit, wear a seat belt, and were older were more likely to be able to recognize a secure Internet site (see Table 2). Asians and students of "other race" were less likely to recognize a secure site compared to Caucasians. Students who had more irresponsible credit use were less likely to recognize a secure site.

Among those students who make purchases on the Internet, students who were male, older, financially independent, had a credit card, used credit cards responsibly, and were concerned with establishing credit were more likely to buy from a secure site (see Table 3). With respect to the risk behavior variables, students who were less likely to drink and who were more likely to wear seat belts regularly, were more likely to buy from a secure site. Asians and Hispanics were significantly less likely to buy from a secure site than Caucasians. As with the other Internet-related equation, the effect of smoking is not as hypothesized.

Table 1. Descriptive Characteristics

Variable	Percentage	Variable	Percentage
Level		Have a debit card	
Undergraduate	79.04	Yes	86.70
Graduate	20.96	No	13.30
Gender		Recognize a secure site	
Male	31.25	Yes	71.4
Female	68.75	No	28.6
Ethnicity		Buy from a secure site	
Caucasian	85.91	Often or very often	78.56
African American	3.97	Never to sometimes	21.44
Asian	5.33		
Hispanic	1.78	Wear a seatbelt	
Native American	0.39	Always	75.74
Other	2.62		
Parent's Income		Smoke cigarettes	
Less than \$25,000	8.71	Never	75.74
\$25,000–\$49,999	15.79		
\$50,000–\$74,999	19.10	Drink Alcohol	
\$75,000–\$99,999	16.75	Never	18.14
\$100,000–\$149,999	13.52		
\$150,000 or more	10.22	Have unprotected sex	
Not sure	15.91	None during past year	59.14
Financially Independent		Variable	Mean
Yes	33.47	Age	22.05
No	66.53		
Have a credit card			
Yes	67.88		
No	32.12		

SUMMARY AND CONCLUSIONS

Although college students are generally considered to be fairly computer savvy, it is somewhat disconcerting that almost 30% (28.6%) do not know how to recognize a secure site. It may be that this is not relevant unless a person carries out some type of transaction in which personal information is provided online. However, in the computer age, one would expect that consumers with a college education (or in the process of getting a college education) would have such

Table 2. Logistic Regression, Can Recognize a Secure Site on the Internet, Dependent

Variable	Parameter estimate	Standard error	Odds ratio estimate
Intercept	-0.66**	0.33	
Credit card	0.46***	0.07	1.580
Debit card	0.16*	0.09	1.174
Financially independent	0.26***	0.08	1.303
Establish credit	0.09***	0.03	1.094
Credit card use	-0.02***	0.004	0.983
Alcohol	-0.06	0.04	0.946
Unprotected sex	-0.02	0.04	0.981
Smoking	0.03	0.03	1.034
Seat belt	0.12***	0.04	1.128
< \$25,000	-0.31**	0.12	0.737
\$25,000–49,999	-0.14	0.10	0.872
\$75,000–99,000	0.04	0.10	1.053
\$100,000–149,000	0.05	0.10	1.065
\$150,000 or more	0.06	0.12	1.213
Gender	0.76***	0.08	2.146
Age	0.02**	0.009	1.025
Black	-0.12	0.16	0.887
Asian	-0.46***	0.15	0.635
Hispanic	-0.12	0.23	0.883
Native	1.25***	0.76	3.494
Other race	-0.41**	0.19	0.661

* $p < .10$; ** $p < .05$; *** $p < .01$.

Chi-square = 341.88***

knowledge. Thus, college educators should be aware that this is an area in which their students may need to be educated. Also, any specific programs that address Internet-associated risks would be amiss not to include such information. For those students who do make purchases on the Internet (many of whom would do so using a credit card), the purchase is not always made from a secure site. Over 20% (20.8%) said they either never, rarely, or only sometimes, buy from a secure site.

Table 3. Ordinary Least Squares Regression, Buy from a Secure Site Over the Internet, Dependent

Variable	Parameter estimate	Standard error
Intercept	3.38***	0.23
Credit card	0.19***	0.05
Debit card	-0.0006	0.07
Financially independent	0.14***	0.06
Establish credit	0.04**	0.02
Credit card use	-0.02***	0.003
Alcohol	-0.06**	0.02
Unprotected sex	-0.04	0.02
Smoking	0.01	0.02
Seat belt	0.13***	0.03
< \$25,000	-0.17**	0.08
\$25,000–49,999	-0.07	0.07
\$75,000–99,000	-0.06	0.07
\$100,000–149,000	0.04	0.07
\$150,000 or more	0.06	0.08
Gender	0.44***	0.05
Age	0.01***	0.006
Black	-0.10	0.13
Asian	-0.25**	0.10
Hispanic	-0.34**	0.17
Native	0.38	0.38
Other race	-0.27***	0.15

* $p < .10$; ** $p < .05$; *** $p < .01$.
Adjusted $R^2 = .08$

This behavior could put them at potential risk for financial identity theft. Although this study did not address student awareness of identity theft, it is possible that students are fairly uneducated about the nature of this growing white collar crime and the steps that need to be taken to help students protect themselves from having this occur.

Gender was a statistically significant variable in both equations. It was hypothesized that males would be more likely to protect themselves from identity theft

than females. This was true for recognizing a secure site and buying from a secure site. These results would seem to indicate that among college students, females may be at greater risk for online identity theft than males.

Being concerned with establishing good credit was significant, and positively related to both dependent variables. Thus, students who took measures to protect themselves from identity theft were also concerned about establishing good credit. Related to this measure, the results indicated that responsible credit card usage was significantly related to recognizing a secure site and buying from a secure site.

Wearing a seat belt was positively related to protecting oneself from identity theft. In this sample, 75% of the students said they always or almost always wore a seat belt. It is interesting that among the risk behaviors included in the analysis, this behavior has the least "moral" connotation associated with it (versus drinking, smoking, and sex). It is also one that most people have a greater exposure to on a daily basis, and were taught lessons about from a young age. The immediate consequences of not wearing a seat belt can be potentially devastating. This is also one behavior that is illegal for people of all ages (driving, or being a passenger, without a seat belt). Thus, those students who do not wear seat belts may be at the extreme of engaging in risk-taking behavior (although some students may not see the lack of a seat belt as a risk at all). Looking further at the characteristics of these students could be insightful in helping to further identify students who may be at the greatest risk for identity theft.

One interesting result was with respect to credit cards. Although having a credit card can expose a person to the risk of identity theft, it also appears to have a positive effect in reducing the risks of online identity theft. Credit card holders were more likely to be able to recognize a secure site as well as make purchases from a secure site.

Students who were financially independent were more likely to engage in behaviors to protect themselves from identity theft. Thus, students who are not financially independent may be at greater risk, and need more information about this issue. One step for future research would be to identify those students who are financially dependent. It is likely that these will be undergraduate students. Thus, educational efforts on identity theft might best be focused on this part of the student body rather than all students.

The signs on the coefficients for income were in the expected direction, but not always significant. Students from the lowest income bracket, which was significant, are less likely to practice either measure that would help protect them from online identity theft. Students with parents in the highest income bracket were significantly more likely relative to students from the middle income bracket to recognize a secure site. This may reflect differences in the availability and knowledge of computer technology based on economic background.

The results indicated that use of precautions to protect against identity theft vary among college students. Due to their propensity to use the Internet, college students may be at greater risk for Internet identity theft than the general public.

Although students are fairly technologically sophisticated, many do not know how to identify a secure site and do not make a point of using a secure site when buying online. Thus, students could benefit from being provided with education regarding the risks associated with identity theft, and precautions to guard against them. Information regarding online protection practices could be incorporated into educational programs covering other Internet-related problems (e.g., excessive time spent on the computer). Targeting younger students, females, and those from limited socio-economic backgrounds may also be particularly warranted.

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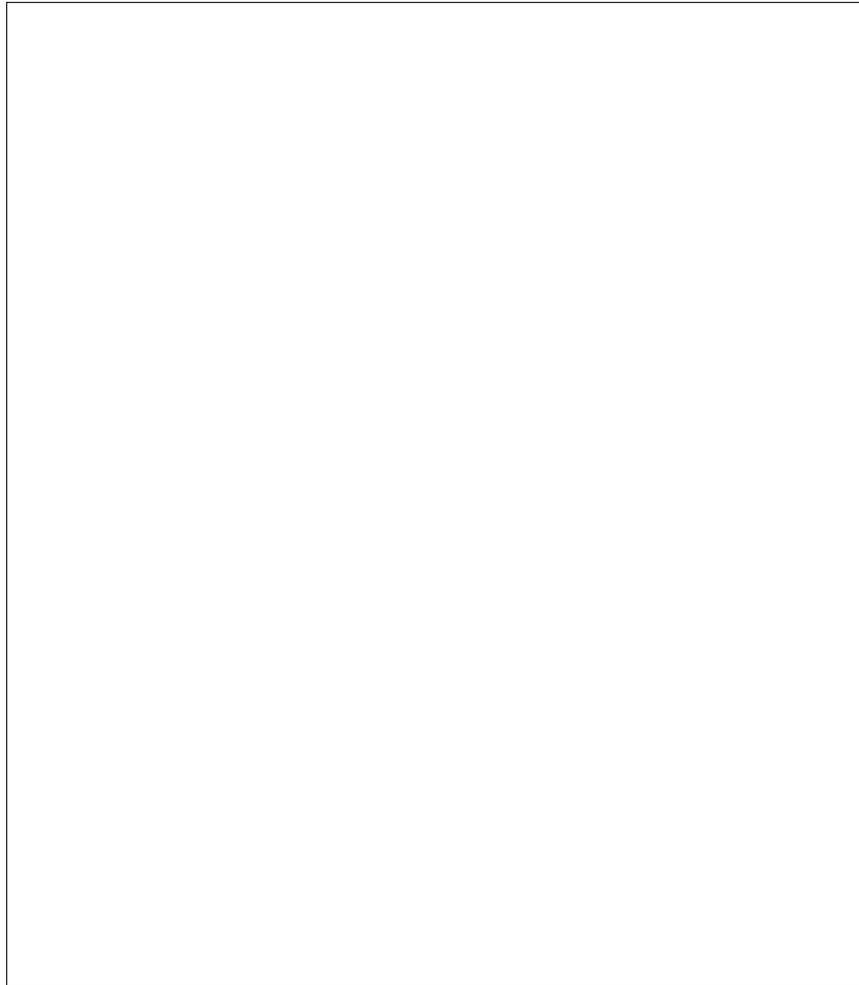


Figure 1. Web-based log tool.

Table 1. Log Hours per Student by Category per Course for First Two Iterations

Topic	Pedagogy Synchronous	Pedagogy Synchronous
Format	Online	Online
Delivery	Semester	Semester
Duration	17/38	9/11
Participants		
Readings	19.7	20.6
Class time	27.9	31.1
Self-evaluation	8.6	6.9
PowerPoint	11.1	9.0
Lesson	9.0	9.7
Technology	0.8	3.1
Videos	0.8	1.2
E-book	13.7	14.0
Travel		2.4
Bulletin board		1.3
Chat		0.2
Online group discussion		1.4
Communication		4.0
Other	3.1	4.6
Max	56.2	55.3
Min	175.8	146.8
Stdv	37.07	32.89
Total/Mean	94.6	109.4

Table 2. Log Hours per Student by Category per Course for Third (Final) Iteration

Topic	Computer Synchronous Online	Computer Synchronous Online	Computer Face-to-face	Design Synchronous Online
Format	Maymester '03	Fall '02	Fall	Summer
Delivery	21/22	11/21	10/19	17/24
Duration				
Participants/Total				
Class time	19.7	23.4	33.1	32.9
Group online	4.5	0.8	0.8	6.7
Technology	7.5	4.6	2.1	1.1
Travel	2.7	3.5	10.7	4.3
Group F2F	0.5	0	2.7	6.7
Individual work	39.9	31.4	21.3	36.8
Messages	—	7	4	—
Other	1.6	1.6	1	1.0
Min	25.3	29.8	35.2	61
Max	161.4	148.6	124.9	139
Stdv	40	39.65	28.73	20
Total/Mean	76.4	72.4	75.7	89.5

Table 3. Min and Max Student Logs for the Computer
Maymester Course

Format Delivery Duration	Synchronous Online Maymester Min	Synchronous Online Maymester Max
Class time		
Group online	10.5	15.8
Technology	0	27
Travel	1	26.5
Group face-to-face	0.75	0
Individual work	0.5	0
Other	11.8	91.8
	1	0.3
Total	25.5	161.4