

ARE STUDENT INTERNET USE POLICIES EFFECTIVE?

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ABSTRACT

This paper empirically examines the effect of Internet Use Policies on the behavior of students. A written survey was utilized to obtain student opinions on the effect of such policies both upon themselves and fellow students. Findings suggest that students generally feel that Internet Use Policies of the University have little effect upon their Internet activities. Perceptions, however, vary by academic class and by gender.

Keywords: Internet Use Policy, survey, students, effectiveness

INTRODUCTION

The Internet has had a tremendous effect upon our society. Nielsen/NetRatings estimated that there were nearly 103 million Internet users in U.S. households as of April 2001 (3).

Educational institutions, at all levels, are encouraging students to become proficient in a multitude of computer-related areas. With the increased use of computers comes the risk of misuse. Therefore, businesses and educational institutions have recognized the need to employ Internet Use Policies.

The Internet Use Policy has become common in recent years for a variety of reasons. Honeywell Chief Information Office Bill Sanders notes that a motivated workforce guided by a clearly written company computer policy can give the firm a big boost (1). In addition, policies are important because of productivity, security, bandwidth, and company reputation concerns (4). It is critical that the technologies are being used for business purposes. Moreover, if employees visit insecure Internet sites, the company could be vulnerable.

Of particular concern is the drain on computing resources and bandwidth. Each network has a finite capacity. There must be controls so the network does not get overloaded with personal use traffic (4). Employees may have easy access, via the Internet, to large quantities of real-time data such as news stories and stock ticker data that can be funneled to their desktops. As a result, organizations can experience a double-digit percentage loss of bandwidth (5). The same risk exists and is being manifested in the streaming audio, "free music over the Internet" phenomenon. This problem may be especially acute at colleges and universities, where a vast majority of students enjoy various forms of music.

Recognizing that a potential Internet misuse problem exists, many organizations have taken appropriate actions. According to a 2001 American Management Association (AMA) survey of 1627 managers, nearly 50% of companies monitor electronic mail and 63% monitor Internet use (6). According to Businesswire survey, 54% of respondent organizations employ a combination of Internet usage reporting and filtering (blocking) as a viable solution to the problem of non-work related surfing (2). At Hotjobs.com, all 450 employees need to access the Internet on

a daily basis (1). The Chief Executive Officer, Richard Johnson, states that “every email, every phone communication in this company is something that we retain the right to monitor.” However, Mr. Johnson notes that since the policy was made clear to employees, monitoring has never been necessary.

After an Internet Use Policy is instituted, the organization must monitor behavior and enforce its various restrictions. Like any rule that is not enforced, Internet Use Policies that are not supported by proactive monitoring and access control measures will quickly become hollow pronouncements -- losing the ability to effectively guide users' behavior and to protect the organization from liability (5).

The ultimate question remains. Are Internet Use Policies an effective deterrent to Internet misuse?

The purpose of this research is to examine the effectiveness of Internet Use Policy from a post-secondary education perspective. Do Internet Use Policies positively effect the behavior of students? To examine the issue, this paper will describe the components of one university's Internet Use Policy. The paper will next explore the results of a student survey that examines the effectiveness of the policies.

THE INTERNET USE POLICY

The study Internet Use Policy is utilized at a private, northeastern U.S. University. This comprehensive policy details the rights and responsibilities of users of all University-owned technology resources (8). Therefore, it applies to faculty, students, administration, and staff. The policy was formulated and evaluated through a rigorous review process prior to its enactment. The Faculty Senate, university vice presidents, advocacy officers, legal counsel, personnel office, and numerous other groups provided input for its content. According to the Executive Director for Information Technology, the process was necessary to ensure that the policy received broad acceptance and truly reflected the common interests of the University (7).

The policy requires cooperative computing, which places responsibilities on each user to prudently utilize University technology. Thus, the policy attempts to respect each person as well as encourage the various activities needed to carry out the Franciscan mission of the University. Each incoming student is required to sign a copy of this policy upon enrollment. Faculty and staff are also prompted to sign the policy, indicating that they had received a copy of the policy and understand its various provisions.

The heart of the policy is cooperative computing which encourages the consideration of others. For example, collegiality requires a number of actions by all members of the University. First, regular deletion of unneeded files on shared computing resources aids in ensuring disk space is available for current usage. Second, prudent use of digital sounds and visuals in public computer lab facilities is required to avoid disruptions to other users. Third, the maintenance and upkeep of computer virus protection software ensures that each user will not spread unwanted viruses. Finally, prudent use of connect time, information storage space, printing facilities, and network services is required of each user in order to provide services for each member of the University.

The Internet Use Policy provides examples of numerous activities that are deemed to be inappropriate. The policy specifies that these actions should be avoided in order to utilize computer resources in a responsible, ethical, and legal manner that is consistent with the University's mission. Categories of inappropriate use include the following:

1. Use that impedes, interferes with, impairs or otherwise causes harm to the activities of others. This includes propagating chain letters or virus hoaxes, spamming, and reckless distribution of unwanted email.
2. Use that is inconsistent with University's non-profit status. This includes any commercial use of university systems for non-university purposes.
3. Use that is harassing, threatening, or not keeping with our Franciscan values. Included here are actions such as sending flaming email, repeated unwelcome contacts with another, and threats of bodily harm against another person.
4. Use damaging the integrity of internal/external systems. Examples include attempts to defeat system security by sharing passwords, intentional distribution of computer viruses, installation of unauthorized devices or software, and assisting others to gain unauthorized access to systems or data.
5. Use in violation of law. This includes promoting a pyramid scheme, copyright infringement, and knowingly receiving or transmitting illegal materials.
6. Use in violation of University contracts that includes limitations defined in software and other licensing agreements.
7. Use in violation of University policy including personnel policies, university-governing documents, and student handbook policies.
8. Use in violation of external data network policies.

The policy finally states that any violation of these regulations may result in the suspension or revocation of account access. Technology Services has the right to make the initial determination to suspend or deny a user's account based upon a known infraction. Therefore, students are clearly informed upon enrollment that violation of these policies will likely result in the revocation of computer use privileges. Considerable effort is made to develop and implement student Internet Use Policies. It is important, therefore, that the policies be an effective deterrent to Internet misuse. The purpose of this study is to survey students to determine the effectiveness of these policies.

RESEARCH DESIGN

This study employs a survey research design. The research was conducted at a private, northeastern U.S. University. A Student Internet Usage survey instrument was developed and administered in the Spring 2001 semester to students enrolled in a School of Business course. The courses included BIS-310 "Business Information Systems", BIS 335 "System Analysis and Design", ACCT-201 "Introduction to Financial Accounting", and ACCT-202 "Introduction to Managerial Accounting." A random sample of six class sections was selected. Three different faculty members conducted the classes. None of the classes involved wireless computer instruction.

The survey instrument was utilized to collect student demographic data and examine student perceptions regarding the University's Internet Use Policy. The survey was administered during the final week of the semester and all surveys were anonymous. Moreover, students were informed that results would have no effect on their semester grade.

RESULTS

A sample of 183 usable surveys was obtained. 117 (64%) of the respondents were male and 66 (36%) were female. The response rate by academic class is relatively equally distributed. Freshmen and Sophomores each account for 22% of the respondents. 26% of respondents are Juniors and 30% are Seniors.

The survey posed each student with the following questions:

1. Is the Internet Use Policy (which you signed) an effective deterrent for you in using the Internet appropriately at the University?
2. Is the Internet Use Policy an effective deterrent for others in using the Internet appropriately at the University?

Thus, responses were gathered related to the student as well as his/her perception regarding the policy's effect on other students. Questions were posited using a five point Likert-type scale. Table 1 illustrates 46% of respondents indicated that the policy did not have an effect on his/her actions. 32% indicated that the policy was effective and 20% indicated the policy was not effective. The response for the effect on other students was also a 46% neutral rating. Moreover, 29% indicated that with regard to others, the policy was effective and 23% indicated the policy was not effective.

TABLE 1
Internet Use Policy Effectiveness

Effective Deterrent	Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree	No Response
For You	10%	10%	46%	22%	10%	2%
For Others	12%	11%	46%	21%	8%	2%

Surveys were subsequently analyzed relative to academic class. Table 2 demonstrates that relative to the effectiveness of the policy upon himself/herself, 46% of Freshmen indicated the policy was effective. 43% of Freshmen indicated a neutral effect. 35% of Sophomores indicated the policy was effective. 40% of Sophomores indicated a neutral effect. 23% of Juniors indicated the policy was effective. 52% of Juniors indicated a neutral effect. 27% of Seniors indicated the policy was effective. 47% of Seniors indicated a neutral effect.

TABLE 2
Internet Use Policy Effectiveness By Academic Class

Class	Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree	No Response
Freshmen	8%	5%	43%	28%	18%	0%
Sophomore	10%	10%	40%	25%	10%	5%
Junior	13%	13%	52%	17%	6%	0%
Senior	11%	13%	47%	20%	7%	2%

Finally, results were examined relative to gender. Table 3 illustrates that relative to the effectiveness of the policy upon himself/herself, 43% of females indicated the policy was effective. 42% of females indicated a neutral effect. 26% of males indicated the policy was effective. 48% of males indicated a neutral effect.

TABLE 3
Internet Use Policy Effectiveness By Gender

Gender	Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree	No Response
Female	5%	11%	42%	26%	17%	0%
Male	14%	10%	48%	20%	6%	3%

CONCLUSIONS

Results indicate that Internet Use Policies may not be an effective deterrent to curbing student Internet misuse. Only one-third (32%) of respondents indicated that the policies are an effective deterrent for himself/herself. Similarly, approximately the same percentage of respondents (29%) felt that the policies are an effective deterrent for other students. Therefore, the majority of students believe the existence of the policies have little or no effect upon their Internet activities. This may be caused by a number of factors including inadequate enforcement by the University against violators and/or student ignorance of the details contained in the regulations. It is possible that students may read the policies upon enrollment, but never view them again during their undergraduate years.

Interestingly, responses to the questions, evaluating their behavior and others' behavior, were nearly identical. Results suggest that students view their behavior as representative of other students or vice versa.

An examination of academic class suggests that school year is a factor in Internet Use Policy effectiveness. As the student progresses through his/her academic life, policy effectiveness may decrease. For example, 46% of Freshmen perceive policies to be effective. Only 23% of Juniors, however, indicate that policies are effective. This is a dramatic decrease in perception.

Moreover, gender may play a role in effectiveness. The majority of females, 43%, feel the Internet Use Policy is effective. Only 26% of males indicated that the policies are effective.

There are several important implications of the study. One implication is that misuse of technology in industry also exists at educational institutions. The policies reflect problems affecting businesses today such as spamming, sharing passwords, security breaches, and sending inflammatory email. The second implication relates to the effectiveness of Internet Use Policies upon students. Findings demonstrate that the majority of the students surveyed perceive University-established use policies have little or no effect upon their computer activities. This suggests that additional educational programs on inappropriate computer use may be appropriate, and more enforcement may be required. Students sign the policy upon enrollment and may quickly forget what constitutes unacceptable computer behavior. A third implication is that methods may need be directed with regard to upperclassmen to reinforce the importance of policies. Finally, further measures may need be implemented with regard to males.

There are two weaknesses of this research, which should be considered. One limitation is the self-reported nature of the survey. Students are using recall to judge what is unacceptable computer usage. Memory may be unreliable and recency effects may occur as many older students attended prior to the institution of the policies and may have not actually signed a copy of the regulations. Other students may have signed the policy at the beginning of their first semester but did not thoroughly read the document.

A second weakness is the small sample size. Replication of the survey with additional students, additional classes, and additional Universities would improve the robustness of the results. Moreover, an analysis of individual policy provisions may provide insight into which components are most and least effective. In addition, a longitudinal study would provide further details regarding behavior over time.

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