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Adolescent's Perceptions of Deviance When Using Technology: The Approaching Post-Typographic Culture

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"Any technology tends to create a new human environment."
-Marshall McLuhan

Deviant behavior on the computer and the Internet is rising as technology use increases (Hollinger, 1996b; Power, 2000; Vatis, 2000). Deviant behavior, when using computers and the Internet, includes the same types of deviant activities performed before the popularity of computers or the inception of the Internet. These activities include: using the Internet for illegal activities that violate local, state, and/or federal laws, inappropriate use defined as a violation of the intended use of the Internet or computer, and/or purpose and goal, obscene activities defined as entering a pornography website or selling pornography goods on the Internet; using the Internet or computer to violate copyrights laws or other contracts such as institutional or third party copyright, license agreements and other contracts, intentionally disrupting the Internet traffic by spreading a computer virus, spreading rumors about another person on the Internet, intimidating, stalking and frightening another person on the Internet.

Deviant behaviors using technology is a real concern since our society is rapidly moving from a typographic culture to a post-typographic culture (Provenzo, Brett & McCloskey, 1999). With this movement, our society is being transformed by the use of technology because adolescents are communicating more by instant messaging, text messaging, electronic mail and in chat-rooms rather than by paper printed text or letter writing. Culturally, we are becoming more dependent on computers and computer-based technologies (Provenzo, et al., 1999).

Recently, there has been an increase in the number of high tech crimes by adolescents. According to the U.S. Department of Justice (2005), teens have gone high tech with old-fashion bullying, stalking and spreading rumors. With the use of technology, students have advanced to cyberbullying and cyberstalking. Students are using e-mail, Websites, instant messaging, chat-rooms and text messaging to antagonize and intimidate others.

On January 6, 2005, three teenagers in Louisiana was arrested for cyberstalking. The Louisiana Attorney General's High Tech Crime Unit investigators and Tangipahoa Parish Sheriff's Deputies responded to a phone call from a concerned parent who reported threats and violent poems allegedly being put on-line by the students. "According to investigators and deputies, the male teens' website had links to a "poems" jump and a "preps" jump that included bloodthirsty lyrics and a list of students considered preppies or elitists by the suspects. The female used a male chat name to threaten one male and allegedly set up a website that included the teenager's photograph and claims that the teenager is homosexual." (High Technology Crime Unit, 2005) In Louisiana, cyberstalking carries a maximum penalty of one year in prison. This kind of behavior among teens has increased over years with the ease of access to technology.

This study sought to add to the limited body of knowledge that investigates technology deviance of adolescents in middle and high schools. Students are vulnerable to victimization

by Internet predators, who are their peers and adults who prey on naïve children for sexually exploiting them. Although a limited amount of research has been performed to determine the types of deviant behavior students' use on the Internet and on computers, the opportunity to perform deviant acts increases with the integration of technology in education and students' personal use of technology.

Method

Population and Sample

The accessible population included all students who attended a middle or high school in the East Baton Rouge Parish School System (EBRPSS) with computers that are capable of accessing the Internet. A convenience sample of 1,150 students (575 middle and 575 high school students) was selected.

Purpose and Objectives of the Study

The primary purpose of this study was to explore middle and high school students' perceptions of deviant behavior when using computers and the Internet. In order to answer the research problem, the following six objectives were used to guide the researcher:

1. Describe the middle and high school students on selected demographic characteristics.

2. Describe the middle and high school Students' Behavior Score.

3. Describe the middle and high school Students' Peers' Behavior Score.

4. Compare the Students' Behavior Score of middle and high school students on selected demographic characteristics and perceptions of computer-related activities.

5. Compare the Students' Behavior Score and the Peers' Behavior Score.

Instrumentation

The instrument was developed by Professor San-Yi Li in Taiwan and revised by the researcher. The primary variables studied were categorized as: 1) students' demographic characteristics, 2) computer- related activities, 3) students' perceptions of deviant behavior when using computers and the Internet, 4) students' perception of their peers' deviant behavior when using computers and the Internet, and 5) students' ability to use computers and the Internet.

Results

Objective One: Demographics

Participants of the study ranged in age from 13 to 17 years old. The majority of the responding students were African American, with the next largest group of respondents being White. The grade level of the students ranged from 7th to 12th grade, with the 11th or 12th graders having the largest number of respondents. Students in the study were either in middle or high school, and most of them rated their academic achievement as good. Most of the students indicated they had a strong religious affiliation. A large portion of the students interacted with their classmates and teacher regularly.

Objective Two: Describe Middle and High School Students' Behavior Score

According to the Students' Deviant Behavior Score, the majority, 869 (79.6%), of the responding students indicated that they displayed no deviance or some deviant behavior while using the Internet. Only a small percentage of students indicated deviance.

Objective Three: Describe Middle and High School Students' Peers' Behavior Score

The majority, (1,016, 81.5%), of the students perceived their classmates to be displaying deviant behavior often or very often when

using the Internet and computers. The researcher believes that if the students' peers are engaging in this type of behavior than a larger number of students is engaging as well, but is not disclosing this information. Apparently, students feel more comfortable disclosing what others are doing, rather than what they are doing.

Objective Four: Compare the Behavior Score of Middle and High School Students

When comparing the Students' Behavior Score, the following findings were discovered about gender: males indicated displaying more deviance than females when using the Internet and computers. Results indicated a statistically significant relationship between gender and perceived deviance. It appears that males are more likely to display deviance when using the Internet and computers. The results showed that 27.9% of the males and 12.6% of the females reported deviance. There were twice as many males as females that reported deviance when using the Internet and computers.

The variable age revealed that 13 and 17 year olds had the lowest percentage of students that displayed deviance while using computers and the Internet. Students ages 14, 15 and 16 had the largest percentage of deviance reported. Still, all of the age groups indicated that the majority of the students did not display any deviance.

The ethnic group indicating the largest percentage of deviance when using the Internet and computers was the Hispanic students. The second largest percentage of students indicating some deviance was Asian American students. This finding is comparable to a study by Hollinger (1996b) of college students. Hollinger's research revealed that crime by computer correlates with software piracy and unauthorized account access of college students. He reported that Asian and Hispanic students indicated the highest levels of piracy.

When reporting academic achievement, the majority of students reported their academic achievement as being good, and most of the students perceived themselves as displaying no deviance or some deviance when online. This test resulted in a significant relationship between academic achievement and Student Behavior Score. The highest percentage of deviance was reported by students indicating poor or fair academic achievement. Of the students that reported "poor" achievement, 38.1% indicated deviance, and the students that reported "fair" achievement had 25.7% to indicate deviance compared to those students that indicated "good" (17%) or excellent (17.4) achievement.

For religious affiliation, those students that indicated a strong or very strong religious affiliation also had the largest percentage of students that did not display deviance when using computers and the Internet. Religious affiliation did not result in a statistically significant relationship with Student Behavior Score. When comparing the no religious affiliation with strong religious affiliation (the group that is closest in numbers), there is no significant difference. The researcher believes these students are either just honest because of their religious affiliation, or religious affiliation for some is not as effective as for others in developing ethics. After all, the students with no religious affiliations were also able to disclose their online activities.

With regard to students' interaction with their teachers, most of the students indicated that they interacted with their teachers. Interacting with teachers did not have a significant relationship with the Student Behavior Score. Although there was not a significant difference between level of interaction with teachers and Students' Behavior Score, students that reported no interaction with teachers reported deviance at 26.3%. This is compared to the students who reported they interacted with their teachers "some" (15.9%), "often" (20.1%) and "very often" (22.5).

Students who interacted with other students reported the least amount of deviance when using computers and the Internet. The majority of the students indicated that they interacted with their classmates. There was a significant relationship between the Student Behavior Score and the level of interaction students have with their classmates. Students that reported no interaction with classmates had the highest

overall percentage of deviance (35.2%). This is compared to the other levels of interaction that gets lower as the level of reported interaction increases ["some" (21.8%), "often" (18%) and "very often" (17.4)]. Therefore, students who alienate themselves from others are engaging in more deviant activity when using computers and the Internet.

The majority of the students indicated that they spend "much" time online and display very little deviance when using the Internet and computers. This analysis was interesting because some of the students indicated that they do not spend any time online, but they displayed deviant behavior when online (time spent online "none," 28.6% of the students indicated deviance online). Students evidently misunderstood the question. Students' time spent online had a significant relationship with Students' Behavior Score. Students that reported spending more time online had the highest overall percentage of deviance -"very much" (22.2%) and "much" (21.2%). This is compared to the other students who reported spending less time online, "little" (15.5%).

As related to hours per day spent on the Internet, when asked specifically how many hours per day they spent on the Internet, students could relate to this question and responded more accurately. Hours spent online are highly related to Student Behavior Score. Students who reported spending the least amount of time online reported the lowest percentage of deviance (2 hours or less, 15.3%). This is compared to the other amounts of time spent online, in which the percentage of deviance increases as more time is spent online (3-4 hours, 19.1%; 5-6 hours, 37.2; 7-8 hours, 44,7%; 9 or more hours, 46.7%). It is highly recommended that students' time online be supervised and coupled with a program that will monitor or control their online activity.

When asked whether there was a working computer in the home, the majority of the students indicated that they had a working computer in the home. However, a smaller number of students indicated that they did not have a computer in the home. A working computer in the home was shown to be significantly related to the Student Behavior Score. The percentages for deviance were higher for those students not having a computer in the home. This relationship could mean that students do not need a computer in the home to engage in deviant acts on computers and the Internet.

After all, Kevin Mitnick (one of the most famous computer hackers) did not own a computer, but he had been engaging in deviant acts with computers since he was a juvenile. Students with a working computer in the home may be more familiar with computers and may not realize or not have been taught that certain behaviors are deviant, therefore they may not be reporting their behaviors accurately. The significance may be how students with computers view what is actually deviant verses those without a computer in the home. Coldwell (1996) concluded that students from machine-based disciplines (computer environments) are less able to predict the social consequences of computer crime than those from people-based disciplines (no computers).

For the reason that students are being introduced to computers and the Internet at an earlier age, it is necessary to introduce technology ethics to all levels of education. Ethics should be taught starting when computers are first introduced to the student. Having a computer in the home allows for more chances of deviance to occur, despite the fact that student may not realize what is happening. Therefore, supervision and ethics teaching becomes a necessity at home and away from home.

Objective Five - Comparison of Student Behavior and Peers' Behavior Scores

When comparing the means of the Peers' Behavior Score and the Students' Behavior Score, students' perceptions of themselves and their classmates are very different. Students perceive that their peers are displaying deviant behavior "often" and "very often" on computers and the Internet. However, students perceive that they are not engaging in "deviance" or "some deviant" behavior.

The researcher believes those if the students' peers are engaging in this type of behavior then a larger number of students are engaging as well, but are not disclosing this information (Daniel, 2003). Students may feel more comfortable disclosing what others are doing. Students may not want to admit displaying deviance, but it is easier to be more open when discussing someone else's behavior. Therefore, the two scores might be used to gauge the amount of actual deviance being displayed.

Conclusion

The primary purpose of this study was to explore what middle and high school students perceive as deviant behavior when using the computer and the Internet. Based on the findings, it can be concluded that students do not perceive most of their behaviors on the Internet and computers as deviant. More specifically, the Peers' Behavior Score mean is higher than the Students' Behavior Score. Therefore, students do not perceive their own behaviors as being as deviant as their peers' do. This attitude can be correlated to a theory known as the third person effect (Perloff, 1989). Cohen, J., Mutz, D., Price, V. and Gunther, A. (1988) defined the third person effect as how people represent themselves in relation to others. The students' image of themselves is more ethical than the students' image of their friends. Consequently, their classmates are the ones that visit the pornography websites, access other people's websites without permission and perform other deviant acts when using the Internet and computers (Daniel, 2003).

Additionally, this study will add to the small, but growing body of knowledge concerning students' perceptions of deviance when using the Internet and computers. We have gained an image of how students use the Internet and computers; how students spend some of their time online and how much time; they spend using computers and the Internet.

With the integration of computers and the Internet into the curriculum, there must also be responsibility. If deviance is to be avoided or decreased, all participants must take responsibility, which includes users and suppliers. Educators and parents must be vigilant in their effort to discourage computer and Internet deviance.

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