# What's Wrong with Napster? A Study of Student Attitudes on Downloading Music and Pirating Software

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## Abstract

Software piracy is older than the PC and has been the subject of several studies, which have found it to be a widespread phenomenon in general, and among university students in particular. The author replicates an earlier study done by Cohen and Cornwell a decade ago, adding questions about downloading music from the Internet. The survey includes responses from 224 students in entry-level courses at two schools, a nondenominational suburban university and a Catholic urban college with similar student profiles. The study found that students generally felt that copying commercial software and downloading music from the Internet was acceptable and that there was no significant correlation between student attitudes and their school's religious affiliation or lack thereof. Finally, the reasons for these attitudes are discussed as well as what colleges can do to correct the situation.

**Keywords:** Software piracy, music downloading, computer ethics, student attitudes

The unauthorized duplication of copyrighted software (usually called software piracy) is almost as old as the desktop computer. Bill Gates' famous "An Open Letter to Hobbyists", in which he likened software piracy to outright theft was published in February 1976, five years before the introduction of the IBM Personal Computer (Wallace 1992). The Business Software Alliance estimates that New York State alone lost over $540 million in retail sales due to software piracy (BSA 2001).

The attitudes that students have regarding software piracy have been the subject of several studies. Christoph, Forcht and Bilbrey found that prior computer experience made no significant difference in their attitudes toward piracy (Christoph 1987). Cohen and Cornwell replicated the study by Christoph et. al. and added additional questions asking respondents whether they themselves had engaged in software piracy and whether they consider it legal (Cohen 1989a). Husted determined that many cultural factors influence the probability that someone will engage in software piracy (Husted 2000).

The author has taught computer ethics on several occasions, most recently as a freshman-level seminar, and was disturbed to see that students had no understanding of the concept of intellectual property. It was not a matter of knowing that it was technically wrong but not harming anyone; they literally did not understand that they lacked the right legally or ethically to make multiple copies of copyrighted materials. More recently, a student informed the author that she had always believed that copying software was only wrong if you planned to sell it.

The previous studies done by Schuster, Christoph et al. and Cohen and Cornwell are several years old and there have been many changes that have occurred since then. There is a different generation of students attending college. Many software publishers allow users to download basic versions of programs such as Netscape Navigator, RealPlayer, Flash and WinZip. Napster, the digital music sharing program, has become one of the more popular Internet applications, with the company estimating 10,000 users per second at peak times (Ciolli 2001).

The study differs in a few other ways. The survey was conducted in entry-level courses. These included two introductory math classes, three introductory programming classes, and seven computer literacy classes. The survey also encompassed students at two schools: Adelphi University, a non-denominational school in Garden City, New York, and Saint Peter's College, a Catholic college located in Jersey City, New Jersey. Despite the geographical differences, (Adelphi is in a Long Island suburb of New York City, Saint

Peter's is in an urban setting), there are many similarities in the student pool. Additionally, half the classes were asked two additional questions about downloading music; the other half served as a control group to see if the presence of these questions affected their answers on the other questions.

## 1. METHODOLOGY

The questionnaire used was essentially the same one used by Cohen and Cornwell. In addition, half the course sections had two additional questions added about downloading music. The respondents are also asked about their attitudes toward privacy, and the use of hardware, work and data that belongs to others. Students were not asked to categorize themselves by year, sex, race or other identifying information. It has been shown that younger students and male students are more likely to commit software piracy (Sims 1996). Omitting questions of this type made it more difficult to identify the student completing the questionnaire, making their answers more anonymous and therefore more candid.

As noted above, the classes surveyed were all introductory courses with roughly half at Adelphi University and half about Saint Peter's College. These courses were chosen to ensure that there was no overlap, i.e. that students in one class were not in another. The survey was conducted during the 2000 Summer Session, Fall 2000 and Spring 2001 Semesters; one section was surveyed during the 2001 Summer Session.

Questionnaires were numbered after collection to ensure auditability and the answers were tabulated class by class in a Microsoft Excel workbook using a 1 to indicate "True" and a 0 to indicate "False." Entries for unanswered questions were left blank. Several students did not complete the back of the questionnaire; these questionnaires were recorded but left out of the statistics. A total of 224 student questionnaires were used in the survey. Adelphi students completed 110 questionnaires while Saint Peter's students completed 114 questionnaires. 108 completed questionnaires contained the two questions regarding the downloading of music; 116 omitted these questions.

## 2. RESULTS

Students were asked their experience with computers and their usage. This data appears in Table 1. It shows clearly that most of the class is fairly familiar with computer usage and that even those with limited exposure have used it for over a year. Most use it for their schoolwork, almost half use it on the job and most use it for recreation as well. It also shows that there is little variation in computer skills from one category to another.

Table 2 shows their response to the first five questions, which asks whether they thought most people copied software, as well as most students, most professors and most college administrators. Responses at the two schools were similar for the first two questions; however, fewer students at Saint Peter's believed that either professors or college administrators copied software than at Adelphi. The difference was more significant when asked if they themselves had copied software. The presence of the two questions about downloading music (the column marked "Napster" in Table 2) made no discernible difference; the response was comparable to that where the questions were not asked (the column marked "No Napster").

Table 1
Computer Experience and Usage of Respondents

| | Total | Adelphi | St. Peter's | Napster | No Napster |
|---|---|---|---|---|---|
| My experience with computers includes… | | | | | |
| daily use over more than a year | 78% | 76% | 79% | 74% | 81% |
| limited exposure, but for more than a year | 17% | 17% | 16% | 21% | 12% |
| extensive exposure, but less than a year | 1% | 0% | 2% | 0% | 2% |
| only passing experiences | 3% | 5% | 1% | 3% | 3% |
| no prior experience | 2% | 2% | 2% | 2% | 2% |
| | | | | | |
| I use software… | | | | | |
| on my job | 47% | 40% | 54% | 44% | 49% |
| for classes I take | 90% | 90% | 89% | 91% | 89% |
| for recreation | 79% | 80% | 79% | 79% | 80% |

Table 2
Student Perceptions of Software Piracy

| | Total | Adelphi | St. Peter's | Napster | No Napster |
|---|---|---|---|---|---|
| I think that most people copy commercial software instead of buying it. | 68% | 69% | 67% | 67% | 69% |
| I think that most students copy commercial software instead of buying it. | 78% | 76% | 80% | 79% | 78% |
| I think that most professors copy commercial software instead of buying it. | 39% | 45% | 32% | 34% | 43% |
| I think that most administrators copy commercial software instead of buying it. | 36% | 41% | 32% | 30% | 42% |
| I have copied commercial software instead of buying it. | 54% | 60% | 49% | 55% | 54% |

Table 3
Attitudes On Software Piracy

| I think it is okay: | Total | Adelphi | St. Peter's | Napster | No Napster |
|---|---|---|---|---|---|
| for people such as myself to copy commercial software instead of buying it. | 66% | 64% | 68% | 64% | 67% |
| for people such as myself to copy commercial software instead of buying it when we use it for educational purposes. | 74% | 66% | 81% | 71% | 76% |
| for employees to copy commercial software to evaluate it for possible purchase. | 54% | 55% | 53% | 56% | 52% |

The questions shown in Table 3 ask about their attitudes on copying software under different circumstances. The only variation of more than 2% was by college when asked about copying software for educational purposes.

Three of the questions that Cohen and Cornwell asked were similar to questions asked by Schuster in his study (Schuster 1987). Table 4 compares the results of this study with the earlier studies done by Cohen and Cornwell and by Schuster. The asterisk (*) indicates questions not asked by Schuster. All three studies produced comparable responses on three out of five questions. This study showed that less than half of the students surveyed thought that professor copied software; earlier studies showed that more than half of the respondents thought that professors did it as well. One student suggested to the author that students might assume that professors and administrator are provided with their software by the university. Additionally, in this survey more than half of the students surveyed said that they had copied software themselves, 10% more than in Cohen and Cornwell's study. This can be most easily attributed to greater computer literacy, given than

only 24% indicated computer experience in the earlier study.

Table 5 shows the response to questions about the propriety of using University-owned software at home and the circumstances under which copying software is legal. There was no significant deviation in the data when the responses were categorized by school or by the presence or absence of the Napster-related questions. Most students believed that it was appropriate to use University-owned software at home for University assignments and a majority felt that it was permissible even for personal use. While less than half of the respondents thought that it was always legal to copy commercial software, only a quarter of those asked thought that this was never legal.

Table 6 shows the responses to questions about downloading music. The permission of the recording artist was not a significant factor in attitudes about downloading music. There was, however, a sizeable difference in response between the two schools, with respondents at Saint Peter's having fewer qualms about downloading music than respondents at Adelphi.

Table 4
A Comparison of Questions From Three Studies

| | This Study | Cohen & Cornwell | Schuster |
|---|---|---|---|
| I think that most people copy commercial software instead of buying it. | 68% | 69% | * |
| I think that most students copy commercial software instead of buying it. | 78% | 86% | 96% |
| I think that most professors copy commercial software instead of buying it. | 39% | 56% | 79% |
| I think that most administrators copy commercial software instead of buying it. | 36% | 25% | 89% |
| I have copied commercial software instead of buying it. | 54% | 44% | * |
| I think it is okay for people such as myself to copy commercial software instead of buying it when we use it for educational purposes | 74% | 79% | 84% |

Table 5
Attitudes About The Propriety and Legality Of Copying Software

| | Total | Adelphi | St. Peter's | Napster | No Napster |
|---|---|---|---|---|---|
| It is okay to use University-owned software at home… | | | | | |
| to complete University assignments | 90% | 87% | 93% | 90% | 91% |
| for my personal use. | 58% | 61% | 56% | 62% | 55% |
| I think that it is legal for people such as myself to copy commercial software instead of buying it… | | | | | |
| always | 37% | 35% | 38% | 36% | 37% |
| when used for school work | 40% | 36% | 44% | 39% | 41% |
| never | 25% | 27% | 22% | 26% | 23% |

Table 6
Attitudes About Downloading Music

| I think it is okay: | Total | Adelphi | St. Peter's |
|---|---|---|---|
| to download music from the Internet | 82% | 62% | 89% |
| to download music from the Internet if the musicians say it's OK | 84% | 57% | 93% |

### 3. DISCUSSION

College students today are far more computer-literate than students were when Schuster, Christoph et al. and Cohen and Cornwell did their respective studies. But current attitudes toward software piracy are similar to what they were at that time. While various studies have shown that one can create a profile of the software pirate or of the culture that it more likely to foster software piracy, there is no sense among college students that the copying of commercial software is wrong. And there is no clear indication that it is getting any better or worse.

It is very clear that students do not see any problem with downloading music over the Internet. The opinion of the artists whose music they are downloading is insignificant in their forming opinions on the issue of downloading music. In fact, the Adelphi respondents were actually less likely to think that downloading was permissible if the musicians said that it was OK! Napster's popularity seems to imply that the sentiments expressed by respondents are fairly typical of college students in general.

Although software piracy and the downloading of copyrighted music both show a fundamental disrespect for intellectual property rights, there is no clear indication that a more permissive attitude toward software piracy makes one more likely to have a permissive attitude toward downloading music. The correlation coefficient for the questions on copying software and downloading music was 0.40, which indicates a positive correlation but not necessarily a very

strong one. A full third of the respondents who saw nothing wrong with downloading music did not consider the copying of commercial software as "OK."

Before the end of 2000, Adelphi University requested that the University's Internet Service Provider (ISP) block Napster from the campus network because of the huge amount of bandwidth that its traffic consumed. Immediately after the block went into effect, there was a sizeable drop in traffic (Gallagher 2001). This suggests that Napster was a popular application for the University community and that the swapping of music files was fairly common. In an era of video cassette recorders, "boom-boxes" which can easily recording radio programming and compact disks and CD-RWs, students have a hard time perceiving ethical distinctions between time-shifting of programs, saving a favorite episode of a program and swapping these recordings with friends and strangers.

It is hard to say if the respondents see any real difference between downloading music from the Internet and copying software. Anecdotal evidence suggests that there are fewer qualms about downloading music because there is an assumption that they have a right to download whatever they find on the Internet. Copying software is a different matter; the attitude can be summarized by a comment that one student wrote in the margin of a questionnaire: "I don't have hundreds of [dollars] to spend [on software packages] and I need them."

At first glance, it is surprising to see that affiliation with the Catholic Church made no difference in students' attitudes toward the theft of intellectual property. This has been observed before; Kennedy and Lawton studied religious affiliation and its correlation with ethical orientation and found that no discernible difference between students at Catholic and unaffiliated institutions (Kennedy 1989).

What can be done to make students more aware that software piracy is unethical and illegal? Cohen and Cornwell spoke about integrating ethics into the computer science curriculum and not simply teaching it as a separate. They found evidence that suggests it improves students' attitudes toward most ethical issues in computing (Cohen 1989b). But this lesson must start with a good example: Athey found in her study of AACSB-accredited universities that faculty was sometimes viewed as the main offenders of software piracy policies and frequencies as being ineffective enforcers (Athey 1990). Taylor noted that professors are more likely to copy software than business executives, attributing it to the looser supervision of college faculty and fewer sanctions that they face if caught (Taylor 1993).

Lastly, students can be made more aware of educational discounts. Most major software companies offering most of their packages at significant discounts to college students. Most schools could remove one of the motivating factors in software piracy by following the examples of schools such as New York University and Columbia University, which sells software at educational discount in stores on campus.

## 4. ACKNOWLEDGEMENTS

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