

## Student Downloading and File-Sharing: Problems and Responses for College Housing

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### Article:

#### INTRODUCTION

Today's college students are the most technology-savvy, computer-oriented generation of college students in history: Twenty percent have been using computers since the primary grades; more than 70% check their e-mail at least daily; and most (85%) own their own computers (Jones, 2002). One recent study found that 94% of campus residents had access to computers in their residence hall rooms (Knerr & Woosley, 2004). College students expect that they will have near-ubiquitous, high-speed computer access wherever they are on campus (Barran, 2003). To the coveted title of "most wired campus" we now must add "most unwired campus," which recognizes the migration to wireless Internet service

([http://www.intel.com/pressroom/kits/centrino/unwired\\_colleges-04.pdf](http://www.intel.com/pressroom/kits/centrino/unwired_colleges-04.pdf)).

Although easy access to computers and high-speed networks may contribute positively to students' academic experiences in significant ways, this technology also has had adverse impacts on campus (Barratt, 2003). One area that has received considerable media attention in the past few years is downloading and file-sharing of copyrighted material, such as music and movies. Under the No Electronic Theft Law (NET Act), these activities are a violation of copyright, and individual violators may face both imprisonment and fines.

In 2003, the Pew Internet and American Life Project (Madden & Lenhart, 2003) reported that 35 million adults had downloaded music files. Among Internet users 18-29, 51% had downloaded music files and 13% were downloading on a typical day. College students were the most likely of all Internet users to download music files (56% of full-time students and 40% of part-time students who used the Internet). Furthermore, the study found that college students were the least concerned of any group of downloaders with the copyright implications: Four out of five described themselves as "unconcerned." In addition, 42% (about 26 million) of those who download files also share files (Madden & Lenhart, 2003). As with downloading, college students were the most likely users to share files, 35% of students shared files; and as with downloading, students were the most unconcerned group about the copyright implications of file-sharing.

To combat the rising tide of music downloading and file-sharing, in 2003 the Recording Industry Association of America (RIAA) began suing individuals who downloaded and shared music files. Many of these suits have been of the "John Doe" variety, where universities are asked to identify students who use networks based on their IP addresses. Following these well-publicized suits, Pew reported initial dramatic drops in downloading, from about 25 million users to about 18 million, and a corresponding decrease from 28% to 20% of users using common file-sharing software such as Kazaa, BearShare, and Grokster (Rainie & Madden, 2004). More recent Pew reports (Madden & Rainie, 2005; Rainie & Madden, 2004) showed an increase in music downloading and file-sharing, although not back to the levels seen before the RIAA suits. Meanwhile, college and university officials reported that "college students appear[ed] to be downloading just as much music illegally as they did a

year ago [prior to the suits] (Read, 2004a, p. A25).

Increasingly, the RIAA is focusing on college and university network users. In March 2004, the RIAA sued 529 more people, including 89 "John Doe" complaints against individuals using university computer networks in 10 states. According to the Associated Press, this was "the first time the trade group has targeted computer users swap-ping music files over university networks." In December 2004, 754 more such suits were filed by the RIAA, including 20 against college and university users. In January 2005, 717 more "John Doe" suits were filed by RIAA, with nearly three times as many university network users sued as in previous suits. According to an RIAA news release, this action "signal[ed] a continuing effort to step up anti-piracy enforcement on college campuses" (RIAA, 2005a). In September 2005, 757 more individuals were sued, including net-work users at 17 colleges and universities; in all more than 500 people at 39 campuses were sued by the RIAA in 2005 for downloading and file-sharing (RIAA, 2005b). Most recently, in spring 2007, RIAA sent more than 1,200 pre-litigation letters to colleges and universities (RIAA, 2007a, 2007c, 2007d); the rate of these notices is three times higher than in 2006 (RIAA, 2007b). RIAA's plan is to send 400 such pre-litigation letters to colleges and universities each month (that would be a total of more than 5,000 in a year) (Lederman, 2007). RIAA has chosen to target campus users because of a disproportionately large share of those illegally sharing files is made up of college students (Bainwol & Sherman, 2007). To date, more than 18,000 people have been sued by the RIAA for illegal downloading and file-sharing (Lederman, 2007).

Recently, attention has focused on the down-loading and file-sharing of movies (Jones & Lenhart, 2004). High-speed connections now available on campus have made it easier to download and share movies. Downloading and file-sharing movies take up considerably more bandwidth than does music, presenting a greater problem for campus computing networks (R. Blake, personal communication, August 15, 2006). According to research sponsored by the Motion Picture Association (MPA), 71% of illegal downloaders of movies are between the ages of 16 and 24. The MPA attributes 44% of motion picture company losses from movie piracy specifically to college students ("The Cost of Movie Piracy," 2006). In February 2003, Universal Studios issued a large number of cease-and-desist orders to several campuses in response to hundreds of instances of illegal downloading and sharing of movies. It was expected that these institutions address the downloading activity with the students, or the institutions would be held responsible (Read, 2003a). Beginning in 2004, the Motion Picture Association of America (MPAA) began to file lawsuits aimed at individuals who shared movie files (MPAA, n.d.). In addition, MPAA has launched an extensive educational campaign to combat movie piracy, including ads in campus newspapers and an educational Web site ([www.respectcopyright.org](http://www.respectcopyright.org)).

Pressure on higher education also has come from Congress. In April 2006, the U.S. Senate unanimously passed Senate Resolution 488, introduced by Senators Leahy, Hatch, and Nelson. The resolution called on colleges and universities to take a leadership role in educating students about illegal downloading and file-sharing and to take steps to deter illegal file-sharing on their networks (S. Res. 488, 2006).

## **TECHNICAL ISSUES**

One of the major problems for housing professionals trying to combat student file-sharing is that the computer technology involved in down-loading and file-sharing and the terminology used to describe it can be confusing to those out-side of information technology. Most students utilize peer-to-peer (P2P) file-sharing programs, which are computer applications that connect one user's computer (peer) to another user's computer (peer) to share files. These peers are sometimes identifiable only by their IP addresses, an Internet protocol number that is assigned to every individual computer on a network, a digital "fingerprint" for identification.

Despite technology available to students for their pursuits in illegal downloading, today's college students have been returning to older software applications. These applications, including BearShare, Kazaa, WinMX, Gnutella, LimeWire, and Ares, were once targeted by universities and blocked from use on some networks. However, they have now become popular peer-to-peer file-sharing programs as universities have relaxed network monitoring and port blocking.

Besides these older applications, one newer application, Shareaza, is helping students fileshare today. Shareaza is a peer-to-peer file-sharing program that uses four separate peer-to-peer networks, including EDonkey2000, Gnutella, BitTorrent, and its own network, Gnutella2. Shareaza offers faster speeds and greater access to files while allowing users to chat with one another and preview media before downloading. Shareaza is particularly troubling for colleges and universities because of its built-in security features that utilize "security block lists, a highly sophisticated IP and client filter," which allows the user to block monitoring (<http://www.shareaza.com>).

Internet Relay Chat (IRC) is one of the most unknown sources for file-sharing. IRC serves as the primary distribution point for almost all shared files/pirated sources on the Internet, as long as the source is known. A great deal of the pirated content found online originates as a "seed" on an IRC channel. Minutes after that great sitcom airs on television, someone somewhere releases it through IRC channels. Downloads through IRC are quite fast, limited only by the speed of the user's connection, making the initial distribution of material almost instantaneous. IRC channels are used mostly for television, movies, and anime files. IRC is particularly troublesome for the RIAA and college and university administrators because of its ease of use. An IRC channel can be shut down, only to be reborn within two days or less, making it nearly impossible to stop the distribution of pirated material through IRC.

Students also use campus local area networks (LAN) to share files with others who are on their LAN—typically, the other students in their residence halls. Students use music-playing software, such as Direct Connect and OurTunes, both to play music on their own computers and to share it within the LAN. They create shared network folders and place music and movie files into these folders for other students to access. In turn, other students also may put music and movie files into the folder to be shared. Because the LAN is not public, students may have an increased sense of safety from detection compared to using P2P applications on the Internet. In April 2006, the RIAA and MPAA sent letters to college presidents calling on them to stop illegal file-sharing on their campus LANs (RIAA, 2006).

## **THE COLLEGE AND UNIVERSITY RESPONSE**

In the face of pressure from the RIAA, the MPAA, other agencies, institutional leaders, and government leaders, college and university personnel, including housing staff, have been prompted to craft a response to hold students accountable for their activities on university networks. However, this has been largely a new issue for student affairs professionals, as they also have been trying to learn about the technology that students are using.

Responses have varied. Efforts to combat illegal downloading and file-sharing by blocking the P2P software applications commonly used for these activities have been relatively unsuccessful as students transfer their file-sharing activities to different applications or to different methods. Blocking these applications also blocked legitimate file-sharing activity, such as those used for class projects and other academic applications.

Some institutions choose to discontinue a student's Internet service immediately, requiring the students to remove the copyrighted materials, and institutions initiate judicial proceedings under their Student Code of Conduct at this time. This action is an effective method of quickly getting the students' attention but may result in large and unmanageable increases in judicial caseloads. Because in many instances students pay an extra fee for use of network services, the discontinuation of service could anger and frustrate students and their parents. Students who are disconnected could be put at a disadvantage in completing their academic work because they must travel to an on-campus computer lab rather than using the connection in their residence hall rooms. It could be argued, however, that using a university computer network is a privilege, not a right, even if students pay an additional fee for that privilege.

Other institutions choose to warn students about the offense the first time that a report regarding downloading and/or file-sharing is received. Purdue University, with roughly 38,000 students, and two full-time professionals and one 20-hour-a-week graduate student in judicial affairs, chose this approach. Upon receipt of a report, a letter is sent to the student that describes the origin of the report, the specific file that was identified as having

been downloaded and/or shared, and the method that the student had used to do so (i.e. Kazoo, iMesh, etc.). The letter directs the student to delete the files in question from the computer and informs the student that failure to do so will result in termination of his/her computer resources. A brochure from the Purdue Copyright Office that describes copyright law in greater detail is also included. If the university receives additional reports that the student has downloaded or illegally shared files, the student's computer network access is suspended pending formal disciplinary proceedings.

The University of California Los Angeles (UCLA) uses software that specifically looks for users employing P2P clients on their network and reacts by shutting off the specific port. UCLA makes no assumption of guilt regarding the student and takes an educational approach when network access is restricted (Read, 2004b). The University of Florida developed and employed Integrated Control Application for Restricting User Services (ICARUS), which looks for use patterns associated with large-scale "sharing," then displays a pop-up notifying the student that network access has been restricted locally, and why, and explains how full access can be regained.

To monitor potential problems with copyrighted online materials as well as to better manage network space, Cornell University announced plans to charge students and faculty for excessive bandwidth usage. It cited its Internet service, which costs the institution \$1.4 million a year, increasing more than 40% annually, due mostly to increased downloading activities (Olsen, 2003). In search of a method to recover its costs, Cornell announced a fee structure that it considered to be equitable, yet complicated. As of March 2003, student fees were listed as \$26.35/month basic fees, and a \$4/month Internet usage fee was included in student room rates (Olsen, 2003). Faculty members were charged an Internet usage fee of \$4 a month for each IP address and could download up to 2 gigabytes of information. If more than 2 gigabytes were used, the employee, or department, would be charged a fraction of a cent for every megabyte over the allocation (Olsen, 2003).

Other institutions have chosen to provide students with a legal downloading alternative (McDonald, 2005). Penn State received considerable attention when it entered into a contract with Napster 2.0, a legal version of the early Napster, for an "undisclosed fee" (Read, 2003b). Students have free access to listen to a library of songs and are charged 99 cents a song for downloads. This is intended to encourage students to practice good consumer habits in college and continue them in the future by subscribing to a similar legal service. Compared to nonstudent subscriber fees, the student rate for downloading is more economical. This initiative has been financed through a students' information-technology fee each semester. In 2003, Penn State reported that more than 8,000 users had participated, and 500,000 songs were being streamed or downloaded a day (Read, 2003b).

This move by Penn State encouraged other institutions to examine similar alternatives. Bentley College partnered with Ruckus Network to offer music, movies, and student-produced independent entertainment free to undergraduate students living on-campus. Bentley also explores online issues in current class offerings such as "Law and Ethics for Cybersociety" (Bentley College, March 2005). In February 2007 Ruckus reported having over 100 college and university partners where it provides a legal alternative for students (Ruckus, 2007). Purdue University entered into a similar arrangement with Cdigix ("Music sharing debuts," 2004). Cdigix provided more than 1 million songs for download from both major and independent artists. This subscription service was offered free to all students who lived in residence halls and for a fee to students living off-campus and to faculty and staff. All users were charged a small fee per song to download or burn a song to a compact disc (ITaP, 2005). However, when the contract with Cdigix expired at the end of the 2005-06 academic year, Purdue University announced that it would not be continuing the program (ITaP, 2006). Purdue officials cited the rising number of legal download options available to students as the chief reason for discontinuing the program. However, Purdue also reported that fewer than 10% of its students had tried the service.

Although providing a legal downloading alternative may isolate institutions from lawsuits and provide evidence that institutions are attempting to address the problem, some may question if it is part of the educational mission of an institution to act as an intermediary in providing music for downloading. Other questions to be answered are how the service is to be paid for and, if students are to be charged for this service, how to set those fees.

Adding the fee to students' existing fees (such as their housing charges, their student activity fee, or their IT fee) means that all students will pay for a service that only some will use. Some students may question the fairness of such an arrangement. Finally, there are questions as to whether providing access to such services actually curtails illegal downloading and file-sharing.

Besides these reactive measures, student affairs professionals have constructed educational campaigns to address student downloading and file-sharing of music and movies. A range of options is available:

1. **Passive Campaigns.** Posters and newspaper campaigns are popular due to the appeal of sending a message to a large audience at one time. Bulletin boards and dining hall table tents are other examples of passive campaign methods that may be employed. Another advantage of this approach is that it may be executed with relatively few human resources. Passive campaigns may be used to educate students as to why downloading is illegal and the consequence of such activities. They may further be used to show students the correct methods of obtaining electronic media. However, compared to other approaches, it may be particularly difficult to determine how many students are reached by passive campaigns and to connect changes in student behavior back to such campaigns.

2. **Educating Campus Leaders.** Residence hall student staff members, such as resident assistants, residence hall government officers, and others who may have frequent contact with the student body such as student government leaders and leaders of student organizations, may be targeted for education about the problem. Not only may this method be a valuable opportunity to educate students, but student leaders also may provide valuable feedback and potential solutions from the student perspective. This feedback may be used to adapt and modify educational and enforcement efforts.

3. **Open Campus Forums.** Purdue University held such a forum, sponsored by student government. The open event included panelists from the institution's information technology office, the office of the dean of students, a university attorney, a representative from the RIAA, and students. A campus open forum gives the issue of illegal downloading and file-sharing more visibility and conveys the message that the institution takes the problem seriously. The open forum provides not only information but also an opportunity for students to ask a variety of questions about downloading, institutional policy, and potential consequences.

4. **Classroom Discussions.** Faculty may help pass on the message that downloading is illegal through their classroom discussions when appropriate to the subject at hand. The issue of music downloading may easily be tied into discussions about ethics in the classroom. Student affairs professionals may offer to be guest speakers on the topic, or they may incorporate the issue when speaking to classes on other topics, such as academic dishonesty. Issues of downloading and file-sharing may be addressed in campuses' orientation courses and in research and library courses.

5. **Television Commercials.** Many housing systems have their own cable television stations, providing the opportunity to take advantage of this popular medium. Commercials also may be utilized before showing a movie, a training video, or at an athletic event. Several institutions have developed educational campaigns, which include television commercials as one component. The University of Wisconsin's "Rules of the Road" campaign features three commercials: one about downloading, one about spam, and one about computer virus protection (Division of Information Technology, 2001). University of Delaware has a "Code of the Web" campaign, featuring its Fightin' Blue Hen mascot dressed as a western sheriff in the "Wild Wild Web." These two commercials cost \$3,500 to produce ("U. of Delaware enlists," 2003).

6. **Project NEThics.** This program originated at the University of Maryland, but Northeastern University and SUNY-Buffalo have similar projects. This project is an entire office, staffed to respond to a variety of computer use issues. Responding to downloading and copyright issues and other inappropriate computer-related behavior, such as cyberstalking, office staff pride themselves on giving the problem a "human side." Rather than simply telling students how to correct a problem, they also educate students, and connect them to additional services,

such as counseling, when necessary (Petersen, 2000).

7. Educational Programs. Issues related to safe and proper computer network use, including downloading and file-sharing of copyrighted material, may be addressed in educational programming. Venues for these programs could include the campus orientation program, as part of the introduction to the campus computer network, and in residence hall programming. Such programs could include representatives from the ResNet system and from the judicial (housing or campus) office to talk about various aspects of this issue. The beginning of the academic year probably is the best time to offer these programs. Repeating them at the beginning of each semester may be appropriate if the campus has a substantial number of students who transfer in at midyear or who move into housing at midyear.

## **IMPLICATIONS FOR HOUSING PROFESSIONALS**

According to federal law, a university or college is required to take action when notified that some-one on its network is distributing copyrighted materials. Housing professionals need to have clear policies and clearly articulated consequences in place to work with students when notified of a violation. For example, when the ResNet office at the University of Nevada Las Vegas receives notification of a violation, the student is notified in writing that he/she has 48 hours to come into the ResNet office before his/her service is cut off. If a student fails to come in for a meeting, the service is cut and the student is referred to the Office of Student Conduct. If there is a second violation, the student loses network service permanently. These policies and consequences are spelled out on UNLV ResNet's Web site.

It is beneficial to include the policies related to computer network usage in a number of different locations, both in printed publications and on the Web. These policies should be articulated in student handbooks and policy manuals. The campus' IT Web site and the housing Web site are other places where these policies should be included along with other information about appropriate use of the Residential Network. The ResNet site at the University of Nevada, Las Vegas includes step-by-step instructions on how to disable P2P software and how to remove it (see <http://housing.unlv.edu/resnet/copyrig ht.htm>) along with information about copyright policies. The goal should be to use all available relevant opportunities to educate students about the consequences of illegal downloading and file-sharing.

It is also important for housing professionals to closely monitor student violations, as it has become common practice for students who lose network access to use another port in housing. In most cases the student who has lost access will use the port of a friend who lives in the residence hall. The friend may be unwilling to say no or may be unaware of the law or of the violation by the friend. In such instances, the ResNet office should consider cutting network access to those students as well, whether they are aware of the violation or not, and helping to educate them on the implications of their actions.

Finally, housing professionals should consider a strong marketing and education campaign at the beginning of each year to help educate students on this issue. Many students simply are unaware of the law or of how to use their software properly. Other students are aware of the illegal nature of downloading and file-sharing. A strong marketing and educational campaign carried out at the beginning of each year ensures that residents will be unable to plead ignorance of the law and the policies governing the downloading and file-sharing of copyrighted materials. Many of the approaches outlined above, including passive campaigns, television commercials, educating leaders, and educational programming, are particularly well-suited for use in campus housing. Passive campaigns may be carried out through methods including floor and hall bulletin boards, posters, and dining hall table tents. Similarly, the housing cable channel may air public service announcements about copyright infringement and campus and housing policies. Downloading and file-sharing policies and consequences may be included as part of resident assistant training and may be communicated to hall government. Safe and proper computer use may serve as the topic for floor or all-hall programming.

## **CONCLUSIONS**

Responding effectively to illegal downloading and file-sharing continues to be a challenge. The legal landscape

regarding this issue continues to shift as new court cases are brought and decided. Rapidly changing technology combined with students who are increasingly technologically adept result in new strategies to circumvent established systems or prevention efforts. In addition, college students consistently have been shown to be unconcerned about copyright violations (Madden & Lenhart, 2003) and continue to perceive file-sharing as "a victimless crime." A final challenge is to find the appropriate and effective balance between reactive and proactive responses. As with many complex judicial issues, there is no "one-size-fits-all response" for all campuses or for all students. Each institution should evaluate its own institutional environment to develop the best strategy, or strategies, to appropriately respond to and educate students about illegal downloading.

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