

PEER-TO-PEER PIRACY ON UNIVERSITY CAMPUSES: AN UPDATE

HEARING BEFORE THE SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY OF THE COMMITTEE ON THE JUDICIARY HOUSE OF REPRESENTATIVES ONE HUNDRED EIGHTH CONGRESS SECOND SESSION

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PEER-TO-PEER PIRACY ON UNIVERSITY CAMPUSES: AN UPDATE

TUESDAY, OCTOBER 5, 2004

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON COURTS, THE INTERNET,
AND INTELLECTUAL PROPERTY,
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The Subcommittee met, pursuant to notice, at 9:07 a.m., in Room 2141, Rayburn House Office Building, Hon. Lamar S. Smith (Chair of the Subcommittee) presiding.

Mr. SMITH. The Subcommittee on Courts, the Internet, and Intellectual Property will come to order. Our hearing today is on "Peer-to-Peer Piracy on University Campuses: An Update."

I will recognize myself for an opening statement, then the Ranking Member, Mr. Berman of California, and then we will look forward to hearing from our witnesses.

Let me mention a couple of things. One is this is an unusually early hour for hearings to be held, so we appreciate the witnesses coming today and also coming on relatively short notice. I think they just had a few days' notice, and we appreciate the interest of others who are here. But the early hour probably does account for the absence of several Members who we hope will join us a little bit later on.

I will recognize myself for an opening statement.

This Subcommittee has been greatly concerned over the growth of copyright piracy on peer-to-peer networks. Once an activity limited to those few with computers, copyright piracy is becoming as easy to undertake as changing channels on a television. Ironically, an increasing number of American university students now appear to prefer engaging in peer-to-peer piracy instead of watching television, not that either is necessarily an educational activity.

Despite the growing numbers of legal alternatives to pirated networks, some have argued that copyright piracy is now completely ingrained in the culture of America and that our laws need to be updated to reflect this reality. I disagree with this assertion, but it is clear that copyright piracy is not viewed as a serious concern by many teenagers and young adults.

Since universities are where students first put into practice their values and respect for laws independent of the guidance and oversight of their parents, universities are in a unique position to address this issue, particularly since the activity occurs on their networks. I am glad to see that there appears to be at least a willingness by some of America's youth to use legal alternatives.

I am also happy to learn of the cooperative effort by educational and copyright groups to develop a strong working relationship to address the on-campus piracy problem. Unlike several years ago, when the mere thought of using legal alternatives to peer-to-peer pirate networks was met with widespread derision by university students, the usage of legal alternatives is, in fact, growing.

The reasons for this shift appear to be due to a combination of several factors, including, one, growing public awareness of the legal and security risks involved in pirating copyrighted files; two, educational campaigns undertaken by copyright owners; three, educational campaigns undertaken by universities; four, the growth in the number and type of legal alternatives, including those targeted specifically at students; five, efforts by universities to offer to all students a prepaid legal alternative to copyright piracy.

I doubt there are few students, or their parents for that matter, who haven't heard about music industry litigation related to pirated music. Quite a few of these students have also repeatedly heard the message from copyright holders in their schools that copyrights should be respected, not only for legal reasons but also for ethical ones.

Advertisements for legal alternatives, such as Apple's iPod, appear to be everywhere. Over 20 schools now offer some sort of prepaid legal alternative, and this number seems likely to increase in the near future.

My concern about the heavy use of peer-to-peer pirate networks on campus includes its impact upon the very Internet connections that universities depend upon to connect researchers around the world. In a university setting, with the vast majority of Internet connections made by students, one can only imagine how much Internet capacity would be freed up if illicit peer-to-peer file theft ceased.

Peer-to-peer technology is a major technological and educational advance whose promise is unfortunately being hijacked by those who use it primarily to steal copyrighted files. Although I welcome the spread of this new technology, I cannot say the same for the use of it for illegal activity.

I am particularly interested today in learning about the sharing occurring on Internet 2, the next generation Internet. Unfortunately, Internet 2 seems to be viewed by some students as the next generation theft network. File sharing software, such as i2hub, that has been specifically designed for Internet 2, now makes downloading illicit files an even faster activity. The fact that i2hub is run by someone who had significant ties to the first generation of Napster should give everyone pause about the motivations behind this software.

Eighteen months ago, this Subcommittee held a hearing on the issue of peer-to-peer piracy on university campuses. Two of the organizations testifying then are also here today. I look forward to hearing from them about the progress that has occurred to reduce copyright piracy on university campuses since that first hearing. I am also interested in hearing from our other two witnesses about how universities are handling this issue and what legal alternatives are available.

In closing, I would point out that I intend to continue our oversight in this area in the coming months and years to come.

That concludes my opening statement, and the gentleman from California, Mr. Berman, is recognized for his.

Mr. BERMAN. Thank you very much, Mr. Chairman, and thank you for putting together this hearing today. You and I have worked in tandem on the issue of P2P piracy on university campuses and this hearing presents an opportunity to take stock of what these efforts have achieved.

I think the record is fairly encouraging and I want to thank all of the witnesses before us today and particularly Jim Davis, who has come East from my home town of Los Angeles to tell us about the good work being done at my alma mater, UCLA.

The witnesses also deserve our congratulations for their work to stem the tide of P2P piracy on university campuses. In particular, Mr. Spanier and Mr. Sherman are to be lauded for the cooperative spirit and vision they have displayed in chairing the joint committee. They can fairly claim a great measure of responsibility for many positive developments in addressing P2P piracy on campus.

The now widespread licensing of legitimate music services, like MusicNet, by the members of the Recording Industry Association of America is critical to making college students into music customers rather than music pirates. Furthermore, the establishment of dozens of reasonably priced, consumer-friendly download webcasting and interactive streaming services means piracy profiteers and apologists can no longer claim legitimacy when defending P2P piracy. With CD-burning kiosks stations in Starbucks and free downloads being given away with Pepsi purchases, legitimate customers no longer have any trouble in hearing the music.

The subsidized availability of online music services on campuses like Penn State also contributes tremendously to the goal of keeping students honest. If the trend continues and these services secure widespread adoption on campus, the music services may have gained customers for life. Similarly, participating universities may achieve a rare "two-fer," reducing their computer network costs while fulfilling their educational mission.

Copyright education campaigns on many campuses, including Penn State and UCLA, are also a credit to the responsible university administrators. I understand it is no easy thing for college administrators to tell their students that one of their most cherished pastimes is wrong, but it is the right thing to do. A core mission of the university is to shape the moral character of the next generation of leaders, and encouraging students to obey the law and respect the property rights of others fits squarely within that mission.

Our witnesses also deserve praise for undertaking technological initiatives to both deter piracy and promote the establishment of legitimate P2P networks. The Quarantine system at UCLA is a technological innovation that appears to bear much promise for deterring campus piracy. I am particularly interested to hear whether our witnesses believe the Quarantine system or some species thereof could be adopted more broadly by university and commercial ISPs.

I also applaud Penn State for undertaking its Lion's Share project. Piracy apologists have long defended the predominately infringing P2P networks on the hypothetical basis that someday, some way, these networks might prove useful for scientific or research activities. While the underlying P2P software could be put to legitimate uses, the most popular networks themselves have demonstrated next to no scientific or research utility.

As I understand it, the Lion's Share project at Penn State is attempting to establish P2P networks optimized for scientific and research purposes. The hope is to connect scientists directly to one another and to the otherwise unavailable research notes, data, and unpublished materials residing on their hard drives. In assessing the needs of scientists and researchers, the Lion's Share project has apparently found that they will share their materials most freely on closed networks with some level of security and authentication. The Lion's Share project will hopefully achieve its goal of establishing just such networks.

I don't want to leave the impression I am wholly satisfied. There is much more that universities could do to address P2P piracy. I know of only one or two universities that block their students from utilizing the well-known and overwhelmingly infringing P2P networks. There really isn't a valid reason for allowing these networks to continue operating on campus. Universities now have access to technologies, like the one deployed by the University of Florida, that can block the P2P networks dominated by infringing activity. Furthermore, the Lion's Share project demonstrates that the most popular P2P networks have little science or research utility.

And finally, as the Chairman noted, Internet 2, which is just over the horizon, poses a much greater piracy risk than the current Internet. I wonder and would hope that the universities will think proactively about how to deal with the piracy risks it proposes.

I look forward to hearing the witnesses' testimony and yield back, Mr. Chairman.

[The prepared statement of Mr. Berman follows:]

PREPARED STATEMENT OF THE HONORABLE HOWARD L. BERMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA, AND RANKING MEMBER, SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY

Mr. Chairman,

I thank you for putting together this hearing today. For quite some time now, you and I have worked in tandem on the issue of P2P piracy on university campuses. This hearing presents an opportunity to take stock of what these efforts have achieved. I believe the record is encouraging.

I also thank the witnesses before us today. I appreciate their willingness to rearrange their schedules on short notice so they could be with us today. In particular, I want to welcome Jim Davis, who has come East from my hometown, Los Angeles, to tell us about the good work being done at my alma mater, UCLA.

The witnesses also all deserve our congratulations for their work to stem the tide of P2P piracy on university campuses. In particular, Mr. Spanier and Mr. Sherman are to be lauded for the cooperative spirit and vision they have displayed in chairing the Joint Committee. They can fairly claim a great measure of responsibility for many positive developments in addressing P2P piracy on campus.

The now widespread licensing of legitimate music services, like MusicNet, by the members of the Recording Industry Association of America is critical to making college students into music customers rather than music pirates. Furthermore, the establishment of dozens of reasonably-priced, consumer-friendly download, webcasting, and interactive streaming services means piracy profiteers and apologists can no longer claim legitimacy when defending P2P piracy. With CD-burning kiosks sta-

tioned in Starbucks and free downloads being given away with Pepsi purchases, legitimate customers no longer have any trouble in hearing the music.

The subsidized availability of online music services on campuses like Penn State also contributes tremendously to the goal of keeping students honest. If the trend continues and these services secure widespread adoption on campus, the music services may have gained customers for life. Similarly, participating universities may achieve a rare two-fer: reducing their computer network costs while fulfilling their educational mission.

Copyright education campaigns on many campuses, including Penn State and UCLA, are also a credit to the responsible university administrators. I understand it is no easy thing for college administrators to tell their students that one of their most cherished pastimes is wrong. However, it is the right thing to do. A core mission of the university is to shape the moral character of the next generation of leaders. Encouraging students to obey the law and respect the property rights of others fits squarely within that mission.

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As I understand it, the LionShare project at Penn State is attempting to establish P2P networks optimized for scientific and research purposes. The hope is to connect scientists directly to one another and to the otherwise unavailable research, notes, data, and unpublished materials residing on their hard drives. In assessing the needs of scientists and researchers, the LionShare project has apparently found that they will share their materials most freely on closed networks with some level of security and authentication. The LionShare project will hopefully achieve its goal of establishing just such networks.

While I am quite pleased with the progress achieved to date through the cooperation of the University and copyright communities, I don't want to leave the impression that I am wholly satisfied. There is much more they can do to address P2P piracy.

I know of only one or two universities that block their students from utilizing the well-known and overwhelmingly infringing P2P networks. There is no valid reason for allowing these networks to continue operating on campus. Universities now have access to technologies, like the Icarus system deployed by the University of Florida, that can block the P2P networks dominated by infringing activity. Furthermore, the LionShare project demonstrates that the most popular P2P networks have little scientific or research utility.

Finally, Internet II, which is just over the horizon, poses a much greater piracy risk than the current Internet. I believe universities, which are key developers of Internet II, must think proactively about how to deal with the piracy risks it poses.

I look forward to hearing the testimony of our witnesses, and thus yield back the balance of my time.

Mr. SMITH. Thank you, Mr. Berman.

Our first witness is Graham Spanier. Mr. Spanier is President of the Pennsylvania State University and Co-Chair of the Joint Committee of the Higher Education and Entertainment Communities. Mr. Spanier oversees one of the nation's largest and most comprehensive universities, with 25,000 employees on 24 campuses, an annual budget of \$2.4 billion, and a physical plant of 1,300 buildings.

A distinguished researcher and scholar, he has authored more than 100 publications, including ten books. He earned his Ph.D. in sociology from Northwestern University, where he was a Woodrow Wilson Fellow, and his bachelor's and master's degrees from Iowa State University.

Our next witness is Cary Sherman, who is the President of the Recording Industry Association of America, RIAA. The trade group has more than 350 member companies that are responsible for creating, manufacturing, or distributing 90 percent of all legitimate sound recordings sold in the United States. The \$14 billion U.S. sound recording industry is the largest market for pre-recorded music in the world.

Mr. Sherman graduated from Cornell University in 1968 and Harvard Law School in 1971. An accomplished musician and songwriter, Mr. Sherman is an officer of the Board of the Levine School of Music in Washington, D.C.

I want to ask you what instrument you play.

Mr. SHERMAN. Piano.

Mr. SMITH. Our next witness is Dr. James F. Davis. Dr. Davis is the Associate Vice Chancellor of Information Technology at the University of California, Los Angeles. Dr. Davis is also a professor in the Department of Chemical Engineering at UCLA. His research is in the area of data analysis, decision support, and intelligence systems and process operations and design.

In this position as Associate Vice Chancellor, Dr. Davis has broad responsibility for university-wide technology planning and for coordinating implementation. He coordinates the IT technology planning, policy setting, prioritization, and decision making processes and is responsible for the strategic deployment of the academic and administrative operations services and resources in support of the university mission and its central and distributed technological requirements.

Our last witness is Alan McGlade. He is President and CEO of MusicNet. MusicNet, headquartered in New York, is the world's leading online music service provider service, with distribution partners that include America Online, Senacor, and Virgin Digital, among others.

Prior to joining MusicNet, Mr. McGlade was President and CEO of the Box Music Network, an MTV Networks company and the world's first interactive music television network. Mr. McGlade currently serves as a board member for Peer Matrix, a developer of next generation mobile Internet products and services, and in 1992 was honored by Entrepreneur magazine as one of the nation's top 40 entrepreneurs under 40.

Welcome to you all. We have your written testimony, and without objection, your entire testimony will be made a part of the record, although, of course, we ask you to limit your actual testimony to 5 minutes.

It is a practice of the Judiciary Committee as well as the Judiciary Subcommittees to ask witnesses to be sworn in, so if you would, please stand and raise your right hand.

Do you swear that the testimony you are about to give is the truth, the whole truth, and nothing but the truth, so help you, God?

Mr. SPANIER. I do.

Mr. SHERMAN. I do.

Mr. DAVIS. I do.

Mr. MCGLADE. I do.

Mr. SMITH. Thank you, and please be seated.

President Spanier, we will begin with you.

TESTIMONY OF GRAHAM B. SPANIER, PRESIDENT, THE PENNSYLVANIA STATE UNIVERSITY, AND CO-CHAIR, COMMITTEE ON HIGHER EDUCATION AND ENTERTAINMENT COMMUNITIES

Mr. SPANIER. Good morning and thank you for those very positive, supportive opening statements. I welcome the opportunity to update Members of the House Judiciary Committee on the collective, collaborative efforts of higher education and the entertainment industry to discourage, prevent, and combat the piracy of intellectual property. I know that this issue is of continuing concern to Members of Congress, as it is to university presidents and to those whose livelihoods are associated with motion pictures and music.

I have dedicated considerable time during the past 2 years to this effort because I believe that higher education must be part of the solution. Universities are among the principal creators of intellectual property in our nation, and we must teach and practice respect for it. We operate libraries and university presses, where copyrights are created, understood, and protected. We invent and operate some of the most sophisticated information technology systems in the world, and it is in our best interests to protect our network infrastructures from misuse and abuse.

And we have some level of responsibility for the well-being of millions of young men and women who, while in the transition from adolescence to adulthood, are massive consumers of entertainment products at the same time they are developing personal value systems.

I have been grateful to have the opportunity to work directly with leaders from the movie and music industries in educational initiatives, public information activities, legislative relations, and information technology solutions. We don't always agree, but we have found that our overlapping interests are substantial, and over the past 2 years, we have communicated more openly than ever before, we have cooperated on a broad range of initiatives, and we have discovered many areas of mutual concern.

We have supported many of the efforts of the Recording Industry Association of America, assisted the successful College Action Network spearheaded by Sony Music on behalf of the music industry, opened doors to universities for online music providers, encouraged the anti-piracy efforts of the Motion Picture Association of America, and urged our colleagues in higher education to address piracy aggressively on their campuses.

During the past 18 months, Cary Sherman and I have provided this Committee with regular updates on the progress of our joint committee. Appended to the written version of my oral testimony is a comprehensive report recently submitted on the progress of our efforts during the 2003–2004 academic year. The report covers the rapid development and deployment of legitimate online music services and our encouragement of contractual relationships with universities.

In addition, we review the efforts of the College Action Network. A range of educational initiatives is described. We discuss enforce-

ment activities and the role they play. And we review technological measures that have been deployed.

I will be pleased to discuss this progress in more detail with you and answer your questions. I am proud of the massive increase in awareness among college students developed in just the past year, in the increasing enlightened responsiveness of university leaders and our higher education associations, in the creativity and flexibility that has emerged from our industry colleagues, and in the constructive encouragement we have seen from Members of Congress. Thank you for your support.

Mr. SMITH. Thank you, Mr. Spanier.

[The prepared statement of Mr. Spanier follows:]

PREPARED STATEMENT OF GRAHAM B. SPANIER

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During the past 18 months Cary Sherman and I have provided this committee with regular updates on the progress of our joint committee. Appended to the written version of my oral testimony is a comprehensive report recently submitted on the progress of our efforts during the 2003–2004 academic year. The report covers the rapid development and deployment of legitimate on-line music services and our encouragement of contractual arrangements with universities. In addition, we review the efforts of the College Action Network. A range of educational initiatives is described. We discuss enforcement activities and the role they play. And we review technological measures that have been deployed.

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ATTACHMENT 1

A Report to the Subcommittee on Courts, the Internet, and Intellectual Property

House Judiciary Committee

By the Joint Committee of the Higher Education and Entertainment Communities
On Progress during the Past Academic Year

Addressing Illegal File Sharing on College Campuses

The 2003–2004 academic year saw significant change in approaches to accessing digital entertainment content on college and university campuses across the country. In light of the Subcommittee's requests for periodic updates, the Joint Committee of the Higher Education and Entertainment Communities is providing this report on the status of efforts to address the opportunities and challenges presented by digital copying and distribution of copyrighted works through peer-to-peer (P2P) file sharing networks and alternative means.

Colleges and universities continue to address these issues in several different ways, adopting new policies as well as technological and educational measures to maintain the integrity of the schools' networks while ensuring a convenient, protected, and legal environment in which legitimate offerings can thrive.

LEGITIMATE ONLINE SERVICES

Colleges and universities have increasingly been offering new services and amenities to their students, such as free newspapers, special phone plans, and access to cable TV. Heeding the call for new sources of legal content, schools this past year began to introduce legitimate music services on campus.

In November of 2003, Penn State University signed an agreement with the now-legitimate Napster for a pilot program. The service offered students free on-demand streaming audio and downloaded songs, with an option to transfer to a CD for an additional fee. The University of Rochester began offering the same service in February of this year. Fees are paid to the on-line services by the universities for this access, and the services then pay royalties to the copyright holders of the music according to negotiated agreements. Napster partnered with IBM on an affordable file server that can locate their entire cache of music on campus, using the university's internal networks and avoiding the need to use external bandwidth. Later this fall, Napster, in partnership with Microsoft, will launch an additional service that will allow students, for an add-on subscription fee, the opportunity to download their music to portable players.

With the success of these programs, many more schools will begin to partner with legitimate music businesses during this new academic year. For example, Napster recently announced agreements to offer similar programs at the University of Southern California, University of Miami, George Washington University, Cornell University, Middlebury College, Vanderbilt, and Wright State University. Additional companies have lined up to offer their services. After a well-received pilot at Yale this past year, Ctrax is planning to offer its subscription service and download store to at least 20 other schools, including Wake Forest, Tulane, Purdue, and Ohio University. The service works through the university's local area network, and can incorporate features specifically tailored to each school, providing an outlet for locally produced music. Ctrax is based on its popular sister service, Cflix, which provided Yale, Duke, Wake Forest, and the University of Colorado with video-on-demand. The companies will combine their offerings of music and movies, as well as educational media services, under the name Cdigix, and will partner with more schools in the 2004–2005 academic year, including Marietta College, the Rochester Institute of Technology, and others.

This month, MusicRebellion begins offering a pay-per-download service to DePauw University. The service offers an interesting twist in that the price of individual songs will be driven by demand. In addition, students will receive a \$3 credit after completing an "education module," which gives an overview of music and the "ramifications of pirating media." The service is further integrated with the institution by allowing students to submit their own original music, and by donating 1% of sales to DePauw student scholarships.

Also this month, Northern Illinois University launched a service from Ruckus, offering legally downloaded music, streaming movies, and local content; and the University of California, Berkeley, and the University of Minnesota announced partner-

ships with RealNetworks to give students unlimited access to streamed music at a significantly reduced cost.

Finally, Apple has offered to colleges and universities a site license to its popular iTunes Music Store, and enabled the schools to purchase songs for their students at a discount. This fall, Duke will offer all incoming freshmen an iPod portable music device, enabling students to carry with them downloaded lectures and course materials, in addition to the songs acquired through iTunes.

This means that at least 20 different universities have already signed agreements to legally deliver entertainment content to students. This is an extraordinarily promising trend that will only continue in the coming academic year. These programs have garnered substantial attention and many schools, and even student groups, have formed task forces to determine whether legitimate services on campus are a viable alternative and which services may be right for them. We are even witnessing that some candidates for student government leadership positions are running on platforms that encourage university administrators to adopt on-line music services.

Campus Action Network (CAN), a music industry-wide effort led by Sony BMG Music Entertainment, and supported by other record companies, has worked over the past year to encourage the launch of legitimate music services on campuses around the country. CAN's efforts have been supported by the Joint Committee of the Higher Education and Entertainment Communities, with Co-Chair Graham Spanier making introductions to university presidents for representatives of CAN.

CAN provides universities with introductions, information, and support for a broad array of online music services. To support the launch of online campus music services in the fall of 2004, CAN is working with the services and schools to provide a wide range of campus marketing initiatives, such as on-campus concerts, artist appearances, contests and promotions. CAN is also collaborating with schools to explore how these services can be used for educational purposes.

EDUCATIONAL INITIATIVES

The 2003–2004 academic year began with many colleges and universities questioning their role in engaging students in a discussion of copyrighted works and the proper use of computer networks. There has been a sea change in perspective, however, and many schools have come to realize that they are uniquely positioned to educate on the value of copyright law and the safeguards it provides to authors, artists, and writers of creative works—works which often come from the school community itself. Messages, in emails and letters, have been sent from the highest administrative levels to ensure that students understand the significance of infringement on campus. These messages have been sent to staff and faculty as well, reminding them that penalties for illegal conduct are not just for students.

Dozens of colleges and universities—Indiana University, Brown University, and Dartmouth College, to name just a few—have made updates to their Acceptable Use policies to acknowledge and reflect the change in application of their school's resources. These policies can regularly be found online and in hard copy. Information is now more accessible than ever on subjects such as copyright, infringement, P2P file sharing, and the proper use of digital media. Students are also often required to engage in short tutorials and quizzes before acquiring access to networks in order to ensure their knowledge and understanding of appropriate use.

Administrations have distributed notices, posters, and fliers to convey the message that infringement is wrong—and that there are alternatives. Discussions, presentations, and even courses have been offered to engage the academic community in dialogue on these subjects.

Important educational initiatives are emerging from this collaboration between higher education, on-line services, and the entertainment industry. For example, music providers have offered to electronically distribute recordings of college and university orchestras, bands, and choral groups. At Penn State, on-line courses are being developed on topics such as popular culture that have direct links, for educational purposes, to certain recordings. Music students will have on-line access to music instead of having to visit the reserve music room of the library. Other creative uses are emerging.

ENFORCEMENT

While educational initiatives have grown, schools have sought to emphasize the importance and seriousness of the message through enforcement. First violations of computer use policies, including single instances of infringement, have borne penalties ranging from simple warnings to mandatory informational sessions to temporary denial of network access. Second violations have carried stricter penalties,

including discontinuance of network access to probation to notation on permanent records. Further violations, while increasingly rare, have carried penalties as serious as expulsion. New and creative means of enforcement are also being presented, such as fining students for notices of infringement.

For those students who have questioned the vigilance of their own schools, this past year has reminded them that responsibility does not wait for graduation. The much-publicized lawsuits by the music industry were brought to campuses as 158 students from 35 universities across the country found themselves accountable for their illegal actions.

Over the 2003–2004 academic year, schools implementing new infringement prevention programs and methods reported significant decreases in illegal file sharing and incidents of discipline for infringement. While several of the measures mentioned here have worked to bring about this change, the publicity of enforcement was often cited as the most important—and effective—element.

TECHNOLOGICAL MEASURES

More schools began this past year to complement these programs with different technological measures. Sometimes the call for these additional measures came from the students themselves. In one case, the Student Senate voted to block illegal trading after learning that illegal file sharing was responsible for bringing their university network to a crawl. Suffering from performance and reliability problems, decreased bandwidth, and the spread of viruses, schools have sought to free up their networks for their intended educational purpose.

Many schools—University of California, Berkeley, Penn State University, Vanderbilt University, and Central Michigan University, to name just a few—have limited students' bandwidth to a certain amount per week. When students exceed this limit, they are warned, and their network access is subject to being significantly reduced in speed or ultimately discontinued.

In June of 2003, the University of Florida introduced ICARUS, an application designed to address inappropriate use on the school's network. Since its inception, ICARUS has automatically processed 6,503 Acceptable Use Policy violations, including P2P violations. The system has had only five false positives out of 6,508 detected violations, and none of them was related to P2P activity. The school is now planning to license the system to other schools.

Some schools have complemented their networks with Audible Magic's CopySense system, which weeds out infringing transmissions on P2P networks. With CopySense installed, IT administrators have reported reclaiming half of their network's bandwidth at significantly reduced costs. One school went from at least one notice of infringement per week to none.

CONCLUSION

Colleges and universities are collaborative communities. In that spirit, many different segments of academia have contributed their views and perspectives on how higher education should address the issues posed by illegal file-sharing. Each year, university administrations experiment with the offerings and combinations that work best for them. Even more changes are likely in the coming years, based on the experiences gleaned from the efforts now being tried. We welcome these initiatives.

ATTACHMENT 2

April 2004

Dear Colleague:

We are pleased to share with you the enclosed paper, "University Policies and Practices Addressing Improper Peer-to-Peer File Sharing." As you are no doubt aware, the problem of unauthorized peer-to-peer (P2P) file sharing of copyrighted music, movies, software and other material continues to pose problems for colleges and universities. The widespread occurrence of unauthorized file sharing, which extends well beyond campuses, is of great concern to the entertainment industry and to other owners of digital copyrighted content. The enclosed paper provides a range of responses that different higher education institutions have employed to address unauthorized P2P file sharing. The paper is intended to be illustrative, not prescriptive; we hope that your institution may find the paper's discussion of issues and examples of institutional responses useful as you consider your own institution's policies and practices concerning the use of file sharing technologies.

The paper has been prepared by the Education Task Force of the Joint Committee of the Higher Education and Entertainment Communities (membership list enclosed), a committee that was formed in December, 2002, to work collaboratively to address the problem of unauthorized file sharing. This paper on campus policies and practices is the second paper prepared by the Joint Committee's Education Task Force; a paper on the legal aspects of P2P file sharing was distributed last August and is available on the American Council on Education web site (<http://www.acenet.edu/washington/legalupdate/2003/P2P.pdf>).

We hope that you will find the enclosed paper helpful.

Sincerely,

John Hennessy
President, Stanford University
Chair, Education Task Force

Graham Spanier
President, The Pennsylvania State University
Co-Chair, Joint Committee of the Higher Education
and Entertainment Communities

Enclosures:

"University Policies and Practices Addressing Improper Peer-to-Peer File Sharing"
Joint Committee Membership List



University Policies and Practices Addressing Improper Peer-to-Peer File Sharing¹

INTRODUCTION

The rapid growth of the use of peer-to-peer (P2P) file-sharing technologies for the unauthorized distribution or making available of copyrighted works over computer networks has generated a great deal of concern among copyright owners and widespread attention in the media. Until recently, unauthorized file sharing activities have proliferated in the absence of legitimate alternatives. The fundamental challenge confronting colleges and universities is how to reduce or eliminate illegitimate P2P use without sacrificing legitimate uses of P2P technologies and related activities or otherwise interfering with academic freedom or privacy rights. The emergence of legitimate online content delivery systems provides considerable promise for helping to meet this challenge.

P2P file sharing occurs throughout society, from high school students and younger people to adults at home and at work. Colleges and universities have not been immune; indeed, higher education institutions have drawn particular attention, in part because increasing proportions of incoming students arrive with expectations of continuing file-sharing practices previously acquired, and because these institutions often provide powerful computing and broadband distribution capacity to their students and faculties in support of their education and research missions.

Although P2P technologies are themselves not illegal, such technologies as KaZaA, Morpheus, Grokster, Gnutella, and eDonkey are used overwhelmingly for the unauthorized downloading and uploading of copyrighted works, primarily music but also movies, software, and other copyrighted material. There are cases where the unauthorized use of copyrighted material is legal, as in cases of "fair use." Nonetheless, there is substantial evidence that the preponderance of P2P file sharing by the technologies such as those named above constitute copyright infringement, an unambiguous violation of federal law.

The entertainment industry is extremely concerned about the impact of unauthorized P2P file sharing on the market for its works; they believe there is considerable evidence of substantial lost revenue from lost sales due to unauthorized file sharing—CD sales have declined, CD outlets are closing, and movies may soon become broadly and illegitimately traded as broadband capacity expands, enabling more rapid downloading or uploading of first-run, full-length movies. Colleges and universities are concerned that computer and network facilities that they make available for legitimate education and research purposes are being used for illegitimate purposes. Such uses can clog networks, impeding their ability to support education and research activities; more importantly, such uses constitute violations of law and raise important questions about the responsibility of institutions to educate students, faculty and staff about the appropriate use of their networks and the relationships between P2P use and copyright law.

In December, 2002, higher education and the entertainment industry formed the Joint Committee of the Higher Education and Entertainment Communities to address the problem of P2P file sharing on college and university

¹ A paper prepared by the Education Task Force of the Joint Committee of the Higher Education and Entertainment Communities.

campuses. Among other activities, the committee has described technologies that can limit unauthorized P2P use, and is promoting pilot projects to adapt new legitimate online music delivery services to the campus environment. (Results of requests for information on both these topics are available at <http://www.educause.edu/issues/rfi/>.)

The consideration of institutional responses to P2P use has taken two forms. The first was the preparation of a paper entitled "Background Discussion of Copyright Law and Potential Liability for Students Engaged in P2P File Sharing on University Networks."² The second is this paper, which reports on a range of policies and practices adopted by higher education institutions to reduce the illegitimate use of P2P technologies.

As noted earlier, the challenge for higher education institutions is how to reduce illegitimate file sharing without sacrificing legitimate uses of P2P technologies and overriding important academic values. The difficulty of meeting this challenge should not be underestimated: procedures exist for dramatically reducing if not eliminating illegitimate P2P use, but these procedures may impose a cost in the elimination of legitimate uses as well; in contrast, one can adopt procedures that assure that no or minimal loss of legitimate use occurs, but the likely consequence may be no effective reduction in illegitimate use. Each institution must decide on the combination of educational, technological, and disciplinary approaches that best meet its pedagogical, legal, and ethical needs and objectives.

Therefore, this report is not, and cannot be, a "best practices" document describing preferred ways of addressing the problem of P2P use. Instead, what the report seeks to accomplish is to provide higher education institutions with a range of responses that different higher education institutions, operating within their own distinct institutional traditions and objectives, have employed to address the problem of unauthorized P2P file sharing.

CURRENT STATUS OF INSTITUTIONAL POLICIES AND PRACTICES GOVERNING P2P ACTIVITIES

Given the recency and rapidity with which P2P file sharing has become a significant activity on university networks, it may not be surprising that many institutions have yet to adopt formal policies governing use of P2P technologies. A fully implemented institutional policy would seem to require several steps, including (1) adoption of an institutional policy governing the use of copyrighted works, (2) defining the improper use of P2P technologies and making an explicit statement that the institutional policy prohibits such improper use, and (3) a dissemination of that policy to students, faculty, and staff. Although most (but not all) institutions have formal copyright policies, far fewer have updated such policies to include provisions specific to P2P file sharing.

In conjunction with preparation of this paper, staff members of the Recording Industry Association of America (RIAA) conducted a very informal survey of the top 55 doctoral institutions as ranked by the U.S. News and World Report. The survey categorized the institutional policies and related statements concerning P2P file sharing that were accessible online. Though admittedly drawn from a limited sample and methodology, the results as interpreted by RIAA are nonetheless instructive.

Less than three-fourths of the institutions had online-accessible institutional policies that included more than a cursory treatment of copyrighted works; just over one-fourth had policies that treated copyright in some depth, including such issues as exclusive rights and limitations and exceptions to those rights such as fair use.

Over 80% of the institutions had online-accessible statements on P2P file sharing, with slightly more than a half of these statements addressing file sharing in some detail in the context of the institution's stance on P2P. However, less than 20% of detailed online institutional statements on P2P were incorporated into an institutional computer use or copyright policy.

These data do suggest that institutions are beginning to address the issue of P2P file sharing, with statements concerning file sharing likely to evolve into formal institutional policy positions.

EXAMPLES OF INSTITUTIONAL RESPONSES TO P2P FILE SHARING

² The paper was distributed August 8, 2003 to colleges and universities and is available on the American Council on Education web site <http://www.acenet.edu/washington/legal/update/2003/P2P.pdf>.

Those institutions that have actively addressed the problem of unauthorized P2P file sharing generally have adopted a combination of methods, including education of students; use of technological measures that limit or block P2P activity; and adoption of policy provisions specifying how P2P use fits into network acceptable use policies, as well as specific enforcement procedures for violation of those policies. University policies also vary in how directly they address file sharing itself and in how detailed they are; but, in general, universities appear to be moving towards addressing this issue more fully.

As part of the Joint Committee Education Task Force work on campus policies and practices, the Association of American Universities asked its member universities whether they had recently undertaken campus initiatives concerning P2P file sharing, such as efforts to educate students about the lawful and unlawful aspects of file sharing, updating their institutional policies to address the use of P2P technologies, or other related activities. The following is a sampling of the responses received, providing a range of activities in the areas of education, network management technologies, policy implementation and enforcement, and development of legal file sharing alternatives. The responses are broken down by category of response. However, most institutions examined used multiple techniques, and therefore will appear multiple times throughout this paper.

Education. Education of students is a fundamental component of efforts to counter unauthorized file-sharing and to provide a legal and ethical framework for the use of copyrighted works. Institutions generally employ education as a pre-emptive step as well as, in many cases, for users caught engaging in unauthorized file sharing for the first time. Education can take the form of a policy which students are required to sign (or, as at the University of Virginia, an online quiz students are required to take) before using computing resources, poster campaigns, paid advertisements in school newspapers, or messages (via email, informational brochures or other media) sent to all students. Institutions such as the University of Pennsylvania have adopted procedures for educating and training not only students, but also those responsible for oversight of students and their activities, such as deans, IT staff, faculty, resident and graduate assistants, and other administrators (see below).

Emory University has undertaken a major education effort – the institution has conducted a poster campaign for students and is planning another for faculty and staff, placed paid advertisements in the school newspaper, and sent email to all students with information about unauthorized file sharing and its consequences. One of its posters explains in direct language that using KaZaA may result in lawsuits and in loss of privacy (due to spyware programs often secretly attached to KaZaA and similar software).

The University of Virginia also has a creative approach to student education – its computing policy website links to a video clip on responsible computing (<http://www.its.virginia.edu/pubs/docs/RcspxCompVideos/home.html>). The clip is a parody of a monster.com commercial, involving children talking about all the irresponsible computer-related things they want to do once they get to UVA (including downloading music illegally), and then a tagline: “How much trouble can you buy with your computer?”

The University of Wisconsin-Madison has created a “Rules of the Road” campaign, providing guidelines to help ensure that UW-Madison electronic resources are used in a manner consistent with the mission of the University. The campaign has made use of videos, radio spots, and posters to communicate to the school community on issues such as copyright infringement. (<http://www.doit.wisc.edu/security/policies/rules.asp>)

Princeton University's Office of Information Technology has created a website, <http://helpdesk.princeton.edu/kb/display.pl?id=9407>, which provides a clear discussion of P2P file sharing and its relation to federal law and university policies. Entitled “Copyrighted music, film, video files: Are they illegal to have on my computer?”, the site also points students to additional resources, including RIAA and Motion Picture Association of America (MPAA) websites.

Open discussions or presentations on campus are also used to educate students and direct them away from unauthorized file sharing. Purdue University, for example, held a student government forum on the issue, which included representatives from legal services, the copyright office, university residences, information technology, the dean of students office, and a student representative. (Purdue also requires students to sign an Acceptable Use Policy, including information on copyright policies, before they are registered to use computing resources).

The University of Pennsylvania includes a speech on risks and problems involved in P2P file sharing in its orientation week, as well as a series of presentations to IT staff, academic deans, house deans, resident and graduate assistants, and faculty in residence—so that officials who manage the system and have mentoring and supervisory roles with students understand the legal and institutional policies governing P2P file sharing. The

institution also distributed about 350 posters and a brochure on information security which, in part, addresses copyright law and the potential consequences of violating it.

Princeton makes frequent use of presentations. A joint presentation before the Council of the Princeton University Community by the Office of Information Technology and the General Counsel's office (with the University's President presiding), a number of presentations educating students at every residential college about applicable law, as well as guest speaker presentations in academic courses and various other faculty and administrative meetings help to build understanding about legal and illegal use of copyrighted material.

Presentations such as these are intended to provide a greater awareness of, and a respect for, copyrighted works and the risks of using P2P file-sharing services for unauthorized file sharing. It may be beneficial for institutions that make use of such presentations to document the contents for future use; not everyone may be present for an orientation presentation or course discussion, but everyone could easily access such material at a later date.

Network Management Technologies. Colleges and universities have routinely employed technological procedures for management of their computer networks. With the emergence of P2P file-sharing a number of these procedures, such as bandwidth shaping, have been applied to the management of P2P file-sharing traffic. Recently, the Technology Task Force of the Joint Committee prepared a report on new network management technologies that can be used to control or block the use of P2P file-sharing. (This report is on the EDUCAUSE website at <http://www.educause.edu/issues/rfi/>).

Although most universities do not appear to be using measures to block file-sharing preemptively, some universities are taking technological blocking steps now. A number of universities do block access to university computing resources for individuals who have been found to be engaged in unauthorized file-sharing (usually discovering them through notification from copyright holders or through excessive use of bandwidth).

Emory, for example, has adjusted its firewall so that people working within Emory's network cannot create web pages or file transfer protocol connections on the Emory server, and people from outside Emory's network cannot download files from within it. An Emory representative reports that it is "very difficult" to engage in unauthorized file-sharing activity from inside the Emory network, and commented that "[t]his has cut down enormously on the calls we've received from RIAA, Universal Studios, etc."

The University of Florida's ICARUS program is a network management tool that also blocks P2P file sharing. It detects any P2P use (even legal use, although adjustments to permit certain authorized uses may be made) and immediately disconnects the user from the network. First-time offenders are shut out for 30 minutes, second offenders for five days, and third offenders are shut out indefinitely and subjected to the school's judicial process. Florida reports over a 90% drop in P2P use. Florida includes a notable education component in its ICARUS program: first-time offenders are required to engage in an online tutorial designed to educate the user about copyright law and the potential penalties that can result from unauthorized P2P file sharing. However, some observers have expressed serious concerns about restricting resource use too strictly - the program bars legal P2P use and such legal activities as LAN gaming (i.e. playing computer games over a Local Area Network, or LAN).³ Nonetheless, Florida has received many inquiries about the program from other universities and businesses, and the institution plans to make ICARUS available to the public this spring⁴.

Policies. Universities commonly have policies covering copyright issues, as well as appropriate use of university computer networks and related technological resources. Where the two coincide, as with unauthorized file sharing, university policies range from those that only mention the issue to those that cover it in comprehensive detail. Due to the recent, well-publicized problems surrounding unauthorized file sharing at colleges and universities, however, institutions may wish to examine their current copyright and computer use policies for the adequacy of their treatment of P2P file sharing.

Most policies surveyed are fairly straightforward and contain a few common themes - pointing out that infringing copyright is illegal, that illegal behavior will not be tolerated, and describing potential consequences. Many also

³ Dean, Katie. "Florida Dorms Lock Out P2P Users," in *Wired News*, Oct. 3, 2003 <http://www.wired.com/news/digwood/0,1412,60613,00.html>.

⁴ Reichel, Hannah. "Public Will Have Access to UF File-Trading Program," in *The Independent Florida Alligator Online*, Oct. 30, 2003 <http://www.alligator.org/edit/news/issues/stories/031030icarus.html>.

describe how a student violating copyright law can be caught – generally through notices of claimed infringement or subpoenas issued by copyright holders, or by the institution's detection of sharp spikes in use during routine maintenance or monitoring of bandwidth. Students and other members of the higher education community should understand that they are not anonymous when engaging in unauthorized behavior on the institute's computer system.

An example of a simple and clear message is Harvard's Computer Rules and Responsibilities policy (<http://www.fas.harvard.edu/computing/rules/>), which specifies that sharing copyrighted files without the copyright holder's permission may be illegal. The statement names names: "KaZaA, Gnutella, cDonkey, Morpheus and other file-sharing programs can transmit files on your computer to others in violation of copyright laws, with or without your knowledge. If these programs are on your computer, you will be held responsible for any copyright violations that may result."

Brown University has a noteworthy site that addresses copyright infringement issues ranging from the basic question of "What is copyright?" to the application of the Digital Millennium Copyright Act (DMCA). In this comprehensive context, the site provides a discussion of the legality of sharing and downloading MP3 files, as well as the procedures by which violators are identified. In addition, the site offers a step-by-step analysis of the measures taken against first-time and repeat offenders.

The University of Virginia offers a quick-reference chart giving lists of information resources about various copyright issues, their intended audiences, their subjects and a quick summary of their main points. This can be found at <http://www.itc.virginia.edu/policy/>. Among the links in this quick-reference chart is a "Responsible Computing Handbook" for students: <http://www.itc.virginia.edu/pubs/docs/ResptCompRchandbook03.html>, that, among other things, goes into detail about the violations inherent in copying software or downloading unauthorized MP3s. It also mentions that students using file-sharing programs may be making more files available for sharing than they realize, and warns that even inadvertent sharing is a violation that can have consequences. Another site, <http://www.itc.virginia.edu/policy/uvaadnca.html> clearly explains the DMCA and delineates the process that the university is expected to follow on receiving a notice of a copyright violation. The site also describes the information that must be provided both by the copyright owner or its representative seeking removal of offending material and by a user who chooses to file a counter notice arguing that the copyright owner is mistaken about either the material posted or the legality of its posting.

Northwestern University recently changed its policy to clarify copyright and file sharing issues (the current policy prohibits the unauthorized sharing of software or copyrighted files) and to inform its students about potential penalties. The institution sent an email to all students to draw their attention to this change, and to point them to the website where they can read the new policy. (The policy can be found at <http://www.it.northwestern.edu/policies/responsibilities.html>). Northwestern also specifies consequences for failure to adhere to this new policy (see next section).

Institutional Enforcement. One of the key aspects of the application of law to punishment or deterrence is, of course, the penalty structure for those who violate the law. In most cases of unauthorized student P2P file sharing, colleges and universities are not directly implicated in potential copyright infringement; instead, liability in these cases is typically an issue between copyright owners and students (or faculty or staff) as third-party users of university networks. Despite this, many institutions voluntarily take on the task of educating their students about appropriate use of their networks and of copyrighted works, as well as investigating claims of infringement directed at users of their networks.

Many institutions have adopted institutional use policies that closely track federal law governing access to and use and distribution of digital copyrighted works. In such cases, institutions have a basis for directly enforcing their own policies, and a number of universities have now adopted specific procedures for enforcing institutional policies governing P2P file sharing. Penalties for unauthorized file sharing at universities vary, but many choose to shut the offender off from resources, perhaps for varied periods of time based on whether the user is a first-time or multiple offender. This is true, for example, at the University of Florida, where the ICARUS system automatically detects P2P use—which has been prohibited in the residence halls by the institution—and automatically disconnects the student for increasing periods of time depending on the number of offenses, with a third offense resulting in student judicial procedures, as described above. At the University of Pittsburgh, a second offense initiates student judicial procedures. At Harvard, a second offender is shut off from network resources for a full year.

Some institutions are quite specific in their delineations of prohibited activities and the specific consequences for violations. For example, Northwestern warns students, faculty, and staff that continued use of unauthorized file

sharing may "jeopardize the individual's continued employment or continued enrollment" (from a memo sent to the university community by the VP and Chief Technology Officer, found at <http://www.it.northwestern.edu/news/archive/may03/fileshare.pdf>). Northwestern's policy lists potential penalties as "fines, restitution of funds, termination of computer or network access, probation, suspension, separation, or exclusion from the University."

Other institutions are less specific about potential punishments, simply noting that incidents of alleged infringement will be referred to the appropriate officials for review and disciplinary action as warranted. Such statements of position do not necessarily imply that those institutions will be more lax in their punishments of inappropriate computer network use than institutions with more precise policies; instead, such statements may serve primarily to provide more flexibility in determining appropriate punishments. Nonetheless, if such disciplinary procedures are to be a deterrent to persons who may be predisposed to unauthorized file sharing, it is helpful that the consequences of engaging in such activity are widely known.

Legal File-Sharing. Perhaps the most promising approach to addressing the problems caused by unauthorized P2P file sharing is the development of legitimate alternatives. A number of legitimate commercial online music providers, which charge subscribers for the copyrighted music they download, have recently arisen. The Joint Committee is currently working to facilitate a number of pilot projects in which individual colleges and universities work with a selected legitimate online music delivery service to explore ways that those services can be modified to operate more effectively in a campus environment. Particularly in a context of broad education activities concerning copyright and the legitimate and illegitimate uses of P2P technologies, and institutional policies and enforcement procedures governing appropriate use of computer networks, the introduction of legitimate music delivery services adapted to campus use holds considerable promise for displacing unauthorized file-sharing activity.

Pennsylvania State University is one of the earliest institutions to undertake such a pilot project, having entered into a contract with the new, legally reconfigured Napster, in order to provide its students with online music. The service is being paid for through part of the existing student technology fee, and allows students access to free streaming content and tethered downloads (i.e. downloads that the students may retain on up to three computers).

Undoubtedly, some pilot projects will work better than others. The objective of the effort is to initiate a range of experiments, recognizing that in the long run, different institutions—as well as different online content delivery services—will develop different procedures that provide a best fit for their circumstances. The Joint Committee intends to track the various pilot projects and draw lessons from the experiences as the projects progress. Results of a request for information from companies offering these legitimate service programs can be found at <http://www.educause.edu/issues/rfi/>.

Dissemination of Information on Institutional Policies and Practices. Institutional policies and practices concerning P2P file sharing must be effectively conveyed to students, faculty, and staff in order to affect behavior. Colleges and universities may wish to implement multiple means of conveying information, including not only clear and easily accessible postings of policies and practices on the institution's web site (see Tulane University: <http://tis.tulane.edu/Policies/index.cfm>), but notification of such policies and their location by email. In addition, communication through the student newspaper, flyers distributed via post office boxes and other outlets, campus forums where P2P issues and institutional policies are discussed, all can help bring these issues before the campus community.

CONCLUSION

The problem of unauthorized P2P file sharing is a significant problem on many college and university campuses. Much of the activity may be unlawful, and it can interfere with the use of campus computer networks for academic purposes. The collective impact of unauthorized file sharing is believed to be harming the entertainment market from which file sharers wish to draw enjoyment, a market that includes creators and artists as well as companies. A concerted and sustained effort by colleges and universities to substantially reduce or eliminate unauthorized file sharing through multifaceted efforts—by continuing education activities, use of network management technologies, and the development of legitimate online entertainment delivery

ACE Division of Government Relations and Public Affairs

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alternatives—holds considerable promise of success. The Joint Committee of the Higher Education and Entertainment Communities will continue to try to assist work in all of these areas.

March 19, 2004

Joint Committee of the Higher Education and Entertainment Communities

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President
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Recording Industry Association of America

Barry Robinson
Senior Counsel for Corporate Affairs
Recording Industry Association of America

Jonathan Whitehead
Vice President and Counsel, Online Copyright Protection
Recording Industry Association of America

Mr. SMITH. Mr. Sherman?

TESTIMONY OF CARY SHERMAN, PRESIDENT, RECORDING INDUSTRY ASSOCIATION OF AMERICA, AND CO-CHAIR, JOINT COMMITTEE OF THE HIGHER EDUCATION AND ENTERTAINMENT COMMUNITIES

Mr. SHERMAN. Chairman Smith and Ranking Democratic Member Berman and Members of the Subcommittee, I appreciate this opportunity to appear before the Subcommittee today to continue our ongoing discussion of P2P piracy on campus. In particular, I gratefully acknowledge the Subcommittee's steadfast commitment to this subject, as evidenced by the fact that it was the subject of the very first hearing held in this Subcommittee this Congress. The work of this Subcommittee has been invaluable in helping us convey the message that illegal downloading on college campuses or anywhere else is simply not acceptable.

It is clear that music collection and enjoyment remains a favorite pastime for students across the country. Unfortunately, so does piracy. We have been doing our part to address the issue. We are working hard through programs such as the Campus Action Network to find new ways to provide the entertainment products students want and can acquire conveniently and legally, and at the same time by including students in our lawsuits against infringers, we have reminded them that their academic status does not give them a free pass.

We are pleased to report that schools have been doing their part, as well. Perhaps the most exciting initiatives have been the partnerships between schools and legitimate online services made possible by the specialized packages and greatly discounted rates provided by the entertainment industry. To date, 25 schools have reported signing with legitimate services to distribute content legally and efficiently, a trend begun, by the way, by the innovative actions and leadership of Dr. Graham Spanier, the President of Penn State University. And interest, both from school administrations and students themselves, is growing exponentially.

Schools have also turned to other technological measures. In addition to traditional band width shaping and limits, new systems and devices are being used across the country. ICARUS at the University of Florida, ACNS at UCLA, and Audible Magic's CopySense at several other universities, have been used to curtail improper use of and copyright infringement on the schools' networks.

A wide range of educational efforts have allowed more and more students to learn that copyrighted works have value and that theft of these works does, indeed, cause harm. Importantly, it is this knowledge that students carry with them and apply after graduation.

Finally, schools are enforcing their acceptable use policies, imposing penalties ranging from warnings and brief denials of network access for first offenses to permanent removal from the network, or, in extreme cases, suspension or even expulsion for third violations.

However, with the good news comes the distinct reminder that campuses remain a hotbed for piracy. In fact, the speed of their networks has created new challenges for copyright owners. Internet 2, a consortium of schools, industry, and Government, is an excit-

ing platform for advanced network applications and technologies, yet already, P2P systems, such as i2hub, have been set up on Internet 2, facilitating the illegal distribution of copyrighted works for free.

The speed of these networks, up to thousands of times faster than ordinary Internet works, allows users to obtain copyrighted movies in minutes and music in seconds. Further, the closed nature of these networks, being available only to those engaged in academia, makes it more difficult for copyright owners to protect their works and to notify responsible parties of their infringement.

The naturally high speed of college and university networks has also allowed schools to set up local area networks, or LANs, to connect with others solely within their individual schools. Some students have used these LANs to create mini P2P networks to facilitate the mass piracy of copyrighted works on their campuses. As with Internet 2, the closed nature of these LANs makes it difficult to discover such misuse. College and university administrations are in the best position to determine the presence of this LAN-based piracy and to take action to stop it.

It is imperative that schools do not allow loopholes in their rules and enforcement. Restrictions placed on standard Internet use should be clearly extended to new and evolving opportunities, such as Internet 2 and LANs. The vigilance with which administrators ensure the integrity of their systems must continue through the introduction of these new sources and technologies.

P2P piracy clearly remains a problem on college and university campuses across the country, and undoubtedly, challenges lie ahead. Yet, the opportunities for the education and entertainment communities to work together toward a mutually beneficial end have never been as great as they are today. With the multi-pronged approach I have discussed here and the Joint Committee report to this Subcommittee in August, the future looks even brighter. We look forward to continuing our work with all interested parties and to providing increasingly positive reports in the future. Thank you very much.

Mr. SMITH. Thank you, Mr. Sherman.

[The prepared statement of Mr. Sherman follows:]

PREPARED STATEMENT OF CARY SHERMAN

Chairman Smith, Ranking Democratic Member Berman, and Members of the Subcommittee, I appreciate this opportunity to appear before the Subcommittee today to continue our ongoing discussion of P2P piracy on campus. In particular, I gratefully acknowledge the Subcommittee's steadfast commitment to this subject, as evidenced by the fact that it was the subject of the very first hearing held in this Subcommittee this Congress. The work of this Subcommittee has been invaluable in helping us convey the message that illegal downloading on college campuses—or anywhere else—is simply not acceptable.

This past month, schools across the country have welcomed students back to a continuously evolving environment. With a casual walk across campus, it is impossible to miss the iPods and other portable music devices; with a quick visit to any dorm room, you will discover the stacks of CDs or the computers full of mp3s. Music collection and enjoyment remains a favorite pastime for students. Unfortunately, so does piracy.

We've been doing our part to address this issue. For instance, the Campus Action Network (CAN), a program led by Sony BMG and supported by other record companies, has worked to encourage and facilitate the launch of legitimate music services on campuses across the country. These services are made possible by the specialized packages and greatly discounted rates provided by the entertainment industry. The

motion picture industry has also instituted a program to work with schools to address P2P piracy on campus. We are working hard to find new ways to provide the entertainment products students want and can acquire conveniently and legally. At the same time, we have reminded students that their academic status does not give them a free pass to infringe. Since March of this year, 190 students at 61 universities have been included in a series of lawsuits directed at infringers of copyrighted material on P2P networks. The message has been received loud and clear: responsibility does not wait for graduation.

We are pleased to report that schools have been doing their part as well. There is considerable good news here. As the Joint Committee of the Higher Education and Entertainment Communities reported to this subcommittee in August, colleges and universities across the country have become engaged in a variety of initiatives to stem the rampant piracy on their computer networks. Perhaps the most exciting of these initiatives have been the partnerships between schools and legitimate online services I mentioned earlier. These agreements, jump-started by the success of a landmark deal between the now-legitimate Napster and Penn State University, have enabled college and university administrations to offer their students access to the music they desire—and, indeed, often demand—while ensuring the responsible, safe, and economic use of their network resources. To date, 25 schools have reported signing with legitimate services such as Napster, Cdigix, RealNetworks, MusicRebellion, Ruckus, and iTunes to distribute content legally and efficiently. And interest is growing exponentially. We have seen the formation of school task forces, and even student groups, to consider whether a campus-based online service is best for them. Student papers have carried editorials eagerly requesting such services at their schools. Schools have also worked to find new uses for these services, such as offering streaming and downloadable content to augment their curriculum.

The installation of these services on campuses has helped to reduce network congestion, decrease infringements, and maintain the security and integrity of the system. Schools have also turned to other technological means to curtail improper use of their networks. In addition to traditional bandwidth shaping and limits, new systems and devices are being used across the country. The University of Florida introduced ICARUS, an application that automatically prevents infringement through P2P services. UCLA implemented ACNS, an automated system that streamlines the notification of, and penalty for, copyright infringement. Audible Magic's CopySense system, which uses filtering technology to weed out infringing transmissions, has also been installed to great effect on several school networks.

Of course, education remains a fundamental component of any school's fight against P2P piracy. Recognizing their unique position to prepare students for the opportunities and responsibilities of adulthood, institutions across the country have undertaken various initiatives to inform students about copyright laws and the appropriate use of computer networks. Emails and letters have been sent to school communities by presidents and deans; tutorials and quizzes have been designed to ensure compliance with policies, laws, and standards; notices, posters, and fliers have been distributed; discussions, presentations, and courses have been held; skits, videos, and other entertaining informative pieces have been made. More and more students are not only getting the message that using their schools' resources to engage in illegal conduct is wrong, they are learning why. Copyrighted works have value and theft of these works does, indeed, cause harm. Importantly, it is this knowledge that students carry with them and apply after graduation.

Finally, messages are hitting home through enforcement. Violations of schools' acceptable use policies regularly carry penalties, and abuses of schools' computer networks are no exception. Students are increasingly aware of the frequently tiered courses of action taken after incidents of online infringement. First violations often carry warnings and brief denials of network access. Second violations often increase penalties to extended denials of network access, referrals to the Dean, and probation. Third violations, while rare, can often lead to permanent removal from the network, suspension, or, in extreme cases, even expulsion.

The combined effects of these initiatives—legitimate services, technology, education, and enforcement—have resulted in a positive change in the attitudes and responses of administrations and students.

However, with the good news comes the distinct reminder that we are not in the clear. College and university campuses remain a hotbed for piracy. Students, with limited budgets and, perhaps, misguided senses of entitlement, can unfortunately still find a treasure trove of valuable and free copyrighted works available over extremely fast and convenient computer networks.

In fact, the speed of these networks has created new challenges for copyright owners. Internet 2, a consortium of schools, industry, and government, is an exciting

platform for advanced network applications and technologies. Yet, as with other networks, bad actors have begun to hijack it, threatening to turn a beneficial and promising technology into a tool for piracy. Already, P2P systems, such as i2hub, have been set up on Internet 2, facilitating the abuse of advanced networking technology to illegally distribute copyrighted works for free. The speed of these networks—up to thousands of times faster than ordinary Internet networks—allows users to obtain copyrighted movies in minutes and music in seconds. Further, the closed nature of these networks, being available only to those engaged in academia, makes it more difficult for copyright owners to protect their works and to notify responsible parties of their infringement.

The naturally high speeds of college and university networks has also allowed students to set up local area networks—or LANs—to connect with others solely within their individual schools. The RIAA brought suit last year against the student operators of four such networks, who had effectively used their school's resources to create “mini-P2P networks” to facilitate the mass piracy of copyrighted works on their campuses. As with Internet 2, the closed nature of these LANs makes it difficult to discover such misuse. College and university administrations are in the best position to determine the pervasiveness of this LAN-based piracy, and to take action to stop it.

School administrations have been working hard to bring users of their computer networks into compliance with proper standards, laws, and acceptable use policies. But it is imperative that they do not allow loopholes in their rules and enforcement. Restrictions placed on standard Internet use should be clearly extended to new and evolving opportunities such as Internet 2 and LANs. The vigilance with which administrators ensure the integrity of their systems must continue through the introduction of these new services and technologies.

P2P piracy clearly remains a problem on college and university campuses across the country. And, undoubtedly, challenges lie ahead. Yet, the opportunities for the education and entertainment communities to work together toward a mutually beneficial end have never been as great as they are today. With the multi-pronged approach I've discussed here and in the Joint Committee report to this Subcommittee in August, the future looks even brighter. We look forward to continuing our work with all interested parties and to providing increasingly positive reports in the future.

Thank you.

Mr. SMITH. Dr. Davis?

TESTIMONY OF JAMES F. DAVIS, ASSOCIATE VICE CHANCELLOR, INFORMATION TECHNOLOGY, AND PROFESSOR OF CHEMICAL ENGINEERING, UNIVERSITY OF CALIFORNIA, LOS ANGELES

Mr. DAVIS. Mr. Chairman, Congressman Berman, Members, I also appreciate the opportunity to appear before the Subcommittee today. I am here this morning to share with you a close-up view of UCLA and University of California action on peer-to-peer file sharing and copyright infringement.

As has been mentioned, the starting point for us is to state emphatically that as creators of intellectual property ourselves, UCLA and the University of California take illegal file sharing and copyright infringement very, very seriously. This is not an idle statement but, in fact, a position statement that has made it possible for UCLA and UC to form a constructive working partnership with a core group of MPAA member studios and the MPAA itself in the Los Angeles area. The body of our UC-Studios working group continues to evolve positively and expand.

For UCLA, a key step beyond education and bandwidth management has been the development and approach called the UCLA Quarantine. The value of the UC-Studios working group becomes apparent in that the genesis of the UCLA Quarantine approach arose from an early dialogue with Universal Studios and Universal Music Group. At the time, UCLA was articulating what it wanted

to achieve and Universal was developing the Automated Copyright Notification System, or ACNS. We proceeded with the implementation of the UCLA Quarantine approach inspired by a number of the concepts in the ACNS framework. Universal developed and submitted ACNS to the joint committee.

At its most fundamental level, the UCLA Quarantine approach turns a copyright infringement notification into a campus judicial matter. Upon receiving a claim of infringement, the offending computer associated with the named network address is identified and put into quarantine, that is, file sharing is effectively blocked internally and externally. Access to on-campus student services such as library services and registration are still maintained while in quarantine, recognizing that an individual needs to continue to function in his or her educational capacity even as the claim is adjudicated.

The first offense situation is treated as a teachable moment, with the goal of changing behavior. The quarantine can be lifted by an automatic process upon acknowledgement and agreement with policy and the removal of material. It is made clear that a repeat offense will result in being summoned by the Dean of Students and that sanctions have, in fact, ranged from warnings to suspension.

The Quarantine approach was put in place for spring quarter 2004. We hesitate to draw conclusions on cause and effect or overall impact without further data and experience. However, there are two observations from the first quarter of operation that stand out and will be reviewed. First, there was a substantial drop in notifications at the point in time that the quarantine went into operation, and secondly, there have been no repeated incidences once the quarantine approach was in operation.

Now, it should be understood that while UCLA is a campus of 35,000 students, only about 7,500, or about 20 percent, live in residence. This distribution of residential and non-residential students is similar for UC's 200,000 students across its ten campuses. For UCLA, again, similar to other UC campuses, over 80 percent of copyright notifications are pointed to machines in the residential halls. Those pointing to machines on the main campus have usually been the result of security issues.

The UC culture is, of course, one of strong respect for copyright and the law, but also strong respect for due process and privacy. So from the outset, we sought more holistic approaches that, number one, would satisfy the copyright law; could become an integrated part of the community and its policies, processes and culture; would be sustainable; would be more than a short-lived fix to solve an immediate problem, and would deal with the piracy problem fundamentally as a student life problem and not just an information technology problem.

So in stressing the main points, the UCLA Quarantine approach, number one, preserves due process for the individual while fully complying with the letter and spirit of copyright laws; is driven as a judicial matter, not as an information technology issue; ensures the student judicial process and sanctions for copyright infringement are viewed in the context of all judicial issues around the campus; and is technologically integrated with virus and security management of student computers in the residence halls.

Recently, the University of California began work on a request for proposals with the intent of facilitating access for UC campuses to legal online entertainment media services. For UCLA, we believe some kind of legal service will be another important piece of the puzzle, but we also realize we must now consider movies in addition to music.

The university and the UC-Studios working group is also cooperating with the Governor's Office on Governor Schwarzenegger's recent Executive Order on anti-piracy.

In closing, I want to again acknowledge the constructive impact and value of the UC-Studios working group. We are currently sharing information on illegal file sharing trends and indicators, discussing policy recommendations to the State government, and considering selective evaluation projects and pilots. I hope this quick tour of our efforts may have provided you with insight into operational approaches that we believe show signs of addressing some of the issues of this very complex and very big problem.

I thank you for the invitation to speak.

Mr. SMITH. Thank you, Dr. Davis.

[The prepared statement of Mr. Davis follows:]

PREPARED STATEMENT OF JIM DAVIS

UCLA QUARANTINE APPROACH AND STUDIOS WORKING GROUP

Mr. Chairman, Congressman Berman, Members of the Committee, I appreciate this opportunity to appear before the subcommittee today. I am here this morning to share with you a close-up view of UCLA and the University of California in action on peer-to-peer file sharing and copyright infringement.

The starting point is to state emphatically that, as creators of intellectual property ourselves, UCLA and the University of California (let me refer to the University of California as UC) take illegal file sharing and copyright infringement very seriously. This is true whether we are talking about software, books, journals or entertainment media, and whether infringement occurs on-line or off-line.

This is not an idle assertion but in fact a position statement that has made it possible for UCLA and UC to form a constructive working partnership with a core group of MPAA member studios and the MPAA itself in the Los Angeles area. The value of our UC/Studios working group continues to evolve positively and expand.

For UCLA, a key step beyond education and bandwidth management has been the development of an approach called the "UCLA Quarantine." The value of the UC/Studios working group becomes apparent in that the genesis of the UCLA Quarantine approach arose from an early dialog with Universal Studios. At the time, UCLA was articulating what it wanted to achieve and Universal was developing the Automated Copyright Notification System, or ACNS. We proceeded with the implementation of the UCLA Quarantine approach, which reflects the underlying design principle of ACNS and recognizes the value of an efficient response to a first notification of infringement. Universal developed and submitted ACNS to the Joint Committee.

At its most fundamental level, the UCLA Quarantine approach turns a copyright infringement notification into a campus judicial matter. Upon receiving a claim of infringement, the offending computer, associated with the named network address, is identified and put into quarantine: that is, file sharing is effectively blocked internally and externally. Access to on-campus student services such as library resources and registration is still maintained while in quarantine, recognizing that an individual needs to continue to function in his or her educational capacity even as the claim is adjudicated.

The "first offense" situation is treated as a teachable moment, with the goal of changing behavior. The quarantine can be lifted by an automatic process upon acknowledgement and agreement with policy and the removal of the material. It is made clear that a repeat offense will result in being summoned by the Dean of Students and that sanctions have ranged from warnings to suspension.

The quarantine approach was put in place for Spring Quarter 2004. We hesitate to draw conclusions on cause and effect or overall impact without further data and

experience to conduct an appropriate assessment. However, there are two observations from this first quarter of operation that stand out and will be reviewed.

First, there was a substantial drop in notifications at the point in time that the quarantine went into operation. Of the 52 claims received during the quarter, 22 claims (42%) arrived in the first two weeks, whereas the remaining 30 claims (58%) were received in the remaining eight weeks. In the two immediate prior quarters, there were 67 claims received (all first incidents) in Fall Quarter 2003 and 89 claims received (79 first incidents and 10 second incidents) in Winter Quarter 2004.

Second, although we saw a small number of individuals who had a first claim arrive prior to the quarantine being put into place and a second claim arrive afterwards, we have not seen anyone receive a first and second claim after quarantine was in effect. In other words, there have been no repeat incidents with the quarantine approach in operation.

It should be noted that while UCLA is a campus of 35,000 students, some 7,500, or about 20%, live in residence. This distribution of residential and non-residential students is similar for the UC's 270,000 students across its 10 campuses. For UCLA, again similar to other UC campuses, about 80% of copyright notifications point to machines in the residential halls. Those relatively few notices that point to machines on the main campus have usually been the result of security issues in which a computer has been compromised by a virus or hacker and file sharing software installed on it unbeknownst to the owner of the computer. Frequently, however, such compromised systems are detected by the campus network group looking for unusual traffic patterns that would indicate a computer compromise (and a claim arrives after the computer has already been fixed).

In stressing the main points, the UCLA Quarantine approach:

- Preserves due process for the individual while fully complying with the letter and spirit of the copyright laws.
- Is driven as a judicial matter, not as an information technology issue.
- Ensures the student judicial process and sanctions for copyright infringement are viewed in the context of all judicial issues.
- Is technically integrated with virus and security management of student computers in the residence halls.

From the outset, we sought more holistic approaches that (1) would satisfy copyright law, (2) could become an integrated part of the community and its policies, processes and culture, (3) would be sustainable, (4) would be more than a short-lived fix to solve an immediate problem, especially in light of how rapidly the technology is changing and (5) would deal with the piracy problem fundamentally as a student life problem and not just an information technology problem. We feel the quarantine approach meets these needs.

Nevertheless, the quarantine approach is inherently a defensive approach—reactive to notifications of infringement—as it was designed to be. We continue to look for measures that can complement the UCLA Quarantine approach and that are consistent with our objectives. UC is coordinating efforts to monitor both the defensive and legal service initiatives at other universities. At UCLA, we have been working on this question of additional measures with the UC/Studios group and with Professor Jeffrey Cole, formerly Director of the UCLA Center for Communications Policy and now Director of the USC Annenberg Center for the Digital Future. From Professor Cole's UCLA Internet Report, Year 4,¹ there are indications that defensive approaches, e.g., subpoenas, are having a social impact. However, the data also show that legal services may be having a constructive effect as well.

Thus recently, the University of California began work on a Request for Proposals (RFP) with the intent of facilitating access for UC campuses to legal on-line entertainment media services. For UCLA, we believe some kind of legal service will be another important "piece of the puzzle" but we also realize we must now consider movies in addition to music. The growing trend with movies has been a particularly prominent topic of discussion with our UC/Studios working group.

The University and the UC/Studios working group is also cooperating with the Governor's office on Governor Schwarzenegger's recent Executive Order on anti-piracy. UC leadership shares the objectives expressed in the Executive Order and campuses are actively pursuing effective practices and solutions to achieve them within the context of the UC operating principles and policy.

The RFP and the working group are two important components of a multi-faceted strategy for the University of California. Other efforts continue in parallel. For ex-

¹The UCLA Internet Report Year 4 (2004): "Surveying the Digital Future", UCLA Center for Communication Policy

ample, a resource kit containing posters, graphics and text has been developed for systemwide use by campuses in their educational campaigns. There is ongoing dialog between student affairs, general counsel and information technology to ensure appropriate input is being coordinated systemwide. And the Council of Chancellors is routinely apprised of developments and activities in this area.

In closing, I want to again acknowledge the constructive impact and value of the UC/Studios working group. We are currently sharing information on illegal file sharing trends and indicators, discussing policy recommendations to the State Government and considering selective evaluation projects and pilots.

I hope this quick tour of our efforts may have provided you with insight into operational approaches that we believe show signs of addressing some of the issues of this very complex and big problem.

I thank you for this invitation to speak on this topic and would be pleased to respond to any questions.

ATTACHMENTS

UNIVERSITY OF CALIFORNIA, LOS ANGELES

BERKELEY • DAVIS • IRVINE • LOS ANGELES • MERCED • RIVERSIDE • SAN DIEGO • SAN FRANCISCO



UCLA

SANTA BARBARA • SANTA CRUZ

April 12, 2004

Dear Resident of UCLA Housing:

We are writing to emphasize the personal risks to you arising from illegal file sharing and to explain the procedure that will be utilized for responding to notice of claims of online copyright infringement received by UCLA, when that notice relates to computers located in UCLA Housing owned rooms.

You may already have heard that on March 23, the Recording Industry Association of America began legal action against an additional 532 individuals, 89 of whom are from 21 different universities (UC Berkeley, USC, Stanford, Loyola Marymount and CSU Northridge in California). This is part of a continuing strategy from the entertainment industry to curb copyright infringement through file sharing.

As a creator of intellectual property, UCLA respects copyright protections and does not condone the illegal or inappropriate use of copyrighted material, whether through online means or otherwise. UCLA has taken, and will continue to take, appropriate steps to prevent illegal file sharing and to respond to notice of claims of online copyright infringement.

At the same time, UCLA respects due process and the student judicial system, and is striving to balance this respect with UCLA's intention to comply and promote compliance with copyright laws. Over the last several months, UCLA has carefully examined the process for handling notice of claims of online copyright infringement, keeping this balance in mind.

Beginning Monday, April 19, a more distinct procedure, described fully in the attachment, will be used for responding to notices of claims of online copyright infringement within the University Housing community.

This procedure, while imposing reasonable network restrictions intended to block access to the alleged infringing materials, also recognizes that an individual needs to continue to adequately function in his or her educational capacity. Thus, most education-related work will still be possible after a student provides appropriate assurances that the reported materials have been removed, even as the student judicial process proceeds in adjudicating a claim. UCLA believes this procedure preserves due process for Housing clients while fully complying with the letter and spirit of the copyright laws.

Resident of UCLA Housing
April 12, 2004
Page 2

Please understand that illegal file sharing is a violation of Federal law and is prohibited by the Student Conduct Code. The Office of the Dean of Students can sanction students who have, in fact, violated University policy with penalties ranging up to Dismissal from the University.

Questions about the student judicial process and sanctions should be addressed to Christine J. Coons, ORL Judicial Affairs Coordinator/Assistant Dean of Students, at dmca@ori.ucla.edu.

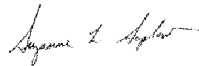
Questions about the general process may be addressed to the UCLA DMCA Designated Agent at ucladmca@ucla.edu.

Finally, if you would like technical assistance in removing files/software from your computer, please contact the Student Technology Center at techctr@stc.resnet.ucla.edu; (310) 825-3400.

Sincerely,



Michael Foraker
Director
Housing & Hospitality Services



Suzanne Seplow
Director
Office of Residential Life



Kent Wada
Director, IT Policy
Office of Information Technology

Attachment:
Online Copyright Infringement Claims Procedure for UCLA Housing Residents

UCLA Implements Quarantine Approach in the Residence Halls to Make Its Policy on Illegal File Sharing Explicit

<http://www.newsroom.ucla.edu/page.asp?RelNum=5137>

Date: April 26, 2004

Contact: Letisia Marquez (Imarquez@support.ucla.edu)

Phone: 310-206-3986

UCLA has implemented a "quarantine" approach in the residence halls, making the campus policies explicit when responding to notices of claims of online copyright infringement. UCLA developed the approach internally with a particular focus on balancing its respect for privacy and due process with its clear intent to comply with copyright laws.

"As a creator of intellectual property, UCLA respects copyright protections and does not condone the illegal or inappropriate use of copyrighted materials, whether through online means or otherwise," said Jim Davis, associate vice chancellor of information technology. "At the same time, UCLA respects due process and the student disciplinary process, and is striving to balance this respect with UCLA's intention to comply and promote compliance with copyright laws."

The approach affects approximately 7,500 students and some faculty and staff living in the university's residence halls.

UCLA has developed a quarantine system reflecting the underlying design principle of Universal Music Group and Universal Studios' Automated Copyright Notification System. In particular, UCLA's quarantine approach is specifically designed to use a standardized format for copyright notifications. By streamlining this part of the process, the campus can focus its efforts on areas that will continue to require human judgment: due process, privacy, education and policy development. UCLA and Universal continue to be engaged in discussions on respective issues regarding digital copyright infringement.

"We have chosen some select parts of the procedure to automate," Davis said. "For instance, once we have identified the machine, we notify a student by e-mail and automate the process by which the student accepts the conditions under which full services can be restored. We do, however, still review notifications manually because of the importance of ensuring that appropriate university administrators are advised where appropriate.

"There is nothing automated when it comes to the university's disciplinary process," Davis said. "We are very concerned about the administrative process and privacy of our students."

UCLA believes its quarantine procedure preserves due process for the individual while fully complying with the letter and spirit of the copyright laws.

The procedure works as follows when UCLA is notified by a copyright holder that a computer in the residence halls made available copyrighted music, movies, software or other material to others without appropriate permission:

- The computer is put in "quarantine" by having access disallowed to other ResNet sites and off-campus locations. Traffic to campus sites remains available so that much education-related work can continue.
- An e-mail is sent to the computer's owner, giving details of the claim and indicating that network access is being restricted. He or she is told to remove the allegedly infringing material and sign an agreement, which acknowledges the client has removed the material but is not an admission of guilt. This must be done within one business day; otherwise, all network access is blocked.
- By following these steps, the computer will have normal network access restored within one business day if this is the first notice of a claim of copyright infringement related to this person.
- If, however, there has been a previous claim involving the same person, he or she will be summoned by the dean of students, or others as appropriate, and the computer will remain in quarantine, allowing academic work to continue while the disciplinary process proceeds. The disciplinary process may result in sanctions.

The procedure, while imposing network restrictions to block access to the alleged infringing materials, also recognizes that an individual needs to continue to function in his or her educational capacity. Thus, education-related work will still be possible after a student provides appropriate assurances that the reported materials have been removed, even as the student disciplinary process proceeds with adjudicating a claim.

-UCLA-

LM204



Online Copyright Infringement Claims Procedure for UCLA Housing Residents

April 19, 2004

1. A copyright holder notifies UCLA that, on a certain date and time, a computer identified by a specific Internet address (IP address) made available copyrighted music, movies, software or other material to others without appropriate permission.
2. If within UCLA Housing, the IP address is then mapped to the corresponding port in the building, floor and room number using the unique network card identifier (MAC address).
3. The identified computer (using IP- and MAC-based network controls and monitoring) will have its network access impacted as follows:
 - Connectivity to the identified computer and any other devices connected to the same port will be momentarily disrupted, and connectivity lost.
 - The identified computer will be moved to a MAC-based restricted network in which:
 - Traffic to other ResNet sites is *disallowed*
 - Traffic to campus VPN services is *disallowed*.
 - Traffic to off-campus locations is *disallowed*
 - Traffic to campus sites is *allowed* (e.g., my.ucla, Library, URSA online, BOL, class web sites).
 - Any other devices sharing the same port as the identified computer, but not identified in the claim notice, will be allowed to immediately reconnect to the Housing network without restrictions.
4. For the identified computer/MAC address, an email to the corresponding client (faculty, student or staff member) is sent from the Judicial Affairs Coordinator/Assistant Dean of Students indicating that notice of a claim of copyright infringement relating to the client has been received and that his or her computer has had its network access restricted.

Online Copyright Infringement Claims Procedure for UCLA Housing Residents

April 19, 2004

(Step 4, continued)

- If this is the first notice of a claim of copyright infringement relating to the client, the email gives the details of the claim and indicates that network access is being restricted and a record of the claim will be kept should a second incident arise. The client is told to follow these steps *within 24 hours*:
 - Remove the allegedly infringing material.
 - Go to a specific web page and log on using his or her UCLA ID (UID) and PIN, or Bruin OnLine account and password. The web page will display an acceptable use agreement.
 - Carefully read the acceptable use agreement and click "I agree," which acknowledges the agreement and that the client has removed the allegedly infringing material, and sends the information to the Judicial Affairs Coordinator/Assistant Dean of Students, with a copy to the client.

By following these steps, the client's computer will have normal network access restored within one business day.

If a client does not respond to the email notice within one business day, network access to his or her computer will be blocked completely within the following 24 hours. If the client does not respond within three calendar days, the Judicial Affairs Coordinator/Assistant Dean of Students will put a hold on the client's records if a student; other action may be taken in the case of a faculty or staff member.

- If this is not the first notice of a claim of copyright infringement relating to the client, the email gives the details of the claim received and indicates that a previous claim has been recorded and that he or she will be summoned by the Dean of Students or others as appropriate.

The client is still required to follow the instructions given above for a first notice of claim. By responding within one business day, the client can keep his or her computer in restricted access so as to be able to continue to do academic work until the judicial/administrative process is completed, rather than having all network access blocked.

* * *

Mr. SMITH. Mr. McGlade?

**TESTIMONY OF ALAN McGLADE, PRESIDENT AND
CHIEF EXECUTIVE OFFICER, MUSICNET, INC.**

Mr. McGLADE. Good morning. I also want to thank you very much for the opportunity to speak to this Committee today. The original hearing you held last year regarding campus piracy has spurred the music industry and the university community to action, yielding the progress on which I will report today.

To give context to my update, I should explain that MusicNet is a business-to-business provider of music download and subscription services. What this means is that we do not provide music directly to consumers. Instead, we partner with companies like America Online, Virgin, and others that use our music licenses and technologies to offer online music services to consumers under their own brands.

MusicNet and the university community have teamed with a company called Cdigix to provide students with a viable, legal alternative to peer-to-peer piracy. We selected Cdigix because it focuses exclusively on serving the needs of the university market and provides colleges with a suite of digital media services ranging from academic content to music and to video on demand.

This partnership with Cdigix has resulted in the creation of something we worked together on called Ctrax. It is a state-of-the-art music service tailored to the unique needs of the college market. Let me explain what makes Ctrax unique.

First, we can offer students in participating colleges unlimited access to over a million songs for one low monthly fee. With a comprehensive selection and unlimited downloading to the PC, the experience is so good that it effectively replaces the need for uncensored peer-to-peer networks.

Second, the record labels have worked closely with us and agreed to provide exceptionally low pricing to on-campus music services, allowing us to offer special student subscription rates at about \$3 each month, and the cost is even better at some universities we are working with where the administration is helping to underwrite the cost. There is no longer an economic use for students to turn to piracy.

Third, billing is typically handled through the campus bursar, so the students do not need credit cards and parents can subsidize the cost if they so desire.

And finally, the music is stored on local campus computer networks, ensuring an exceptionally high-speed experience.

By crafting a solution together specifically to meet the needs of students and colleges, we have created a low-cost, high-quality, extremely satisfying alternative to peer-to-peer piracy.

I am pleased to announce that our efforts appear to be working. A number of schools have already launched or have signed on to launch Ctrax. We have a tremendous amount of activity right now. This list includes Purdue, the University of Denver, Tulane, Wake Forest, RIT, Ohio University, and Yale, which was the first school that we tested this with, creating a target base of nearly 300,000 students. As our success attracts publicity, we are being approached by a steady flow of new schools seeking to offer these

legal alternatives. We anticipate that Ctrax will be available at 20 schools next spring and many more next fall.

The early results of this program are significant. For example, the Ctrax music service was launched at Purdue just over a week ago, and during the first week, 2,000 students signed on to the service and subscribed to it. This was without any real on-campus marketing. The users have been downloading already about 20,000 songs a day, which I understand from talking to President Spanier is pretty consistent with what we are seeing at Penn State.

This success reflects the changing conditions in which we find ourselves. Students now recognize that services we offer are not just legal, but they also provide a greater user experience. In early 2002, MusicNet only had 37,000 licensed tracks. With such a limited selection, it was no surprise that peer-to-peer services were dominant. Today, we have over one million songs from the major music companies and thousands of independent labels, with a projected 1.2 million tracks available by year end in our library.

When you speak with students, you will actually find that while they may recognize the ethical issues involved in piracy and are aware of the enforcement initiatives by the RIAA, they are really beginning to turn away from peer-to-peer networks because of the inconvenience of those services. Peer-to-peer networks are fraught with viruses, spyware that track user activities, and adware that bombard users with unwanted pop-up advertising. Moreover, a large proportion of the files available in peer-to-peer networks are spoofed, meaning they are corrupt, mislabeled, or otherwise adulterated versions of the music students seek.

Legal music services, we believe offers a great opportunity for college administrations. Offering those services help universities stay competitive, promote the on-campus residential experience, decrease expense of bandwidth cost from peer-to-peer activity, and support ethical behavior.

Chairman Smith and Congressman Berman, I applaud you for your leadership on this important issue and the commitment you have each shown to development of legal alternatives to piracy for college students and your efforts to increase enforcement of the copyright laws. I would really encourage you to hold additional fall hearings next year to keep the spotlight on this issue, and I thank you for your time.

Mr. SMITH. Thank you, Mr. McGlade.

[The prepared statement of Mr. McGlade follows:]

PREPARED STATEMENT OF ALAN MCGLADE

Good Morning. My name is Alan McGlade. I am the Chief Executive of MusicNet, a leading digital music service provider and one of the first companies to legally license and distribute digital music online.

I want to thank you very much for the opportunity to speak to this committee today. The original hearing you held last year regarding campus piracy has spurred the music industry and university community to action, yielding the progress on which I will report today.

To give context to my update, I should explain that MusicNet is a business-to-business provider of music download and subscription services. What this means is that we do not provide music directly to consumers; instead, we partner with companies like America Online, Virgin and others that use our music licenses and technologies to offer online music services to consumers under their own brands.

MusicNet and the university community have teamed with a company called Cdigix to provide students with a viable, legal alternative to peer-to-peer piracy. We

selected Cdigix because it focuses exclusively on serving the needs of the university market, and provides colleges with a suite of digital media services ranging from academic content to music and video on demand.

This partnership with Cdigix has resulted in the creation of Ctrax, a state of the art music service tailored to the unique needs of the college market. Let me explain what makes Ctrax unique. First, we can offer students at participating college's unlimited access to over a million songs for one low monthly fee. With a comprehensive selection and unlimited downloading to the PC, the experience is so good that it effectively replaces the need for unlicensed peer-to-peer networks. Second, the record labels have agreed to provide exceptionally low pricing to on-campus music services, allowing us to offer special student subscription rates of about \$3 each month. The cost is even better at some universities where the administration is helping to underwrite the cost. There is no longer an economic excuse for students to turn to piracy. Third, billing is typically handled through the campus bursar, so that students do not need credit cards and parents can subsidize the cost if they desire. And finally, the music is stored on local campus computer networks, ensuring an exceptionally high-speed experience. By crafting a solution specifically to meet the needs of students and colleges we have created a low cost, high-quality, extremely satisfying alternative to illegal peer-to-peer piracy.

And, I am please to announce, our efforts appear to be working. A number of schools have already launched or have signed on to launch Ctrax. This list includes Purdue, the University of Denver, Tulane, Wake Forest, RIT, Ohio University and Yale, creating a target student base of nearly 300,000 students. As our success attracts publicity, we are being approached by a steady flow of new schools seeking to offer these legal alternatives. We anticipate that Ctrax will be available at 20 schools in the spring 2005 term and many more in the fall 2005 term.

The early results of this program are significant. For example, the Ctrax music service was launched at Purdue University just over a week ago. During the first week, 2,000 students signed up without any real on-campus marketing. Those users have already been downloading approximately 20,000 songs each day.

This success reflects the changing conditions in which we find ourselves. Students now recognize that the services we offer are not just legal, but that they also now provide a great user experience. In early 2002, MusicNet only had 37,000 licensed tracks. With such limited selection, it is no surprise that peer-to-peer services were dominant. Today we have over 1 million songs from the major music companies and thousands of independent labels, with a projected 1.2 million tracks available by year-end.

When you speak with students you will actually find that, while they recognize the ethical issues involved in piracy and are aware of the enforcement initiatives by the RIAA, they are beginning to turn away from peer-to-peer networks because of the inconveniences of those services. Peer-to-peer networks are fraught with viruses, spyware that track user activities and adware that bombard users with unwanted pop-up advertising. Moreover, a large proportion of the files available on peer-to-peer networks are spoofed, meaning that they are corrupt, mislabeled, or otherwise adulterated versions of the music students seek.

Legal music services represent a great opportunity for college administrations. Offering these services help universities stay competitive, promote the on-campus residential experience, decrease expensive bandwidth costs from peer-to-peer activity and support ethical behavior. Simply put, students are beginning to demand legal options from their universities. Just as cable television is offered in residence halls, music services are now becoming the expectation.

In addition to our work with Cdigix, we have also worked with the Campus Action Network, an effort led by Sony BMG Music Entertainment and other records companies, to support the launch of legitimate music services at colleges around the country. Campus Action Network provides universities with introductions, information and support on a broad array of online music services, and does not recommend or endorse any one service or technology to institutions. Campus Action Network also provides valuable marketing support to campuses around the country which are launching music services. With many colleges on deck as a result of Sony's Campus Action Network initiatives, we expect numerous schools around the country to have a service up and running this year.

Chairman Smith and Congressman Berman, I applaud you for your leadership on this important issue and the commitment you have each shown to the development of legal alternatives to piracy for college students and your efforts to increase enforcement of the copyright laws. I encourage you to hold additional follow-up hearings next year to keep the spot light on this issue.

Mr. SMITH. Before we go to questions, I just want to recognize Members who have joined us, and I do want to say I appreciate their presence. That includes the gentleman from Virginia, Mr. Goodlatte; the gentleman from Texas, Mr. Carter; the gentleman from Indiana, Mr. Pence; and the gentlewoman from Wisconsin, Ms. Baldwin. We appreciate their interest in this subject.

President Spanier, let me direct my first question to you. And on the way to the first question, thank you for being co-chairman of the committee. Thank you for your personal interest in this subject. And thank you, as President of Pennsylvania State, for really setting an example for many other colleges. You have been engaged from the very beginning and have been a part of the process from the very beginning.

Because of your position, you may well have an overall view that can be of help to us. In that regard, what do you think has worked the best? You have got different approaches that have been mentioned today, everything from the \$3 a month downloading available at many college campuses to free services to the Quarantine approach of UCLA, for example. Does any particular approach strike you as being something that we can promote for the future?

Mr. SPANIER. I don't think there is any one part of the solution. It has to be a set of variables that universities use to bring about progress in this area. The first is an awareness, an educational program that has to be part of the formula, as many of the students coming to higher education don't really understand the issue. As I mentioned, they are in this transition from adolescence to adulthood. It may not have been part of their educational experience in high school. So we need to, immediately when students arrive, develop a program of awareness and education about the issues. It is often a difficult message to get across.

Secondly, enforcement is a key part of this. It is like speeding on the highway. If there is never any enforcement of it, you will never see a limit in the behavior. So while some of my colleagues in higher education wouldn't appreciate me saying so, the honest truth is that the enforcement efforts of the recording industry have been an important element in raising the awareness and making people think twice about what they are doing.

Thirdly, technological improvements have made a difference. As you have heard, there are a number of mechanisms. UCLA is using some of them. Other universities are using other kinds of mechanisms to actually bring technical solutions to in some way limit what students are doing.

And finally, I think the most important development is an affordable, legitimate alternative. Now, with the availability of services like Music Match or the legitimate Napster, what you have is an ability for students to afford, or for the university to afford on their behalf, access to a clean, high-speed, legitimate way of accessing music. And so the cost really should no longer be the issue. The availability of these alternative online services is a very positive step forward and we need to do everything we can to encourage them.

Let me also say that if you look at student consumer behavior, the universities, in my opinion—and I tell my presidential colleagues this—the universities who are able to integrate the pay-

ment of this service into their budget in some way and to pay the fee on behalf of their students are going to succeed better in this effort than actually a charge-back system to the individual student. In that respect, you are having to compete with free and each student has to make a decision on which way they want to go. What we did at Penn State was to say the university would integrate into its budget the payment of the fee for everyone, and I think that approach has worked well for us.

Mr. SMITH. That is a good suggestion and I think you are right. Thank you, President Spanier.

Mr. Sherman, you mentioned in your testimony that peer-to-peer piracy on campuses was the subject of our first hearing. It is probably appropriate that it is also the subject of what I expect to be our last hearing of the year, as well.

You have also pointed out two examples of progress, as other witnesses have today, although I might put that in context. Despite the fact that there are several dozen campuses who are taking active steps to try to reduce the level of illegal peer-to-peer sharing and downloading, nevertheless, there are still thousands of colleges and universities in the country, so we have a ways to go.

What I wanted to ask you is what do you think is next for RIAA? Do you intend to file more lawsuits just to continue to call attention to the problem? Are you happy with the progress that is being made? What do you think will happen?

Mr. SHERMAN. Well, you are exactly right, that despite all the progress that has been made, we still have a long way to go. If you looked at a map of the United States in 2003, there would have been one dot for the one university that had a legitimate alternative. Now, there are many dots, 25 of them across the country, and I am told by Alan that more are coming.

So there is really a "peer-to-peer" effect here, where universities are looking to other universities for ideas on how to handle this issue—technological methods as well as legitimate alternatives, education methods, enforcement initiatives.

I think that RIAA will continue its enforcement initiatives because we feel that, as Dr. Spanier just said, if there is no risk of consequence, then you really aren't affecting behavior. Frankly, enforcement has made a profound difference on the legality issue and the awareness that uploading and downloading without authorization is illegal. Everybody is now aware of it, and that just wasn't the case a year ago.

So, yes, we will continue our efforts, but we will also continue our efforts to get universities to adopt legitimate alternatives. We will offer education. We will offer help in any way we can to continue the trend that has now begun.

Mr. SMITH. Thank you, Mr. Sherman.

The gentleman from California, Mr. Berman, is recognized for his questions.

Mr. BERMAN. Thank you very much, Mr. Chairman.

Dr. Davis, the Quarantine process that you have developed, could you speak to its applicability for commercial ISPs as a way of—as a process that they could use to help combat the piracy problem?

Mr. DAVIS. Well, there is—you need to think about the Quarantine approach in two parts. There is a technological component

which dwells on the automation part. This has to do with our work with Universal in terms of a standard format for the notifications coming in and then the processing of those notifications. And I do want to add that our implementation of the quarantine is not fully automated. We have, in fact, left some manual steps in there where there are some key decisions about students. So the automation part of this, though, I think is very extensible to other universities as well as other ISPs.

But I also want to express that, and as I said in the opening statement, the key element of what we did with our institution of this was to turn it into a judicial process or a student life issue. And so the way we have implemented this is to fully integrate it with the judicial process, and so the real enforcement aspect of this is the internal judicial process of the campus. And so that is where it becomes a—so in that sense, it is extensible to other universities, but to other ISPs, then, there would need to be some comparable judicial process and that leaves that in question.

Mr. BERMAN. And the judicial process you describe is the means by which a student essentially appeals or challenges the denial of file sharing?

Mr. DAVIS. It is both sides of the equation. It is the mechanism by which the student can appeal, but it also is the mechanism by which the Dean of Students establishes a sanction that is appropriate for what has gone on.

Mr. BERMAN. You referenced the Internet 2. Is there any action, any work being done to deal with the piracy concerns in its development?

Mr. DAVIS. From my perspective, the Internet 2 issue just basically focuses—it brings the issues into very, very clear focus. On one hand—

Mr. BERMAN. So to speak.

Mr. DAVIS. So to speak, or at least part of the issues, so to speak. I mean, on one hand, we are talking about hubs of brain images and being able to share those across the network in a very productive way, medical applications and others, and then there is the i2hub. I think that the i2hub has gotten a great deal of attention. As a person who is working very, very closely on the Internet 2, the National Lambda Rail Initiatives, and so forth, I can safely say it has gotten a lot of attention.

Within California, our Corporation for Educational Network Initiatives in California, the CENIC organization, which provides a connectivity to 8,000 institutions within California, is taking this issue on and is trying very hard right now to look for solutions that actually achieve an appropriate balance of stopping this kind of misuse of the networks, but at the same time allowing and keeping the appropriate use going. The kind of things that we are seeing actually match very, very closely with the premise of Lion's Share. So we actually see a great deal of promise for Lion's Share, and from UCLA's standpoint and UC's standpoint, looking at that very, very closely.

Mr. BERMAN. Then finally, Mr. Spanier, I guess several of us have commended you for what you have done with Lion's Share. Am I correct in understanding that the Lion's Share developers have found scientists and researchers would prefer a closed P2P

network that contains security and authentication features? And if that is so, would you agree that Lion's Share, the Lion's Share project demonstrates that open commercial networks like Kazaa and Morpheus have little practical utility for scientific research?

Mr. SPANIER. I believe that is correct. Lion's Share is being developed at Penn State, but in cooperation with other education institutions and is supported by private funding from the Mellon Foundation. They are right on schedule and making great progress and I think it holds the key to solving some of these issues for legitimate uses of peer-to-peer file sharing.

Authentication is a key issue, and absolutely, researchers would prefer and, in fact, find it very important to be on a network where there is some level of control, because they are exchanging their scientific data and work that is extremely important to them and around which their careers are based. Illegal use of peer-to-peer networks, piracy of copyrighted material, is completely antithetical to what scholars who would be using Lion's Share would want to see happening.

Its connection into commercial ISP areas is something I am not expert enough in to comment on, but I think something like Lion's Share holds a great deal of promise, and I think as long as we develop solutions to these issues that allow that kind of software and system to develop appropriately will be a great step forward.

Mr. SMITH. Thank you, Mr. Berman.

The gentleman from Virginia, Mr. Goodlatte, is recognized for his questions.

Mr. GOODLATTE. Thank you, Mr. Chairman. I appreciate your holding this hearing on this issue.

This is a question really for all of you. Mr. Sherman, you have indicated that about 25 colleges and universities now have set up a legitimate system for legally acquiring music. What do you think are the main sources of resistance to that? It is good that we have 25, but there are thousands to go. Is it cost? Is it technological issues, like you just referenced? Or is it a philosophical resistance to the idea that they can't do it the way they have been doing it?

Mr. SHERMAN. Well, I would suggest that that question really be posed to Dr. Spanier, who comes out of that very community. My impression certainly has been that it is all of those things, but it is cost especially, especially in competing budget priorities. It is difficult to figure out where to find the money.

Mr. GOODLATTE. What kind of costs are we talking about? Do you have any idea what this runs per student?

Mr. SHERMAN. It really would be better to ask somebody who has actually negotiated this because we don't get involved in those issues.

Mr. GOODLATTE. All right. President Spanier?

Mr. SPANIER. Well, in terms of obstacles, I would say the principal one is cost. The companies that are in the online music business have offered universities substantial discounts, but when you multiply it by the numbers of students that exist, universities operate very much on the margin, so yes, for some university presidents, cost is the issue and they have to be able to justify it to their constituencies.

Mr. GOODLATTE. Can you give us an idea of what we are talking about—

Mr. SPANIER. Well, what we heard down at the other end of the table was \$3 per month, which I think is a fairly typical cost, and in some cases, the costs are even lower than that depending upon the size of the deployment and the level of investment the university is making.

Mr. GOODLATTE. Does it only work if the university provides it to all the students, or—

Mr. SPANIER. No, there really is a range of models out there. The one that we have at Penn State is where we pay the fee on behalf of all of our students. Some universities have engaged in partnerships or contracts where they are using their systems to deploy it but the student must sign up for it and pay for it.

Another obstacle, I would say, is a little more conceptual. There are some universities that just philosophically say, we are not in the entertainment business. I personally don't find that very persuasive, because at virtually all universities now, we provide entertainment on campus for our students. We provide cable TV service as a part of the residence hall and room and board package. There are over—

Mr. GOODLATTE. Do the activities organizations bring musical groups—

Mr. SPANIER. Yes, absolutely.

Mr. GOODLATTE. Do you take this out of a student activity fee or do you take it out of your overall budget?

Mr. SPANIER. In our case, we take it out of something called our information technology fee. Others integrate it into the room and board. Others just put it into their larger university budget generally. So there are different mechanisms and some different obstacles.

But I think what—the couple of dozen we see right now could very well reach as many as 100 colleges and universities in the following academic year, and where it goes from there, we will have to see. But I do expect this to be something that will move very quickly.

Our pilot program, which was in the spring semester, there were only two of us who did this in the spring semester. Already, we are up to 25, and there are literally dozens of schools who are in discussions with the leading online service providers as we speak. So I think it holds some promise.

Mr. GOODLATTE. Thank you. Mr. McGlade—

Mr. MCGLADE. Yes. I would like to respond to this, as well. We do see a—we now see a gathering momentum around these sort of services at universities, and I think as more and more of them get out there, they are going to begin to see an expectation by students to have this sort of service provided in their college or university. I think an interesting parallel is the introduction of cable television in university settings and dorms. Now there is sort of an expectation by an awful lot of students to have that kind of service.

Mr. GOODLATTE. Let me slip one more question in here. You can answer both, if you would. How do you see this going down to the next level where the real problem is, and that is in high schools and even in middle schools and so on? Obviously, there isn't, that

I see readily available, the same kind of model. Most of these people are not living on campus when they are going to high school. But the same type of translation of what you are doing at the universities, does that raise any ideas about what you can do to get younger people?

Mr. MCGLADE. Well, you know, you point to a key issue, because what we are seeing here is a generational shift in consumer behavior. It is interesting. We do a lot of focus groups and consumer studies that monitor consumer behavior and we get a lot of kids that come into these focus groups that have never bought a CD and have never—have huge music collections—have never bought a CD, have never bought a file. They have just, you know, since they have been young, they have been collecting them on their computer, and they think that this is normal behavior and this is how you consume music.

So it is important to us to reach out to these kids even before they get into the university environment. Part of that is going to be education. Part of that is going to be enforcement. I think a lot of it is also going to be educating their parents. I don't know that we can put these kind of programs into junior high schools or high schools, so we are also going to have to reach out to their parents.

It is something that we do through our relationship with AOL, for example, where an important feature of AOL is the parental controls, and parents like the fact that AOL, they can sort of monitor their young teen's behavior. We provide services there and we find that a lot of—a pretty high take-up rate where parents actually secure the service for their kids so that they won't go to an illegal file sharing network.

Mr. GOODLATTE. Thank you, Mr. Chairman.

Mr. SMITH. Thank you, Mr. Goodlatte.

The gentlewoman from Wisconsin, Ms. Baldwin, is recognized for her questions.

Ms. BALDWIN. Thank you, Mr. Chairman.

The report seems very encouraging, and I am pleased with a lot of the progress that has been made. I had a couple of questions, if I can tease out a few more details following the last question. I understand that a product like Ctrax would be quite flexible, that you would, in many ways, negotiate with the businesses, including universities, to meet their unique needs.

But in terms of cost, the institution can pick it up. It can be passed on to the student. When you say \$3, give me an example. Is that \$3 per month, \$3 per download? Tell me a little bit how this can be priced so I can really understand.

Mr. MCGLADE. Yes. We are seeing, since we are working with a number of universities at once, some of them are pursuing different models. Some actually will incorporate that into—the student, they pay for it, essentially, and every student has it available to them. That is the Penn State model. We also see schools—

Ms. BALDWIN. Can I interrupt? I want to make sure I get it. So when an institution picks it up and they are talking about a \$3 fee, is that per student at their—

Mr. MCGLADE. It would be per—

Ms. BALDWIN.—university per month?

Mr. MCGLADE.—per student, per month, for unlimited access to stream or download, and it is called a tether download, where you essentially can download it onto your computer and play it back for as long as you are at that institution.

Ms. BALDWIN. Okay. And then there would be many other ways that the businesses could set up this—

Mr. MCGLADE. Yes. They could also subsidize it. They can arrange to sell tracks individually. That is called the a la carte permanent download model. But we find that the greatest interest, at least in the university setting, is to have what is essentially a subscription service where you have unlimited access to streaming or playing back files.

Ms. BALDWIN. Okay. On campuses where these—all the campuses except for the 25 or so that have it, are there generally available clean, high-speed, legitimate, low-cost alternatives to P2P in those—P2P piracy in those institutions, and at what sort of costs are those legitimate sites available?

Mr. SPANIER. Well, on the campuses that don't have those services, the only mechanism a student would have would be the same as any consumer in the country, where they could pay what might typically be \$9.95 a month, let us say, for the same service that a university with a specialized contract would have at a much lower rate. At those campuses, you would find, I am sure, looking at our data at Penn State from before and after, you would find a higher level of misuse of the system that is out there using the peer-to-peer file sharing services that principally exist to allow students to swap music and to engage in piracy. So this is one of the reasons that we are so strongly encouraging universities to subscribe to online services, because I think it holds the key.

Now, just let me add, however, that does not mean that those universities who have not yet signed onto a service are just allowing this to happen willy-nilly. Most universities do have some mechanism of bandwidth shaping or technological limitations, educational programs, some of the other things I mentioned. They are doing other things besides deploying an online music service to try to limit this activity.

Ms. BALDWIN. Okay.

Mr. DAVIS. I would like to—

Ms. BALDWIN. Please go ahead. I have one more follow-up. Go ahead.

Mr. DAVIS. If I could respond to these questions, as well, from a little different perspective, philosophically, the University of California is in the same place. But the profile of the university comes into play, as well.

As I said in the verbal remarks, we have only 7,500 students out of 35,000 who are in the residential halls. We know that the peer-to-peer software is, by and large, not on the main campus networks. It is only in the residential halls. And so the extension of these services now becomes a very hard question for us.

It is not an issue so much in moving it into the residential halls, and we are, in fact, proceeding in that direction, but how to reach the other four-fifths of our student body with this becomes the hard question. That is why we have concentrated on the education, the teachable moment, and so forth from a campus standpoint so that

these can go into operation, especially if we have to do it on an individual basis, so it will have a more sustained effect over the whole campus body.

Ms. BALDWIN. Thank you.

Mr. SMITH. Thank you, Ms. Baldwin.

The gentlewoman from Pennsylvania, Ms. Hart, is recognized for her questions.

Ms. HART. Thank you, Mr. Chairman.

I want to thank especially President Spanier and the other panelists for being here, and also for proceeding with your project to make sure that students understand the gravity, really, of what they have been doing.

Just quickly, I am sorry I missed the earlier discussion, but if you already answered this, I am sorry, but your report, and I guess Mr. Sherman was involved in this, as well, that talks about what you have done and the success, talks about how enforcement has been cited as the most important element to having this be an effective way to move where the students are actually more responsible and more honest about the way they retrieve the music and things that they want to get online.

But yet another part of your report states that the incidence of enforcement has gone down. Can you reflect a little bit more for me on what the facts are as students actually facing real enforcement actions? What did they do? What kind of enforcement actions were they? Were they actually legal issues or was it part of this project that you set up, being outside our legal system?

Mr. SPANIER. Well, there are two levels of enforcement. I think the one that we principally referred to in our report to the Committee is the enforcement efforts of the RIAA, which is generally in the populus to try to—against egregious violators, people who are substantially engaged in piracy activities to take them to court and to get resolution.

Within higher education, however, there is a variety of enforcement action, and I would say the most typical model that you see in universities is focused first of all on giving students warnings when they are engaged in a level of use of university bandwidth that would be highly suggestive of their massively downloading music in an inappropriate way. Some universities, because of their approach to monitoring, have very direct evidence that students are downloading music.

At Penn State, we go through a series of warnings, and at the third warning, we simply suspend their service to the university altogether. They are brought into the judicial affairs system, the student conduct system of the university. It is similar to what I understand you described at UCLA. So the enforcement actions within the university have two kinds of consequences. If they are misusing our networks, there is a point at which, after we go through the educational process, we say, you just can't use our networks anymore. We are shutting you off. They also—

Ms. HART. Has that actually happened with students at the university?

Mr. SPANIER. Yes. Oh, absolutely.

Ms. HART. Is it a significant number?

Mr. SPANIER. I don't think we have had it happen since we have deployed our new online music service.

Ms. HART. Okay.

Mr. SPANIER. But we have had it happen before as we ramped up to it. The other thing that will happen is they are brought in and they have to have a discussion with a judicial affairs officer and they could be put on probation or even suspended from the university if they are abusing our systems.

Ms. HART. So do you believe it is that kind of enforcement action that has actually had an effect on the student body, or a combination of what the RIAA is—

Mr. SPANIER. I think it is a combination, and what I had referred to in my oral remarks is that I think the enforcement of the RIAA has been important in the nation for bringing attention to this issue, for letting people know that they can't do this. I think that has helped perhaps stem some level of piracy.

Ms. HART. Have there been students at Penn State involved in the RIAA actions?

Mr. SPANIER. No. We have not had a student who has been sanctioned by the RIAA. However, we have been at the level, as has probably every university, where we have received a notice from the RIAA saying to the university, we have identified a student who has engaged in some level of activity that we suspect they are doing this and you need—we then will take the student offline, speak to the student, verify their misuse, tell them they had better clean up their act, and then we will put them back on.

So we all received notices. At Penn State, the level of those notices have declined dramatically since we adopted our new online service, and Cary Sherman could probably tell us a little better how it all works from his end.

Ms. HART. Go ahead.

Mr. SHERMAN. Well, if I could just clarify that, I have taken a look at the report that we submitted and I think what it says is that the schools that implemented new infringement prevention programs and methods, in other words, who actually implemented a consistent policy of enforcement on campus—

Ms. HART. Like Penn State?

Mr. SHERMAN. Like Penn State and UCLA and many others—reported significant decreases in illegal file sharing and incidents of discipline for infringement, and I think that I saw some references to the number of violations that have gone down progressively from the first time to the second time to virtually none the third time, or very, very few.

Ms. HART. Okay.

Mr. SHERMAN. So it is working.

Ms. HART. Thank you. I yield back.

Mr. SMITH. Thank you, Ms. Hart.

I am going to recognize myself just for a few more questions. During the course of the questions that we have heard from other Members, President Spanier, it occurred to me to ask you something, and I probably should have checked out this with you earlier, but feel free to be candid in your response.

I am wondering if you, as co-chairman of the committee, would be willing to write, say, the 50 largest universities, both public or

private—either public or private—and ask them what they are doing to try to reduce the illegal downloading of music or of movies, which is probably right around the corner with Internet 2. Would that be feasible for the committee to do, just to get an update and see what they are doing, and obviously, we would have an interest ourselves.

Mr. SPANIER. I think we have essentially done that already. The committee has gone through a——

Mr. SMITH. But I think you did that a year ago. Have you sent out anything recently, or——

Mr. SPANIER. Most recently, what I have done is written the presidents of a large number of universities, trying to make an introduction between that president of the university and representatives of the music industry and any one of a number of online music services to open the door to a discussion to adopting these online services.

Mr. SMITH. I am wondering if it would be worthwhile just to single out the largest, just because that is where most of the student population is, and maybe even be more specific about asking them what steps they have done. If you would consider that, maybe we can talk about that subject a little bit more.

Mr. SPANIER. If it would be helpful to the Committee, we would be very willing to do something.

Mr. SMITH. Okay. That would be very helpful, and also, obviously, the subject of another possible hearing early next year, as well, so thank you for that.

Dr. Davis, I wanted to go back to your testimony. You seemed to have a little bit different approach today with the Quarantine approach that is being used at UCLA. Clearly, that is working and successful. As I read it and read your testimony, you have almost no recidivism, not that I am accusing everybody of being a criminal who illegally downloads, but nevertheless, you don't have any repeaters, shall we say, so clearly, that is working.

You have also taken a little bit different approach because you are more of the stick than the carrot approach, the carrot being maybe the free sources provided or the very inexpensive services provided on campuses today. What are the advantages or disadvantages of your approach compared to the others?

Mr. DAVIS. Actually, I think we are quite in line with what has been reported. We totally agree with the three-pronged approach that Graham was speaking to, the educational component, the enforcement——

Mr. SMITH. But isn't UCLA the only one using the Quarantine approach, or are others, as well?

Mr. DAVIS. Within the University of California?

Mr. SMITH. Yes.

Mr. DAVIS. We are the only ones using it right now, but we are talking with the other campuses and they are now, now that we have our first results out, are looking into expanding it to the other campuses.

Mr. SMITH. Okay. In regard to whether you think the Quarantine approach is better, more effective than others, like I said, you are doing something a little bit differently and I am just wondering, since it is so different, how you think it compares with the others.

Mr. DAVIS. Well, the thing about—again, it is the enforcement component, and so I am trying to make it clear that the legal services, we also see as an important piece of the puzzle and we are moving in that direction. But focusing on the enforcement piece of it, for us, it has been a very appropriate balance within the culture of the campus to balance judicial process and the legal requirements of this that has proved effective. It has been received by the students and received by the parents and been received by the faculty, and at the same time has been effective in dropping notifications and the repeat offenders, as you said.

Mr. SMITH. So a combination works best, perhaps, and we heard—

Mr. DAVIS. We think a combination.

Mr. SMITH. Okay. Mr. McGlade, you provide a service or work in conjunction with others to provide a service which is very attractive for \$3 a month, or maybe it is less on some college campuses. You mentioned in your testimony you now are accessing, what, a million different songs, is that correct?

Mr. MCGLADE. Yes. We have licensed all the majors, and as I said, thousands of independents. So our library now contains a million tracks and we expect it to be 1.2 million by year end.

Mr. SMITH. I don't know what percentage of all popular music that is. There are still some copyright holders who are not willing to allow your service to provide those. I guess the obvious one that occurs to me is—and this dates me—is the Beatles. I don't know how popular they are these days, but that is an example. What percentage of all music, or all songs that are current, do you allow to be accessed?

Mr. MCGLADE. Well, it really has improved dramatically over the last year. You know, I think people early on didn't understand the licensing process and we are pressing the music companies, the record labels, to do licensing of their master recordings, but that is only the first step in the process. We actually have to start by licensing the master recording from the music label, whether it is a major music label or an independent.

And then you have to, in many cases, get clearance from the artist, and as you mentioned, big artists with extensive catalogs, like the Beatles, Garth Brooks, Led Zeppelin, Madonna, I can go through a list of ones who haven't, who actually have used their veto rights that are a part of their contract with their label to stop the distribution through a digital pattern.

Mr. SMITH. Why do you think that is? Why have they not cooperated with—

Mr. MCGLADE. Well, to use—

Mr. SMITH.—your efforts?

Mr. MCGLADE. If you look at the Beatles, they were actually probably the last major artist to license for CDs, to go from vinyl to CDs. I think they were about 5 years behind everybody else. They have probably the most valuable catalog in the industry and they just tend to move slowly. But it could be a variety of reasons. They are renegotiating their contract with their music label and this is leverage. They want an advance. It is a variety of things.

But the good news is, we have very rapidly sort of moved through most of the holes in the catalog, but that, frankly, was one

of the major reasons that people want to peer-to-peer networks, even if you had a legitimate service. If they couldn't find what they wanted, they went elsewhere.

Mr. SMITH. They would go somewhere else. That is what I was concerned about.

Mr. MCGLADE. Yes.

Mr. SMITH. But you are closing that——

Mr. MCGLADE. We are closing that gap and we are down to a handful, I would say, that really matter.

Mr. SMITH. Okay.

Mr. MCGLADE. I would like to point to one other issue, too, which is publishing. There is also the issue of the songwriter royalties. Even if you clear the master recording and you get permission from the artist, if it is required, very often, you still have issues around clearing publishing. You know, the royalties haven't been established. So that also can be something that slows it down.

Mr. SMITH. Okay. That is good to know. You obviously agree with President Spanier that it is easier to have the universities pay, say, \$3 a month than have the students pay an individual price for each song?

Mr. MCGLADE. I think, ideally, you are going to get the best take-up if it is just available with unencumbered use for all the students.

Mr. SMITH. It is easier and the students don't have to confront a price——

Mr. MCGLADE. Right.

Mr. SMITH.—and it almost seems like it is free. Okay.

Thank you all, and let me see if there are any other Members present who might have additional questions. Ms. Baldwin? By the way, Ms. Baldwin, it was while you were asking your questions that the idea of asking President Spanier about that letter came to me, because I noticed that neither the university that you represent, the University of Wisconsin, nor the university that I expect to represent, the University of Texas, are on those lists of universities that are most helpful, and so maybe we can get a response from those universities, among others.

Ms. Hart, do you have any other questions?

If not, thank you all. This will be most informative, and as I said in my opening statement, we will continue to hold hearings and monitor the progress that we hope you all continue to have, and thanks for your help with that.

I would like to insert for the record written testimony submitted by James W. Spertus, Vice President and Director of U.S. Anti-Piracy Operations of the Motion Picture Association of America.

We stand adjourned.

[Whereupon, at 10:21 a.m., the Subcommittee was adjourned.]

A P P E N D I X

MATERIAL SUBMITTED FOR THE HEARING RECORD

PREPARED STATEMENT OF THE HONORABLE BOB GOODLATTE, A REPRESENTATIVE IN
CONGRESS FROM THE STATE OF VIRGINIA

Mr. Chairman, thank you for holding this important oversight hearing on peer-to-peer (P2P) piracy on our universities' campuses.

Article I Section 8 of our Constitution lays the framework for our nation's copyright and patent laws. It grants Congress the power to award inventors and creators, for limited amounts of time, exclusive rights to their inventions and works. The founding fathers realized that this type of incentive was crucial to ensure that America would become the world's leader in innovation and creativity. This truth is still applicable today. As we continue our journey into the digital age, we must be sure to continue to reward our innovators with the exclusive rights to their works for limited periods of time. This incentive is still necessary to maintain America's position as the world leader in innovation.

However, the proliferation of copyright piracy in America is growing and is threatening to undermine the very copyright protections our founding fathers envisioned. Particularly disturbing is the growth of piracy on America's university campuses.

The fast Internet connections that are available to students at colleges and universities give students unprecedented tools for writing and sharing information. However, these fast connections can also be used to download and upload illegal copies of songs, movies, games and software.

Universities should be concerned about copyright piracy for many reasons. I would like to highlight two of these reasons.

First, much of file sharing is theft. When a student downloads a song without paying for the song, that student is stealing. One of the greatest characteristics of our nation's universities is their commitment to honesty and honorable behavior. Most universities demand that students follow strict honor codes that prohibit such activities as lying, cheating and stealing. However, when a university adopts a passive stance on copyright piracy, it sends a mixed message that blurs the moral imperatives it seeks to foster through its honor code.

Secondly, file sharing poses serious security threats to universities' network resources. The simple fact is that P2P networks connect universities' computers to networks that may never have been checked for viruses, worms or other destructive computer codes. This leaves universities wide open to attack. Also, P2P developers often create applications within their software that record users' web browsing behaviors. P2P developers then sell this information to make additional profits. In addition to potential privacy concerns, these tracking applications can be attractive targets for hackers and trespassers looking for weaknesses in universities' networks.

Illegal file swapping is a serious problem for universities. Clearly, industry leaders and university officials must coordinate their efforts to eliminate this illegal activity. Through education and the development of best practices and competitive technologies, content providers and educational institutions can show the world that private parties can work together to solve these complex piracy issues without heavy-handed government regulation.

I look forward to hearing from the expert witnesses today regarding the progress the groups are making. Thank you for taking the time to come and talk about your efforts to end copyright piracy on America's university campuses. Thank you, again, Mr. Chairman, for holding this important hearing.

PREPARED STATEMENT OF JAMES W. SPERTUS

Mr. Chairman, Ranking member, Members of the Subcommittee:

I would like to thank you for inviting this statement on the important topic of peer-to-peer piracy on campuses. As a former Assistant United States Attorney who has prosecuted computer crime and intellectual property offenses, and as the current Director of United States Anti-Piracy Operations for the Motion Picture Association of America, I have, perhaps, a unique vantage-point from which to view this problem, and I am delighted to share my views with you.

The Internet has radically changed the nature and scope of copyright infringement. Peer-to-peer networks have made it possible for tens of millions of people to steal and distribute copyrighted movies and recordings to countless other individuals, and super fast broadband networks have enabled this massive theft to be accomplished quickly and conveniently. Several million users engage in the unlawful theft of copyrighted material every single day. Although broadband and networking advances clearly promote the healthy exchange of ideas, research and information, they also enable millions of people to swap copyrighted material at a rate never before imagined. Many of those who gravitate to the fastest networks often do so primarily to exploit those technologies to steal creative works.

Nowhere have advances in networking technologies simultaneously promoted so much good and so much bad as on the campuses of our nation's colleges and universities. Colleges and universities are leading a technological revolution in this area. For example, a new Internet backbone called Internet2 now connects 207 college and university campuses to each other. The speeds at which data can be transferred over Internet2 are astounding. Very recently, researchers were able to send 859 gigabytes of data in less than 17 minutes, a rate of 6.63 gigabits per second—a speed that would enable somebody to transfer a full-length DVD movie in four seconds. This transfer experiment was done between Geneva, Switzerland and Pasadena, California, a distance of approximately 15,766 kilometers, and the experiment proved that massive amounts of data can be exchanged almost instantaneously over this new high-speed network. Tens of thousands of users are already using a new peer-to-peer file swapping program for Internet2 called i2hub, and projections estimate that there will be 500,000 users on i2hub by the end of the year. It is clearly foreseeable that nearly every college and university will ultimately be connected to Internet2, and unless colleges and universities take immediate action to prevent the misappropriation of their networks for illegal purposes, the movie industry will be decimated.

There are several colleges and universities that have outstanding programs designed to educate students about the illegality and immorality of copyright infringement over peer-to-peer networks. These institutions value the rights of copyright holders while at the same time promoting academic freedom and the exchange of information. For example, Pennsylvania State University, under the leadership of President Graham B. Spanier, has developed many forms of communication designed to educate Penn State students and faculty about the school policies that prohibit unlawful file swapping. Users of Penn State computer networks must agree to abide by the terms of the school policies, and federal and state laws, before they are given an Internet account on the system. Penn State also distributes messages to students and faculty from the Provost that state in clear and simple language many of the legal and ethical reasons why the unauthorized exchange of copyrighted material is prohibited on campus. Penn State closely monitors its networks, without monitoring content or violating what it perceives to be student and faculty privacy interests, and limits excessive bandwidth usage by network users. Offenders of the school's bandwidth policies are further restricted on the Penn State networks, and persistent violators are suspended from the network altogether.

There are many other shining examples of colleges and universities working hard to address the problem of illegal file swapping over peer-to-peer networks on campuses. The University of California, Los Angeles employs messaging, policies and enforcement mechanisms to reduce copyright violations over campus networks, as does The University of North Carolina, Temple University, The University of Florida, Carnegie Mellon University, Columbia University and dozens of other colleges and universities throughout the nation.

The Motion Picture Association of America (MPAA) routinely monitors public peer-to-peer networks over the Internet to identify users who unlawfully swap copyrighted material, and the MPAA sends infringement notices to Internet Service Providers (ISPs) when it identifies users swapping movies online. The MPAA also tracks the number of infringement notices sent to colleges and universities serving as ISPs for their students and faculty, and the number of these notices provides a rough measure of the scale of infringement activity taking place on campuses.

Many colleges and universities are attempting to reduce the amount of unlawful file swapping that occurs on campus, while other educational institutions treat the issue far less seriously. In July 2004, the MPAA began a large educational outreach

campaign to colleges and universities in an effort to raise awareness of the peer-to-peer problems at these institutions. The MPAA identified the 140 colleges and universities to which the MPAA had sent the most infringement notices in 2004, and formulated a two-step plan to reach out to those schools. Although the outreach program will remain a permanent part of the anti-piracy program for the United States, the initial two-step plan should be completed in the near future.

The first step of this outreach program involves telephone calls by high-level studio executives to the Presidents of those 140 universities. The studio executives encouraged the Presidents to support anti-piracy efforts by prohibiting the swapping of copyrighted works on campus, and by encouraging the Presidents to inform their Deans that anti-piracy efforts were a priority. Although many colleges and universities already had policies prohibiting unlawful file swapping, many of those policies were not strong enough or were not communicated well to students and faculty. For example, while virtually all schools prohibit students and faculty from violating federal or state laws on campus, some did not have policies expressly prohibiting unlawful peer-to-peer file swapping. Recognizing that not all schools are aggressively addressing the piracy issues on campuses does not take away from the tremendous energy other schools devote to rectifying the problem. During this outreach effort, those schools that have outstanding programs were recognized and their ongoing efforts are deeply appreciated.

High-level MPAA executives and employees then followed the President calls with separate calls to the Deans and Associate Deans to discuss specific ways to address the peer-to-peer piracy problems on campuses. To the extent possible, the MPAA is trying to frame the issue as a "student life" issue rather than a technology issue, and, whenever possible, the MPAA outreach team attempts to speak to deans of students rather than information technology officers. The MPAA is encouraging universities to better communicate with their students about the peer-to-peer policies.

The MPAA is also mailing packets to universities. These packets contain examples from several schools of clear communications to students about peer-to-peer issues. The packets also contain a list of hardware vendors that offer products to help colleges and universities monitor student networks, such as filtering hardware that automatically recognizes the digital fingerprints of known copyrighted works. In addition, the MPAA has included other items in the packets, such as a graphic that can easily be printed into a poster and displayed in student unions and residence halls, and a copy of the best practices memorandum prepared by the Joint Committee of the Higher Education and Entertainment Communities.

Overall, the schools that have been approached by the MPAA have been very enthusiastic about addressing the problem of peer-to-peer piracy on school computer networks. Most schools recognize that it is illegal and morally wrong to swap copyrighted materials without paying for them, and most schools view themselves as significant copyright owners and stress the importance of protecting the copyrighted works of others in the same manner as they would want their own works protected. In addition, many schools want to protect their students from criminal and civil exposure, and some schools have stressed their desire to be on the frontline battling piracy battles along with the entertainment industries.

Many schools have recently begun to offer, even subsidize, legal alternatives to the unlawful file swapping of copyrighted works. There are services that allow users to legally obtain digital content online, such as Apple's iTunes or Movielink. However these legitimate alternatives will always be disadvantaged when selling music or movies, when nearly any sound recording or motion picture that a particular user might desire is available for free, any time of the day or night.

It is indisputable that the vast majority of peer-to-peer traffic is illegal. This undeniable truth prompted at least one university to ban peer-to-peer software on campus altogether. In the opinion of this school, peer-to-peer systems were being so massively abused that they ceased to have a legitimate and useful function on campus. While we are not necessarily advocating this solution, it was certainly a reasonable course of action for this university to take.

The MPAA is encouraging colleges and universities to recognize the degree of piracy occurring over these networks, and is encouraging the colleges and universities to formulate a balanced approach to address the piracy problem in a manner consistent with the principles of higher learning that only each individual institution can define. It is true that a peer-to-peer network can serve a lawful purpose, but it is also true that the overwhelming majority of files transferred over such networks are being transferred unlawfully in violation of the rights of copyright owners.

Much has been done over the past year to reach out to students and faculty on campuses throughout the country. Despite this outreach, however, the MPAA is observing the same or greater levels of infringement on peer-to-peer networks on cam-

puses. Consequently, new and more aggressive forms of communication and enforcement on campuses are necessary. The entertainment industry and the institutions of higher learning need to work together to find effective ways to balance the proprietary rights of copyright owners against the need to foster technological innovation for the benefit of all. Copyright owners are often on the forefront of technological innovation themselves.

In conclusion, on behalf of the MPAA, as well as the hundreds of thousands of law-abiding people who work in the movie industry and whose livelihoods are threatened by piracy, I want to thank you again for inviting this statement for the hearing today. The interest of this subcommittee in this important issue is extremely helpful and promotes the continuing effort by the institutions of higher learning and the entertainment industry to formulate reasonable solutions to a clearly identifiable problem. We are very grateful to the members of this subcommittee for this interest, and we are grateful to the colleges and universities working hard to evaluate the on-campus piracy problem and find appropriate solutions.

PREPARED STATEMENT OF FREDERIC HIRSCH

On behalf of the Entertainment Software Association (ESA) and our member companies, I thank you for this opportunity to add a statement to the record to update you on the impact peer-to-peer (P2P) piracy on university networks is having on the entertainment software industry. In the two years since our president, Douglas Lowenstein, appeared on Chairman Smith's university P2P piracy panel at the University of Texas at Austin, our industry has taken a number of significant steps to combat the piracy problem on American college campuses. Nevertheless, campus P2P piracy remains a threat to the economic contributions the computer and video game industry makes to the United States economy.

As ESA's senior anti-piracy executive, I would like to update you on the progress we have made in addressing college-level P2P piracy over the past two years on the educational and enforcement fronts. In addition, I would like to identify new challenges we face, including the abuse of new P2P technologies such as BitTorrent, as well as highlight what universities need to continue to do to help reduce the P2P piracy threat on the nation's campuses.

As you may know, the ESA is the trade association serving the public affairs needs of the world's leading publishers of video and computer games, including games for video game consoles, personal computers, handheld devices, and the Internet. ESA members produced more than 90 percent of the \$7 billion in entertainment software sold in 2003. In addition, ESA's member companies produced billions more in exports of American-made entertainment software, driving the \$25 billion global game software market. Entertainment software is a vibrant and growing segment of the American economy, providing highly skilled jobs and ever-increasing exports.

Entertainment software companies make a tremendous investment in their games and the intellectual property that these represent. For an ESA member company to bring a top game to market, it often requires a team of as many as 100 or more professionals working over three years in development, with development and marketing costs often running at least \$5 million and often \$10 million and higher. As with any hit-based industry, only a small percentage of these titles actually achieve profitability. Nonetheless, the demands of the game-playing market compel ESA members to continue to work hard to develop faster and more exciting games, requiring larger investments in the programming and technology that will produce the effects and challenges that game players seek.

Over the past two years, illegal and unauthorized uses of game software have proliferated as rapidly as the growth in popularity of playing interactive games as a leisure-time activity. Among certain segments of the population, notably the age groups of college students, the playing of games represents a dominant form of recreation and entertainment, increasingly displacing other forms of diversion such as watching television. The current generations of college students have been playing computer and video games for more than a decade. A Pew study last year revealed that over 65% of college students play interactive games on a regular or occasional basis. Most of them bring to their college campuses the game-playing habits cultivated over many years at home. Thus, it is easy to understand why college campus environments continue to be areas of major concern for ESA members, particularly as college students, open and eager to learn and try new things, often fall prey to the temptations of easy access to hundreds of free interactive games over the Internet.

A digital file containing an interactive game consists of, on average, over 650 megabytes of information, a large digital file over 150 times the size of the standard music mp3 file. Downloading such a file over a dial-up connection where the speed of the connection is 56 kilobits per second is a daunting proposition at best and, at more than 24 hours, practically unfeasible for all but the most determined of downloaders. Despite the dramatic increase in broadband access to the Internet among American households, most American homes connect to the Internet through dial-up. Thus, most students when they first arrive at college, have not had any experience downloading interactive games. However, the broadband systems that exist on most American college campuses offer a dramatically different technological context for the average student, who becomes quickly informed about the many wonderful “facilities” of high-capacity access to the Internet. Indeed, in such a broadband environment, the download time for a full game file can be cut to 3–4 hours, a much more enticing proposition than what these students might have found on their home computers. ESA’s tracking of online pirate activity confirms that almost all illegal game downloads occur over broadband connections.

The high-speed access offered by such campus broadband systems become problematic when combined with other personal and lifestyle elements found among many student communities: substantial amounts of free time, high levels of technical knowledge and attraction to interactive games, and a close community with a generally high percentage of active game players. On many campuses, this congruence of factors produces environments marked by high rates of illegal copying and distribution of game software. Moreover, the efficiency of peer-to-peer software and networks offering a wide variety of illegal versions of games makes downloads of game software all the more accessible to the average college student. Indeed, ESA’s monitoring of Internet piracy of its members’ leading games shows that the overwhelming majority of illegal downloads (92%) of such games on college systems are executed through P2P protocols.

ESA plays a significant role on behalf of its members by pursuing efforts to reduce the illegal uses of its members’ game software. Needless to say, much of ESA’s anti-piracy work has been focused on addressing pirate activity on the Internet. The online enforcement program begins with our automated monitoring of the Internet, which detects and identifies infringing activity and sites involving game product. Such detection is followed by ESA’s manual verification of the infringing activity and transmittal of notices advising ISPs and MIS managers of the illegal activity detected among the users of their systems and requesting their intervention in procuring the termination of such activity. Over the past year, ESA has sent over 190,000 such notices. The ISPs responses to these notices run the gamut of no response, to an automated acknowledgement of receipt of the notice, to an e-mail response, to a phone call or letter describing the action to be taken in response to the notice. Unfortunately, the vast majority of responses sent to ISPs regarding P2P activity fall into the no-response category.

The good news is that college and university MIS administrators have distinguished themselves from the large group of non-responsive ISPs with a high level of response and cooperation in response to our notices. Their responses are generally very informative and go beyond what we normally receive from even responding commercial ISPs in terms of describing their efforts after receiving the notice of infringing activity. Some colleges, notably the University of Oklahoma, routinely describe to us in detail the steps they have taken to address the instance of piracy identified in each of the notices we send them. Such steps can range from warning letters to suspension of access to the university network. We have been very encouraged by this level of response and have used the opportunity of our contacts with university administrators to offer them additional support and information that we come across with respect to game piracy.

Fortunately, universities and colleges across the United States have done more than merely respond to our notices regarding pirate files appearing on their systems. Many of them have taken a pro-active approach to educate their students, faculty and employees about online piracy and have adopted policies governing the use of their systems and networks aimed at establishing clear lines regarding the consequences of students, faculty or employees engaging in illegal copying or transmissions of IP-protected content. We think that these educational efforts are among the most important areas of activity for university administrations. Such educational initiatives over time will do much to dissipate the “anything goes” attitude that permeates many college campuses with respect to Internet usage. Addressing the ethical and legal aspects of infringing activity and abuse of intellectual property is an important function that we think college administrations are ideally suited to perform. We also think that a continuing dialogue between IP industries and college administrations regarding the way these issues are raised and presented to students

could serve to further enhance colleges' efforts to educate students about intellectual property abuse and piracy.

We are also aware that many universities have instituted technological measures to reduce the illegal activity resident on their networks. Whether it is the ICARUS system implemented by the University of Florida, or Audible Magic's CopySense or bandwidth-shaping technologies that limit the amount of data that can be sent over networks, many colleges have availed themselves of technological solutions that serve to either pre-empt or deter the use of their systems for illegal transmissions of infringing files. We applaud such efforts and believe that wider application of such technologies will ultimately help preserve the college networks for the educational uses which should be their paramount purposes.

Enforcement, education and technology are all critical elements in the effort to reduce piracy on university systems. We think that many universities have stepped up to take on the challenges that this Subcommittee set forth for them last year by taking a pro-active and engaged approach to this problem. While the ESA and its members are gratified by the level of response and communication that we have seen from universities with respect to instances of game piracy found on their systems, we must also point out and caution that Internet piracy is a dynamic and rapidly evolving phenomenon, raising new concerns and issues for those trying to confront it effectively. P2P technologies are changing quickly, and some, such as BitTorrent, have set new benchmarks for the speed and efficiency with which they permit the copying and distribution of digital content. The constant change we see in the pirate Internet environment requires continuing dialogue between the IP industries and university administrators to coordinate and collaborate on the best way to respond to these new challenges.

In addition to the problem of P2P piracy, ESA members remain equally concerned about another form of illegal activity occurring on some university systems, beyond the knowledge and awareness of their administrators. Federal investigations and enforcement actions against members of Internet piracy rings known as "warez groups" over the past few years have revealed that many members of these groups have surreptitiously used university systems to store their illegal "warez" files, consisting of illegal digital copies of games, movies, software and music. Some of these were cases of intrusion, where a member of one of these groups successfully hacked into a university system and then undertook to quietly hide several thousand files beyond the purview of system administrators. Other cases were "inside jobs," in which a member of the university MIS staff was also a member of one of these groups or was co-opted into permitting the groups' use of university servers and bandwidth capacity for their illegal purposes.

While we understand that such activities were in no way sanctioned by the universities involved and, in fact, consider them also to be victims of such groups, we would like to acknowledge that such unauthorized uses of university systems remain a major concern for the game software industry and its efforts to curtail the activities of these warez groups. We believe that the college MIS systems that were targeted by these groups in the past must institute technical measures, procedures and internal audits which will serve to prevent any recurrence of such intrusions in the future, and that other colleges not yet similarly victimized take proactive steps to prevent such unauthorized high-jacking of their bandwidth. In short, this Subcommittee should stress to universities that they must maintain a high degree of vigilance with respect to their IT equipment and networks, as the members of these warez groups are constantly on the prowl for the storage and bandwidth facilities that university systems offer.

We applaud the work of this Subcommittee and the outstanding efforts it has made to focus attention on the important issue of P2P piracy and illegal uses of university systems. As noted earlier, the entertainment software industry has a particularly large stake in seeing that college environments are free from the illegal copying and distribution of their game products. We earnestly believe that the interest of this Subcommittee in this area has made a material contribution to the great progress that the university community has made in that direction. For this, we are most appreciative.

