AN UPDATE: PIRACY ON UNVERSITY NETWORKS

HEARING

BEFORE THE

SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY

OF THE

COMMITTEE ON THE JUDICIARY
HOUSE OF REPRESENTATIVES

ONE HUNDRED TENTH CONGRESS

FIRST SESSION

MARCH 8, 2007

Serial No. 110–29

Printed for the use of the Committee on the Judiciary

Available via the World Wide Web: http://judiciary.house.gov

U.S. GOVERNMENT PRINTING OFFICE
33–812 PDF WASHINGTON : 2007

COMMITTEE ON THE JUDICIARY

JOHN CONYERS, JR., Michigan, *Chairman*

HOWARD L. BERMAN, California
RICK BOUCHER, Virginia
JERROLD NADLER, New York
ROBERT C. SCOTT, Virginia
MELVIN L. WATT, North Carolina
ZOE LOFGREN, California
SHEILA JACKSON LEE, Texas
MAXINE WATERS, California
MARTIN T. MEEHAN, Massachusetts
WILLIAM D. DELAHUNT, Massachusetts
ROBERT WEXLER, Florida
LINDA T. SANCHEZ, California
STEVE COHEN, Tennessee
HANK JOHNSON, Georgia
LUIS V. GUTIERREZ, Illinois
BRAD SHERMAN, California
ANTHONY D. WEINER, New York
ADAM B. SCHIFF, California
ARTUR DAVIS, Alabama
DEBBIE WASSERMAN SCHULTZ, Florida
KEITH ELLISON, Minnesota
[Vacant]

LAMAR SMITH, Texas
F. JAMES SENSENBRENNER, JR., Wisconsin
HOWARD COBLE, North Carolina
ELTON GALLEGLY, California
BOB GOODLATTE, Virginia
STEVE CHABOT, Ohio
DANIEL E. LUNGREN, California
CHRIS CANNON, Utah
RIC KELLER, Florida
DARRELL ISSA, California
MIKE PENCE, Indiana
J. RANDY FORBES, Virginia
STEVE KING, Iowa
TOM FEENEY, Florida
TRENT FRANKS, Arizona
LOUIE GOHMERT, Texas
JIM JORDAN, Ohio

PERRY APELBAUM, *Staff Director and Chief Counsel*
JOSEPH GIBSON, *Minority Chief Counsel*

SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY

HOWARD L. BERMAN, California, *Chairman*

JOHN CONYERS, JR., Michigan
RICK BOUCHER, Virginia
MARTIN T. MEEHAN, Massachusetts
ROBERT WEXLER, Florida
MELVIN L. WATT, North Carolina
SHEILA JACKSON LEE, Texas
STEVE COHEN, Tennessee
HANK JOHNSON, Georgia
BRAD SHERMAN, California
ANTHONY D. WEINER, New York
ADAM B. SCHIFF, California
ZOE LOFGREN, California

HOWARD COBLE, North Carolina
TOM FEENEY, Florida
LAMAR SMITH, Texas
F. JAMES SENSENBRENNER, JR., Wisconsin
ELTON GALLEGLY, California
BOB GOODLATTE, Virginia
STEVE CHABOT, Ohio
CHRIS CANNON, Utah
RIC KELLER, Florida
DARRELL ISSA, California
MIKE PENCE, Indiana

SHANNA WINTERS, *Chief Counsel*
BLAINE MERRITT, *Minority Counsel*

CONTENTS

MARCH 8, 2007

AN UPDATE: PIRACY ON UNVERSITY NETWORKS

THURSDAY, MARCH 8, 2007

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

The Subcommittee met, pursuant to notice, at 2:57 p.m., in Room 2141, Rayburn House Office Building, the Honorable Howard Berman (Chairman of the Subcommittee) presiding.

Staff present: Perry Apelbaum, Staff Director and Chief Counsel; Joseph Gibson, Minority Chief Counsel; Shanna Winters, Minority Counsel; David Whitney, Minority Counsel; and Rosalind Jackson, Professional Staff Member.

Mr. BERMAN. This hearing of the Subcommittee on Courts, the Internet, and Intellectual Property will come to order.

I apologize that we are an hour late; that is the bad news. The good news is we won't be interrupted by votes during this hearing.

I would like to begin by welcoming everyone to the hearing, a hearing we have entitled, "An Update: Piracy on University Networks."

And in particular, I want to take a few moments to extend my warm regards to the Ranking Member of the Subcommittee, Howard Coble. I had the privilege and the pleasure of working with Howard when I was Ranking Member and he was Chairman of this Subcommittee a few years ago. Somehow things got reversed, but the one thing I remember was how fairly he treated me and how well I thought we worked together. And I look forward to us continuing to work together.

Our first hearing, Howard was at a funeral of one of our colleagues and so he wasn't here. And I am really looking forward to these next 2 years working with him.

I am pleased that the other Members and the Chairman of our Committee are here.

I am going to skip some of my opening statement but not all of it.

There is little debate about piracy's devastating impact on the economy. In 2005, worldwide piracy cost the motion picture industry $18.2 billion; the sound recording industry, over $4.5 billion. That is real money.

Currently, there are multiple causes of piracy, and universities are not the sole problem. But I am concerned with a 2006 study conducted by the LEK Consulting Group, which attributed 44 per-

cent of the motion picture industry's domestic piracy losses to student piracy, a loss of over half a billion dollars.

That percentage seemed high to me, especially in light of many universities claims that they actively combat piracy. I had hoped my request to the GAO, with Congressman Lamar Smith, that asked for a study examining the scope of piracy and the universities' responses to it, would help to quantify the problem.

I can only assume that fear of being held accountable for their answers, plus discouragement from the American Council on Education, prevented 50 percent of the schools surveyed from responding.

The Joint Committee on Higher Education and Entertainment Communities believe that curbing piracy at universities require a multi-part solution: Education, enforcement, technological improvements and affordable legal alternatives to illegal downloading.

Many universities have taken these varied approaches to curbing piracy. We are going to hear from some of them today.

Unfortunately, many schools have turned a blind eye to piracy. I don't doubt that there are legitimate issues that universities must grapple with, including privacy and cost concerns. However, when a university, such as Purdue, tells the AP that it rarely even notifies students accused by the RIAA because it is too much trouble to track down alleged offenders, such action is not acceptable.

We invited a representative of Purdue to attend today, in part, to thank them for their participation in the GAO study and to explain the school's policy, and someone accepted but they later declined. Even after receiving over 1,000 complaints this year, the second most notices received by any university, Purdue still maintains that its students are not repeat offenders.

Compounding the problem, much of the piracy takes place on universities' local area networks, LANs, a place that, unlike the Internet, only universities can access and control. Since universities are the only parties that can monitor file-sharing over their LANs, shouldn't they bear some responsibility for monitoring piracy that takes place over their networks?

The RIAA released a list of the top 25 schools that received the most music theft complaints. Upon the dubious distinction of receiving first place on the RIAA's list, Ohio University stiffened its policy and now refers students to the campus police on the first offense. I suppose a list, such as the RIAA list, motivates schools to take action through the embarrassment of negative publicity, and to that end, the Subcommittee would be interested in seeing the MPAAs top 25 list.

I would like to see the new list 6 months from now also with the hope they will effect a change from the schools currently listed. And while I am at it, I will be asking the GAO for a list to add to the record of the schools that refused to comply with the GAO study.

The Subcommittee has been looking at the university piracy issue for a number of years now, and the scope of the problem may require other Committees, such as Education, to engage on the issue as well.

In addition, individual Members, such as Majority Leader Hoyer, and I, and Lamar Smith, and Mary Bono, have explored both legis-

lative—Bob Goodlatte as well—legislative and non-legislative options for encouraging universities to stop piracy.

However, when I hear responses, such as Purdue's, to the piracy problem, I am concerned that current law isn't giving universities enough incentive to stop piracy.

The statistics demonstrate that students engage in rampant piracy, and while Congress has given universities many exemptions from copyright liability, it might be time to condition some of those exemptions on action taken by universities to address the piracy problem.

Perhaps the most ironic issue is that many universities expect others to respect and protect their intellectual property rights to scholarly works and inventions but seem to disregard or close their eyes to the theft of the creative works of others.

Of all the parties involved in the piracy problem, universities are in a unique position to help shape the moral, legal and responsible behavior of today's youth. I believe they must become partners in ensuring that creators receive compensation for the works that students enjoy.

I am now pleased to recommend my friend and my partner in all of this, the Ranking Member, Mr. Coble.

Mr. COBLE. Thank you, Mr. Chairman. As you said, unfortunately, I missed the first hearing because of Dr. Norwood's funeral.

Thomas Wolfe, a great man of letters and native North Carolinian, once wrote a novel, Mr. Chairman, entitled, "You Can't Go Home Again." Well, with apologies to my fellow Tar Heel I am back home. I have always regarded this Subcommittee as my legislative home, and I am indeed pleased to be back with you, Mr. Chairman.

And I thank the distinguished Ranking Member from Texas for having named me the Ranking Republican.

Mr. Chairman, you were a tremendous asset to this Subcommittee when I had the privilege to serve as Chairman and you the Ranking Member. The bipartisan nature of the Subcommittee is one of the great institutional attributes and explains why we accomplished a good deal during those 6 years we were together. I have no doubt that we will accomplish much more under your stewardship.

You may remember, Mr. Chairman, back in those days, many people in this town referred to this Subcommittee as the Howard and Howard Show or some called it the Howie and Howie Show. I received a telephone call last week from a reporter from a wire service, known to all of you, and she said, "We are looking forward to the return of the Howard and Howard Show." [Laughter.]

So we have some supporters still left, Mr. Chairman.

But on to the subject at hand. While I have not served on the Subcommittee for the past 4 years, I have remained intensely interested in its work. One of the priorities for the Subcommittee under Chairman Smith and Chairman Berman, as the Ranking Member then—he was here earlier but he had to leave—was to raise awareness about the impact of student digital piracy on campuses and to encourage efforts among persons of good will to adopt effective practices to combat such theft.

Indeed, this issue has been a bipartisan priority, and I commend you, Mr. Chairman, and Mr. Smith. I think you all conducted three

hearings during the past two Congresses on this very subject matter.

To those who grew up listening to 45s, 78s and LPs, the erosion of respect for intellectual property rights and the notion that something of value can be perfectly copied, "uploaded," and distributed an infinite number of times across the public Internet or a private local area network without compensating the creator of the work seems fun and fundamentally unfair.

The ability to do something is not commensurate with the right to do it. And those who have the ability to prevent such behavior have a moral, ethical and I believe legal obligation to do so.

Mr. Chairman, we have before us, as you pointed out, a diverse panel of witnesses. They will soon present to the Members of this Subcommittee testimony that addresses the extent of the theft that is occurring on college campuses, the range of steps universities have taken or, in the alternative, are refusing to take to combat this epidemic of piracy and technological measures available today that may help staunch the massive uncompensated hemorrhaging of copyrighted works attributable to student digital piracy.

That concludes my opening remarks, and I look forward to working with you and the other Subcommittee Members for the next 2 years.

Mr. BERMAN. Well, thank you very much, and thank you for those kind words, which you forgot to add that some people used to refer to you as Howard the Good and me as Howard the Bad. [Laughter.]

I am now pleased to recognize the Chairman of the House Judiciary Committee, Mr. Conyers.

Mr. CONYERS. Thank you very much, Mr. Chairman. I commend you and the previous Subcommittee Chairman of this Committee for their diligent, continued attention to the subject matter at hand.

We have these hearings to show everyone involved that we take this issue very seriously. Despite its importance, there remains a disconnect between the problem and an effective solution, because piracy on university campuses is still rampant and widespread. We are having a problem, obviously, and we have to strike the right balance between stemming illegal downloading and preserving academic freedoms and privacy.

On the one hand, there are, unfortunately, too many schools who have done little or nothing to address this problem. These schools claim that efforts to stamp out piracy infringe on academic freedom and potentially violate a student's privacy.

In addition, some universities see no incentive and no benefit to trying to police illegal piracy. This to me is an unacceptable response.

On the other hand, many schools feel they have a strong and effective program and are doing everything they can to stamp out piracy. I have been checking in the State of Michigan. Two universities, the University of Michigan and Michigan State University, have detailed policies and practices that both educate students and sanction violators.

These universities feel that they are doing hard work to stop the problem, but they are not willing to police or monitor their stu-

dents and want to preserve the freedom and unfettered access that higher education institutions represent.

And I think that is what brings us here. There are more approaches being used. There is new technology emerging. We hope to hear more about it.

But it is clear that we cannot allow universities to do little or nothing. Campus piracy doesn't just harm the copyright owners; it harms the universities as well. Illegal use of peer-to-peer networks can lead to invasions of student privacy, viruses and other potential security threats to the university's network. It uses bandwidth that could be used for legitimate purposes.

And so we are having this hearing because we are serious about the problem. I commend the Chairman and the Ranking Member in this endeavor and join in welcoming the witnesses.

Thank you, sir.

Mr. BERMAN. We would like to move as soon as possible to the witnesses, only because we are starting so late, but Congressman Sherman is recognized for an opening statement.

Mr. SHERMAN OF CALIFORNIA. Business ethics education starts with undergraduate education. I believe that the leaders of the WorldComs and Enrons of the future will be educated at those schools that deliberately facilitate the theft of intellectual property.

I yield back.

Mr. BERMAN. I thank the gentleman.

I think there are no other people on my side who want to make an opening statement. I don't know if there is anyone on the minority side that wishes to, but, if not, we will go to our——

Mr. COBLE. Mr. Chairman, may I have a unanimous consent request to introduce into the record——

Mr. BERMAN [continuing]. Sure. The gentleman is recognized.

Mr. COBLE [continuing]. The statement by Mr. Smith, the Ranking Member of the full Committee and the dear colleague to Members of the IP Subcommittee, dated March 6, 2007, and the chart to identify the 25 schools that have received the highest number of copyright infringement notices.

Mr. BERMAN. In the music area, yes. Without objection, that will be included.

[The information referred to is available in the Appendix.]

Mr. BERMAN. Our first witness is Cary Sherman, known to many of us. He is president of the Recording Industry Association of America. As such, he coordinates the industry's legal, policy and business objectives and his responsibilities include technology, licensing enforcement and government affairs.

In addition, and of particular relevance to this hearing, Mr. Sherman co-chairs the Joint Committee of the Higher Education and Entertainment Communities.

Mr. Sherman received his B.A. from Cornell University and his J.D. from Harvard Law School.

Sort of in the hot seat, I guess, for these purposes, John Vaughn is executive vice president of the Association of American Universities. Appointed in October 1996, he has specific responsibilities for intellectual property, information technology, research libraries and scholarly communication.

Dr. Vaughn received his B.A. from Eastern Washington State College and his Ph.D. from the University of Minnesota.

Our next witness is Gregory Marchwinski. He is the president, founder and CEO of Red Lambda, Incorporated, a company that markets collaborative grid technology, initially developed at the University of Florida, to control file-sharing on both peer-to-peer and local area networks.

Mr. Marchwinski was formerly the executive manager of Sun Microsystems. He earned his B.S. from Carnegie Mellon University and his M.B.A. from Rollins College, School of Business Administration.

And the final witness is from my hometown. He has to leave at 4:30 to catch a flight to L.A. If he is planning to catch the 5:52, he will not make it. [Laughter.]

Jim Davis is both the associate vice chancellor of information technology and the chief information office at UCLA. In those capacities, Mr. Davis is responsible for the school's technology planning oversight and coordinates the school's IT policy. He received his M.S. and Ph.D. from Northwestern University.

There were press reports on the notices received by UCLA. I would like to confirm that the reason you, Mr. Davis, were asked to testify is because, as compared to many schools, you are a leader in trying to address the piracy problem.

Your written statements will all be made part of the record in its entirety. I would ask you to summarize your testimony in 5 minutes or less. There is a timing light at the table, as many of you know. When 1 minute remains, the light will switch from green to yellow and then red when the 5 minutes are up.

We welcome you.

Mr. Sherman, why don't you begin.

TESTIMONY OF CARY SHERMAN, PRESIDENT, RECORDING INDUSTRY ASSOCIATION OF AMERICA, WASHINGTON, DC

Mr. SHERMAN. Thank you, Chairman Berman, Ranking Member Coble, Chairman Conyers and Members of the Subcommittee. Thank you very much for holding this hearing today.

This hearing will be the fourth conducted in as many years on the important topic of piracy on college campuses and the bipartisan commitment of this Subcommittee to address the issue of piracy where it is most rampant is appreciated by untold numbers of creators whose future depends on a legitimate digital marketplace.

Progress has been made on this issue but not nearly enough. A recent study found that more than half of college students download music and movies illegally, and according to NPD, a market research firm, college students accounted for more than 1.3 billion illegal music downloads in 2006.

The college students surveyed by NPD reported that more than two-thirds of all the music they acquired was done illegally.

The theft of music simply cannot be justified. We have transformed our business so that music is now available everywhere and anywhere, all the time. Whether online or on mobile phones, whether by download or subscription service, music has never been as accessible to fans as it is right now. And, in fact, our studies

show that more music is being acquired than ever but less and less of it is being paid for.

The ongoing piracy on campus is particularly frustrating, given all that we have done to address this issue. We have met personally with hundreds of university administrators. We have provided both instructional material and educational resources to help deter illegal downloading. We commissioned marketing campaigns in which students developed communication strategies to deter their peers from illegal downloading, and we are running their ads in student newspapers. We have spoken out at congressional hearings.

Working collaboratively and productively through the Joint Committee of the Higher Education and Entertainment Communities, we have brought to the attention of schools network technologies that can inhibit illegal activity. We have licensed legitimate music services at steeply discounted rates for college students and helped to arrange partnership opportunities between universities and legitimate services.

We have stepped up our notice program to alert schools and students of infringing activity. And we have, as a last resort, brought suit against individual file traffickers.

On behalf of its member labels, the RIAA announced last week a new round of lawsuits, which include 400 students at 13 colleges and universities around the country. We have also introduced a new program in which we encourage university administrators to pass our pre-lawsuit settlement notices on to students so that they have an opportunity to settle at lower cost before suit is actually filed and becomes a matter of public record.

Lawsuits have always been a last resort for us, but deterrence is an essential element in any enforcement program, and it does make a difference.

It doesn't have to be like this. We take this opportunity to once again ask schools to work with us productively to address a problem that affects us all. First, we ask schools to seriously consider implementing a network technical solution, like Red Lambda's cGRID or Audible Magic's CopySense, to block or filter illegal P2P traffic without impinging on student privacy.

Second, we ask them to offer their students legitimate online services, like the ad-based Ruckus, that is free to users.

Third, we ask them to truly enforce the law and their own policies against infringement for activity occurring both over the Internet and over the school's closed local area networks. This means ensuring swift and meaningful punishment when caught, not merely warnings which serve only as one free pass.

Of course, we also ask them to continue any educational initiatives and remind them of resources available through our industry and the joint committee.

We also ask them to consider, what are you doing to prepare your students for the digital future? This is not just about music and movies. This is about actively educating students on the rights and wrongs of online activity.

The transition from physical to digital has completely altered the way we live our lives. Shouldn't these changes be reflected in schools' message to students? Colleges are charged with educating

our citizens. Isn't it essential that they prepare them to use appropriately the technology that will fill their lives?

If schools require more personal incentive to teach, consider the dozens of hacking incidents of the past few years in which IDs, reports and confidential records were stolen from school servers. None of us can afford to waste a teachable moment.

And, by the way, I was delighted to read the testimony of Jim Davis at UCLA where he explained that this is precisely how they are viewing this issue. But what about the other 3,000 schools in the country?

We invite colleges and universities to work with us to help reduce the need for lawsuits like the ones we initiated last week. We invite them to reclaim the integrity, efficiency and legal use of their networks. We invite them to safeguard the value of intellectual property that defines them. And we invite them to step up as moral leaders to ensure that their students understand that stealing online is still stealing and to teach them how to be responsible citizens in the digital world.

Thank you.

[The prepared statement of Mr. Sherman follows:]

PREPARED STATEMENT OF CARY SHERMAN

STATEMENT OF CARY SHERMAN
PRESIDENT, RECORDING INDUSTRY ASSOCIATION OF AMERICA
BEFORE THE
SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY
COMMITTEE ON THE JUDICIARY
UNITED STATES HOUSE OF REPRESENATIVES
ON
AN UPDATE – PIRACY ON UNIVERSITY NETWORKS

MARCH 8, 2007

Chairman Berman, Ranking Member Coble, and Members of the Subcommittee, thank you very much for holding this hearing today. This Subcommittee has shown a tremendous amount of commitment to the important topic of piracy on college campuses. This hearing will be the fourth conducted in as many years and the bipartisan commitment to address the issue of piracy where it is most rampant is appreciated by untold numbers of creators who are working to ensure a legitimate digital marketplace.

I would very much like to tell you today that we have made progress on this issue. In many ways we have. But, unfortunately, this illegal activity still permeates college life and only a handful of university administrations have begun to take seriously the reality of its repercussions. It is, therefore, probably more accurate to say that our job has just begun.

The following statistics speak for themselves: A recent survey by the Intellectual Property Institute at the University of Richmond's School of Law found that more than half of college students download music and movies illegally. Additional data from market research finn NPD shows that college students, the most avid music fans, get more of their music from illegal P2P than the rest of the population.

Certainly you can understand why we in the music industry, and those in the broad range of content industries, are concerned about the theft, and the resulting erosion of the economic value, of our creative works. We are talking about billions of dollars in lost sales, thousands of lost jobs, countless lost career opportunities for talented writers and musicians, and a major barrier to the growth of a legitimate online marketplace that can benefit everyone. Of course, it isn't just music that is being stolen. It's also movies, TV shows, computer software and more – a massive assault on a segment of our economy responsible for more than 6 percent of our nation's GDP.

Today, there is no longer any justification for stealing music. We have transformed our business, so that music is now available everywhere and anywhere, all the time. Whether online or on mobile phones, whether by download or subscription service, music has never been as accessible to fans as it is right now. And, in fact, our

studies show that more music is being acquired than ever – but less and less of it is being paid for.

In the debate over what's appropriate for educational institutions and what's necessary for content industries, we tend to lose sight of our true mutual interest in the underlying concept: Intellectual Property. A concept so important, it is provided for in the Constitution itself. A concept that defines, supports, and rewards both content industries and institutions of higher education. We both rely on the magic of creativity and the power of creation. And we both have every reason in the world to protect them.

And yet, as the studies I mentioned show, that protection is largely missing on our college campuses. This is particularly frustrating given all that we, and many others in the content industries, have done to address this issue. We have met personally with hundreds of university administrators. We have provided both instructional material and educational resources to help deter illegal downloading. Through the EdVenture Program, we launched a peer-to-peer marketing campaign in which students themselves developed and executed a communications strategy designed to deter their peers from illegal downloading, and we are running these ads in student newspapers. We have participated in Congressional hearings, including several in this Subcommittee. Working collaboratively and productively through organizations like the Joint Committee of the Higher Education and Entertainment Communities, we have informed schools of effective network technologies to inhibit illegal activity. We have licensed legitimate music services at steeply discounted rates for college students and helped to arrange partnership opportunities between universities and legitimate services. We have stepped up our notice program to alert schools and students of infringing activity. And, of course, we have as a last resort brought suit against individual file-traffickers.

As you may know, the RIAA, on behalf of its member labels, announced last week a new round of lawsuits, which includes 400 students at colleges and universities around the country. As part of this round of lawsuits, based on requests, we have introduced a new program intended to give students the opportunity to settle the suits at lower cost and before they enter the public record. We have asked for school administrations' assistance in passing our pre-lawsuit settlement notices on to students so that they may decide whether to settle before suit is actually filed.

Lawsuits have always been a last resort for us. But deterrence is an essential element in any enforcement program, and increasingly necessary when others neglect to take responsibility.

It doesn't have to be like this. We take this opportunity to once again ask schools to recognize the harm their inaction causes, to acknowledge the solutions that have been presented, and to work with us productively to address a problem that affects us all.

First, we ask schools to seriously consider implementing a network technical solution. Products like Red Lambda's cGrid are promising as effective and comprehensive solutions that maintain the integrity, security, and legal use of school computing systems without threatening student privacy. Some schools have used these

products to block the use of P2P entirely, realizing that the overwhelming, if not sole, use of these applications on campus is to illegally download and distribute copyrighted works. For schools that do not wish to prohibit entirely access to P2P applications, products such as Audible Magic's CopySense can be used to filter illegal P2P traffic, again, without impinging on student privacy.

Second, we ask them to offer their students legitimate online services like the advertisement-based Ruckus that is free to users. When schools increasingly provide their students with amenities like cable TV, there is simply no reason not to offer them cheap or free legal access to the music they crave.

Third, we ask them to truly enforce the law and their own policies against infringement. This means strengthening the deterrent factor by ensuring swift and meaningful punishment when caught. Merely providing a warning for first infractions does little else than grant "one free pass" to students. Given the broad understanding that such activity is illegal, what rationale is there for waiting for a second time before schools take truly meaningful action? In addition, enforcement should also target illegal file-trafficking on school local area networks (LANs). While this activity is not engaged in on the broader Internet, it is no less illegal. Students should be aware that, whether taking place on the Internet, across campus, or just in dorms, the school will not allow its resources to be used for online theft.

Of course, we also ask them to continue any educational initiatives, and remind them of resources available through our industry and the Joint Committee, such as the orientation video available at www.campusdownloading.com. The Joint Committee, in fact, has been instrumental in bringing awareness to schools and in exploring the different technological and business solutions for administrations and their students. As Co-Chair, I have had the privilege of working with such gifted and proactive thinkers as Graham Spanier, President of Penn State University. This year, President Spanier has passed his Co-Chairmanship of the Joint Committee on to Brit Kirwan, Chancellor of the University System of Maryland. I look forward to a rewarding partnership with Chancellor Kirwan as we continue the mutually beneficial work of the Joint Committee.

Some schools have embraced the solutions I outlined above and have begun to see positive results. We thank these schools and commend them for their responsible actions. But far too many have yet to step up and take responsibility for their students on their network. And until they do, this problem will not go away, a viable online marketplace solution will continue to be jeopardized, and schools are bound to see more of their students facing legal action.

We invite colleges and universities to work with us to help reduce the need for lawsuits like the ones we initiated last week. We invite them to reclaim the integrity, efficiency, and legal use of their networks. And we invite them to step up as moral leaders, to ensure that their students understand the implications of theft, and to safeguard the value of the intellectual property that defines them.

Once again, we thank the Subcommittee for its continued interest in this matter, to help bring this harmful and ongoing illegal activity the attention it deserves, and to help encourage those who can make a difference to do so.

Thank you.

Mr. BERMAN. Thank you very much.
John Vaughn?

TESTIMONY OF JOHN C. VAUGHN, EXECUTIVE VICE PRESIDENT, ASSOCIATION OF AMERICAN UNIVERSITIES, WASHINGTON, DC

Mr. VAUGHN. Mr. Chairman, Ranking Member Coble, Members of the Subcommittee, I am testifying on behalf of AAU, the American Council on Education, the National Association of State Universities and Land-Grant Colleges and EDUCAUSE, and we appreciate this opportunity for me to be in the hot seat and to discuss the work of the higher education community on illegal file-sharing.

We do take this problem very seriously. Illegal file-sharing is unacceptable and challenges our obligation to educate students about the legal and ethical behavior that we hope to impart to them to make them good citizens.

Five years ago, we joined with RIAA and MPAA to form the Joint Committee of the Higher Education and Entertainment Communities. Let me note just a few of the activities that have been carried out since that time.

We distributed a white paper on the legal aspects of camps peer-to-peer file-sharing to 3,600 colleges and universities, and we updated and redistributed that paper last fall. We issued a report to colleges and universities on network management technologies that might assist in reducing illegal file-sharing. We distributed a report on legitimate online digital delivery services. Then we worked to bring together those services with universities in pilot programs. We reported on effective policies and practices identified by universities themselves for combating illegal piracy.

Just last fall, we organized a meeting of campus IT experts, entertainment industry officials and commercial technology vendors to take an updated look at existing technologies that might be effective in blocking or filtering illegal peer-to-peer. These efforts and others have produced considerable progress. Now, over 80 percent of colleges and universities have institutional policies specifically addressing peer-to-peer file-sharing. Over 70 percent of institutions shape bandwidth by type of traffic to limit possible illegal file-sharing.

Between 2004 and 2005, the number of universities engaged in legitimate digital delivery services nearly doubled. Ruckus Networks, Inc. announced just last week a 33 percent growth in subscribers in just the 6 weeks after it made available for any college student free music if they have a valid "edu" e-mail account. Ruckus now draws several hundred thousand students from more than 900 colleges and universities. This follows a move to an advertising-based business model prompted by data that was developed by the University of North Carolina, which was working with Ruckus and other vendors in pilot projects.

Yet, it is fair to ask, why is the problem still existing on campus? First, I should note that illegal peer-to-peer file-sharing is a ubiquitous problem; it is not unique to higher education. Students come to college with file-sharing practices already well-engrained. File-sharing is a widespread activity on commercial networks, collec-

tively serving far greater numbers of customers than the 17 million college students we serve.

This is not an excuse for higher education but simply to point out that illegal file-sharing is a widespread problem that no sector has been able to eliminate. But I would assert categorically that no sector has put in more time, effort or money in combating illegal file-sharing than has higher education.

The rapidly growing use of legitimate peer-to-peer provides a major technological challenge. It is increasingly critical on campus to be able to distinguish between legitimate and illegitimate peer-to-peer. Blocking and filtering technologies that cannot make that distinction or require reading content to do so simply won't work on campus.

So where do we go from here? Let me identify three immediate actions. In the area of technology, we formed a new technology group to work commercial vendors and entertainment industry representatives to foster new technologies designed to meet campus needs and their networks.

In education, we have convened a group of campus officials to work with RIAA to revise a video they created for orientation last year to try to preserve a strong message and create a product that will be widely up-taken by our campuses.

For university policies, we will conduct a broad survey of colleges and universities to develop a set of refined best practices to provide guidance to those institutions.

These specific actions will be carried out against a backdrop of continued discourse and information sharing within higher education and continued collaboration with the entertainment industry.

So I welcome Cary Sherman's invitation to us. We intend to follow through and continue our collaborations.

There is no magic bullet, but we will continue to combat this problem by seeking to understand better what does work on campus and creating new tools to assist in our ongoing efforts.

Thank you.

[The prepared statement of Mr. Vaughn follows:]

PREPARED STATEMENT OF JOHN C. VAUGHN

Mr. Chairman and Members of the Subcommittee, I appreciate this opportunity to discuss the work of the higher education community to address the problem of illegal peer-to-peer (P2P) file sharing on college and university campuses. Higher education institutions and the national associations to which they belong take this continuing problem very seriously. Illegal behavior of any sort is not acceptable, and that includes illegal P2P file sharing. Beyond taking actions to prevent or punish illegal activity, higher education institutions have an obligation to educate students about legal and ethical behavior as part of preparing them to be good citizens. Moreover, as both producers and consumers of intellectual property, higher education has a direct interest in promoting respect for intellectual property and copyright law.[1]

Accordingly, when the higher education community was approached five years ago by the Recording Industry Association of America (RIAA) and the Motion Picture Association of America (MPAA) about their concerns with campus P2P file sharing, we were eager to work with them. Our mutual interest in addressing this concern

[1] In 2005, AAU joined with the Association of Research Libraries, the American Association of University Presses, and the Association of American Publishers to produce *Campus Copyright Rights and Responsibilities: A Basic Guide to Policy Considerations,* which was broadly distributed to colleges and universities (available at *http://www.aau.edu/reports/Rights—and—Responsibilities—2005.pdf).*

led to the formation of the Joint Committee of the Higher Education and Entertainment Communities, and to the continuation and extension of the efforts that many colleges and universities already had begun to address these issues. Over the ensuing years, we have carried out a number of activities under the aegis of the Joint Committee designed to reduce or eliminate illegal P2P file sharing on college and university campuses. I have attached a list of actions taken by higher education since the formation of the Joint Committee; I will highlight here a few of those projects:

- *White paper:* in 2003, distributed a white paper on the legal aspects of campus P2P file sharing, which was updated and re-distributed last year,
- *Network management technologies:* distributed a report on technologies that may assist in reducing unauthorized file sharing,
- *Legitimate online digital delivery services:* identified and reported on newly formed legitimate online digital delivery services, and launched pilot project to bring together legitimate services and universities,
- *University best practices:* distributed a paper documenting university policies and practices for addressing unauthorized file sharing, based on a survey of major universities,
- *Student education:* cooperated with RIAA to review and distribute a video developed by RIAA for use in college freshman orientation sessions,
- *Technology evaluation:* organized a meeting of university officials, entertainment industry representatives, and network technology vendors to discuss and evaluate current technologies that might be used to block or filter illegal P2P file sharing.

This meeting to evaluate network technologies, held last October, identified a number of limitations to those products, which were acknowledged by both university and entertainment industry participants and pointed to the value of universities working with technology vendors to develop technology applications adapted for higher education institutions rather than trying to force-fit products developed for other purposes. Therefore, we have established a new University Task Force on Requirements for Filtering Networks, which will work with entertainment industry officials and technology vendors to evaluate existing technologies and promote the development of new applications to improve campus control of network operations, particularly the unauthorized distribution of copyrighted content. This group is expected to have a report later this spring, and we hope that its findings will lead to cost-effective technological solutions universities can use to block or filter unlawful content traveling over their networks.

Over the course of the five years since the formation of the Joint Committee, there have been numerous communications with campuses about the problem of illegal P2P file sharing and actions that can be taken to address it. These communications have taken the form of letters to campuses, presentations at meetings of national higher education organizations, and informal sharing of practices by colleagues across institutions.

In addition to actions taken within the higher education community, I should mention the impact of RIAA's lawsuits. Since September 2003, the recording industry has filed more than 1,000 lawsuits against students at over 130 universities and colleges. University administrators recognize the right and responsibility of copyright owners to defend their content against infringement by lawsuits, when necessary; they also recognize that one effect of these lawsuits is to send a clear message to students that they are not operating within a protected bubble on campus, that illegal P2P file sharing constitutes copyright infringement, and that they are liable for such activity.

Last week, RIAA announced a new round of lawsuits, which includes 400 students and 13 higher education institutions. This campaign also will provide a "pre-notice plan" that allows alleged infringers to settle claims before a formal lawsuit is filed. A letter to colleges and universities from RIAA President Cary Sherman was transmitted broadly across the higher education community in a transmittal from David Ward, President of the American Council on Education.

What has been the impact of this set of activities? It is clear that a great deal of progress has been made. I think it is safe to say that five years ago, few university administrators were aware of P2P file sharing technologies, the use of these technologies by students and the illegality of much of that use, and the implications of P2P file sharing for university networks. Although virtually all colleges and universities have long-standing campus policies governing the appropriate use of copyrighted works, many of these institutions had not updated and adapted those policies to the digital revolution generally and to P2P file sharing specifically.

All that has changed. The 2006 Campus Computing Survey[2] indicates that over 80 percent of colleges and universities have institutional policies that specifically address P2P file sharing. A 2005 EDUCAUSE survey[3] indicated that 73 percent of institutions surveyed shape network bandwidth by type of traffic to limit possible illegal P2P activity. Although more effective in identifying large movie files than smaller music files, this technology nonetheless was identified at last October's technology meeting as the most feasible current approach for addressing P2P file sharing.

The EDUCAUSE survey also indicated that the number of universities engaging legitimate online digital delivery services had nearly doubled over the course of one year. Although the absolute number of institutions using these services remains small, this one-year growth is a very encouraging trend for a business venture that is itself only a few years old; the figures presented here were reported as of February 2006, only 15 months after the first such campus-based system was announced. Moreover, the engagement of legitimate digital delivery services is greater among larger institutions: 20 percent of research universities offer a legal digital delivery service, and more than half are in the process of engaging a service or actively considering doing so. Just last week, Ruckus Networks announced a 33 percent growth in subscribers to its college-only multimedia service in the six weeks since its announcement January 22 that its multimedia digital delivery service would be available free to any college student with a valid "edu." email account. The free delivery service, made possible by an advertising-supported business model, has drawn students from more than 700 colleges and universities to the Ruckus program.

Given the considerable efforts from both the higher education and entertainment communities, why does illegal P2P file sharing persist as a problem? What barriers exist to greater progress in reducing or eliminating this activity? First, I should note that this is a ubiquitous problem, not one unique to higher education. Students increasingly come to college with P2P file sharing experiences already well ingrained. Moreover, P2P file sharing is wide-spread on the commercial networks serving a great many more customers that the roughly 17 million colleges students served by higher education. This is not to excuse higher education but simply to point out that illegal file sharing is a wide-spread problem that no sector has been able to eliminate. But I also know of no sector that has put more time, money, and effort into combating illegal file sharing than has higher education.

Yet cost can be a limiting factor in addressing P2P file sharing. at last October's technology meeting, the chief information officer of a major research university estimated that the cost to implement one proposed filtering technology would be over $1 million initially, with annual licensing fees of approximately $250,000. Such costs represent a serious financial challenge for colleges and universities, particularly at a time when we are trying to address the issue of rising costs of attendance for students.

In addition, university policies governing academic freedom and student privacy come into play as necessarily limiting factors. It is essential for colleges and universities to maintain an open, unfettered environment for discussion, debate, and dissemination of information. Both research and educational programs increasingly use P2P technologies for exchange of information. Moreover, the adoption of legitimate P2P technologies and uses is expanding beyond higher education into the federal government and commercial sectors. NASA is using BitTorrent to distribute images and animations of the planet through its "Visible Earth" program; interestingly, it includes an answer in its Frequently Asked Questions to the following: "I thought P2P and Filesharing were illegal!" *(http://visibleearth.nasa.gov/faq.php).* The National Science Foundation is funding the Ockham digital library project, a P2P-based system linking digital libraries, and it is clear that P2P applications will play a growing role in the distributed digital libraries of the future. Warner Brothers announced last year its intention to use BitTorrent to distribute movies and television shows.

The rapid development of P2P applications supporting research and education will play an expanding role in this country's efforts to stay at the forefront of competitiveness and innovation, a goal for which there is strong bipartisan support in Congress.

---

[2] Kenneth C. Green, *Campus Computing 2006: The 17th National Survey of Computing and Information Technology in American Higher Education,* December, 2006, The Campus Computing Project, P.O. Box 26242, Encino, CA. 91426–1242, *www.campuscomputing.net.*

[3] Brian L. Hawkins and Julia A. Rudy, *EDUCAUSE Core Data Service: Fiscal Year 2005 Summary Report,* November, 2006, EDUCAUSE, *www.educause.edu.*

The use of P2P technologies for legitimate purposes heightens the importance of being able to differentiate legitimate and illegitimate uses for any technologies intended to block or filter illegitimate P2P file sharing. However, given the current state of technology, it can be difficult if not impossible to differentiate legitimate from illegitimate uses of P2P technologies without invading the privacy of personal transactions by reading content. That is something most of our institutions understandably refuse to do as a matter of principle.

So where do we go from here? What are the projected activities to be undertaken by the higher education community? First, as noted above, we have formed a new university technology group which will work with the entertainment industry and commercial technology vendors to develop a methodology for improving the ability of campuses to control the unauthorized acquisition and distribution of copyrighted content. This methodology will encompass not only content from external sources but also from local area networks or LANs existing on campus. The results of this effort will be reported broadly to interested parties within the commercial technology sector as well as throughout the higher education community.

Second, we are working with RIAA to consider revisions to the student orientation video produced last year. The original video generated criticism both from within higher education and from without, principally based on perceived inaccuracies or omissions in the message conveyed with respect to copyright law. We have assembled a group of campus general counsels and chief information officers to review the video and the criticisms of it and consider modification that will address legitimate criticisms while maintaining a strong message to students. The goal of this exercise is to produce an effective instrument that will be widely adopted within the higher education community.

Third, we would like to conduct a survey of a broad selection of colleges and universities, covering all sectors, to identify what policies and practices are being used to address illegal file sharing and, in particular, to identify what procedures seem to be most effective in reducing illegal file sharing. Through this effort, we hope to identify an updated and refined set of best practices that can be widely shared within the higher education community.

Along with these activities, the national higher education associations will continue to raise the issue of illegal P2P file sharing with out member colleges and universities and share information through meetings and written communications.

Considerable progress has been made, both within higher education and within the new commercial sector of legitimate online digital delivery services. More work is needed. Our goal is to get as close to zero illegal transactions as possible, but we are dealing with changing human behavior; continually developing technologies and new challenges to them; new and adapting institutional policies and practices; and a nascent, evolving legitimate digital delivery service sector. These factors and forces are converging and moving in an encouraging direction, but they are complex components of the larger digital revolution; it will take resolve and shared purpose to work toward our goal. We intend to do precisely that.

Mr. BERMAN. Gregory Marchwinski?

TESTIMONY OF GREGORY J. MARCHWINSKI, PRESIDENT AND CHIEF EXECUTIVE OFFICER, RED LAMBDA, LONGWOOD, FL

Mr. MARCHWINSKI. Chairman Berman, Ranking Member Coble and Members of the Subcommittee, on behalf of my Florida-based software company, Red Lambda, I thank you for the opportunity to speak with you today about digital piracy on campuses, a problem that we, as a company, have been working very hard to solve.

As you may be aware, Red Lambda's technology was originally developed at the University of Florida, specifically to combat illegal file-sharing on its campus housing network. The success of that technology has been shared with this Committee in prior testimony.

The two network engineers, along with myself, founded Red Lambda and have licensed and commercialized the technology using the name cGRID::Integrity.

Let me be clear about the nature of the problem. Peer-to-peer file-sharing is a disruptive technology enabled by the phenomenal

growth in broadband access. This is even truer on university campuses where students have access to far faster networks than general population.

There are several new technology trends in the peer-to-peer arena that are cause for concern. In the past, people would almost always share music and movie files in plain view on the network. Standard inspection technologies could tell what was being sent over the network. Recently, however, in an attempt to avoid detection, peer-to-peer protocols have begun to encrypt their files during transportation. This lessens the chance of users getting caught and renders watermarking technology useless.

Fortunately, Red Lambda anticipated this trend and developed technology that is not dependent upon packet inspection and still effective when packets are encrypted. Red Lambda's approach is focused on the behavior of the peer-to-peer protocol, not the particular movie or song that is being transferred.

In addition to encryption, it is important to touch upon a more technologically subtle issue: Filing sharing on Darknets. In the university setting, Darknets operate at a local area network, a level such as in a building or dormitory. When two or more users on the same local network communicate with each other, the data never leaves the local area network.

Prior to Red Lambda's technology, this activity remained largely undetected. Applications like MyTunes and ourTunes proliferated in this environment. These applications are hacks on Apple's iTunes system, which permits music to be copied from one user to another on these local area networks.

cGRID::Integrity's underlying technology approach can blanket the entire network, including all local area networks. Darknet file-sharing can be detected and enforcement policies can be used to monitor and stop these protocols.

Another underlying problem associated with the usage of peer-to-peer protocols is the distribution of malware, things like spam, viruses and worms. A 2006 study found that 15 percent of the sampled executable files on one peer-to-peer network contain viral code with 52 unique viruses. Given the virus content, the blocking of peer-to-peer protocols on campus networks is an important consideration for network security.

With cGRID::Integrity, network administrators can permit the use of particular peer-to-peer protocols at their discretion, ensuring a campus environment that stops illegal file sharers and allows academic freedom to thrive where these applications are used for legitimate educational purposes.

I would like to stress to the Subcommittee and to the educational community at large that Red Lambda is absolutely committed to making the technology available to educational institutions at a price that is affordable and easily sustainable for university budgets. We offer a substantial discount structure for universities and stand ready to offer group pricing for associations wanting to purchase the technology for its member schools.

Red Lambda has invested heavily in development areas that are important to schools so that our cGRID::Integrity solution can easily install in existing network environments without necessitating hardware purchases. Red Lambda has created an interface that

universities can use to easily track and identify offenders. It is no longer a burden to track down file sharers and identify them.

Schools implementing cGRID::Integrity will benefit on several fronts, the most important of which promotes consistency of principle and ethical behavior. Our universities are one of the countries most influential and prolific sources of intellectual property. Implementing our technology solution ensures that schools are spared the embarrassment and ill opinion associated with the careless disregard for digital intellectual property rights on their networks.

I have provided in my written testimony a Red Lambda-created policy guide that can be used by schools to develop effective peer-to-peer policies. The policy guide also gives examples of ways that schools can use Red Lambda's cGRID::Integrity to deliver educational content to the students and other network users based on our experience.

Chairman Berman, Ranking Member Coble and Members of the Subcommittee, I would like to thank you for holding this hearing today and inviting me to speak on Red Lambda's behalf. I encourage you to exercise your influence to stem the rampant flow of digital piracy on campuses.

[The prepared statement of Mr. Marchwinski follows:]

PREPARED STATEMENT OF GREGORY MARCHWINSKI

Testimony of Gregory Marchwinski

CEO

Red Lambda, Inc.

A V2R Company

2180 West State Road 434

Suite 6140

Longwood, FL 32779

407-682-4940 x4280

before the

Committee on the Judiciary

Subcommittee on Courts, the Internet and Intellectual Property

Hearing on:

"An Update – Piracy on University Networks"

March 8, 2007

Chairman Berman, Ranking Member Coble, and members of the Subcommittee, on behalf of my Florida based software company, Red Lambda, and its employees, I thank you for the opportunity to speak with you today about digital piracy on campuses, a problem that we as a company have been working very hard to help solve.

As you are probably aware, Red Lambda's technology was originally developed at the University of Florida, specifically to combat illegal file-sharing on its campus housing network. At the University of Florida, a huge amount of bandwidth was being consumed by the illegal downloading of both music and movie files. Additionally, the University was being overwhelmed with large numbers of

complaints associated with violations of the Digital Millennium Copyright Act. Two of the University's network engineers embarked on a mission to find a workable solution to these problems and wound up developing technology in-house to combat the illegal-file trading. After the solution was installed on the University's networks, massive amounts of bandwidth were conserved and complaints associated with the Digital Millennium Copyright Act dropped to zero, proving the effectiveness of the technology. The key to the strength of the solution was its architecture. The engineers used a peer-to-peer architecture, similar to the ones used by file-sharing technologies, to combat peer-to-peer downloading – fighting fire with fire if you will. Those two network engineers, along with myself, are Red Lambda's founders. We have since licensed the technology from the University of Florida, re-branded it using the name, cGRID::Integrity, have launched a full commercialization effort and expect to reach forty employees in the next year. Because of this history and close tie to the university space, I am especially pleased to be able to share with you our knowledge and experience as it relates to digital piracy and technology.

First though, let me be clear about the nature of the problem. Peer-to-peer file sharing is not just about a few blatant abusers. A significant proportion of the user population shares files. Peer-to-peer file sharing is a disruptive technology enabled by the phenomenal growth in broadband – and this is even truer on university campuses where students have access to a far faster network than the general population. A UK based company, Cache Logic, estimated that 60% of Internet traffic was consumed by the usage of peer-to-peer protocols in 2004.

In order to properly convey the risks associated with the usage of peer-to-peer protocols, I would like to spend the beginning of my presentation discussing certain technological trends in peer-to-peer protocols that lend themselves to further investigation on the part of universities and colleges.

ENCRYPTION

The first item that I would like to discuss is the trend toward encryption. In the past, people would almost always share music and movie files in the clear, that is to say, the files they traded were transparent on the network. Standard packet inspection technologies could tell what was being sent over the network. Recently however, in an attempt to avoid detection, file-sharers have begun to encrypt their files before they send them. The file-sharers' goal is that if packet inspection technologies cannot tell what is being sent, the chance of getting caught sharing files is lessened. Fortunately, Red Lambda anticipated this trend, and developed technology that is not dependent upon packet inspection. Red Lambda's product, cGRID::Integrity is still effective even when packets are encrypted. Red Lambda's approach is focused on the behavior of the peer-to-peer protocol, not the particular movie or song that is being transferred

The great irony of Red Lambda's focus on the protocol vs. the content is that Red Lambda is at once both enemy number one to illegal file-sharers and best friend to privacy rights advocates. This is because Red Lambda does not even make an effort to ascertain the exact content of the file – we only care about the method in which it was sent – the protocol. Additionally, in an effort to support academic freedom ideals, cGRID::Integrity also gives network administrators, at their discretion, the ability to allow peer-to-peer protocols to run on their network. This could be important, for example, to a professor who would like to use a particular protocol to share research files with students and not be hampered by a technology that blocks the usage of all peer-to-peer protocols on the school's network. We feel that this mix of capability represents the best possible balance in a technology solution. cGRID::Integrity stops illegal file-sharing in its tracks, even encrypted file-sharing, and also honors values held high in the university space – privacy rights and academic freedom.

DARKNETS

In addition to the trend toward encryption, I believe it is important to touch upon a more technologically subtle issue: file-sharing on Darknets. In the university setting, Darknets operate at a local area network level, typically for a building or dorm. You could think of a local area network as an exclusive miniature network for a particular building, area or department. When two or more users on the same local area network communicate with each other, the data from their network activity never leaves the local area network. In essence, the packets do not pass through security mechanisms that are typically placed between the local area network and the main network. Under a typical Darknet scenario, users on the same local area network intentionally seek each other out with the express purpose of illegal-file sharing.

Prior to Red Lambda's technology, this activity could remain undetected, as long as the file-sharers traded with others in the same local area network. cGRID::Integrity's underlying architecture automatically blankets a virtual network on top of an existing network, including all its local area networks, rendering Darknet file-sharing ineffective. The primary alternative solution to cover all Darknets is for universities to place a detection appliance inside every local area network. However, this solution is impractical and cost prohibitive, and we have yet to see this in practice.

MALWARE

In closing the technological discussion, I would like to briefly mention another underlying problem associated with the usage of peer-to-peer protocols on university networks. Increasingly, peer-to-peer protocols are being used as carriers of malware, like spam, viruses, and worms. A 2006 study titled, "Malware Prevalence in the KaZaA File-Sharing Network" by Shin, Jung, and Balakrishnan

found that 15% of the sampled executable files contained a viral code and that 52 different viruses were active in the KaZaA network in May 2006. This is just one example of many, easily found using basic Internet searches. Given the virus content rate, the blocking of peer-to-peer protocols on networks is an important consideration for network security. Some technologically astute individuals had an early sense of all the potential issues surrounding peer-to-peer protocols and effectively wound up being ahead of the curve with their warnings about malware. A few years ago, anyone voicing these warnings would have probably been accused of a self-serving activity. Those early concerns about malware are categorically being displayed right now on networks, with malware over peer-to-peer protocols proliferating rapidly.

All of these issues, encryption, Darknets, and malware deserve the attention of university network administrators. I hope that my overview has been helpful to the Subcommittee. This concludes my technical overview of issues associated with peer-to-peer protocols and I would now like to move to a discussion of the financial and non-pecuniary benefits of using a technology like Red Lambda's cGRID::Integrity.

BENEFITS

First and foremost, I would like to stress to the Subcommittee and to the educational community at large that Red Lambda is absolutely committed to making the technology available to educational institutions at a price that is affordable and easily sustainable for university budgets. We offer substantial discount for universities off of the retail price, even for small schools. We are also willing to offer group pricing for associations wanting to purchase the technology for its member schools. Additionally, Red Lambda has already invested heavily in development areas that are important to schools. We have found that schools find the most value in solutions that install easily to existing network environments without necessitating hardware purchases. It has also been our experience that technologies that can interface with a

variety of existing identity management and registration mechanisms are favored over those that do not. Red Lambda has created an interface that universities can use to easily track and identify offenders. It is no longer a burden to track down file-sharers and identify them.

Schools implementing the technology will benefit on several fronts, the most important of which has to do with consistency of principal and the promotion and forwarding of ethical behavior. Our universities are one of the country's most influential and prolific sources of intellectual property. Universities care a great deal about protecting their own intellectual property which is easily demonstrated through the vast array of carefully crafted patents and licensing agreements authored by universities' legal teams. It only stands to reason that a similar degree of care and consideration should be paid to others' intellectual property. Implementing a technology like Red Lambda's ensures that schools are spared the embarrassment and ill opinion associated with the careless disregard for digital intellectual property rights on their networks. The United States Trade Representative spends vast resources policing piracy issues abroad and naming names, especially in developing countries and rapidly developing economies. However, within our own borders, untold theft is taking place on the government funded university networks including the Internet2 backbone. Protecting intellectual property is without argument one of the most important pillars of our economy and it is paramount that we treat digital intellectual property rights with the same level of care and concern as other intellectual property rights, like those associated with scientific research and literary works.

Universities using a technology solution to stem piracy on its networks will benefit immediately and tangibly from the absence of pre-litigation notices and complaints. Adjudication costs associated with these types of issues are high and should drop to zero when a solution like Red Lambda's is used on the network. Before cGRID::Integrity was adopted at the University of Florida, the school was

processing a large number complaints per month associated with Digital Millennium Copyright Act (DMCA) compliance. Since the cGRID::Integrity installation four years ago, the University of Florida Housing and Residence team has received one DMCA complaint. The University of Florida estimated that it saved 3000 man hours in the 12 month period after the cGRID::Integrity installation in judicial processing time alone, reducing the average case lifecycle from 16 days to 45 minutes.

In addition to adjudication expenses, universities and colleges can also expect their bandwidth consumption and its associated costs to drop dramatically once a technology like cGRID::Integrity has been installed. This will help universities defer hardware upgrades often necessitated by bandwidth expansion. The University of Florida managed to defer a $2 million upgrade for several years as a result of cGRID::Integrity bringing the universities bandwidth usage back into check for legitimate purposes.

Chairman Berman, Ranking Member Coble, and members of the Subcommittee, I would like to thank you for holding this hearing today and for inviting me to speak on Red Lambda's behalf. I encourage you to exercise your influence to stem the digital piracy issue on campuses. I have provided in my written testimony a Red Lambda created Policy Guide that can be used by schools to develop effective peer-to-peer policies. The Policy Guide also gives examples of ways that schools can use Red Lambda's cGRID::Integrity to deliver educational content to students and other network users.

In closing, I would like to stress four important areas.

1) Red Lambda's technology respects privacy rights by focusing on the protocol, not the content. We don't care about what students may be sharing...only that they are sharing using a particular protocol.

2) cGRID:: Integrity ensures that violators are easy to track down and identify, eliminating concerns that some have about the time and energy it takes to find file-sharers
3) We know of no other technology that is as practical and effective to use for file-sharing on Darknets as our own.
4) Finally, with cGRID::Integrity, network administrators can permit the usage of particular peer-to-peer protocols at their discretion, ensuring a network environment that thwarts file sharers and allows academic freedom to thrive.

Thank you for your time.

Red Lambda, Inc. – Policy Guide

Blending technology and traditional tools in a comprehensive set of policies to combat illegal file sharing in the university setting.

This guidebook outlines a battery of policy ideas rooted in technology that can be implemented in tandem with each other to achieve maximum effectiveness in the area of digital intellectual property rights protection.

Step 1: Establish Policy, and Educate the Population

In practice, Universities have found that advance education, and active, consistent feedback are essential to the success of an Anti-Piracy campaign. eGRID::Integrity is capable of automating many of these steps, including the dynamic generation of training materials based on historical data, and performing mass communications with staff, faculty and students. The following table outlines some ideas that have been successful in practice:

Adopt Official Education Policy about Anti-Piracy	Inform University Population	Send anti-piracy policy memorandum to university staff, faculty, and management
		Introduce anti-piracy policy, examples of misuse, and the scope of possible university sanctions in printed and online registration materials State that civil and criminal penalties could additionally apply
		Post anti-policy literature/posters in all housing units and in student gathering areas of university

	Post anti-piracy policy on university website for easy look-up
	Require completion of dynamic web training module before network user access is granted
	Develop residence life programming for housing
Staff Education	Require housing residence life staff to attend training session detailing the anti-piracy policy, media consumption alternatives, and the discipline cycle for infractions
	Provide frontline staff & faculty with quick-fact reference sheet to address questions
	Provide appropriate staff with reference documents for each violation type, describing the implications of the violations in a non-technical way – this may include judicial advisors, a disciplinary council, or Office of the General Counsel
Student Education	Repeat of dynamic training module at the beginning of each new semester as a way to further reduce incidences, especially first time offenders. The dynamic content will be based on user's history and changes in the web's technical landscape

Step 2: Adopt Codified Remediation Steps to Stem Piracy

There are a number of different remediation processes that are effective in combating piracy. All of these processes share in common the following elements:

- Detection
- Intervention
- Communication
- Sanctioning
- Restoration

In practice, the Restoration conditions define those items that need to happen before a case is considered "closed". While there are many different options, a three level remediation process remains the most popular option for universities within residential housing. Different strategies may be employed in combination to factor-in severity and historical information, such as:

Fixed Time Window: Violation severity is based on a fixed period, such as every academic year, or for the entire period of residency. A forgiveness policy may be instituted to "wipe the slate clean" periodically.

Sliding Time Window: Violation severity is based on the last time a violation occurred. For example, if the user's last violation was a week ago, it would be more severe than if the user's last violation was a year ago.

Volume-based: Violation severity at each stage is based on the volume or rate that pirated content is being exchanged, with fixed minimum and maximum sanctions. This distinguishes between aggressive, intentional use, and accidental use, while still enforcing the University's policy.

Content-specific: Violation severity is regulated by the type of content being transferred.

Method-specific: Violation severity is regulated by the specific way the content was being exchanged. This is designed to provide extra sanctioning for those methods that may also be disruptive to network operation, while maintaining strong remediation for regular violations

Included below is a sample of a typical three-stage process.

First Offense

1	Restrict internet access for 15 minutes; do not restrict on-campus access
2	Enter offense into database including user ID and traffic detail
3	Populate help desk with incident and user ID and traffic detail in case user calls
4	Notify user by email with description of the offense and highlight section of the Acceptable Use Policy that was violated
5	Notify Judicial Affairs; copy offender in email

Restoration Conditions:

1	Complete web training, sign with University ID
2	Complete 15 minute network timeout
3	Close related help desk ticket (automatic)

Second Offense

1 Restrict internet access for 5 days; do not restrict on-campus access

2 Repeat notification and evidentiary steps from First Offense

Restoration Conditions:

1 Complete advanced web training, sign with University ID

2 Complete 5 day network timeout

3 Close related help desk ticket (automatic)

Third Offense

1 Refer student to judicial affairs for processing, forward evidentiary record of first and second time violations

2 Restrict internet access "indefinitely" pending decision by the judicial staff who shall enter the sentence into the judicial interface

3 Repeat notification and evidentiary steps from First Offense

Restoration Conditions:

1 Complete Judicial Affairs specified network timeout

2 Complete additional sanctions; clearance to restore service may be given by judicial affairs manually or automatically

3 Close related help desk ticket (automatic)

Sample Sanctions for a 3-Step Process

The following "Sanctions" content highlights additional options that can be incorporated into the remediation lifecycle. Sanctions should be enumerated in the body of the University's judicial policy.

Reprimand - The student is sent formal written notice and official recognition that the behavior has violated the Student Code of Conduct

Conduct Probation - Conduct probation is assigned for a specified period of time and is intended to foster reflection, responsibility, and improved decision-making. The student is deemed not in good standing. Other conditions of probation are specific to the individual case and may include loss of eligibility to serve as a student organization officer, participate on any athletic team, or to participate in other specified student activities. Future established misconduct or failure to comply with any conditions or to complete any assignments might lead to more severe sanctions

Loss of University Privileges - Denial of specific University privileges including but not limited to attendance at athletic functions, unrestricted library use, parking privileges, university computer usage, and residence hall visitation for a designated period of time

Suspension - The student is required to leave the University for a given or indefinite period of time, the termination of which shall depend upon specified acts of the student's own volition related to mitigation of the offense committed. The student must comply with all sanctions prior to re-admission

Expulsion - The student is permanently deprived of his/her opportunity to continue at the University in any status.

Restitution - The student and/or the student's parents shall be responsible for the payment of costs or damages incurred by university to adjudicate a complaint or lawsuit associated with copyright violations, or for Help Desk time spent.

Community/University Service - A student is required to complete a specified number of hours of service to the campus or general community

Education Requirements - A student is required to complete a specified educational sanction related to anti-piracy

Mr. BERMAN. Thank you very much.
Jim Davis?

TESTIMONY OF JIM DAVIS, ASSOCIATE VICE CHANCELLOR FOR INFORMATION TECHNOLOGY, UNIVERSITY OF CALIFORNIA, LOS ANGELES, CA

Mr. DAVIS. Mr. Chairman and Members of the Committee, I appreciate the opportunity to appear before the Subcommittee again.

When I spoke to this panel in 2004, I emphasized how seriously the University of California and UCLA take illegal file-sharing and copyright infringement. Over this time, the University of California has been collectively building on the experiences of each of its campuses. We remain as concerned as ever about how best to address digital piracy among college students.

In 2004, I had described our plans to build a three-faceted approach involving enforcement, legal services and education, with the goal of using what we call a teachable moment for affecting student behavior. We did proceed with these plans and now refer to the overall strategy as the student life approach to copyright infringement.

Let me begin my description of the UCLA student life approach by observing that we continue to see little digital piracy using our main campus resources. The great majority of infringement claims sent to UCLA are directed to the residential halls and, as such, are concentrated in only about 20 percent of our total population, a figure that holds true across the UC system.

Far more UC students live off campus, making them part of the vast majority who use commercial Internet service providers. We, therefore, believe that a student life approach has the greater potential for impact on the piracy problem and redirecting skills and undoing perceptions that students bring to the campus than just focusing on a technological fix for a small population.

Our quarantine approach is the reactive enforcement part of our strategy, marrying full DMCA compliance with our campus judicial process to create this teachable moment.

When a copyright infringement notification is received, the offending computer is quickly identified, put into quarantine so that the file-sharing is effectively blocked internally and externally, while access to on-campus student services is maintained. Services are restored as a function of the judicial process. Technology is used to significantly automate it, bandwidth shaping underpins management at the network level, technology does not involve monitoring of electronic communications, which is prohibited by UC presidential policy.

Our primary metric for gauging the success of our strategy is the rate of repeat offenses. Since 2004, we have received a total of 813 infringement notifications for our residential campus population. Only 9 percent have proven to be second-time offenders, and the percentage of second-time offenders has remained relatively constant.

Our analysis of both first-and second-offense cases has provided us with valuable input that we have used to adjust our judicial responses for both. For example, for second-time offenders, we recently strengthened the education component by requiring a tech-

nical evaluation of their computers to verify that the offending materials, along with all file-sharing software, are removed. This is based on our finding that 60 percent of students remain ignorant about how file-sharing software works on their computers.

We also require students to scan all multimedia files on their computer to evaluate whether they are still at risk.

Sanctions are served in the unnecessary part of the judicial response. Repeat offenders are generally put on 1 year's disciplinary probation with any further offense resulting in suspension. There have been two. We note that the possibility of not graduating or being rejected from a graduate school because of illegal file-sharing on an academic record causes significantly greater anxiety than the threat of paying fines.

The availability of legal downloading alternatives is the second facet of the UCLA strategy. The University of California and the California State University systems formed a consortium to contract services from digital entertainment providers. UCLA's "Get Legal" campaign has garnered 20 percent participation from campus residents. However, this is a limited success story and is particularly disappointing considering the extensive local marketing efforts we have put forth.

We see several reasons. Foremost, is the incapability of service with iPods. Downloads are unusable on the majority of students' portable players. Students are also significantly confused by legal nuance. For example, they have asked why they cannot acquire a television program through P2P methods 12 hours after the program aired when they can legally record the program as it airs.

The current business models are just not providing good answers for students yet. Until that changes, further efforts to promote these services can only make modest differences.

The last and most overarching component of our strategy is education and awareness. I will only make the point that the real value of the student life approach we are seeing is the strengthen of weaving the piracy issue into the larger campus initiatives about core values and ethics.

In closing, I want to emphasize that it is our student affairs organization that has taken the lead in integrating these facets into existing programs. We are encouraged by the student life focus, and I can reaffirm the fundamental premise of driving this effort as a student life issue rather than a technical issue.

I will end with a quote from a February article in our UCLA newspaper. This is a quote from student who had just gone through the UCLA disciplinary process: "Patricia said, after her disciplinary meeting, she does not intend to illegally file share again. 'It is just like going to a restaurant or store and eating their food without paying,' she said. 'I definitely see it as wrong now.'"

I thank you for this invitation to speak.

[The prepared statement of Mr. Davis follows:]

PREPARED STATEMENT OF JIM DAVIS

A STUDENT-LIFE APPROACH TO COPYRIGHT INFRINGEMENT AT UCLA

Mr. Chairman and Members of the Committee, I appreciate this opportunity to appear before the subcommittee today. When I spoke before this panel in 2004, I emphasized how seriously the University of California and UCLA take illegal file

sharing and copyright infringement. As creators of intellectual property ourselves, we remain as concerned as ever about this issue. Copyright infringement, whether of software, books, journals or entertainment media, is a problem that we cannot and do not ignore. The question we continue to face is how to best address copyright infringement and digital piracy by college students.

As an institution of higher education, several values are particularly important to us. Because academic freedom is partly dependent on privacy, by University of California presidential policy we do not monitor electronic communications. We are equally committed to our obligation to help prepare our students for their lives beyond their years here and to encourage the core values and ethics that will help them to be successful and responsible contributors to society. As such, our efforts in tackling the problem of digital piracy in our campus community are focused both on sustainable shifts in behavior and on addressing the immediacy of the issue.

Besides adhering to our responsibilities as a university, we believe this emphasis on student life will have benefit to a broader community. We continue to see little digital piracy using the on-campus resources depended on by our 60,000 students, faculty and staff—whether they be computer laboratories, library facilities or networks. Rather, most of the claims of infringement sent to UCLA are directed to the residential halls, where approximately 12,000 students live. Thus, claims of piracy on university resources are concentrated in only about 20% of the UCLA community; this is true across the University of California system as well, with between 20–25% of campus communities using network resources involved in piracy claims. Far more UC students live off-campus, making them part of the great majority of students who use commercial Internet Service Providers to access information and services outside the University's purview. Hence, our efforts to affect behavior and to instill important core values and ethics in all of our students has the potential of a broader impact on the piracy problem than simply focusing on a technological fix for a small population in our campus environment, a population that is very small compared to that of commercial service providers.

To be sure, we wish to address digital piracy on our campus. In 2004, I talked about the "teachable moment:" taking a claim of infringement and turning it into an opportunity for affecting student behavior. It is in this regard that I am pleased to be here this afternoon. The University of California as a 10-campus system has been collectively building on the experiences of each of its campuses. Today, I am focusing on UCLA's student life emphasis in addressing illegal file sharing.

Based on our three years of experience, I would also like to reaffirm that driving this effort as a student-life issue rather than a technical issue is key. In 2004, I spoke of UCLA's three-faceted strategy for addressing illegal file sharing, all toward the goal of shifting student behavior: the Quarantine, which uses automated technology to quickly route an allegation of copyright infringement so that it can be handled as a campus judicial matter, with the "first offense" treated as a teachable moment; a proactive push to offer legal online entertainment services; and an integrated educational campaign.

UCLA's Student Affairs organization has taken the lead in pulling these three facets together and integrating them into its existing programs to imbue our students with a strong sense of ethical character, whether in the classroom or in a meeting with the Dean of Students. While taking the lead on this issue, Student Affairs has worked closely with information technology leaders to build effective and efficient processes, and with legal counsel to ensure compliance with the law.

THE UCLA QUARANTINE PROCESS AND THE TEACHABLE MOMENT

The reactive, enforcement part of our strategy for illegal file sharing remains the Quarantine process, which marries full DMCA compliance with our campus judicial process to create a teachable moment. When a copyright infringement notification is received, the offending computer is quickly identified and put into quarantine: that is, file sharing is effectively blocked internally and externally. However, access to on-campus student services such as library resources and registration is maintained, recognizing that an individual needs to continue to function in his or her educational capacity even as due process occurs. The automation involved in routing a claim of infringement to the residential halls and putting the proper computer into quarantine means that we can direct human effort where it is most needed: due process and education. Though this automation is not perfect and sometimes requires manual intervention, much is now automated and we continue to tune our algorithms to confidently increase the number of machine-handled cases.

We believe one of the best metrics for gauging the success of our strategy is the rate of repeat offenses. Since 2004, we have received a total of 813 infringement notifications for our residential campus population. Overall, only 9% have proven to

be second-time offenders. On a year-to-year basis the percentage of second-time offenders has remained relatively constant. In some cases, we observed absolute claim figures increasing, but feel this may be misleading. For example, we believe a substantial increase in graduate student housing since 2004 (44%) can more than account for the rise in the number of first-time claims for graduate students. (Also, though we cannot draw any conclusions, during this same period, the proportion of RIAA notifications representing first time offenses has decreased—falling from 17% to 13% between 2004 and 2006—while claims related to video and TV media have increased. Anecdotally, we do see students surprised to discover that television programs, for example, cannot be shared legally, though they understand that music sharing is illegal.)

Such analyses, and our extensive interviews for both first- and second-offense cases, have provided us with valuable input that we are using to improve the effectiveness of our judicial responses. For example, we have found that more than 60% of those identified in a second claim of file sharing did not understand that the software was still running or how to completely disengage it, one of many findings that dispel the common perception that students are technologically savvy (rather, they are technologically *comfortable*).

Based on what we see, we are adjusting the process for first-time offenders to strengthen the educational component and even more clearly define what constitutes infringement. Later this year, we expect that those involved in a first-time situation will be directed to a website where they will view a short video developed by the University of Richmond Law School *(http://law.richmond.edu/ipi/whatdoyouthink.htm)* and then required to answer a series of questions culled from the content. Upon submitting correct answers, these students will be directed to a UCLA website that provides both an overview and explicitly states what is at stake in repeating the act of illegal file sharing. These students will then be required to acknowledge that they have completed the review and to reaffirm their personal responsibility in using campus computing services.

For the second-time offender, we have also strengthened the educational component: they are required to attend an ethical decision-making workshop and write a five-page paper covering any misunderstandings they have had regarding what file sharing behaviors are acceptable. There are also practical aids we provide: a mandatory technical evaluation of their computers to verify that the offending materials, along with all file-sharing software, are removed; and a list of all multimedia files on their computers so that they can evaluate whether they are at risk. Finally, there is a sanctioning component, where such repeat offenders are generally put on one year's disciplinary probation, with further offenses resulting in suspension. We note that for our student population the possibility of not graduating, or of being rejected by a graduate or professional school because of a sullied academic record from illegal file sharing, causes significantly greater anxiety than the threat of paying fines. This integrated series of requirements has proven effective, as we have had only two repeat offenders who committed further offenses, both of whom were suspended from the University for at least one academic quarter.

We are looking at infringement cases in a more holistic sense judicially as well. A student may demonstrate patterns of behavior that indicate a need for help, and treating illegal file sharing as a separate issue is not always in the best interests of these students. By reviewing their behaviors holistically, we can help them identify underlying causes so they can make changes and continue to thrive academically.

PROMOTING LEGAL ALTERNATIVES TO FILE SHARING

We believe legal alternatives are an integral piece of the effort to combat digital piracy. To bolster student appreciation for and use of legitimate sources of copyrighted material, UCLA has been part of a UC-CSU consortium to contract services from digital entertainment providers; we have contracted with CDigix, iTunes and Mindawn. Our consortium, with its combined student base across the University of California and California State University systems, is in talks with additional vendors as the landscape changes and new legal services that appeal to our students become available.

At UCLA we market our legal services mix within an outreach campaign entitled "Get Legal," which currently has 20% participation from a resident campus base of 12,000. We see "Get Legal" as a limited success story: successful in that our subscriber base is among the larger but limited with respect to overall percentage of registered students. The participation rate is particularly disappointing considering the local marketing effort put forth, which includes: resident hall signage and handouts, presentations at student government councils and at information and tech-

nology service fairs, quarterly advertisements in the student newspaper, highlighted presence on campus portal websites, and promotion by the Dean of Students Office at new-student orientation sessions. The "Get Legal" campaign also maintains a visible and high-level presence online, with a campus website *(http://www.getlegal.ucla.edu)* to assist students interested in subscribing, purchasing, troubleshooting and obtaining account assistance.

Though an important component of our three-faceted strategy, it is clear that these online digital entertainment services remain problematic. First and foremost is the incompatibility with iPods (despite local marketing efforts, no UCLA student has signed up for the contracted "CTRAX To Go" portable player music service because of this incompatibility). However, our students also perceive these legal services to be limited in content, dependent on specific vendors or operating systems, and/or providing an uneven user experience. Generally, digital rights management means downloads are often unusable or non-transferable onto the vast majority of students' portable players.

Students are also significantly confused by legal nuance. For example, they have asked why they cannot acquire a television program through P2P methods 12 hours after the program aired, when they can legally record the program as it airs or watch it for free while it is streaming from the broadcaster's website later that night. Or why, if a song is not available domestically through a legal service, it is not okay to acquire it through P2P (this has arisen from some of our foreign students). They also wonder why they have more rights with a purchased CD that can then be copied, sold or given away than a track or album purchased through a legal music service, and why downloads purchased online cost as much as or more than their equivalents in bricks-and-mortar venues, which they perceive as having significantly higher real costs, such as packaging and store overhead.

Such concerns are not trivial to students. As creators of intellectual property ourselves, we understand the complexity in business models, particularly in a nascent area. But we also feel there are not good answers to give, because the business models are not yet viable. Until that changes, promoting legal services—while a critical component in moving forward on the piracy issue—will on its own result in only modest changes.

EDUCATION AND AWARENESS

At an institution where the currency is education, we strongly believe that informing students through education and awareness campaigns is the best way to make a sustainable impact on the issue of piracy.

This education takes many forms in addition to those I have described. Student Affairs conducts workshops on copyright and ethics, meets with student leaders and student government councils about the consequences of illegal file sharing, and conducts open forums to discuss copyright and the state of entertainment in the digital age. Multiday orientation sessions for newly arrived students include Q&As with the Dean of Students on intellectual property theft. Anti-piracy flyers are posted within the residence halls and official communiqués are sent to the student body: Digital piracy is a violation of the student conduct code: The University will discipline regardless of external legal proceedings or financial settlement. It is made clear that the University is not a safe harbor, and that we are powerless to assist students should lawsuits ensue. In fact, our entire education and awareness program is aimed at preventing a student from ever getting to that point.

Though these individual activities are important, we see even more fundamentally the strength of weaving the piracy issue into larger campus initiatives about core values and ethics . . . in other words, into the student-life experience.

All of these efforts, both individual and integral, generate discussions that are instructive, helping us both to fine-tune and give guidance to our outreach programs and practices. (For example, though we have a vast range of outreach initiatives for undergraduates, we had not previously focused on education of graduate students—something our increased graduate housing has brought to our attention.) We feel we have considerable room to grow in this area. A program used across the nation, dubbed "Alcohol Edu," seeks to educate freshmen about the risks related to drinking and may provide ideas for a similar model.

THE ETHICAL STUDENT

The development of our students is a concern of the entire University. Though affecting behavior requires a substantial investment of time and effort, we believe part of the institution's mission is to help prepare our students for their lives beyond our doors, and that this is a worthwhile investment. That is why we feel it so important that this be driven as a student-life issue rather than a technology

issue. A purely short-term, defensive or technological solution does not afford any opportunity for a teachable moment, or for what we consider to be the greater possibility of sustainable changes in behavior. Our mission is not shared by organizations outside of the educational realm, so we recognize that short-term measures may be appropriate in other circumstances, particularly when the piracy problem is largely beyond the purview of educational institutions. But at UCLA, we are encouraged by what we have seen and continue to be enthusiastic about the student life focus.

Mr. BERMAN. Thank you very much, all of you; very much appreciate your testimony.

I would first like to recognize for 5 minutes the Chairman, Mr. Conyers.

Mr. CONYERS. Thank you very much.

And I thank you all for your testimony. Many reappearances here.

Let me inquire of the head of the RIAA people who oppose the use of technology to block or filter content argue that it invades privacy and could block legitimate content. How is this different, if it is, from antivirus technology, which is in common use?

Mr. SHERMAN. Well, I think you have got it exactly right. It is very much the same as antivirus technology. The way that a virus program works is it compares the signature of a file with the signature in a database, and if the signature is in there it stops the file. That is the way filtering technology works in the copyright area as well. So we don't understand why there is a perception that somehow this is invading privacy.

Furthermore, the applications don't even need to look at who sent it, or who is receiving it. All that they care about is whether it is the transmission of an unauthorized file in which case it is stopped.

So we don't see this as a privacy issue, and we feel that universities could implement these kinds of technologies very effectively without infringing on anybody's privacy rights.

Mr. CONYERS. Thank you.

Mr. Vaughn, do you think that this is a good way to go, that we could spread this practice among other universities?

Mr. VAUGHN. I think there is the sense that the current technologies have limitations, either in their clash against institutional policies, what Cary said about the non-invasion of privacy, to the extent that is true, then it ought to be able to be applied to peer-to-peer as well, but there are two other problems.

One, as I mentioned, the necessity to be able to differentiate in any blocking technology legitimate and illegitimate. Legitimate peer-to-peer is a rapidly growing activity on campus that we want to encourage for research, for education. There are cost issues. One proposed technology that our group looked at last October would have cost over $1 million to implement and a quarter of a million dollars to annually license. So these are things that we have to work through.

But that is precisely the reason that we formed a new group that is going to meet next week, I believe, to try to take a look at this rapidly changing world of technology. And to the extent that we can find things that fit our policies, that are affordable, and what we really want to do is work with commercial vendors who have generally been developing their technologies for other markets and explain what we need, how our networks work, and see if we can

get them to design technologies that work for us. So we are going to try to do everything we can to pursue that.

Mr. CONYERS. Does anyone else want to weigh in on this?

Mr. Davis, I was going to ask you that cost seems to be an issue that universities are concerned with. Do you find that to be the case? How is the cost of your program?

Mr. DAVIS. We would always be concerned about the cost, and, certainly, in the dollar figures that we are hearing, we would certainly take a very close look at that. But I would not state that as the primary concern, because if we did see this as the best solution for moving forward, then we would try and figure that out.

Our concerns still remain around the policy and anything that gets very close to monitoring content. And we are concerned about the increasing legitimate use of peer-to-peer kinds of applications.

We also are concerned about escalating technology approaches. As we go from one technique, we can move to others, and there are different ways to take these forward. And the other thing that I am trying to make a point non is that we do have a small population, and we are interested in putting these resources toward the educational piece, as much as these technical solutions.

Mr. CONYERS. Cary Sherman, in the joint committee activities, seems like we are off to a slow start. Haven't we got a best practices list instituted by all universities yet? How fast are we working?

You know, after the fourth hearing, everybody is beginning to wonder if this is just scheduled once or twice a year to see how we are all doing but we don't even come to expect much to be happening anymore.

Mr. SHERMAN. I think you have put your finger on it again. Progress really has been slow. I have to commend the leadership of the joint committee. Their heart is in the right place, and they are asking that the right things be done. But follow up takes a very long time.

The Technology Task Force, for example, it was decided on November 1st that it meet, but that meeting has yet to happen, there has yet to be follow up on something that was agreed by everybody over 4 months ago. When we issued the white paper that John referred to, it took more than a year for the education community to approve a new draft. The original draft was out in a month or two, but it took a year for edits to come back for it to be reissued. Progress is very slow. We need much faster movement in order for the university community to get the sense that this is important.

Mr. CONYERS. Can we help in any way? Don't they respect the powerful Howards that we have here on the Committee? What is happening? Do we need to call them in? Do we need a hearing with the joint committee?

Mr. SHERMAN. Well, we very much appreciate this hearing being held to convey the seriousness with which the Congress takes this issue, and we hope that that will help make a difference in terms of forward movement.

The problem that we have got is that the university community at large, which John's views are reflecting on technology, for example, about academic freedom and so on, those are important values and we understand that, but programs like Ares and LimeWire,

these are programs that are optimized for the exchange of movies and music illegally.

They are not really being used for academic purposes. There is a theoretical possibility but not a real one. Nobody is using it for Shakespeare's sonnets or anything and it seems appropriate that when you are faced with that kind of a challenge——

Mr. VAUGHN. Aren't they still covered by copyright?

Mr. SHERMAN [continuing]. That is why it would be okay; they are non-infringing.

But the overwhelming, if not exclusive, use of these programs is for illegitimate purposes. And it seems appropriate for universities to reclaim their bandwidth, their own academic networks and maintain the integrity of their system.

Mr. CONYERS. Well, I just hope that the joint committee can get moving. I hope they will take this discussion to heart.

Let me ask, finally, John Vaughn, is there some particular problem at Purdue, the signal offender in all of this, that we don't know about or that we should be sympathetic toward if we knew?

Mr. VAUGHN. Let me speak to that. I am aware of the quote that generated the attention, and I talked to folks at Purdue, and this really is a case of "not fitting the actual story."

Purdue has a very good story to tell. They have a five-step process for treating offenders. They have 19 students on probation for the rest of this semester. They take this very seriously. They will go after offenders that they detect in their own monitoring processes. They don't wait to be notified from the outside.

They have a variety of education methods: Advertisements on the student-run TV program, they use the RIAA video that was made last year, they have a legitimate delivery service, Cdigix, which, unfortunately, has decided to pull out of this business, but they have done about everything they can.

So I am not here to be an apologist for Purdue but just to say that the quote that we heard doesn't indicate what Purdue is doing itself, how seriously it is taking this, more I think the attitude of higher education broadly.

Mr. CONYERS. Well, I am happy and pleased to get your response.

Mr. BERMAN. Of course, Purdue was invited to testify, and I don't know if we can make reference to Purdue chickened out, but—— [Laughter.]

Never mind.

Mr. VAUGHN. Were they here, perhaps I wouldn't have been.

Mr. BERMAN. Mr. Coble?

Mr. COBLE. Thank you, Mr. Chairman.

As the Chairman said, we appreciate you all being here.

Mr. Chairman, I empathize with your situation. If the universities don't intervene to stop piracy and students often times don't recognize they are violating the law, you would have little option other than initiating a lawsuit, bring in the lawyer. Bringing a lawsuit, however, is always the last step, or usually the last step, and can be unpopular.

How do you determine, Mr. Sherman, when to take this last step, and do the university and students receive a warning?

Mr. SHERMAN. Well, we have a notice program under which we have been sending—so far, this year, we have sent 50,000 notices to universities alerting them to specific acts of infringement by users of their system. It was those notices that Purdue told the AP reporter they dump and that they don't even bother trying to track down and notify the student. That is why it attracted so much attention.

So, yes, we give students and universities lots of opportunities to know about what is going on on their campus. But in order to make the point real, in order to show students that they really are at risk of consequences by engaging in this activity, we sue a number of them, and what we have announced is that we are going to sue a much greater number to increase the deterrent effect of the lawsuits.

And we think it has had an impact on the general population. We have done surveys. The number one or two reason why people stop illegal downloading is fear of lawsuits. And we want to bring that same reality to university campuses.

Mr. COBLE. Thank you, sir.

Mr. Vaughn, do you have evidence that the number or economic value of digital piracy on college campuses has declined at any point during the past 5 years?

Mr. VAUGHN. I don't have systematic data, Mr. Coble, but I have heard a number of reports from campuses that track this and that have identified a declining number of DMCA notices. Those that track this closely, in many cases, can attribute it to policies that they have taken.

That is one of the reasons I think that it is so important for us to survey these campuses and identify those that have been successful in reducing it, look analytically at what procedures they are taking so that we can identify a new set of best practices and publicize that broadly.

I do think that the lawsuits have an impact, and we have talked about this in the joint committee. Students talk to students, and one of things that our administrators on campus have been dealing with, struggling with, is this sense students have that once they are on campus they are in a bubble and they are immune from the outside world.

And when a lawsuit comes in, it tells them that copyright infringement is wrong, illegal file-sharing is wrong, and they are going to be held liable for those activities. And that word reverberates.

Mr. COBLE. Thank you, sir.

Mr. Marchwinski, let me put a three-part question to you. Approximately, how many colleges and universities use your software, A; B, is it expensive; and what great obstacles do colleges and universities assume or face if they choose to use a software program that will help prevent piracy?

Mr. MARCHWINSKI. We currently, through our commercialization effort, the software is in production at the University of Florida where it was developed. We are working with three other universities on the implementation of the product right now in an early adopter format, and we have scheduled implementations in April for several other universities across the country.

As far as expense goes, our pricing model is one that is based on a per user, per year licensing structure, and we discount very heavily for the educational space, knowing that there are budget constraints and such. We actually will work with small institutions to make it very affordable. We don't try and gouge anyone. We actually want to address the problem.

And as far as obstacle goes with the implementation, one of the biggest challenges we have with the software solution is when you are implementing a tool into a network, the soundness of the underlying architecture of the network needs to be evaluated.

If you have a network that is a hodgepodge of devices that were slapped together as a university grew quickly, it is harder to implement a technology solution in that environment. If it was well-managed and has grown under a logical plan, it is very easy to implement in that environment.

Mr. COBLE. I got you.

Thank you, sir.

Mr. Davis, let me put a question to you before that red light illuminates in yours and my eye. Commend UCLA for what you have done, but has much of the anti-piracy effort at UCLA depended upon the anti-piracy software, and how much has depended upon your faculty and administrators and maybe even members of the student body?

Mr. DAVIS. The real point on our software is that, from a technological standpoint, it really is a mechanism to bring together the DMC response with the judicial process. So the answer to your question is, it is our judicial process that it is in play here, not the software.

So when I look at it from a judicial process standpoint, it gives us the opportunity to bring different situations as they occur to our dean of students and bring the students in discussion with those people and then bring it into more comprehensive programs. That is what we see as working, and that is also where we are getting our data, from the students directly, as they talk with the dean of students.

Mr. COBLE. Thank you, sir.

Thank you all.

I yield back, Mr. Chairman.

Mr. BERMAN. Thank you very much.

The other gentleman from North Carolina?

Mr. WATT. Thank you, Mr. Chairman. I thank you for having the hearing, first of all, and I am delighted to be on the Subcommittee. This is my first time here also, because I had to miss the first hearing. So this is my first official activity on this Subcommittee, so I am delighted to be here.

Mr. Vaughn, my ears perked up when you mentioned something that was going on at the University of North Carolina, which happens to be where the two of us are from, and I didn't understand what you were saying was going on at the University of North Carolina, so let me get a little clarity about what that was.

Mr. VAUGHN. What I mentioned was that we, early on, tried to identify new, legitimate online digital delivery services, pair them up with universities in pilot programs to try to get these two groups working well together. Molly Broad, under her leadership,

as president of the University of North Carolina system and also, incidentally, as an active member of the joint committee, went back to the system and said, "Let's implement a broad set of experiments across campuses."

So they had different campuses working with different vendors, using different policies. All of them used the same sort of three-part structure that Jim Davis mentioned of education, enforcement, using new alternatives, but what I mentioned was that data collected by the University of North Carolina in its pilot program fed to Ruckus and gave Ruckus the basis for moving to an advertising-based business model, which then allowed them to offer music free to students, any student that had an "edu" valid e-mail.

And Ruckus announced last week that they have had a 33 percent growth in the number of subscribers since they made this program available. And that was fed by this interplay between Ruckus and the University of North Carolina. So it was one of these productive interrelationships that has really helped to advance this.

Mr. WATT. I understand most of the schools in the University of North Carolina system are tied into this Ruckus system. Is that working effectively?

Mr. VAUGHN. I think it is working very effectively. They are actually working with four different vendors, but I believe Ruckus is the dominant one, and it is used on, I think, just about every one of their campuses.

Mr. WATT. It seemed to me that despite the fact that you and Mr. Marchwinski are sitting side by side, that you all are miles and miles apart in terms of what you were saying. I took from what Mr. Marchwinski was saying that there is technology coming online that is going to—or is maybe already online—that could really solve a lot of these problems.

So let me ask the two of you, first of all, Mr. Marchwinski, I noticed that you went out of your way not to talk too much about the cost of this system, and Mr. Vaughn talked about a system that would cost the university in the neighborhood of $1 million with a royalty fee or renewal fee every year of about $250,000.

You obviously are not all that interested in talking about the specific cost, but are we anywhere in the ball park that made Mr. Vaughn shutter, the $1 million figure, or is that far, far, far away from where you are talking about?

Mr. MARCHWINSKI. Far, far, far away from what I am talking about. When you look at our cost structure and the way that we discount it in the university space, we are literally talking about cents per under $1 per month, per student to use our technology. It is discounted substantially into that sector.

Mr. WATT. Well, let me see, if I multiplied $1 per month, per student, that is $12 a year, multiplied times the number of University of North Carolina, that could be a fair, fair amount of money.

Mr. MARCHWINSKI. That is a suggested retail price, which we discount from.

Mr. WATT. Okay.

Mr. MARCHWINSKI. It is based on volume. We can actually reduce that significantly.

Mr. WATT. Mr. Vaughn, maybe I should allow you the opportunity to tell us about some of your concerns or downsides about what Mr. Marchwinski testified about.

Mr. VAUGHN. Well, let me say, first of all, the costs I mentioned was for a different technology, so I was not referring to Greg's technology. Greg was part of the meeting we had last October. Our concern at the time——

Mr. WATT. You are cheating. You get to call him Greg. I had to——

Mr. VAUGHN. Well, we have worked together——

Mr. WATT. I am joking, go ahead.

Mr. VAUGHN. That technology can't distinguish between legitimate and illegitimate peer-to-peer activity, but he has mentioned that there have been developments and refinements. This is something we want to look at, and that is precisely why we have this new committee to understand—this is a very rapidly—this technology is changing so rapidly, so what we saw in October may be different now.

I must say that just yesterday EDUCAUSE had a live Webcast featuring Illinois State, which is a university that has been working very closely with RIAA and MPAA on a whole range of options to try to deal with illegal file-sharing. They are looking at technology, at education, at enforcement. They are doing us all a very good service of looking at this. And it was their sense yesterday that we still don't have a technology that works, but we may be getting closer, and we are going to keep looking at that.

Mr. WATT. Thank you, Mr. Chairman.

Mr. BERMAN. The gentleman from Florida, Mr. Feeney?

Mr. FEENEY. Thank you, Mr. Berman.

And we are glad for all the witnesses who are here. This is a very important issue to the Congress.

Mr. Vaughn, I was glad to hear the defense of—I am a fellow Big 10 guy, I am from Penn State, and glad to hear that Purdue is performing better and that blue mark doesn't really represent their activity and their interest in protecting intellectual property. You would think a great technological university would have a particular understanding of the importance of intellectual property, and that is good to know.

I know that professors who right the textbooks on a regular basis understand intellectual property when it has to do with the unauthorized copying or use of their textbooks, and I would hope that the joint committee appreciates that a lot of us in Congress believe deeply that, yes, the mission of every great university is to pass on academic excellence, but also citizenship standards and character building ought to be a great part of the university experience.

I was glad to hear, even though it is anecdotal, about Patricia's experience. She learned a great lesson going through college, and I am afraid for the university students who are learning the opposite lesson, that the way to go through life and enjoy the music or art or literature of whatever of your pleasure is to get technological astute and to be able to, essentially, be modern-day pirates, even though they don't look at it like that.

And, I guess, finally, Mr. Vaughn, I would encourage you, if 80 percent of the universities have adopted a policy, that means 20

percent have yet to even try or at least think about it in a serious way, and then enforcing the policy is critical too.

I mean, China has pretty good laws on the books with respect to protecting intellectual property. It is the horrendous job they do enforcing it that leaves Mr. Sherman's companies and many other U.S. companies totally exposed so that somewhere on the order of 80 to 90 percent in some areas of technology and music and video is pirated use in China. So the enforcement is critical, and that is why I am so interested in the technological issues.

Mr. Marchwinski, are you able to tell some of the three universities that you are moving into here in the next few months or expect to? You don't need to if you don't want to.

Mr. MARCHWINSKI. Actually, can't tell you about those right now until they actually——

Mr. FEENEY. Very good.

Mr. MARCHWINSKI [continuing]. Release the actual names out into the press.

Mr. FEENEY. Well, very good. I happen to know of a couple, and I am delighted to hear those.

Mr. Vaughn, had some legitimate arguments, and Mr. Davis did too, and I would like you to address them specifically.

Number one, on the cost argument, and I don't want to do your negotiating for you anymore than the former gentleman from North Carolina did, and since we fund universities, as a former State legislator, we fund universities, I want to see good taxpayer value for anything that universities are purchasing.

But are you a monopoly? Are you the only company that is doing this work in the industry?

Mr. MARCHWINSKI. No, absolutely not. There are many providers out there, some that have grown up in different sectors of industry, work management——

Mr. FEENEY. Good. The more the merrier. Hopefully, there are lots of competent companies. It may be bad for you, but it is good for a pricing mechanism that will meet the needs.

Mr. Vaughn, I think fairly, said that there are lots of legitimate peer-to-peer uses that he is afraid some technologies would be undermined. Does your current technology have the ability to save legitimate and authorized peer-to-peer uses while stopping pirating?

Mr. MARCHWINSKI. We have enabled peer-to-peer protocols based on a set of policies that the administrator in that institution implements.

Mr. FEENEY. And Mr. Davis talked about the strong interest every great university has in privacy and academic freedom. Does your technology preserve privacy and academic freedom?

Mr. MARCHWINSKI. Yes. We actually don't look at the content of the packets because of that key concern.

Mr. FEENEY. And it seems to me the one argument that is going to be difficult for the technology proponents to meet is Mr. Davis' legitimate one, that about 80 percent of his students reside off campus. Certainly, that is true of a lot of universities. You are talking about on-campus computer networks so that off campuses could be very difficult, if not impossible, to get to with your current technology; is that right, too?

Mr. MARCHWINSKI. That is correct. There is one thing that can be done in the wireless networks that are available for drop-in students. An effective policy can still be put into place on those networks. So even transient schools or community colleges who have no permanent residents there can effectively put a policy in place.

Mr. FEENEY. Well, and finally, I want to recognize the joint committee who has been chaired recently by the president of my alma mater, Graham Spanier. He has done a terrific job at Penn State, and now the president of Maryland will take over.

And I hope that while we have made some progress, as Mr. Vaughn and Mr. Davis point out, in 5 years, I hope that everybody will understand just how critical this is, both in preserving intellectual property rights but just as importantly in building character and strong citizens.

One of the complaints about our prison system in America is we tend to send people to prison and they tend to come out more expert thieves, and I hope we will not be saying that about our university students with respect to intellectual property 5 or 10 years hence.

With that, I yield back the balance of my time.

Mr. BERMAN. I thank the gentleman.

The gentlelady from Texas is recognized for 5 minutes.

Ms. JACKSON LEE. Thank you, Mr. Chairman. Let me thank you. Looks like we are going down a path of innovativeness, and I thank you very much for your leadership. I think it is important to address issues—I am a new Member of the Committee—but address issues to maybe weave our way through a legislative fix or maybe some helpful suggestions.

I happen to agree with Mr. Sherman. I, frankly, believe that colleges have not done enough. And I have a college student, and I have a number of college campuses in my hometown, and I am always eager to be supportive with as much information as one could possibly give.

It is interesting, I don't know how many, Mr. Sherman, students are doing their final thesis or taking an exam on the most recent music notes that they are drawing down, but I am sure some would argue that this an educational factor, but I don't know how many professors are testing folk on the latest brilliant work of, I think, Lil Wayne or Jay-Z.

So I am curious because I believe that inquisitiveness should be applauded and certainly the kind of unique expertise that college students have developed because they are children of the 21st century and children of technology. It hurts my heart that many do not pick up a book but would rather see it digitally and however else they might get it.

So I am going to pose a question to both Mr. Vaughn and Mr. Davis, just to comment on this issue of campus piracy. And I am not going to say it is a big problem, because I don't want to label the whole, if you will, it is not an industry, but the whole community, whole academic community, whole community of higher learning institutions.

But if it is a problem, and if it is widespread or its growing, is there some thought to charging students a fee, akin to your student activities fee, enhancing it, and finding some set fee to pay as re-

lates to the downloading of money and send those dollars to the artist or their royal representative?

Because it seems to be an ongoing issue. And, of course, you just made mention that Purdue is trying to work through it or other universities are trying to work through it. I don't know if we are going to find a common ground.

We have been through these questions before about protecting the work of artists. We have been through it before, from my perspective, from, I would say, the aging artists, the artists of the 1960's, Motown and others who talk about it on radio and whatever else, those old days when they started talking about and now they are using it for advertising and otherwise and not paying them any royalty. Now, we have, sort of, a next step.

But have you thought about any way of compensating, some structural way of compensating which way, if you will, put a stop gap to Federal legislative fixes?

And I ask Mr. Vaughn and Mr. Davis.

Mr. VAUGHN. Well, there are two dimensions to a fee, Congresswoman.

First, the sort of fee I believe you are talking about is a fee that might be akin to the way that artists are compensated for music in restaurants and other big public places where you can't put a fee on a single transaction and there are compulsory licenses that are negotiated by BMI and ASCAP and it is very complicated, but it has been reasonably successful over decades, and there have been proposals that that might be one of the ways to deal with peer-to-peer file-sharing as well.

That wouldn't be a university issue; that is a nationwide corporate issue, and Cary can speak to this. I think that RIAA and MPAA don't like that. We are neutral on it.

The other aspect of a fee is charging students a fee for the music, and this is something we have talked about in working with the legitimate delivery services. iTunes has managed to 99 cents per song, and it is wildly successful. Most of our universities that are working with legitimate delivery services—and there is a cost to that—try to make it something other than a song per transaction fee to the student.

So the university might cover the full cost outright. It might be embedded in a student fee per semester, but our concern is that if there is a fee per transaction for legitimate services and it is up against illegal free transactions, it makes it easier for illegal to outcompete legal.

Ms. JACKSON LEE. Mr. Chairman, if you would indulge me, I was watching that green light steadfastly and it never went to the middle light. I would appreciate if I could get the panelist I asked to answer, Mr. Davis.

I would appreciate it, Mr. Chairman, if——

Mr. BERMAN. Mr. Davis, could you answer?

Ms. JACKSON LEE. And I would appreciate—could Mr. Davis just yield for a second? If Mr. Sherman could just say a yea, a nay or a sentence, then I will go to Mr. Davis, because he has been referred to by, "don't like it," but what is your fix or is that something we can reasonably talk about?

I am not wedded to the structure; I am wedded to the concept.

Mr. SHERMAN. The industry has concluded that if we can give it away for free, it has to feel like free, and, therefore, we have granted licenses to companies offering college students access to 2 million, 3 million tracks of music on demand at such low prices that they are a fraction of what is offered in the commercial marketplace.

Ms. JACKSON LEE. Does the university buy it or a company buys it?

Mr. SHERMAN. It can go either way. At Penn State, they paid for it, and they have it in their budget and offered it to students and it had a very good take-up rate. At other universities, they charge each student for it, and that becomes more difficult.

We are talking about a couple of bucks a month, even for a student paying for it himself, for all the music that they want legally.

Ms. JACKSON LEE. Mr. Davis, thank you.

Mr. DAVIS. Our thinking has been tied with what I referred to in the verbal testimony with the business models, and so we have gone down the path of what is the right model for the student.

And so I do want to come back and make the point that one of the things that we are seeing is the existing models, the legal services, are not providing good answers for the students. And so we really see that as a major thing to take a look at, and if that can be resolved or changed and so forth, we get ourselves actually set up in a much, much better position to talk about the fee or the funding of this.

Ms. JACKSON LEE. Thank you.

Mr. BERMAN. The time of the gentlelady has expired.

Mr. Davis, we are going to excuse you now. Based on my comment, you have revised your time of departure to 4:15, and you are still going to have a close call if it is the 5:52.

Mr. Goodlatte?

Thank you for coming, and if there are specific questions for you from any of the Members, I assume you would be prepared to respond in writing to those questions.

Mr. GOODLATTE. Thank you, Mr. Chairman, and thank you for holding this hearing.

I appreciate the testimony of all the witnesses.

Mr. Vaughn, I believe that gathering facts about current practices that colleges and universities are using to combat privacy is extremely useful.

Would you commit to helping encourage colleges and universities to comply to requests for information about their efforts on this front so that Congress can make some informed judgments about the best next steps to take here?

Mr. VAUGHN. Mr. Congressman, there may be a reference there to the GAO study that was carried out last year, and in that study, we and our allied associations all initially strongly encouraged participation, but when we learned that, contrary to the usual practice in those sorts of studies with higher education, GAO was not going to preserve anonymity of individual institutional data, we informed the campuses of that, and that caused a drop in the rate.

And I understand that there is interest in having information on specific universities, but there is also a concern about how data would be used, how it would be interpreted. There are widely dif-

ferent views about what technology is effective or not effective, and if you have a view of technology A and university B isn't using it, then that gives a certain slant to that institution.

What we would like to do, and whether we do it or GAO does it, is get a broad survey of institutions. We can preserve institutional anonymity of data but still collect by sector to understand what is happening in large institutions, small institutions, community colleges versus research universities. We could look at analytic questions about not just technologies but——

Mr. GOODLATTE. Let me cut you off there. I take it that is a yes, with conditions.

Mr. VAUGHN. A yes, with conditions.

Mr. GOODLATTE. I have got some other questions I want to ask you, so let me move on to those. I have introduced legislation and plan to soon reintroduce legislation to combat the use of spyware on users' computers, which is used to collect personal information.

Now, as you know, many file-swapping technologies either include spyware programs or are used by hackers to install spyware programs onto users' computers. Given the recent swath of data breaches, are universities concerned that illegal file swapping could contribute to data breaches on their own systems, which contain personal information about students, parents, alumni?

Reflective of your concern about who has access to information that you mentioned in your last answer, what are universities doing to prevent these types of breaches from originating through file-swapping technologies?

Mr. VAUGHN. Well, one of the things that we try to do in education programs is to make clear to students what a great risk these illegal file-sharing technologies bring to the students, their computers and to the whole system. That is a very serious problem. So it is one of the motivations, both to try to educate the student so it is a deterrent for them but also for us to try to protect our systems.

As I understand, I am not a technology expert, it is hard for the network manager to get direct control over that, but it is a serious problem, and we are doing everything we can to try to combat that sort of degradation that potentially comes with illegal file-sharing.

Mr. GOODLATTE. Well, let me ask you about that, and I will ask Mr. Sherman about this too. I just have become aware of some technology. One of the reasons for this hearing is for us to look at enforcement efforts and technologies that are available to colleges and universities—I know Mr. Marchwinski is certainly interested in that as well—to stop illegal P2P file-sharing.

I am aware of some technology that claims to stop virtually 100 percent of illegal peer-to-peer transmissions while allowing legal peer-to-peer transmissions to continue by looking for certain markers and so on in what is being transmitted that would indicate whether or not it is copyrighted or not. It would not interfere with legal P2P transmissions continuing, which I know is a great interest of the universities.

It would also maintain user anonymity, not use additional bandwidth or slow down the network and not require technical staff support.

I wonder, Mr. Sherman, are you aware of technology like this? Have you looked into it? Are you interested in that sort of thing?

Mr. SHERMAN. You might be referring to SafeMedia's Clouseau product, which came to our attention yesterday. We have asked them to brief us on it, and we would certainly want to bring them before the Technology Task Force for this technology to be evaluated.

I think what this illustrates is how quickly the technologies are coming online in this area, and the opportunities to take advantage of technology are real. We just have to have an open mind to exploring the benefits of technology here rather than rejecting it outright.

Mr. GOODLATTE. Mr. Chairman, I know my time is expired. I wonder if I might ask if Mr. Vaughn would answer the same question in light of whether his association would be interested in—I am not endorsing any particular technology but when I become aware of technology that might solve your problem and the problem that the Congress is trying to address, I would like to know whether that is something you would be looking at?

Mr. VAUGHN. Absolutely. I thought what you were describing sounded a lot like Audible Magic to me, which has a lot of the properties you described. It is very expensive, and it has to be implemented across every switch. But precisely because technology is changing rapidly and we have a real interest in that, if we could identify a technology that is affordable, that can differentiate legitimate from illegitimate, that doesn't invade privacy or read content, we would jump at that.

Mr. BERMAN. The time of the gentleman has——

Mr. GOODLATTE. Thank you.

Thank you, Mr. Chairman.

Mr. BERMAN [continuing]. The time of the gentleman has expired.

The gentleman from Florida, Mr. Wexler?

Mr. WEXLER. Thank you, Mr. Chairman. I, too, want to thank you for conducting this hearing.

I was wondering if I could inquire of Mr. Vaughn. My understanding is, if I have got it right, that MySpace and YouTube are—they didn't start here but they have moved to a point where they are beginning to filter out copyright works. They didn't always conclude that was their obligation, but it seems to me, if I understand it correctly, they are moving in that direction.

And I was wondering if you could share with us whether or not universities and colleges are doing the same.

Mr. VAUGHN. Well, we don't have the same issue that—I think that would be analogous to material that would be residing on our servers, and we have an absolute obligation to make sure that we are not infringing or we would be sued in that case. So we take that part very seriously.

But with peer-to-peer technology, which is conduit traffic that doesn't directly reside on our servers, we have a different problem. We are trying to do everything we can to avoid illegal file-sharing, which is analogous to YouTube putting up some copyrighted material without permission, which is not acceptable.

Mr. WEXLER. Could you share with me in your testimony—and I apologize, I didn't hear your oral testimony—in your written testimony, you cite the 2006 campus computing survey, which indicates 80 percent of universities and colleges now have institutional policies that specifically address file-sharing.

Share with me, I am a freshman at X college, one of these 80 percent colleges, and I show up, big van and all of the packages, and I get my meal card and move into the dorm. What process occurs in these 80 percent colleges to that new freshman to make that freshman aware of these university's policies?

Mr. VAUGHN. One of your colleagues just brought up earlier the difference between having a policy and activating and enforcing a policy, and so, frankly, my guess is that the range of ways that that 80 percent deals with that policy is fairly large.

But what is increasingly happening is that when freshman get on campus, this is a central part of their orientation. They are informed about the policies. We are going to work with RIAA to try to get a broader uptake of a video that will kind of catch their attention so that they learn about the policies. An increasing number of institutions will ask them to sign an acceptable use agreement.

And I should say that our campuses have, for decades, had acceptable use policies dealing with copyrighted material, but I would say 5 years ago not very many of them had that translated specifically into peer-to-peer file-sharing. Now, what they have a copyright policy that is specific to file-sharing to make it available to students when they come in. They inform them that that is going to be enforced, and when they are detected violating that policy, the sanctions come into play.

Mr. SHERMAN. If I could just add to this. When we did our orientation video, we did surveys pre and post in order to see the effectiveness of the video, and what we found was that although many of the universities had these policies, students simply weren't aware of them. The video helped reinforce the notion that this is against campus policy and they could lose Internet access if they engaged in illegal activity. So the policies may be there, but people just don't know about them.

Mr. WEXLER. Would you agree, Mr. Vaughn, that it appears students, by and large, are not aware of the policies?

Mr. VAUGHN. Well, I think that has been the case, and that is what is changing, and we want to take actions to make it change further. That is why we want to identify these best practices. At a large university, with a lot going on and students coming in for the first time, there is a lot going on, but institutions have figured out how to get this message across, and we want to spread their message across the higher education community.

Mr. WEXLER. Thank you.

Mr. BERMAN. The time of the gentleman has expired.

The gentleman from Florida—the other gentleman from Florida.

Mr. KELLER. Thank you, Mr. Chairman.

I approach this issue with a somewhat unique perspective. I care very much about intellectual property rights, having been on this Committee for now 7 years and representing major intellectual property interests like Disney and Universal, frankly, and also am very close with the universities. I was, until recently, the Chair-

man of the Higher Education Committee and am now the Ranking Member.

And so last year I was able to successfully include some language into the Higher Education Act, H.R. 609, which set aside grant money that universities could apply for that would help them in purchasing these sorts of technologies and to make an effort.

In the interest of straight talk, I think that as we move forward, and caring very much about both groups, I would say, Mr. Vaughn, I would tell the folks you represent that I see a sea change coming a little bit. I think any university that throws away infringement notices or relies on the old excuses of academic freedom or privacy and doesn't have a best practices policy, is not interested in technology, I will say the hammer is coming, and it is probably going to come sometime later this Congress.

And so I want to see universities get serious about it. And I know that some are.

Let me begin with you, Mr. Marchwinski. This technology was developed at University of Florida?

Mr. MARCHWINSKI. Correct.

Mr. KELLER. Before the technology was implemented at University of Florida, what was the situation like in terms of bandwidth being used and getting notices of violations?

Mr. MARCHWINSKI. There was approximately 70 percent of the bandwidth was being consumed by peer-to-peer services, and between 50 and 80 DMCA complaints were being received per month.

Mr. KELLER. After the technology was implemented at University of Florida, what was the situation like in terms of bandwidth and notices?

Mr. MARCHWINSKI. The bandwidth dropped significantly to 20 percent of its prior measure, and since then, the DMCA complaints in the residence halls, they have received one in 4 years.

Mr. KELLER. So, virtually, to nothing.

Mr. Vaughn said that some technologies can't distinguish between legitimate and illegitimate file-sharing. Can your technology make that distinction?

Mr. MARCHWINSKI. No. That is quite the opposite approach. We actually take it at the protocol level. And the reason we do that is to preserve the privacy of the content of the packet. Any technology that tries to distinguish legitimate versus illegitimate is looking at the content.

Mr. KELLER. So you don't look at the content.

Mr. MARCHWINSKI. We do not.

Mr. KELLER. Well, if a person is legitimately downloading a song from iTunes, would you software block it?

Mr. MARCHWINSKI. No, it would not.

Mr. KELLER. Okay. If they were illegitimately downloading a song from Kazaa would your technology block it?

Mr. MARCHWINSKI. Yes, it would.

Mr. KELLER. Okay. Does your software violate student privacy?

Mr. MARCHWINSKI. We don't believe it does.

Mr. KELLER. And why is that?

Mr. MARCHWINSKI. Because of the condition of not looking at the actual contents of the packet. We do monitor based on the overall

protocol, the behavior of the network, and follow the policies that the administrators in that institution set.

Mr. KELLER. Does your cGRID software impinge on academic freedom?

Mr. MARCHWINSKI. Absolutely, not. For institutions that want to use peer-to-peer for legitimate use, it is a simple rule that we establish in our policy manager that allows them to use it for that purpose. We can break it down by logical subgroups, a particular class, a particular grade level, a particular user community and share that in the policy so that it is enabled.

Mr. KELLER. Okay.

Mr. Vaughn, I sometimes hear the defense of academic freedom. Just so we are clear on where you stand, would you agree with me that under no circumstances is the defense of academic freedom an excuse to illegally download music or movies?

Mr. VAUGHN. Absolutely, no question.

Mr. KELLER. Okay.

Back to you, Mr. Marchwinski. In terms of those situations where an institution has opted not to used your product or one of your competitors' products, what reasons do you hear for them declining?

Mr. MARCHWINSKI. The first and foremost is that they have policy but they don't know how or don't want to implement those policies. It is very similar, in the example we heard earlier, when you have a policy, even if you make people read the policy, if you don't enforce the policy, it becomes rendered useless. It is like having a highway with traffic rules that are never enforced.

Mr. KELLER. What about the money issue that we have heard so much about this hearing?

Mr. MARCHWINSKI. We have never actually talked to a person and have been declined the business because of price. We have said that we will work with the institutions, fit into their budget cycle and allow them to pay as necessary.

Mr. KELLER. Mr. Feeney started to cover some of this. I realize, as the head of this company, you probably think, and maybe have a good claim to saying, that your technology is the best out there, but give us an idea of how many people you have to compete with in this arena.

Mr. MARCHWINSKI. In the immediate arena, there is about five major competitors, and when you extend out past that, there is probably another six or eight competitors.

Mr. KELLER. Okay. Thank you.

Mr. Chairman, my time is up.

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

Mr. Schiff, 5 minutes.

Mr. SCHIFF. Thank you, Mr. Chairman. I wanted to ask about a couple issues.

I understand that in the response to the request for information on student digital piracy and efforts to undertake and to mitigate that piracy that some of the universities responded that violated student privacy concerns, others that the Copyright Act imposed little legal obligation on network operators to monitor or investigate violations of the act.

That may be true, of course that can be changed, and I am interested to get your reaction to a couple different ideas that have been percolating. One is, one way to go at this would be to narrow the safe harbor, require that best efforts or responsible efforts be undertaken to deal with those efforts, whether P2P or other, that involve the distribution of illegal content.

And you could have a narrower safe harbor by saying that sort of the state of the art is to have a technology that filters out illegal distribution, not a requirement to be the technology that your company produced or any other but imposing a requirement or narrowing the safe harbor to say if you are using a technology that is designed to address this problem, then you are in the safe harbor, and if you are not, then you still may be making a reasonable effort but you are not in the safe harbor.

I would like to get your feelings about a change along those lines.

And, second, because there is a real problem with enforcement, we don't have the resources in the Federal Government to investigate every violation, it has been suggested by some that we employ local law enforcement to be a force multiplier and that we empower local enforcement, local police to go after certain intellectual property violations and then keep the fines that would be assessed for the violations as a way of financing the enforcement.

And I would be interested to get your thoughts on both of those proposals. And I direct it to all of you.

Mr. VAUGHN. In terms of the liability limitations, I believe you are referring to the DMCA section 512 limitations, and I think it is our understanding, and I think Cary may disagree with this, but that, strictly speaking, universities are not liable for peer-to-peer file-sharing. It is conduit traffic that is not hosted on their servers.

And that virtually every one of our institutions responds to notices of claimed infringement, I don't know of any institution that doesn't, and some of them do it, I think, because they believe they are legally obligated to it, all of them do it because it is the right thing to do. So I don't see a problem there.

Our institutions, when they get notices of claimed infringement, they respond and take appropriate action, and if there is some need to reexamine—I am troubled about the notion of a technology requirement to avoid narrowing the safe harbor for two reasons: Technology changes so fast, and I doubt if we will ever have a technology that everybody agrees works.

So maybe we would adopt a technology. I assume that this procedure would apply to commercial ISPs as well as universities, and I, frankly, don't know how they respond to claimed infringement notices. I suspect they operate but Cary may know. We do it, though, as a matter of proper policy, not because we think we are obliged to.

Mr. SCHIFF. One analogy, and I don't know how accurate it is, we have do not call lists, and there is an obligation to check the do not call list to make sure if you are a telemarketer you are not calling people who have signed up for that.

If the content producers either put their digital protection watermarks or I know there is a way of identifying content, a frame in a film or a sequence of images in a film, and you could draw on that body or a filter made use of that information to decide what

was sought to be protected, that would, seems to me, be a pretty viable way of doing this.

Now, again, I am not suggesting we mandate any particular technology or even mandate technology, but there might be a presumption that if you are using these technologies, that you are taking, sort of, the state-of-the-art precautions.

Mr. VAUGHN. Well, Greg Marchwinski mentioned earlier that there apparently now are new encryption techniques for the infringers that override watermarks and defeat some of those technologies. There are technologies that are filtering that are quite effective at identifying specific copyrighted material that those owners don't want to be distributed on peer-to-peer networks, but they are very expensive.

So this is all changing and trying to figure out how to get technologies that can adapt to the college environment, that can be affordable, is what this new group we are putting together is all about. But we will probably have to put together a new group in 2 years, because it will change that fast.

Mr. BERMAN. Mr. Vaughn, let me cut you off, only because I think we should hear a response to Mr. Schiff's question from the other two witnesses. Time has expired. I am curious about your view of Mr. Vaughn's theory of DMCA.

Mr. SHERMAN. The first point is that Mr. Marchwinski's technology would actually deal with encrypted files. It works even when the files are encrypted, which shows how far technology has come. And I think the other problem—I agree with John that most universities are very responsive to DMCA notices.

The problem is, it is a reactive system. It is only when we find the problem that they will do something about it, when in fact it is their network and they have the ability to see what is going on on that network, especially on the local network where people are using the network every day to infringe dorm to dorm rather than over the public Internet.

They have the ability to do something about it. Technology would enable them to do it in a relatively automated way. That would be a much, much better solution than putting the burden on copyright owners all over the world to monitor every network at every university to try and root out infringement.

Mr. VAUGHN. Just to follow up on the last point about police enforcing the laws, again, back to my prior analogy, if you have laws on the books and they aren't enforced, there are going to be infringers, and if you are completely reactionary to being warned, then the laws aren't going to be as effective as they need to be.

But the best analogy is imagine a traffic intersection where there is a camera now monitoring for people that go through red lights. If you were actually caught every time you went through a red light, independent of the time or day, 6 a.m. on a Sunday morning you are going somewhere. "Oh, there is no traffic around, I can go through it." Well, if those laws are being enforced, the behavior will change.

Mr. BERMAN. The time of the gentleman is expired.

We, of course, don't accept that there is a harm-free crossing of a red light in this area, but your point, otherwise, is good.

I yield myself a few minutes just basically to ask one rambling, convoluted question.

There has been reference to the university task force on requirements for filtering networks.

Mr. Vaughn, this really is to you and any response from Mr. Sherman as well, because you are both on the Joint Committee on Accreditation.

You had that in November, it hasn't met, it hasn't set up a process yet, but you have talked, and you have mentioned here you are going to come up in the spring with a series of recommendations.

I hear that but then I hear you talking about, well, you can never get everyone to agree on a technology. I thought the purpose of this was to sort of agree on a technology, a series of technologies, a menu of technologies that were effective, that were collaboratively agreed to by the universities and by the copyright-owning institutions and their associations.

And I would like you to respond, do you expect that to happen, and if that happens, what will you do to implement it? I mean, I see some very nice letters from earlier decisions by the joint committee that say, "We have come to a nice agreement here. Take a look at this and see if you"—in other words, it didn't have a hammer, not that anyone should be called a hammer, but it didn't have a hammer.

And is there going to be some effort by this task force to implement these recommendations and to push the universities on this in some way that would give us confidence that this process you have created will work through?

Mr. VAUGHN. I think that the way this is going to work is that we are going to get university experts that know these networks, know how they work, know our policies and just sit down with commercial technology vendors.

We will work with RIAA and MPAA and other entertainment and expert folks so that we all three parties working on this problem. Because one of the things we have discovered is some of the technologies that have been designed for other sectors are sort of force fed and don't fit well into ours.

So what we want to do is explain to commercial vendors what our needs are and try to give them the information they can use to design more effective products. If we can create technologies that accomplish this, we will make every effort—we can't command institutions to use these, but if there are affordable, effective technologies that fit our policies, and our timeline is about a 120-day process for this group, you can be assured we will do everything to promote that and to encourage its implementation.

What I meant about never agreeing, there will be a technology arms race, so let's say that in June——

Mr. BERMAN. Oh, I don't think——

Mr. VAUGHN [continuing]. Then 2 years from now we will need to do it again.

Mr. BERMAN. Yes, but that is not a reason not to do it now.

Mr. VAUGHN. Absolutely. No, I agree.

Mr. BERMAN. Mr. Sherman, do you want to add anything on this?

Mr. SHERMAN. I think John has actually described the mandate to the Technology Task Force. We have found that people were de-

veloping products without input from the university CIOs about what their needs are, so we need for them to be communicating.

But more than anything else, we need universities to be basically telling the private sector that they would welcome the use of effective technologies, so go out and make them, invest in them, have more companies get into this field.

Because there won't be a supply unless there is a demand, and we need the universities to basically say, "We think technology solutions can be a very helpful element of addressing this problem and we would like to see those technologies and work with you to help implement them."

Mr. BERMAN. Very good. If there is nothing else, I——

Mr. SHERMAN OF CALIFORNIA. Mr. Chairman, you asked earlier whether Mr. Sherman had anything to add.

Mr. BERMAN. Yes. I will use first names from now on.

The gentleman from California has not had a chance to question yet, and he is recognized for 5 minutes.

Mr. SHERMAN OF CALIFORNIA. Why, thank you, Mr. Chairman.

Both the other Mr. Sherman and Mr. Davis have both used the phrase, "teachable moment," and I would like to ask what role education can play in ending piracy, both proactively and reactively. Students already know, or probably know, that it is not legal to download a whole movie that is in the theaters, but they are doing it anyway. And it would seem that that could be counteracted by ethics education.

Of course, you might also need technical legal education on what copyright law is, because students may not even know—I think Mr. Davis pointed this out—that it is illegal to download last week's episode of The Office over a peer-to-peer network, because it seems analogous to just using a VCR or TiVo.

Both educational institutions and entertainment companies are pretty much the two leading educational institutions of this society. Both have an opportunity to educate those who would violate copyright law.

Are there plans by the AAU or by the entertainment industry to educate students, either on what they are allowed to do legally and what is illegal or on the ethical importance of following the law?

Mr. VAUGHN. There are several reasons that I mentioned in my written testimony for universities caring about attacking illegal peer-to-peer file-sharing. Probably, I think, the most fundamental one is our central obligation, as part of the overall education of these students, to produce students that are good citizens that understand legal, ethical, moral behavior. When we fail to do that, we have failed at part of our mission.

So trying to attack this in that teachable moment that Jim Davis mentioned is one of the most fundamental parts of this and, ultimately, one of the most effective.

On a 50,000-student campus, that may be difficult to implement, but UCLA is a pretty big campus, and they seem to be doing it pretty effectively. We need to marry that with some more immediate techniques, like enforcement, like technology, but I think trying to incorporate that is a very important part of this whole effort.

Some institutions do it better than others, and when you have a busy institution with everybody doing a million different things,

when you can identify a set of practices for teaching students, freshman when they come in, violators when they are caught, in effective ways and you spread that across the campuses, you can really help disseminate effective practices effectively, and that is part of what we hope to do.

Mr. SHERMAN OF CALIFORNIA. I hope that you would educate students not just that, "it is illegal so it is wrong." I mean, the reason you don't go through that red light is because if 100 people do it, even at 6 in the morning, we are going to see one of them in an accident.

What I haven't seen adequately explained to students is not just how the entertainment industry would be hurt if everything gets copies and pirated, but how our culture would be hurt. We all like seeing the movies, and if there is no way to pay for them, they may still make them, but then they will design them to get a couple hundred million bucks' worth of product placement, and you can just imagine how boring and contrived the plots will be if you have to write the movie not to garner the biggest box office, because there is no box office, but to garner the biggest product placement fees. And I would hope then that your education would be both in terms of people who make content deserve to be paid but what happens when they are not paid.

But I would like to turn to Cary and ask, what is the entertainment industry—and I realize you don't speak for the entire industry—doing to educate the public as to what copyright law requires, what it allows, what it doesn't, and why it is unethical, illegal and ultimately harmful to violate that law?

Mr. SHERMAN. We have launched a series of educational initiatives, starting with grades 3 through 6, 6 through 8, 9 through 12 and universities, and they all have different educational messages, because different messages resonate with different ages. When you are young, whether it is right or wrong or legal or illegal makes a big difference. When you are in college, it makes very little difference. So you need a very different message.

And, in fact, that is why the lawsuits have been so effective, because college students are much more focused on how something will impact them, rather than how it will impact somebody else.

But I think that we are trying to come up with messages that will make a difference. The orientation video that we created for college students was intended to tell them what they have got at stake in the issue. The fact that there may be fewer movies or less music has not resonated as a message.

But I think this is also part of a larger issue. It is not just copyright. It is that I don't see any program anywhere, whether we are talking about high schools or universities, where how you live in a cyberworld is taught. It is a totally new ethical situation, and there is nobody taking responsibility for how we are going to do that. We need that curriculum.

Mr. SHERMAN OF CALIFORNIA. Thank you.

Mr. BERMAN. The time of the gentleman has expired.

I thank all my colleagues for their great participation.

It is the Chairman's intent in half a year or so, assuming the Congress is still in session, and I have very little doubt that we will be, to find out how many of the association members have adopted

the recommendations of the committees that you have all put together to develop the technological recommendations to implement a more effective policing of these networks.

And I thank you all very much for participating and adjourn the hearing.

[Whereupon, at 4:50 p.m., the Subcommittee was adjourned.]

APPENDIX

MATERIAL SUBMITTED FOR THE HEARING RECORD

PREPARED STATEMENT OF THE HONORABLE STEPHEN I. COHEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TENNESSEE, AND MEMBER, SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY

The piracy of copyrighted works is of serious concern to me. Piracy of copyrighted works costs the U.S. economy billions of dollars every year and adversely affects creative industries that are responsible for providing millions of jobs for Americans. Digital piracy by students using university networks is a large part of this problem and has been for quite some time, as most of our witnesses appear to acknowledge in their written testimony. I am eager to discuss what the current status of this problem is, what steps have been taken by universities to combat student piracy since the last time the Subcommittee visited this issue, and what additional steps they intend to take in the future.

PREPARED STATEMENT OF THE HONORABLE SHEILA JACKSON LEE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS, AND MEMBER, SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY

Thank you, Mr. Chairman for holding this hearing today. Let me also thank the Ranking Member. I would also like to welcome and thank our distinguished panel of witnesses who have joined us here today to discuss piracy on university networks:

- Mr. Cary H. Sherman, (RIAA) Recording Industry Association of America, Washington, D.C.;
- Mr. John C. Vaughn, Executive Vice President, Association of American Universities, Washington, D.C.;
- Mr. Gregory J. Marchwinski, President and Chief Executive Officer, Red Lambda, Longwood, Florida; and
- Mr. Jim Davis, Associate Vice Chancellor for Information Technology, (UCLA), University of California, Los Angeles, CA.

The purpose of today's hearing is to inform and update the Members of this Subcommittee on the status of ongoing efforts, which have been undertaken by copyright owners, universities, and higher education associations to educate students and prevent the illegal distribution of copyrighted content over university networks.

THE HISTORY OF ILLEGAL DOWNLOADING OF COPYRIGHTED MUSIC

Illegal downloading has been well documented and was brought to the forefront of the intellectual property arena when the entertainment industry undertook extensive efforts to prevent Napster from providing a means for its users to illegally download and disseminate music. On the Napster system, users could not only play the music back after downloading it but also record it to a compact disk by using a CD writer.

Napster also allowed music to be played from their server and maintained user forums. This access to free music quickly became popular on college campuses. Some schools have banned the application because of its high bandwidth demands.

Mr. Chairman, in 1999, Napster began facing challenges from the Recording Industry Association of America (RIAA), which filed a lawsuit claiming copyright infringement as well as from some recording artists such as the rock band *Metallica*. In 2000, colleges and universities began banning Napster because overuse was overwhelming their computers systems. On July 26, 2000, the U.S. District Judge

Marilyn Hall Patel issued a preliminary injunction to Napster ordering them to shut down their website.

Although an appeals court granted Napster's request for to stay its order, three days later, on February 15, 2001, the United States Court of Appeals for Ninth Circuit affirmed the order holding Napster liable for all illegal downloads made by users of their software. The court ordered the company to block trading of copyrighted files. Napster, the court said, can be held liable damages, which could exceed hundreds of millions of dollars.

After offering a $1 billion settlement to the industry, and shortly thereafter being ordered by Judge Patel to prevent users from trading unauthorized files within 3 business days of receiving notice from the copyright owner, Napster filed for Chapter 11 bankruptcy in June of 2002.

On July 25, 2002, nineteen members of Congress signed a bipartisan letter to Attorney General John Ashcroft and the U.S. Department of Justice to prosecute "peer-to-peer" networks and the users who swap copyrightable files without permission and to devote more resources to police the downloading of online copyrighted material. In August, 2002, the RIAA publicized a survey by Peter D. Hart Research, which found that—by a more than a two-to-one margin—music consumers who say they download music for free off the Internet also say they purchase less music from retailers. On September 3, 2002—Napster ceased operations after Judge Peter J. Walsh of the Federal Bankruptcy Court in Delaware blocked the sale of the company.

Mr. Chairman, though Napster no longer exists, it has given rise to other Web-based applications for downloading MP3 files, such as Gnutella, Napigator, and Wrapster. In addition to Napster, Macintosh gurus can download Macster and open source adherents can use GNapster.

On September 26, 2002, an unprecedented alliance of musicians, songwriters, music organizations, and record companies—dubbed the MUSIC Coalition—launches an aggressive education campaign aimed at combating the illegal distribution of copyrighted music over the Internet. On October 10, 2002, in a letter to more than 2,300 college and university presidents, members of the creative content industries—including the RIAA, the Motion Picture Association of America, the Songwriters Guild of America and the National Music Publishers Association—explained how serious the problem of peer-to-peer piracy is on America's campuses and what school officials can do to help solve it.

In December 2002, the entertainment industry and higher education community joined to create the Joint Committee of the Higher Education and Entertainment Communities to address the increasing use of university servers for copyright infringement on peer-to-peer networks.

Mr. Chairman, this Subcommittee today will again consider the testimony of witnesses regarding the subject of student piracy of copyrighted content, as it did in the 108th and 109th Congress. I look forward to the testimony of our witnesses and hope that today we will learn that there has been a concerted effort by all parties involved to reach common ground and a shared understanding of the importance and value of protecting copyrighted materials by preventing its illegal distribution.

Thank you, Mr. Chairman. I yield back the remainder of my time.

ATTACHMENT

YAHOO! NEWS

Back to Story - Help

AP: Music companies targeting colleges

AP Associated Press

By TED BRIDIS, Associated Press Writer
Wed Feb 21, 3:38 AM ET

Cracking down on college students, the music industry is sending thousands more complaints to top universities this school year than it did last year as it targets music illegally downloaded over campus computer networks.

A few schools, including Ohio and Purdue universities, already have received more than 1,000 complaints accusing individual students since last fall — significant increases over the past school year. For students who are caught, punishments vary from e-mail warnings to semester-long suspensions from classes.

The trade group for the largest music labels, the Recording Industry Association of America, identified at the request of The Associated Press the 25 universities that received the most copyright complaints it sent so far this school year. The trade group long has pressured schools to act more aggressively against online pirates on campus.

"It's something we feel we have to do," RIAA President Carey Sherman said. "We have to let people know that if they engage in this activity, they are not anonymous."

The top five schools are Ohio, Purdue, the University of Nebraska-Lincoln, University of Tennessee and the University of South Carolina. The RIAA complained about almost 15,000 students at those 25 universities, nearly triple the number for the previous school year.

"They're trying to make a statement," said Randall Hall, who polices computers at Michigan State University, seventh on the list with 753 complaints. Michigan State received 432 such complaints in December alone, when students only attended classes for half the month.

Hall meets personally with students caught twice and forces them to watch an eight-minute anti-piracy DVD produced by the RIAA. A third-time offender can be suspended for a semester.

"I get the whole spectrum of excuses," Hall said. "The most common answer I get is, 'All my friends are doing this. Why did I get caught?'"

At the University of Massachusetts at Amherst — which received 897 complaints — first- and second-time offenders receive escalating warnings about piracy. After a third complaint, the school unplugs a student's Internet connection and sends the case to a dean for additional punishment.

The music group said each university should set its own penalties for stealing songs and said campuses are rife with such thefts. "When we look at the problem, it's particularly acute in the college context," RIAA chief executive Mitch Bainwol said.

The music group said popular software programs it has targeted at schools include AresWarez, BitTorrent, eDonkey and other programs that operate on the Gnutella and FastTrack services.

Under federal law, universities that receive complaints about students illegally distributing copyrighted songs generally must act to stop repeat offenders or else the schools can be sued. The entertainment industry typically can identify a student only by his or her numerical Internet address and must rely on the school to correlate that information to trace a person's real-world identity.

Some schools aggressively warn students after they receive complaints. Others don't. Purdue, which has received 1,068 complaints so far this year but only 37 in 2006, said it rarely even notifies students accused by the RIAA because it's too much trouble to track down alleged offenders. Purdue said its students aren't repeat offenders.

"In a sense, the (complaint) letter is asking us to pursue an investigation and as the service provider we don't see that as our role," spokesman Steve Tally said. "We are a leading technology school with thousands and thousands of curious and talented technology students."

—

On the Net:

Recording Industry Association of America: http://www.riaa.com

YAHOO! NEWS

Back to Story - Help

Music industry group targets students

AP Associated Press

By ALEX VEIGA, AP Business Writer

21 minutes ago

The recording industry trade group will give hundreds of college students suspected of illegally sharing music online a chance to reach settlements before being sued for copyright infringement.

The move announced Wednesday comes as the industry seeks to stamp out what it is says is rampant music piracy on campuses.

The Recording Industry Association of America said it was sending letters offering discounted settlements to 400 computer users at 13 universities.

The group intends to send hundreds of such pre-litigation letters to university computer users every month.

"The theft of music remains unacceptably high and undermines the industry's ability to invest in new music," said Mitch Bainwol, chairman and CEO of the association.

"This is especially the case on college campuses," he said.

The letters targeted students at Arizona State University; Marshall University; North Carolina State University; North Dakota State University; Northern Illinois University; Ohio University; Syracuse University; University of Massachusetts, Amherst; University of Nebraska, Lincoln; University of South Florida; University of Southern California; University of Tennessee, Knoxville; and University of Texas, Austin.

As part of its ongoing copyright crackdown, the association has already sued about 18,000 computer users nationwide since September 2003. The figure includes about 1,000 university students.

The suits were initially filed against "John Doe" defendants, based on their Internet addresses. Many are accused of downloading music over university Internet services.

After filing a lawsuit, recording industry lawyers work through the courts to learn the name of the defendant.

The latest letters offer users a chance to settle for "substantially less," association President Cary Sherman said. He declined to provide specifics.

The association has sent three times more copyright complaints to universities this academic year than it did last year. The complaints ask the schools to take down unauthorized content being shared on their network.

PREPARED STATEMENT OF THE HONORABLE LAMAR SMITH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS, RANKING MEMBER, COMMITTEE ON THE JUDICIARY, AND MEMBER, SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY

Mr. Chairman, I thank you and the ranking member for selecting student digital piracy on university networks as the topic of the first copyright hearing this Congress.

This is not a new subject. While I was the subcommittee chairman and you were the ranking member, we held several hearings on this matter.

At the initial hearing, I noted that "[t]his hearing will focus on the extent of peer-to-peer piracy on university campuses and what measures content owners and universities are taking to address the problem."

You noted then that, "P2P file trafficking causes great harm to copyright owners," and that "colleges play a prominent role in contributing to P2P piracy."

The extent of that harm has increased exponentially over the intervening years.

This Subcommittee and Congress have been patient in working with university administrators and representatives from education associations to implement *voluntary* solutions to the student digital piracy problem.

Unfortunately, the testimony before the Subcommittee today and published reports indicate that some in the university community have sought to minimize the importance of addressing this issue in an effective manner.

In fact, they have gone so far as to publicly discourage college and university officials from providing responses to a voluntary survey that the Government Accountability Office (GAO) prepared at your and my request in the last Congress.

Although the problem of peer-to-peer piracy is not confined solely to colleges and universities, the fact is that 44% of the domestic piracy losses suffered by the U.S. motion picture industry—more than half a billion dollars each year—are directly related to student digital piracy by college students.

Many university administrators have accepted their responsibility to do more to curb the theft of intellectual property via university networks, which—after all—are geographically limited and have access controlled by university technology officers.

But it is clear other education officials continue to resist the adoption of new technologies and enforcement policies that would likely prove much more effective at restricting or eliminating such theft.

I commend those university officials who have made an effort to fulfill their obligations.

To those who have not, I will simply note the Members of this subcommittee have an affirmative responsibility under Article I, Section 8 of the Constitution, to "promote the progress of science and useful arts by securing for limited times to authors and inventors the *exclusive* right to their respective writings and discoveries."

At the conclusion of this fourth hearing on the subject of student digital piracy, this Subcommittee will have built an extensive record that could be used to justify the drafting of additional legislation to remedy the problem.

In closing, I want to thank the new Chairman and Ranking Member of the Subcommittee for their recognition of the importance of this issue.

Mr. Chairman, I yield back the balance of my time.

GAO STUDY OF COLLEGES SUBMITTED BY THE HONORABLE HOWARD L. BERMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA, AND CHAIRMAN, SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY

GAO
Accountability * Integrity * Reliability

Enclosure II—Colleges and Universities that Did Not Complete the Survey

Austin Peay State University	Indiana University—Bloomington
Ball State University	Indiana University—Purdue University (Fort Wayne)
Barry University	Montclair State University
Baylor University	Northern Michigan University
Bloomsburg University of Pennsylvania	Northwestern State University of Louisiana
California State University—Sacramento	Ohio State University—Main Campus
California State University—East Bay	Oklahoma State University—Main Campus
Case Western Reserve University	Radford University
Central Connecticut State University	Regis University
Drexel University	Saint Cloud State University
Eastern Washington University	Slippery Rock University of Pennsylvania
Florida International University	Sonoma State University
Georgia Southern University	
Hofstra University	

41

Enclosure II—Colleges and Universities that Did Not Complete the Survey

South Dakota State University
Southeast Missouri State University
Southeastern Louisiana University
Southern Illinois University—Carbondale
Southern University and A&M College
Southwest Missouri State University
St. John's University—New York
State University of West Georgia
State University of New York at Stony Brook
State University of New York at Brockport
State University of New York at Oswego
Tarleton State University
University of Denver
University of Hawaii at Manoa
University of Iowa
University of Minnesota-Duluth
University of Nevada—Las Vegas
University of Northern Colorado
University of Oklahoma Norman Campus
University of Southern Maine
University of Toledo
University of Wisconsin—Madison
University of Wisconsin—Stevens Point
Valdosta State University
Washington University in St. Louis
William Patterson University

Total number of institutions—52

DEAR COLLEAGUE LETTER, CURBING STUDENT DIGITAL PIRACY ON COLLEGE COMPUTER NETWORKS

JOHN CONYERS, JR., Michigan
CHAIRMAN

LAMAR S. SMITH, Texas
RANKING MINORITY MEMBER

U.S. House of Representatives
Committee on the Judiciary
Washington, DC 20515–6216
One Hundred Tenth Congress

CURBING STUDENT DIGITAL PIRACY ON COLLEGE COMPUTER NETWORKS

March 6, 2007

Dear IP Subcommittee Member,

Serious consequences result from the theft of intellectual property. The ubiquity of the Internet, the development of high-speed data networks, and the anonymity some computer users associate with their individual use of networked computers has led to a proliferation of technologies designed to facilitate digital piracy.[1]

The costs of this theft are enormous. The international consulting firm, LEK, recently estimated that in 2005, 44% of the film industry's domestic losses, over half a billion dollars, were attributable to college students.[2]

Since 2003, the Subcommittee has conducted three oversight hearings on student digital piracy involving university networks. Together, we have sought to publicly encourage college and university officials to take effective steps to respect the property of others.

To their credit, many officials responded positively and there have been some notable success stories. Unfortunately, as the attached stories demonstrate, there is still much more work that needs to be done.

We urge you to read these articles and join us in redoubling our efforts this Congress to encourage all college and university officials to take seriously their obligations to protect the interests of their students and to respect the legitimate interests of intellectual property owners.

---

[1] The MPAA defines digital piracy as "the distribution of unauthorized copies of intellectual property such as movies, television, music, games and software programs via the Internet ... file sharing networks, pirate servers, websites and hacked computers.

[2] The complete study is available at http://www.mpaa.org/2006_05_03leksumm.pdf

The first step towards achieving this goal in the 110th Congress will be a Subcommittee hearing entitled, *"An Update - Piracy on University Networks."* to be held on Thursday, March 8, 2007 at 2 pm in 2141 Rayburn. We hope your schedule will enable you to attend and be a full participant in this important hearing.

Sincerely,

John Conyers
Chairman
Judiciary Committee

Lamar Smith
Ranking Member
Judiciary Committee

Howard L. Berman
Chairman
Subcommittee on Courts, the Internet
and Intellectual Property

Howard Coble
Ranking Member
Subcommittee on Courts, the Internet
and Intellectual Property

TOP SCHOOLS RECEIVING THE HIGHEST VOLUME OF DMCA COPYRIGHT INFRINGEMENT NOTICES FROM THE RIAA BEGINNING IN SEPTEMBER 2006 THROUGH MID-FEBRUARY 2007

The top 25 schools receiving the highest volume of DMCA copyright infringement notices from the RIAA beginning in September 2006 - through mid February 2007

	State	2005-2006 Notices (FULL YEAR)	2006-2007 Notices (TO DATE)
Ohio University	OH	232	1287
Purdue University	IN	37	1068
Nebraska-Lincoln, University of	NE	421	1002
Tennessee - Knoxville, University of	TN	153	959
South Carolina, University of	SC	264	914
Massachusetts at Amherst, University of	MA	365	897
Michigan State University	MI	418	753
Howard University	DC	604	572
North Carolina State University	NC	242	550
Wisconsin - Madison, University of	WI	125	513
South Florida, University of	FL	276	490
Syracuse University	NY	181	488
Northern Illinois University	IL	3	487
Wisconsin - Eau Claire, University of	WI	199	473
Boston University	MA	164	470
Northern Michigan University	MI	146	457
Kent State University	OH	112	424
Michigan - Ann Arbor, University of	MI	93	400
Texas at Austin, University of	TX	113	371
North Dakota State University	ND	204	360
Indiana University	IN	160	353
Western Kentucky University	KY	128	353
Seton Hall University	NJ	5	338
Arizona State University	AZ	177	336
Marshall University	WV	154	331
TOTAL		**4,916**	**14,646**

ADDITIONAL MATERIAL SUBMITTED BY JOHN C. VAUGHN, EXECUTIVE VICE PRESIDENT, ASSOCIATION OF AMERICAN UNIVERSITIES, WASHINGTON, DC

HIGHER EDUCATION ACTIONS TO ADDRESS ILLEGAL CAMPUS PEER-TO-PEER FILE SHARING

History and Past Activities

- Formation of the Joint Committee of the Higher Education and Entertainment Communities: The higher education community joined with the entertainment industry to form the Joint Committee, operating through the support and guidance of the American Council on Education (ACE), the Association of American Universities (AAU), EDUCAUSE, the Recording Industry Association of America (RIAA), and the Motion Picture Association of America (MPAA)
  December, 2002

- Work of higher education through the Joint Committee

  - Distribution to colleges and universities of Background Discussion of Copyright Law and Potential Liability for Students Engaged in P2P File Sharing on University Networks
    August, 2003

  - Joint Committee-sponsored meeting of higher education and entertainment association officials, representatives of entertainment companies and online digital delivery services to discuss how these sectors can collaborate to reduce illegal and promote legal P2P
    June, 2003

  - Report to colleges and universities of results of Request for Information on technologies that may assist in reducing unauthorized P2P file sharing *October, 2003*

  - Report to colleges and universities on legitimate online digital content delivery services that might be engaged as alternatives to unauthorized P2P file sharing programs
    December, 2003

  - Distribution of University Policies and Practices Addressing Improper Peer-to-Peer File Sharing *April, 2004*

  - Collaboration with RIAA to produce and distribute a video on P2P intended for college freshmen orientation *spring - summer, 2006*

  - Meeting of university, entertainment industry, and technology vendor officials to examine network technologies to reduce illegal P2P file sharing *October, 2006*

  - Distribution of updated paper on legal aspects of campus P2P, Background Discussion of Copyright Law and Potential Liability for Students Engaged in P2P File Sharing on University Networks *November, 2006*

  - Joint Committee meeting to assess past work, current challenges, and future steps
    November, 2006

- Numerous presentations at higher education association meetings, written communications to colleges and universities, about illegal campus P2P file sharing and reference to resources to address the problem *Ongoing*

March 7, 2007

Current and Projected Activities

- Formed new Technology Task Force to work with commercial vendors to facilitate development of effective technologies to reduce campus P2P
- Formed campus officials group to work with RIAA to revise video for freshman orientation and promote broad adoption by campuses
- Letter from ACE President David Ward to college and university presidents and chancellors transmitting an RIAA letter announcing a new round of lawsuits accompanied by a "pre-notice plan" that allows settlement of claims before filing of a lawsuit
- Conduct survey of colleges and universities to identify effective policies and practices for reducing illegal P2P file sharing, develop updated best practices recommendations for distribution to colleges and universities
- Continue to discuss P2P activities and share information through national meetings and written communications

March 7, 2007

LETTER FROM DAN GLICKMAN, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, MOTION PICTURE ASSOCIATION OF AMERICA, WASHINGTON, DC

MOTION PICTURE ASSOCIATION
OF AMERICA, INC.
1600 EYE STREET NORTHWEST
WASHINGTON, D.C. 20006
(202) 293-1966
FAX: (202) 452-9828

DAN GLICKMAN
CHAIRMAN
AND
CHIEF EXECUTIVE OFFICER

Thursday, March 08, 2007

The Honorable Howard Berman
Chairman of the Subcommittee on Courts,
The Internet and Intellectual Property
United States House of Representatives
2221 Rayburn House Office Building
Washington, DC 20515-0528

The Honorable Howard Coble
Ranking Member of the Subcommittee on Courts,
The Internet and Intellectual Property
United States House of Representatives
2468 Rayburn House Office Building
Washington, DC 20515-3306

Dear Representatives Berman and Coble,

On behalf of the member companies of the Motion Picture Association of America, I thank you for holding the March 8th hearing on campus piracy. It is gratifying to see this Subcommittee continue its efforts to preserve and protect America's copyright industries. With 44% of the film industry's domestic losses, some $500 million each year, attributable to college students, it is critical that measures be taken to reduce this unacceptable level of damage to this key contributor to the U.S. economy. The livelihoods of more than one million men and women in America are impacted by the film and television industry, which entertains millions of consumers every day. And perhaps of even greater concern, a generation who will one day be in charge of running our country is learning that theft is acceptable behavior.

Since this subcommittee last met on this subject, the MPAA and its member companies have been hard at work providing new venues of obtaining movies legitimately online. We are embracing the speed and convenience of online delivery and I believe the future is bright, not only for the studios I represent, but for our consumers as well. Regrettably, since that September 2005 hearing, with a few exceptions, the higher education community has failed to implement available technological measures to reduce the use of their networks to engage in the illegal act of copyright theft. The lack of meaningful response to this problem is as baffling as it is disappointing.

Indeed, I believe strong action to reduce this abuse of campus resources makes sense not only from the perspective of the copyright community but to the higher education sector and the general population as well. I say this because when legitimate commerce is sabotaged by widespread theft of intellectual property, there is a significant loss in tax revenue due to lost sales. In addition, increased costs are often associated with maintaining a network that allows illegal file-sharing. While state appropriations should of course be used to facilitate legitimate and legal activity on school computing systems, such funding should certainly not be used to enable illegal activity. As for the universities themselves, the following can add significant costs to their collective bottom lines:

- Illegal file-sharing takes up valuable network bandwidth intended for educational purposes;
- Illegal file-sharing threatens school networks and computers with malicious viruses, spyware, and other malware; and
- Handling of infringement notices from copyright holders and lawsuits brought against students can also be a costly administrative burden.

I am hopeful that this hearing will provide incentive to our friends in the higher education sector and guide its leadership to encourage its members take a series of recommended actions that can greatly reduce campus network abuse. These include: (i) installation of network filters and other technological measures, (ii) adoption of legitimate online services, (iii) strong on-campus educational programs on this issue, and (iv) strong enforcement of university policy.

Right now, there are available in the marketplace proven technologies designed to address rampant campus piracy. Audible Magic, Red Lambda, Gracenote, Philips,

Advestigo, and other companies have developed technologies to filter or block illegal distribution of copyrighted works.

The need for action is obvious and the tools and technologies are available. To be candid, what is missing is will on the part of the higher education community to play an active role in preventing its networks from being used around the clock to break the law. Those are strong words I know, but, sadly, that is what, with a notable few exceptions, the track record shows.

Much as the U.S. film industry is the envy of the world, so too is our educational system. There is little if anything our friends in higher education cannot accomplish when the incentive is there. We have seen it with issues such as plagiarism, fire safety and binge drinking on campus. Congress should ensure that colleges have similarly strong incentives to address rampant campus piracy.

Thank you again for focusing attention on this critical issue. The stakes are very high, not just for those who have the privilege of working within our industry but to the overall economy of this great nation.

Regards,

DAN GLICKMAN

Cc: The Honorable John Conyers, Chairman, House Judiciary Committee

The Honorable Lamar Smith, Ranking Member, House Judiciary Committee

Members of the Subcommittee on Courts, the Internet and Intellectual Property

[ERRATA]

AN UPDATE: PIRACY ON UNVERSITY NETWORKS

HEARING

BEFORE THE

SUBCOMMITTEE ON COURTS, THE INTERNET, AND INTELLECTUAL PROPERTY

OF THE

COMMITTEE ON THE JUDICIARY
HOUSE OF REPRESENTATIVES

ONE HUNDRED TENTH CONGRESS

FIRST SESSION

MARCH 8, 2007

Serial No. 110–29

Printed for the use of the Committee on the Judiciary

Available via the World Wide Web: http://judiciary.house.gov

U.S. GOVERNMENT PRINTING OFFICE

33–812 PDF WASHINGTON : 2007

[ERRATA]

The referenced hearing held before the Subcommittee on Courts, the Internet, and Intellectual Property of the House Committee on the Judiciary was inadvertently printed with the incorrect title on the title page and page 1. The correct title is as follows:

AN UPDATE: PIRACY ON UNIVERSITY NETWORKS

DOCUMENT NO. 41