S. HRG. 107–221

PROMOTING TECHNOLOGY AND EDUCATION: TURBO-CHARGING THE SCHOOL BUSES ON THE INFORMATION HIGHWAY

HEARING

BEFORE THE

COMMITTEE ON THE JUDICIARY
UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

MARCH 13, 2001

Serial No. J–107–5

Printed for the use of the Committee on the Judiciary

U.S. GOVERNMENT PRINTING OFFICE

76–914 DTP WASHINGTON : 2002

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
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PROMOTING TECHNOLOGY AND EDUCATION: TURBO-CHARGING THE SCHOOL BUSES ON THE INFORMATION HIGHWAY

TUESDAY, MARCH 13, 2001

U.S. SENATE,
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The Committee met, pursuant to notice, at 10 a.m., in room SD–226, Dirksen Senate Office Building, Hon. Orrin G. Hatch, Chairman of the Committee, presiding.

Present: Senators Hatch and Leahy.

OPENING STATEMENT OF HON. ORRIN G. HATCH, A U.S. SENATOR FROM THE STATE OF UTAH

Chairman HATCH. I am pleased to welcome you all to this hearing this morning on S. 487, the Technology Education and Copyright Harmonization Act, or simply the TEACH Act, which I introduced with my distinguished colleague, Senator Leahy.

This legislation updates the education and distance learning provisions of the copyright law for the 21st century, allowing students and teachers to benefit from the deployment of advanced digital transmission technologies like the Internet in education.

Let me thank Marybeth Peters, the Register of Copyrights, and her staff in the Copyright Office for their hard work in developing this legislation, as well as the report upon which it is based.

I have a longer statement that I will have inserted in the record, but in the interest of time I will just make a few short comments.

Distance education and the use of high-technology tools such as the Internet in education hold great promise for students, especially in States like Utah and Vermont where distances can be great between students and learning opportunities. I think it is similarly important for any State that has students who seek broader learning opportunities than they can reach or obtain in their own local area.

Any education reforms moved in the Congress this year should include provisions that help deploy high-technology tools, including the Internet, to give our students the very best educational experience we can offer. By using these tools, students in remote areas of my home State of Utah are becoming able to link up to resources previously available only to those in cities or at prestigious educational institutions.

Limited access to language instructors in remote areas or particle accelerators in most high schools limit access to educational

opportunity. These limits can be overcome to a revolutionary degree by online offerings which can combine sound, video, and interactivity in exciting new ways. And new experiences that transcend what is possible in the classroom, such as hyper-texts linked directly to secondary sources, are possible only in the online world.

I am particularly pleased that we will hear from Mr. Richard Siddoway, the Principal of the Electronic High School of Utah, which links high school students all over Utah to the best educational opportunities the State can currently provide.

Promoting the use of advanced technology like the Internet can wholly transform the educational experience for many students and create broad access to learning opportunities that have been out of reach for many until now. S. 487, the TEACH Act, through modest updating of the Copyright Act, can help bring these opportunities closer to every student in our States and our Nation.

With that, I will put the rest of my statement in the record and we will turn to Senator Leahy.

[The opening statement of Chairman Hatch follows:]

OPENING STATEMENT OF HON. ORRIN HATCH, A U.S. SENATOR FROM THE STATE OF UTAH

I am pleased to welcome you all to this hearing this morning on S. 487, the "Technology Education And Copyright Harmonization Act" or simply the "TEACH Act," which I introduced with my distinguished colleague, Senator Leahy. This legislation updates the education and distance learning provisions of the copyright law for the 21" century, allowing students and teachers to benefit from deployment of advanced digital transmission technologies like the Internet in education. Let me thank Marybeth Peters, the Register of Copyrights, and her staff in the Copyright Office, for their hard work in developing this legislation, as well as the report upon which it is based. They have done admirable work in moving forward the deployment of the Internet and digital transmission systems in education while maintaining safeguards for the protection of the copyrighted works used to enhance the educational experience.

Distance education, and the use of high technology tools such as the Internet in education, hold great promise for students in states like Utah. Any education reforms moved in the Congress this year should include provisions that help deploy high technology tools, including the Internet, to give our students the very best educational experience we can offer. By using these tools, students in remote areas of my home state of Utah are now able to link up to resources previously only available to those in cities or at prestigious educational institutions. For many Utahns, this means having access to courses or being able to see virtual demonstrations of principles that until now they have now only read about. Some language students in remote areas may not have access to a French or Russian or Japanese teacher, and high school physics students do not usually have access to particle accelerators. Other students may not be able to leave their homes for health, disability, or other reasons. Using digital transmission technology, including the Internet, these students can participate in school and have access to these learning opportunities in a way that was previously impossible for them. And the promise of distance education extends far beyond the traditional student, making expanded opportunities available for working parents, senior citizens, and anyone else with a desire to learn.

True to its heritage, Utah is a pioneer among states in blazing the trail to the next century, making tomorrow's virtual classrooms a reality today. Fittingly, since it is home to one of the original six universities that pioneered the Internet, the State of Utah and the Utah System of

Higher Education, as well as a number of individual universities in the state have consistently been recognized as technology and web-education innovators. Such national recognition reflects, in part, Utah's high-tech industrial base, its learning-oriented population, and the fact that Utah was the first state with a centrally coordinated statewide system for distance learning. As the Copyright Office was preparing the report that resulted in this legislation, I was pleased to host the Register of Copyrights, who is here today, at a distance education exposition and copyright round table that took place at the nerve center of that system—the Utah Education

Network—where we saw many exciting technologies being developed and implemented in Utah, by Utahns, to make distance education a reality. At the event in Salt Lake City, Ms. Peters and I dropped in on a live on-line art history class hosted in Orem, that included high school and college students scattered from Alpine in the north to Lake Powell in the south, nearly the entire length of the state. We will hear more about these efforts today, especially what Utah is doing in distance learning for secondary school students, from the principal of the Electronic High School of Utah, Mr. Richard Siddoway. We are happy to have him here today to represent Utah.

The legislation discussed today, through updates to the copyright law, will make it easier for the teacher who connects with her students online to enhance the learning process by illustrating music appreciation principles with appropriately limited sound recordings or illustrate visual design or story-telling principles with appropriate movie clips. Or she might create wholly new experiences such as making a hypertext poem that links significant words or formal elements to commentary, similar uses in other contexts, or other sources for deeper understanding, all accessible at the click of a mouse. These wholly new interactive educational experiences, or more traditional ones now made available around the students' schedule, will be made more easily and more inexpensively by this legislation. It does this by making clear a "safe harbor" for educational uses of copyrighted works for which there need not be negotiations or licensing arrangements. Beyond the legislative safe harbor provided by this legislation, opportunities for students and lifetime learners of all kinds, in all kinds of locations, is limited only by the human imagination and the cooperative creativity of the creators and users of copyrighted works. I hope that creative licensing arrangements will be spurred to make even more exciting opportunities available to students and lifelong learners, and that incentives to create those experiences will continue to encourage innovation in education, art and entertainment online. The possibilities for everyone in the wired world are thrilling to contemplate.

STATEMENT OF HON. PATRICK J. LEAHY, A U.S. SENATOR FROM THE STATE OF VERMONT

Senator LEAHY. Thank you, Mr. Chairman, and I am very happy to be here with you as a cosponsor of the TEACH Act.

Later this morning, as I do once a week, I will be doing an online chat with a school in Vermont. Usually, it is at a grade school level. It has done two things. One, I have improved my ability to type. I type a lot faster with many fewer mistakes because if I make the mistakes, they quickly point them out.

But I become more and more encouraged when I hear some of the questions being asked by the youngsters in Vermont. I encourage the national media to just look at some of those transcripts and see some of the really good questions the kids ask and the answers they give when I ask them questions. It is encouraging. Paul LeBlanc is here, and knows first-hand about Vermont students. I have talked before about the advantage of these online chats.

When you think, Senator Hatch, of the kinds of things we have done to upgrade our copyright, patent and trademark laws, at the same time protecting the important interests of users of the creative work, so much of that has helped the vibrant economy of this Nation.

We know that education is a critical component of this information age, and if we don't have adequate information, we are not going to be able to harness the technological tools that we have. I think how wonderful it is going to a little school in what we call Grand Isle County at home. This is an archipelago of little islands in the middle of Lake Champlain, one of the most beautiful spots on Earth.

I recall being in one of the schools wearing a mike with a camera on me. All these schools are held together by a screen on the wall

and as you move around the class, the camera would automatically follow the mike. After a few minutes of it, you actually think you are talking back and forth with a student in the class, but they are separated by a bridge or a ferry boat ride away from where you are.

As part of the Digital Millennium Copyright Act, DMCA, Senator Hatch and I had asked the Copyright Office to study the complex copyright issues involved in distance education. We are fortunate that Marybeth Peters, who sometimes probably feels she lives in this Committee room because we are always calling on her for help, is here. She is the Register of Copyrights and she met with many interested people, including Vermonters, to hear their concerns on this issue. Vermonters are concerned, which is one of the reasons why Paul LeBlanc, the President of Marlboro College, is here.

In the copyright office report, which was released in May 1999—and I would urge people to read it—valuable suggestions were made on how we could make some modest changes in our copyright law and go a long way to foster the appropriate use of copyrighted works in valid distance learning activities. What Senator Hatch and I have introduced incorporates those recommendations so that you can extend face-to-face classroom instruction over the Internet.

In rural areas, it is so important. If we are going to do away with the digital divide, we have got to have these rural areas connected. I graduated in a high school class of 29. I did have an uncle of mine who told me that, coming from a small town and a small class like that, I would never amount to anything.

Chairman HATCH. Was that in 1929?

Senator LEAHY. Yes, it was, long before you were born, Mr. Chairman.

[Laughter.]

Senator LEAHY. The chairman, although he has more hair, is actually older than I am.

I did ask my uncle recently what he thought now. It speaks to his politics. He says nothing has changed his mind and he still feels I haven't amounted to anything

The Vermont Telecommunications Plan identified distance learning as being critical to Vermont's development, but that same plan could have been written in rural Utah or rural California or Texas. It is crucial for these States to be competitive. We use the Vermont Interactive Television Network, a two-way videoconferencing system in communities, schools, and businesses. I use it all the time up there, and I am proud that I helped start the system by getting funding. The people who understand it a lot better than I ever will are the ones who make it work.

The Copyright Office said that the computer is the most versatile of distance education instruments, both for the material it can display and the flexibility of it. These are things that we have to look at. The Web-Based Education Commission, headed by former Senator Bob Kerrey, said "Current copyright law governing distance education . . . was based on broadcast models of telecourses for distance education. That law was not established with the virtual classroom in mind." It said the copyright laws were inappropriately restrictive.

Now, with the Copyright Office's own conclusions and what Senator Hatch and I are trying to do, I think we can change that. We made efforts in the bill to address the valid concerns of both the copyright owners and the education and library community, and I think we can work together and have something better.

In the end, we can all benefit by this. We should ask ourselves, if we don't use all these tools in every single part of our country, because none of us know where the geniuses of tomorrow are—if we don't use all these tools, what kind of an economic world will our children and our grandchildren have? If we do use them all, look at the unbelievable things that are available, things that even a generation ago nobody could have imagined.

So thank you, Mr. Chairman, and I will put my whole statement in the record.

[The opening statement of Senator Leahy follows:]

OPENING STATEMENT OF HON. PATRICK J. LEAHY, A U.S. SENATOR FROM THE STATE OF VERMONT

An important responsibility of the Senate Judiciary Committee is fulfilling the mandate set forth in Article 1, 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." Chairman Hatch and I, and other colleagues on the Judiciary Committee, have worked together successfully over the years to update and make necessary adjustments to our copyright, patent and trademark laws to carry out this responsibility. We have strived to do so in a manner that advances the rights of intellectual property owners while protecting the important interests of users of the creative works that make our culture a vibrant force in this global economy.

Several years ago, as part of the Digital Millennium Copyright Act (DMCA), we asked the Copyright Office to perform a study of the complex copyright issues involved in distance education and to make recommendations to us for any legislative changes. In conducting that study, Marybeth Peters, the Registrar of Copyrights met informally with interested Vermonters in Burlington, Vermont, to hear their concerns on this issue. Today, I welcome Paul LeBlanc, the President of Marlboro College in Vermont, and the other witnesses, who can tell us about the needs of educators using distance education in innovative ways.

The Copyright Office released its report in May, 1999, at a hearing held in this Committee, and made valuable suggestions on how modest changes in our copyright law could go a long way to foster the appropriate use of copyrighted works in valid distance learning activities. Senator Hatch and I have introduced the TEACH Act, S. 487, that incorporates the legislative recommendations of that report. This legislation will help clarify the law and allow educators to use the same rich material in distance learning over the Internet that they are able to use in face-to-face classroom instruction.

The growth of distance learning is exploding, in part because it is responsive to the needs of older, non-traditional students. According to the Copyright Office report, the typical average distance learning student is 34 years old, employed full-time and has previous college credit. More than half are women. These are the people with busy schedules who need the flexibility that on-line programs offer: virtual classrooms accessible when the student is ready—and free to log-on. Moreover, in rural areas, distance education provides an opportunity for schools to offer courses that their students might otherwise not be able enjoy. In increasing numbers, students in other countries are benefitting from educational opportunities here through U.S. distance education programs.

In Vermont and many other rural states, distance learning is a critical component of any quality educational and economic development system. In fact, the most recent *Vermont Telecommunications Plan*, which was published in 1999 and is updated at regular intervals, identifies distance learning as being critical to Vermont's development. It also recommends that Vermont consider "using its purchasing power to accelerate the introduction of new [distance learning] services in Vermont." Technology has empowered individuals in the most remote communities to have access to the knowledge and skills necessary to improve their education and ensure they are competitive for jobs in the 21st Century.

Several years ago, I was proud to work with our state in establishing the Vermont Interactive Television network. This constant two-way video-conferencing system can reach communities, schools and businesses in every corner of the state. Since we first successfully secured funds to build the backbone of the system, Vermont has constructed fourteen sites. The VIT system is currently running at full capacity and has demonstrated that in Vermont, we value technology highways just as we value our transportation highways.

No one single technology should be the platform for distance learning. In Vermont, creative uses of available resources have put in place a distance learning system that employs T–1 lines in some areas and traditional internet modem hook-ups in others. Several years ago, the Grand Isle Supervisory Union received a grant from the U.S. Department of Agriculture to link all the schools within the district with fiber optic cable. There are not a lot of students in this Supervisory Union but there is a lot of land separating one school from another. The bandwidth created by the fiber optic cables has not only improved the educational opportunities in the four Grand Isle towns, but it has also provided a vital economic boost to the area's businesses.

While there are wonderful examples of the use of distance learning inside Vermont, the opportunities provided by these technologies are not limited to the borders of one state, or even one country. Champlain College, a small school in Burlington, Vermont, has shown this is true when it adopted a strategic plan to provide distance learning for students throughout the world and now has more students enrolled than any other college in Vermont. The campus in Vermont has not been overwhelmed with the increase. Instead, Champlain now teaches a large number of students overseas through its on-line curriculum. Similarly, Marlboro College in Marlboro, Vermont, offers innovative graduate programs designed for working professionals with classes that meet not only in person but also online.

The Internet, with its interactive, multi-media capabilities, has been a significant development for distance learning. By contrast to the traditional, passive approach of distance learning where a student located remotely from a classroom was able to watch a lecture being broadcast at a fixed time over the air, distance learners today can participate in real-time class discussions, or in simultaneous multimedia projects. The Copyright Office report confirms what I have assumed for some time—that "the computer is the most versatile of distance education instruments," not just in terms of flexible schedules, but also in terms of the material available.

More than 20 years ago, the Congress recognized the potential of broadcast and cable technology to supplement classroom teaching, and to bring the classroom to those who, because of their disabilities or other special circumstances, are unable to attend classes. At the same time, Congress also recognized the potential for unauthorized transmissions of works to harm the markets for educational uses of copyrighted materials. The present Copyright Act strikes a careful balance and includes two narrowly crafted exemptions for distance learning, in addition to the general fair use exemption.

Under current law, the performance or display of any work in the course of face-to-face instruction in a classroom is exempt from the exclusive rights of a copyright owner. In addition, the copyright law allows transmissions of certain performances or displays of copyrighted works to be sent to a classroom or a similar place which is normally devoted to instruction, to persons whose disabilities or other special circumstances prevent classroom attendance, or to government employees. While this exemption is technology neutral and does not limit authorized "transmissions" to distance learning broadcasts, the exemption does not authorize the reproduction or distribution of copyrighted works—a limitation that has enormous implications for transmissions over computer networks. Digital transmissions over computer networks involve multiple acts of reproduction as a data packet is moved from one computer to another.

The need to update our copyright law to address new developments in online distance learning was highlighted in the December, 2000, report of the Web-Based Education Commission, headed by former Senator Bob Kerrey. This Commission noted that:

> Current copyright law governing distance education . . . was based on broadcast models of telecourses for distance education. That law was not established with the virtual classroom in mind, nor does it resolve emerging issues of multimedia online, or provide a framework for permitting digital transmissions." (p. 95).

This report further observed that "This current state of affairs is confusing and frustrating for educators. . . . Concern about inadvertent copyright infringement appears, in many school districts, to limit the effective use of the Internet as an edu-

cational tool." (pp. 95–96). In conclusion, the report concluded that our copyright laws were "inappropriately restrictive." (p. 97).

The TEACH Act makes three significant expansions in the distance learning exemption in our copyright law, while minimizing the additional risks to copyright owners that are inherent in exploiting works in a digital format. First, the bill eliminates the current eligibility requirements for the distance learning exemption that the instruction occur in a physical classroom or that special circumstances prevent the attendance of students in the classroom.

Second, the bill clarifies that the distance learning exemption covers the temporary copies necessarily made in networked servers in the course of transmitting material over the Internet.

Third, the current distance learning exemption only permits the transmission of the performance of "non-dramatic literary or musical works," but does not allow the transmission of movies or videotapes, or the performance of plays. The Kerrey Commission report cited this limitation as an obstacle to distance learning in current copyright law and noted the following examples: A music instructor may play songs and other pieces of music in a classroom, but must seek permission from copyright holders in order to incorporate these works into an online version of the same class. A children's literature instructor may routinely display illustrations from childrens' books in the classroom, but must get licenses for each one for on online version of the course.

To alleviate this disparity, the TEACH Act would amend current law to allow educators to show limited portions of dramatic literary and musical works, audiovisual works, and sound recordings, in addition to the complete versions of nondramatic literary and musical works which are currently exempted.

This legislation is a balanced proposal that expands the educational use exemption in the copyright law for distance learning, but it also contains a number of safeguards for copyright owners. In particular, the bill excludes from the exemption those works that are produced primarily for instructional use, because for such works, unlike entertainment products or materials of a general educational nature, the exemption could significantly cut into primary markets, impairing incentives to create. Indeed, the Web-Based Education Commission urged the development of "high quality online educational content that meets the highest standards of educational excellence." Copyright protection can help provide the incentive for the development of such content.

In addition, the bill requires the use by distance educators of technological safeguards to ensure that the dissemination of material covered under the exemption is limited only to the students who are intended to receive it.

Finally, the TEACH Act directs the Copyright Office to conduct a study on the status of licensing for private and public school digital distance education programs and the use of copyrighted works in such programs, and to convene a conference to develop guidelines for the use of copyrighted works for digital distance education under the fair use doctrine and the educational use exemptions in the copyright law. Both the Copyright Office report and the Kerrey Commission noted dissatisfaction with the licensing process for digital copyrighted works. According to the Copyright Office, many educational institutions "describe having experienced recurrent problems [that] . . . can be broken down into three categories: difficulty locating the copyright owner; inability to obtain a timely response; and unreasonable prices or other terms." Similarly, the Kerrey Commission report echoed the same concern. A study focusing on these licensing issues will hopefully prove fruitful and constructive for both publishers and educational institutions.

The Kerrey Commission report observed that "[c]oncern about inadvertent copyright infringement appears, in many school districts, to limit the effective use of the Internet as an educational tool." For this reason, the Kerrey Commission report endorsed "the U.S. Copyright Office proposal to convene education representatives and publisher stakeholders in order to build greater consensus and understanding of the 'fair use' doctrine and its application in web-based education. The goal should be agreement on guidelines for the appropriate digital use of information and consensus on the licensing of content not covered by the fair use doctrine." The TEACH Act will provide the impetus for this process to begin.

I appreciate that, generally speaking; copyright owners believe that current copyright laws are adequate to enable and foster legitimate distance learning activities. As the Copyright Office report noted, copyright owners are concerned that "broadening the exemption would result in the loss of opportunities to license works for use in digital distance education" and would increase the "risk of unauthorized downstream uses of their works posed by digital technology." Based upon its review of distance learning, however, the Copyright Office concluded that updating section 110(2) in the manner proposed in the TEACH Act is "advisable." I agree. At the

same time we have made efforts to address the valid concerns of both the copyright owners and the educational and library community, and I look forward to working with all interested stakeholders as this legislation is considered by the Judiciary Committee and the Congress.

Distance education is an important issue to both the Chairman and to me, and to the people of our States. I look forward to hearing the testimony of all the witnesses.

Chairman HATCH. Well, thank you, Senator Leahy.

We have a distinguished panel today to discuss distance learning on the Internet and our copyright reforms to encourage its further deployment.

First, we will hear from Ms. Marybeth Peters, the Register of Copyrights. She and her Copyright Office staff have done yeoman's service on this issue, writing a comprehensive report on the issue and making a major contribution in the drafting of this legislation.

It is fair to say that no one knows more about the copyright issues surrounding digital distance learning than Ms. Peters, and we thank her for her expertise and support. Normally, we would have her on her own panel, but because of scheduling difficulties that pressed us on time in this hearing, she has graciously agreed to join in a large panel to expedite the process this morning. So we want to thank you again for your consideration, Madam Register.

Next, we will hear from Gerald A. Heeger, President of the University of Maryland University College. In addition to his academic and administrative experience, Mr. Heeger has been involved in developing distance education offerings for a number of years.

While at New York University, he created NYU Online, and has worked at the University of Maryland to broaden educational opportunities across the State and throughout the world through expanded online offerings. Then we will hear from Allan Adler, the Vice President for Legal and Governmental Affairs for the Association of American Publishers. Mr. Adler has long been involved in copyright policy debates here in Washington, and we certainly welcome your perspective here today.

Following Mr. Adler, we will be pleased to hear from Richard M. Siddoway. Mr. Siddoway is the Principal of the Electronic High School in Utah, which connects high school students throughout Utah to educational opportunities that they may not have had before. He has been a professional educator for nearly 40 years and he is a New York Times bestselling author with his book *The Christmas Wish*, so he brings insights from various vantage points to this discussion. He has long worked on public policy issues involving technology and education, and we are certainly honored to have you here today, Mr. Siddoway, to inform our process.

Next, we will hear from Paul LeBlanc, who is the President of Marlboro College, in Marlboro, Vermont. Having founded an e-commerce program and a teaching with Internet technologies Master's Degree, Mr. LeBlanc has long sought to connect education and new technology as a tool for improving communication and knowledge-sharing in both the classroom and board room. So we are very pleased to have you with us here today.

Finally, we will hear from Gary Carpentier, who teaches in the LL.M. program in international legal studies at the Washington College of Law at American University, and is creating an Internet-based law course on NAFTA together with three other univer-

sities in Canada, three in Mexico, and two other universities in the United States, to be transmitted to students in each of those countries.

So we both look forward to hearing the statements of each of our distinguished witnesses. We will turn first to you, Ms. Peters.

STATEMENT OF MARYBETH PETERS, REGISTER OF COPYRIGHTS, WASHINGTON, D.C.

Ms. PETERS. Thank you. Mr. Chairman, Mr. Leahy, I am pleased to be here today to testify on S. 487, the Technology Education and Copyright Harmonization Act of 2001.

Mr. Chairman, I congratulate you and Senator Leahy for introducing this important bill which will update sections 110(2) and 112 of the Copyright Act to cover certain instructional activities taking place through the use of digital technologies.

Digital distance education is a rapidly growing field, but one that is still in its infancy. Part of our challenge in making recommendations to you was to remove technologically obsolete legal provisions which are an impediment to the policy balance struck by Congress in 1976 without destroying a growing and important market for copyright owners. Licensing of copyrighted works in this market is extremely important. However, fair use and other exemptions also play a role.

S. 487 incorporates our recommendations, modified in certain instances to accommodate concerns expressed by representatives of the affected communities. You, Senator Hatch, in your floor statement invited suggestions to improve the bill, and during the past 2 weeks we met with representatives of the education and content communities to hear some of their concerns. We have addressed a number of these concerns in our testimony.

In my oral testimony, I will only focus on a few issues. First, the TEACH Act removes the requirement of a physical classroom by permitting transmissions to be made to students officially enrolled in a course wherever they may be. However, the bill retains the current limitation that the performance or display be directly related and of material assistance to the teaching content of the transmission.

Thus, the critical elements are that the performance or display still must be carried out by a non-profit educational institution. Two, it still must be part of the institution's systematic instructional activity. And, three, with the amendment, the transmission must be by or at the direction of an instructor as an integral part of the class session. The result is that you have expanded section 110(2) narrowly in order to avoid changing the central character of that section.

As it currently stands, section 110 focuses on performances and displays. It should not become an exemption that focuses on the delivery of copies to substitute for the purchase by students of materials that are being performed or displayed. So let me emphasize the exemption is limited to what is called by some mediated instruction. The intent is to ensure that the performance or display is analogous to the type of performance or display that would take place in a live classroom. This means that the display of an entire textbook would not be exempted.

Another important element is the safeguards imposed as conditions on the applicability of the exemption. These include permitting the retention of transient copies only to the extent necessary to accomplish the transmission, requiring the adoption by the educational institution of copyright policies, the provision to faculty and to students and to affected staff of informational materials to describe and promote compliance with copyright laws, and, most important, the requirement to use technological measures to reasonably protect both unauthorized access and unauthorized dissemination of copyrighted works.

With respect to who is eligible for this exemption, the bill continues the limit to non-profit educational institutions. Clearly, this comports with what is in the current copyright law today in both sections 110(2) and 110(1). However, during our study, we noted that there was much support for either a different criterion or an additional one; for example, accreditation of the institution. This issue deserves further attention, given the nature of the Internet. The exemption should apply only to bona fide systematic instructional activities.

Perhaps the most controversial part of the legislation is expanding the categories of works that may be performed. This is a change in the policy balance that was truck in 1976. For pedagogical reasons, we support the addition of dramatic works, audiovisual works, and sound recordings. Clearly, these works are primarily intended to be performed and inclusion of them could affect their markets. Therefore, it is appropriate to limit their use to limited and reasonable portions.

Thank you. I would be pleased to answer any questions you have, and I look forward to working with you and members of your staffs in any way that would be useful to you as you move forward in this process.

Thank you.

[The prepared statement of Ms. Peters follows:]

PREPARED STATEMENT OF MARYBETH PETERS, REGISTER OF COPYRIGHTS

The Copyright Office is pleased to present its views on S. 487, the Technology, Education and Copyright Harmonization ("TEACH ") Act. This important legislation updates sections 110(2) and 112 of the Copyright Act to allow the same activities to take place using digital delivery mechanisms that were permitted under the policy balance that was struck by Congress when the law was enacted in 1976, while introducing safeguards to minimize the additional risks to copyright owners that are inherent in exploiting works in a digital format.

BACKGROUND

Section 403 of the DMCA directed the Copyright Office to consult with affected parties and, within six months of the date of enactment, make recommendations to Congress on how to promote distance education through digital technologies. The Office was specifically directed to consider the following issues: the need for a new exemption, the categories of works to be included in any exemption, appropriate quantitative limitations on the portions of works that may be used under any exemption, which parties should be eligible for any exemption, which parties should be eligible recipients of distance education material under any exemption, the extent to which use of technological protection measures should be mandated as a condition of eligibility for any exemption, the extent to which the availability of licenses should be considered in assessing eligibility for any exemption and other issues as appropriate.

At the conclusion of an intensive process of identifying stakeholders, holding public hearings, soliciting comments, conducting research, and consulting with experts

in various fields, the Office issued a Report on Copyright and Digital Distance Education in May, 1999 recommending changes to the existing exemption for distance education, section 110(2). More recently, the Copyright Office has consulted informally with representatives of the educator and content communities to hear their respective concerns regarding the Office's legislative recommendations.

In preparing our Report we found that digital distance education was a field that was undergoing rapid—even explosive—growth, but one that was still in its infancy. Technological change had made it possible for educators to reach a vastly broader student population with a richer variety of course materials than was ever possible before the advent of the Internet. At the same time, the same technological changes created a huge potential market for creators and publishers to license their works for use in distance education.

Part of the challenge for this Office in formulating recommendations addressing digital distance education was to remove technologically obsolete legal provisions as an impediment to carrying forward the distance education activities sanctioned by Congress in 1976 into the twenty-first century, without killing a nascent and potentially important market for right holders. We concluded that this could best be accomplished by using the policy line drawn by Congress in 1976 as the point of reference for a technological updating of section 110(2) that would take account of the nature and capabilities of digital networks.

At the same time, the Copyright Office was mindful of the risks that are inherent in the exploitation of copyrighted works in digital form. We concluded that additional safeguards were necessary to minimize the risk to right holders that legitimate use of works under an expanded and updated distance education exemption could result in copyright piracy.

S. 487 incorporates many of the recommendations that we made in our 1999 Report, modified in certain instances to accommodate concerns expressed by representatives of the affected communities. The remainder of this testimony focuses on how the bill would change current law in implementing the recommendations from our Report. Where appropriate, we indicate potential concerns with the language of the bill that may require further consideration.

EXISTING LAW

Three exemptions together largely define the scope of permitted uses for instructional activities: two specific instructional exemptions in section 110, and the fair use doctrine of section 107. Sections 110(1) and (2) together were intended to cover all of the methods by which performances or displays in the course of systematic instruction take place. Section 110(1) exempts the performance or display of any work in the course of face-to-face teaching activities. Section 110(2) covers the forms of distance education existing when the statute was enacted in 1976, exempting certain performances or displays in the course of a transmission—i.e., an instructional television or radio broadcast. Both subsections contain a number of limitations and restrictions. In particular, the section 110(2) exemption from the performance right (as distinguished from the exemption from the display right) applies only to nondramatic literary and musical works. Section 110(2) also contains limitations on the nature and content of the transmission, and the identity and location of the recipients. The performance or display must be made as a regular part of systematic instructional activity by a nonprofit educational institution or governmental body; it must be directly related and of material assistance to the teaching content; and it must be made primarily for reception in classrooms or places of instruction, or to persons whose disabilities or other special circumstances prevent their attendance in classrooms, or to government employees.

In addition, although the term "transmission" as used in section 110(2) is not limited to analog technology, and would therefore include digital transmissions, the provision would only permit digital transmissions to the extent that they do not implicate exclusive rights other than the public performance and public display rights. Since the reality of digital technology is that most digital transmissions entail reproduction and distribution (as those terms are defined in the copyright law and interpreted by the courts), the practical outcome is that most digital transmissions are not exempted under section 110(2).

ANALYSIS OF THE BILL

SECTION 2. EXEMPTION OF CERTAIN PERFORMANCES AND DISPLAYS FOR EDUCATIONAL USES

SCOPE OF THE EXEMPTION

Section 2 of the bill amends the chapeau paragraph of 17 U.S.C. 110(2), altering the scope of the exemption by expanding both the rights and the categories of works that are covered.

Unlike the analog transmissions contemplated in the current law, digital transmissions implicate the reproduction and distribution rights in addition to the public performance and public display rights. The making of temporary reproductions is an integral part of the technology of transmitting digital data from one point to another. It is settled case law in the U.S. that such temporary reproductions implicate the reproduction right. Similarly, courts have held that such activity can be deemed a distribution as well. In order to address these technological realities, the bill amends section 110(2) to cover the rights to reproduce a work "in transient copies or phonorecords created as a part of the automatic technical process of a digital transmission" permitted under section 110(2), and to distribute "such copies or phonorecords" in the course of a digital transmission authorized by section 110(2), "to the extent technologically necessary to transmit the performance or display."

The expansion of the 110(2) exemption to cover these two additional rights is phrased very narrowly in order to avoid changing the central character of section 110 from an "exemption of certain performances and displays" to an exemption permitting the delivery of copies or phonorecords that substitute for the purchase by the student of the materials performed or displayed. As amended, section 110(2) would permit reproduction and distribution only to the extent technologically required in order to transmit the performance or display permitted by the exemption.

In our informal consultations with the educator community, concern was expressed that the exemptions from the reproduction and distribution rights were too limited for an institution to be able to carry out a permitted transmission without potential liability. As the originator of the transmission, an institution could potentially be liable for any reproduction that occurs along the transmission path from the institution's server to the student's personal computer. Although many of the copies would fall within the scope of the proposed exemption, it is inevitable that some copies, such as cache copies in an Internet service-provider's proxy cache or a user's browser cache, would be made, but would not be considered "transient," would not be "technologically necessary to transmit the performance or display" and would not, as required in proposed section 110(2)(D), be "retained for no longer than reasonably necessary to complete the transmission." Apart from initiating the transmission, the institution has no role in the making and retention of such copies, and is powerless to prevent them. The copies are simply a byproduct of how the technology works today. But they do not fall within the scope of the exemption provided in the bill, and they could result in potential liability for the institution.

These concerns appear to be valid, and merit further consideration. We would be pleased to continue to work with the Committee and the affected parties to craft language to address these concerns.

Content owners have expressed concern about the existing exemption from the public display right as applied to digital distance education. Specifically, they are concerned that permitting the display of entire literary works in the context of digital distance education has a much greater impact on copyright holders than permitting the display of entire works for purposes of instructional broadcasting. "Display" of a book using the technology of distance education in 1976 meant showing it—holding it up for the camera to see. Display of a book using today's technology means making the entire work available digitally. The technology of 1976 did not make it possible for the display of a textbook to substitute for its purchase, but the technology of 2001 does.

The exemption from the copyright owner's exclusive right to display the work publicly would permit both activities. The Copyright Act defines "display" of a work as showing a copy of a work either directly or by means of "any other device or process." To display a work "publicly" is to display "to the public, by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times." Holding a book up to a camera or using an e-book through an online delivery system both fall comfortably within these definitions.

Nevertheless, in the view of the content community, Congress, in exempting entire works from the display right in 1976, did not intend to permit uses that were

more extensive than those that were possible under the technology of the time. Congress certainly did not intend that an exempted display of a textbook under section 110(2) be capable of substituting for the purchase of that book, as today's technology makes possible.

We believe that these observations of the content community are essentially correct, but it is our view that their concerns are addressed by the limitation of permitted displays in amended section 110(2)(A) to those made "as an integral part of a class session." Even though "class session" arguably has less strictly defined parameters in a digital network environment than it does in other contexts, the Copyright Office does not view the concept as being entirely devoid of meaning. For example, the display of an entire textbook could not take place in the course of a class session and would not be exempted conduct under the scope of an updated section 110(2). The technology of 1976 made it impossible for the display of a textbook to substitute for its purchase. Although today's digital technology would make it possible to display an entire book, the limitation that was once inherent in the technology is carried forward through the concept of a class session.

The other expansion of the scope of the exemption accomplished by the bill is to allow performances of categories of copyrighted works other than the nondramatic literary and musical works that already may be performed under current law. This provision implements a recommendation in our Report that recognized that educators preparing course material do not differentiate in the selection of subject matter based upon the categories of works in section 102 of the Copyright Act, and that current technology permits educators to recreate through distance education the same rich pedagogical experience enjoyed face-to-face with students in a classroom setting. Section 110(1) of the Act permits the use of any work in a face-to-face classroom setting.

However, as our Report also recognized, the potential impact on secondary markets for the principal categories of works that are affected by this expansion—audiovisual works, sound recordings, and dramatic literary and musical works—could be substantial. Transmission of entertainment products like motion pictures and sound recordings could well substitute for students paying to enjoy them elsewhere. The bill addresses this concern by limiting performance of the newly-added categories of works to "reasonable and limited portions."

It should be noted that when the current 110(2) exemption was enacted in 1976, there was no public performance right that covered sound recordings (a limited public performance right for sound recordings which covers only certain digital transmissions was enacted in 1995). Consequently, there was no need to address the appropriate treatment of sound recordings in the discussions leading to the enactment of the current section 110(2) exemption. The Copyright Office, however, regards sound recordings to be as vulnerable to the risks of downstream digital distribution as audiovisual works, which militates against permitting anything but "reasonable and limited" portions of those works to be used under the exemption.

Works that are produced primarily for instructional use may be neither performed nor displayed under the exemption, because for such works, unlike entertainment products or materials of a general educational nature, an exemption would cut significantly into primary markets, impairing incentives to create. Including such works within the exemption would interfere with the efficient functioning of the marketplace for licenses. As we stated in our Report, we believe that under current conditions, works created primarily for instructional uses will be licensed efficiently in the educational market.

As an additional safeguard, this provision requires that the exempted performance or display be made from a copy both lawfully made and lawfully acquired.

CRITERIA FOR ELIGIBILITY

Section 110(2) currently contains several criteria which must be met for a performance or display to qualify for the exemption. These criteria relate to the identity of the transmitting institution and the nature of the activities of which the performance or display is a part; the nature of the performance or display; and the identity and location of the recipients of the transmission. Section 2 of the bill amends the existing criteria to update them and make them relevant to distance education as it is carried out on digital networks. The bill also adds additional criteria as additional safeguards against digital piracy.

Except in fairly limited circumstances, transmissions under the current provision must be made to students in a physical classroom. The bill eliminates the requirement of a physical classroom by permitting transmissions to be made to students officially enrolled in the course and to government employees, regardless of their physical location. The bill retains the current limitation in section 110(2)(B) that the

performance or display be "directly related and of material assistance to the teaching content of the transmission" and, in lieu of limiting transmissions to a physical classroom, adds two additional safeguards.

First, section 110(2)(A), as amended by the bill, emphasizes the concept of mediated instruction by mandating that the exempted performance or display be analogous to the type of performance or display that would take place in a live classroom setting. The performance or display must still be carried out by a government body or nonprofit educational institution, and must still be a regular part of the institution's systematic instructional activities. In addition, the bill requires that the transmission be made "by or at the direction of an instructor as an integral part of a class session." In sum, the work must be used as an integral part of a classroom experience (albeit a virtual one), controlled by the instructor, rather than as supplemental or background information to be experienced independently.

Content owners have expressed to the Copyright Office their concern that "nonprofit educational institution" may not be the appropriate dividing line between institutions that may and may not use the exemption, since institutions that are not bona fide educational institutions may enjoy nonprofit status. They have proposed that the word "accredited" be added as an additional qualification. The Office views this as a valid concern. We are uncertain, however, whether lack of accreditation is necessarily an appropriate basis for denying an institution the benefit of the exemption, or, conversely, whether accreditation is an appropriate basis for granting an institution the benefit of the exemption. This is especially true given the lack of uniform national standards for accreditation, and the resulting geographic inequity of such a condition. However, the Committee should consider whether another criterion, in addition to an institution's nonprofit status, could be used to limit the benefit of the exemption to bona fide educational institutions.

The second safeguard introduced in lieu of limiting transmissions to a physical classroom is found in section 110(2)(C), as amended by the bill. This provision adds the requirement that the transmission must be made solely for, and, to the extent technologically feasible the reception of the transmission must be limited to, two defined classes of eligible recipients: students officially enrolled in the course for which the transmission is made; and officers or employees of governmental bodies as part of their official duties of employment. When we prepared our Report there was widespread agreement, in the testimony and comments submitted to the Office, that the exemption should benefit only students officially enrolled in the particular course for which the transmission is made. The bill requires, to the extent technologically feasible, that technical measures be employed to ensure this.

Section 2 of the bill also adds new safeguards to counteract the new risks posed by the transmission of works to students in digital form. A new paragraph (D) requires that transient copies permitted under the exemption be retained no longer than reasonably necessary to complete the transmission. As discussed above in reference to the chapeau paragraph of section 110(2), concerns have been expressed to the Office regarding the possible retention of copies that are created automatically in the course of the transmission and are outside the control of the transmitting institution "for longer than reasonably necessary to complete the transmission." Further consideration should be given to this criterion to ensure that copies made and retained as an automatic by-product of the transmission process do not render a transmission ineligible for the exemption.

Paragraph (E)(i) requires that beneficiaries of the exemption institute policies regarding copyright; provide information materials to faculty, students, and relevant staff members that accurately describe and promote compliance with copyright law; and provide notice to students that materials may be subject to copyright protection. These requirements would promote an environment of compliance with the law, ensure that participants in the instructional process were aware of their responsibilities in using copyrighted material, and prevent unintentional and uninformed acts of infringement.

Paragraph (E)(ii) requires that the transmitting institution apply measures "that reasonably prevent unauthorized access to and dissemination of the work," and that the institution "not intentionally interfere with technological measures used by the copyright owner to protect the work." These requirements reflect the central role that the use of technological measures plays in the balance that has been struck in this bill.

A number of concerns have been expressed to the Copyright Office regarding this provision. The educator community has pointed out that requiring institutions to apply measures that reasonably prevent access to a work essentially repeats the requirement that the transmission be "made solely for, and to the extent technologically feasible, the reception of such transmission [be] limited to" the intended recipients. This may be a valid concern that should be given further consideration.

Content owners, for their part, have expressed concern about the use of the word "intentionally" in the context of interfering with technological measures used by the copyright owner. Subjective intent is difficult to prove, and could render the requirement of noninterference meaningless. This appears to be a valid concern that merits further consideration. Specifically, the Committee may wish to consider substituting an objective standard for the current subjective one—e.g., "does not engage in conduct that could reasonably be foreseen to interfere with technological measures."

It has also been suggested that language derived from 17 U.S.C. 512(i) be added to this paragraph (or as a new paragraph) to require both noninterference with and accommodation of "standard technical measures" in order to be eligible for the exemption. While the requirement in the bill of noninterference with a copyright owner's technological protection measures coupled with existing prohibitions on circumvention of access control measures in 17 U.S.C. 1201 should provide a substantial level of protection for right holders, it is possible that the case could be made for inclusion of the stricter obligation in section 512(i).

SECTION 3. EPHEMERAL RECORDINGS

Section 3 of the bill amends 17 U.S.C. 112 by adding a new subsection which permits an educator to upload copies of a copyrighted work onto a server solely to facilitate transmissions permitted under section 110(2). Limitations have been imposed upon the exemption similar to those set out in other subsections of section 112. Paragraph 112(f)(1) specifies that any such copy be retained and used solely by the entity that made it and that no further copies be reproduced from it except the transient copies permitted under section 110(2). Paragraph 112(f)(2) requires that the copy be used solely for transmissions authorized under section 110(2). Paragraph 112(f)(3) prohibits a body or institution from intentionally interfering with technological protection measures used by the copyright owner to protect the work.

The exemption only applies to "a work that is in digital form." Consequently, it is not possible under the proposed subsection to scan a literary work, or otherwise convert a work to digital form. Use of works in digital form on the Internet bears well-documented risks for right 13 holders. Some right holders may choose not to expose themselves to that risk by refraining from "going digital." This exemption is not intended to force those right holders to "go digital" against their will.

In our Report, we recommended that section 112 be amended to allow a single ephemeral recording to carry out a transmission permitted under section 110(2). However, the technology of digital streaming requires that more than one ephemeral copy be maintained on a server. Consequently, we support the bill's expansion of the ephemeral recording exemption to include multiple copies. It is the view of the Copyright Office that the safeguards built into the proposed subsection, including the extremely limited purposes for which ephemeral recordings may be used, provide adequate assurance that the additional copies authorized by the subsection will not have any measurable impact on content owners.

SECTION 4. IMPLEMENTATION BY COPYRIGHT OFFICE

Subsection (a) states that not later than two years after the date of enactment of this Act, the Copyright Office shall conduct a study and submit a report to Congress on the status of licensing by private and public educational institutions of copyrighted works for digital distance education programs, including live interactive distance learning classes, faculty instruction recorded without students present for later transmission, and asynchronous delivery of distance learning over computer networks, and also on the use of copyrighted works in such programs. We caution that much of this information is considered proprietary and will be difficult to obtain. Although such a report could be very valuable to the Committee to the extent that empirical evidence can be obtained, this may not be possible in many instances.

Subsection (b) requires the Copyright Office, not later than two years after the date of enactment, to convene a conference of interested parties, including representatives of copyright owners, nonprofit educational institutions and nonprofit libraries and archives to develop guidelines for the use of copyrighted works for digital distance education under the fair use doctrine and sections 110(1) and (2). The conference would initiate a process that has as its goal the promulgation by the Copyright Office of guidelines for the fair use of copyrighted works in digital distance education.

The Copyright Office believes that fair-use guidelines for particular areas of activity have proved useful in the past, and digital distance education is an area where development of new guidelines certainly would be appropriate. We support such a Congressionally-mandated process to establish fair-use guidelines for digital distance education. Since guidelines do not have the force of law, their success in prac-

tice depends largely on the degree to which interested parties endorse them. A strong message from the Congress to the affected parties that guidelines are desirable, as evidenced by subsection (b), could play a pivotal role in the eventual success of such an effort.

The Copyright Office is concerned, however, about the inclusion of sections 110(1) and (2) as subjects for the guidelines, as they are specific exemptions with delineated parameters. The Office would propose that these sections be removed from the scope of the conference and addressed through informational materials of the type regularly issued by the Copyright Office.

CONCLUSION

The Copyright Office supports this legislation to carry out the recommendations made in its 1999 Report. We look forward to continuing to work with the Committee in this important endeavor.

Chairman HATCH. Thank you very much.

Senator LEAHY. Mr. Chairman, could I just ask unanimous consent that a statement by Senator Kennedy be included in the opening statements?

Chairman HATCH. Without objection, we will place that in the appropriate place in the record.

[The prepared statement of Senator Kennedy follows:]

PREPARED STATEMENT OF HON. EDWARD M. KENNEDY, A U.S. SENATOR FROM THE STATE OF MASSACHUSETTS

I would like to thank Chairman Hatch for convening this hearing to address the issue of digital distance learning. Both he and Senator Leahy have demonstrated impressive leadership in this area and I am confident that, as a result of these efforts, our copyright laws will be clarified to permit the expanded use of digital technology in the American education experience.

For over two decades, distance learning has been a critical component of our nation's education policy. Technological advances ensure that distance learning will become an even greater part of the educational experience in the years ahead. It is essential that we create clear guidelines for schools, libraries and other education providers as the concept of the classroom and the profile of the traditional student become broader.

Digital technology expands access to curriculum materials for students in non-traditional educational settings and creates opportunities for new interactive learning experiences. For older and returning students as well as those whose work or home obligations preclude them from attending classes in a traditional campus setting, distance learning can open the doors to higher education. In the earlier grades, distance learning improves opportunities for children in remote areas or underfunded school systems, by allowing them to take advantage of material that otherwise would be unavailable to them.

Digital formatting changes the delivery system for copyrighted material and challenges us to develop appropriate safeguards to prevent abuse. This legislation represents an excellent beginning for the development of those safeguards.

The bill appropriately expands the educational exemption that requires instruction to take place in a classroom setting. The scope of material that may be used in a transmission is broadened to include new categories of copyrighted material such as audiovisual works and sound recordings. The use of transient copies is limited to ensure that they are retained only for a reasonable amount of time. Additional protections are established to limit the subsequent use of materials that are distributed under the new exemption.

I commend Register of Copyrights Marybeth Peters for her diligence and guidance in this matter. The Copyright Office report on digital distance learning is a valuable blueprint to guide us in the effort to affirm the fundamental principles of fair use in an educational context at a time when evolving technology re-defines classrooms.

I look forward to receiving the expert testimony today. I am especially pleased that, with these new guidelines, the extraordinary capability of new technology will be more fully integrated into the educational experiences of every student and that those experiences will be enriched by the books, manuscripts, sound recordings and films that comprise the American creative legacy.

I look forward to working with my colleagues on the Judiciary Committee toward passage of this important legislation.

Chairman HATCH. Mr. Heeger?

STATEMENT OF GERALD A. HEEGER, PRESIDENT, UNIVERSITY OF MARYLAND UNIVERSITY COLLEGE, COLLEGE PARK, MARYLAND

Mr. HEEGER. Thank you, Mr. Chairman, Mr. Leahy. Thank you for the opportunity to testify on S. 487. You have my written testimony. I simply want to make several points of emphasis.

My institution, UMUC, as it is known, is probably known to you as one of the largest providers of distance education in the world. It has for 54 years provided distance education to U.S. military forces overseas in classrooms with faculty present around the world, and even today at 120 bases worldwide. At the same time, it has one of the largest online enrollments in the world, including military students, students from all over the United States, and increasingly the world. We have at UMUC 28 full degree programs online, and this year we will register more than 70,000 enrollments online.

I mention our size to you because it merely means that we are confronting many issues in this area first, but we will not be the last. I am here to speak not only on behalf of my institution, but also on behalf of the many associations listed in my written testimony. All of these associations and the institutions which participate in them strongly support S. 487 because it would move to bring copyright law into accord with the educational realities of today, where digital distance education portends dramatic change in educational access and quality.

We have all recognized the critical importance of education to America's future. We confront the need to compete globally, the need to expand capacity of our educational institutions, and the need to recognize that all citizens in all places need access to education lifelong.

More than anything else, distance online education offers new solutions to such challenges. There are myriad examples we are all familiar with, but current copyright law imposes significant barriers to digital distance education. The 1976 Copyright Act was not written with the Internet or online education in mind. Its provisions governing distance education present two basic problems for us today.

First, a limitation on the types of works that may be utilized in remote transmission drives an untenable wedge between content in the classroom and content in distance education. That wedge threatens to undermine the very viability of quality in online education.

Second, the current law does not fully accommodate some of the technical aspects of delivery and instructional content over computer networks. Again, the absence of such rules of the road, as I would call them, jeopardizes the whole enterprise.

I could offer numerous examples. I will cite only two, one from a major university renowned for its cinema program, frustrated in its effort to create a dynamic new distance education film course, despite being willing to commit more than $600,000 to the production of the course, yet unable to bring about a course that relied on short film clips that drew on segments as short as 30 seconds.

Some people never responded. Others demanded a great deal of money. Others just simply denied participation. In the end, the failure to secure rights to film clips less than a minute long shut down what was going to be an exciting educational program.

My university, the second example, the University of Maryland University College, at the request of State authorities, has worked hard to create an innovative teacher education program. Teacher education requires an innovative use of instructional materials. Again, such materials remain out of reach in terms of distance education.

Let me just take this to the broadest level of policy. We need to realize that to fully realize the potential of distance education, we need to establish parity between the virtual class and the physical class. Not to do so undermines academic quality, makes sound management practices impossible and, most importantly, potentially makes distance education students second-class citizens by denying them access to the rich materials essential for a quality education.

Thank you.

[The prepared statement of Mr. Heeger follows:]

PREPARED STATEMENT OF GERALD A. HEEGER, PRESIDENT, UNIVERSITY OF MARYLAND UNIVERSITY COLLEGE

DISTANCE EDUCATION TESTIMONY

Mr. Chairman and Members of the Judiciary Committee, I am Gerald Heeger, President of the University of Maryland University College. I am pleased to have this opportunity to testify on S. 487, the Technology, Education, and Copyright Harmonization Act of 2001. I am testifying on behalf of the Association of American Universities, the American Council on Education, the National Association of State Universities and Land-Grant Colleges, and the Association of Research Libraries. The colleges, universities, and libraries which are members of these associations strongly support S. 487 because it would bring copyright law into accord with the education realities of today, enabling a fuller realization of the enormous potential of digital distance education to expand teaching and learning in time, place, and richness of content.

The University of Maryland University College, or UMUC, is one of eleven degree-granting institutions within the University of Maryland System. Founded in 1947, its programs focus on the adult learner and it specializes in distance education. In the past few years, it has become the leading online university in the country, with over 43,000 online enrollments in the last academic year, and an estimated 70,000 enrollments this year. UMUC offers 14 undergraduate degrees and 14 graduate degrees, including the MBA, fully online. Last year, the University was the first recipient of the E-Learning Award. It was recognized recently by Forbes magazine for its excellence in Web-based instruction. Additionally, its librarian received a commendation from Maryland's Governor for creating the Maryland Digital Library, a resource for colleges and universities in the state that provides access to over 400 electronic books and nearly 3,000 electronic journals.

Education is the means by which we develop our nation's human resources. As we move into an international information age, where both cooperation and competition will be carried out world-wide, the ability of the United States to meet its domestic and international challenges and responsibilities will be directly dependent on the quality and capacity of its educational programs. That quality and capacity in turn will be determined by the content of those programs and their reach throughout our citizenry. For our nation to maintain its competitive edge, it will need to extend education beyond children and young adults to lifelong learning for working adults, and that education must reach all students of all income levels, in cities and rural settings, in schools and on campuses, in the workplace, at home, and at times selected by students to meet their needs.

Digital distance education makes this possible, and we are witnessing a steady growth in online education, both as distance education in the traditional sense, where instructor and student are separated in place and perhaps time, and in new

hybrids of traditional, residential classroom education combined with online components. Increasingly, college students can register for courses online, submit class assignments by email, and participate in discussions that connect students in a classroom with students beyond the classroom, sometimes beyond the nation's boarders. Similarly, K–12 students can learn about the customs and cultures of other countries through real-time audiovisual

conversations with pen pals from those countries; they can learn science in new ways by having scientific demonstrations and actual experiments conducted at distant locations brought to them in real time via the Internet. The National Science Foundation, the National Academy of Sciences, and other scientific societies and educational organizations are working hard to improve our nation's science and mathematics education; other groups are developing new ways to bring humanities and the arts to students and the broader public. Many of these new educational efforts draw on advances in information technology and digital networks.

Digital distance education also has special value to two groups with which UMUC is very familiar. One is the servicemen and women in the United States military, who benefit greatly from the ability to obtain instruction in remote locations. Additionally, the University's online course offerings are very attractive to disabled Americans. This past fall, we had nearly 400 disabled students, including around 200 disabled veterans enrolled in courses at the University.

Such efforts have or will soon come up against barriers set by current copyright law. In 1976, Congress wisely recognized the pedagogical value of allowing teachers to enrich the classroom learning of their students by permitting the performance or display of lawfully made copyrighted material without having to get clearance from the copyright owner. Thus, a teacher could show a movie or the performance of a drama, or could display a painting as part of the course of instruction. Recognizing the potential of distance education-which in 1976 was essentially remote instruction by television Congress also authorized the display of any copyrighted material and the performance of non-dramatic literary or musical works at remote classroom settings.

The 1976 law was not written with the Internet and online education in mind, and its provisions governing distance education present two basic problems today. First, the limitation on the types of works that may be performed by remote transmission to non-dramatic literary and musical works drives an increasingly untenable wedge between content in the classroom and that at a remote location. Second, current law does not fully accommodate some of the technical aspects of delivering instructional content over computer networks.

Let me give just one example of how current law impedes the development of digital distance education. At a major university, the highly ranked cinema program recently tried to develop a distance education film course. The institution was committed to invest $600,000 in the effort. Part of the course involved the use of film clips ranging from 5 to 30 seconds. Negotiations for rights went on interminably. Permissions had to be gotten from, and payments had to be made to, copyright owners and actors. Some people never responded, others demand a great deal of money, some simply said no. In the end, after losing a substantial amount of money, the failure to secure the rights to film clips less than a minute long shut down a promising program.

This example illustrates two stark realities confronting digital distance education. First, it is very expensive. The university above was prepared to invest $600,000 in a single program; how many institutions can contemplate such an investment? Elementary and secondary schools, colleges and universities will have to find substantial new resources to invest in the computers, networks, and applications necessary to support digital educational activities, as well as in faculty development, teacher training, and the development of courseware and other course materials. Although digital distance education may in the future produce genuine economies, in the short run the start-up and delivery costs are very expensive, so that all institutions are limited by cost in what they can do, and some institutions are simply kept out of significant digital education activities because of its steep costs.

The second reality confronted by digital distance education is that, even if we find the resources to build the necessary infrastructure, digital education will be threatened with second-class status unless and until local and remote educational content are brought into closer accord. The inescapable fact is that for digital distance education to achieve its full potential, instructors must be able to conduct remotely all educational activities permitted in a physical classroom. Yet consider the university's effort to establish a distance education film course. This ultimately abandoned effort highlights four key points: (1) the copyright barriers are real, (2) no aspect of the proposed program would have possibly threatened anyone's market, (3) yet an opportunity to expand a first-class educational program beyond its residential

boundaries was lost, and (4) if legislation such as that which we are considering today had been in place, a new distance education film course would be reaching new students.

Licensing is not the solution to copyright barriers. Licensing the use of content is slow, costly, and does not permit the instructor freedom in the selection of materials for transmission in the digital classroom. Further, there is a misperception that an online course is developed in advance, so getting permissions is reasonable and possible. However, in reality, that is not the case. Faculty members frequently supplement the "core" course materials "on the fly" and need flexibility to do so. Requiring licenses will limit the freedom for distance education faculty to use materials essential to the learning process. Provided that there are proper safeguards, the online environment should not be more restricted than the face-to-face teaching environment.

It is these copyright barriers that the Copyright Office addressed in its thoughtful 1999 report on distance education. The recommendations of the Copyright Office for statutory changes to current copyright law would go far toward accomplishing the objective stated above of enabling remotely all educational activities permitted locally, in a physical classroom. We strongly support the Copyright Office report and its recommendations for statutory changes to the current copyright law.

Our reading of S. 487 is that, in the main, it would effectively implement the statutory changes recommended by the Copyright Office, carefully balancing expansions of the distance education exemption with prudent safeguards.

The following provisions of the bill are particularly important:

• exempting digital transmissions from Section 106 rights to the extent necessary to permit such transmissions in the ordinary operation of the Internet,

• eliminating the physical classroom requirement for remote reception of educational material,

• enabling the asynchronous use of material by permitting material to be stored on a server for subsequent use by students,

• expanding the categories of work exempted from the performance right to include reasonable and limited portions of audiovisual and dramatic literary and musical works, as well as sound recordings of the musical works that already are within the scope of the exemption.

We understand the difficulty of achieving full parity between local and remote educational activities due to the risks of unauthorized reproduction and redistribution of digital content. The Copyright Office report addresses these concerns in a forthright and informed analysis. In its translation of this analysis into legislative provisions, S. 487 would enact a number of safeguards, including:

• limiting transmission of material to students officially enrolled in the class,

• limiting the retention of temporary copies,

limiting the use of materials to circumstances that involve mediated instruction in order to assure that materials are used remotely as they would be in a classroom,

• requiring the use of technological measures that reasonably prevent downstream redistribution, and

• limiting performances of audiovisual works, dramatic works and sound recordings to reasonable and limited portions.

S. 487 translates the Copyright Office recommendations for statutory modifications into a carefully bounded but extremely important set of legislative provisions that will permit the fuller development of digital distance education.

One major reservation we have with the legislation is its failure to include reasonable and limited portions of instructional material works in the expanded categories of works exempted from the performance right. We understand the concern that such an exemption could threaten the primary market for instructional material. However, excluding instructional material from the performance exemption will impose a serious constraint on the development of distance education. Instructional material often will be essential to effectively harmonizing the content of local and remote instruction. Moreover, the exemption provided by the proposed bill would provide important guideposts in license negotiations and would help ensure that all educational markets, not merely the one for which a particular licensing regime had been developed, will have access to the work.

One particularly cogent example from my university is teacher education. We are newly engaged in the training of teachers online to alleviate a significant teacher shortage in the State of Maryland. Whether it's training new teachers who are changing careers or training current teachers to educate their students in an online environment, our effort to provide proper instruction online would suffer from the inability to show instructional videos. Especially at a time when the need for teachers nationally is so great, it would be advantageous to have this bill allow the use of instructional materials in the training of teachers.

We believe that the limitations contained in the bill will provide substantial protection for the copyright owner. Accordingly, we urge you to consider including instructional audiovisual materials within the scope of the exemption.

We are developing several other suggestions for changes in the legislation that would, we believe, make a valuable bill even better, and we would appreciate the opportunity to forward such suggestions to you in the near future once we have refined those suggestions.

We also would like to comment on Sec. 4 of the bill. This section calls on the Copyright Office to issue a report on licensing of copyrighted works in digital distance education programs and the use of copyrighted works in such programs, and to convene a conference to develop guidelines for use of copyrighted works in digital distance education under the fair use doctrine and section 110(1) and (2) of the copyright code. A report on licensing and use of copyrighted works in distance education that stems from the same thorough, open and balanced process that the Office used to produce its excellent report on distance education would undoubtedly be useful for Congress and external parties, and we support this proposal.

The legislation calls for the Office to convene a conference in order to develop guidelines on the use of copyrighted works in distance education, and for the Office, if it deems it appropriate, to submit those guidelines to the Senate and House Committees on the Judiciary. We are concerned with the presumption that appears to be inherent in this process that the conference will develop guidelines. Efforts to develop guidelines have proved difficult and controversial. The fair use doctrine is inherently-and, in our judgment, wisely-imprecise, calling for a judgment on four factors to determine if a use is fair. Thus, we would prefer that, if S. 487 is to call on the Copyright Office to convene a conference, the conference bring together interested parties to discuss the use of copyrighted material in distance education, and only if the Office and the conference participants deem it feasible, would the conference develop guidelines. We note that the section-by-section analysis of the bill describes something closer to this preferred process: that the Office would convene a conference "on the subject of the use of copyrighted works in education and, to the extent the Office deems appropriate, develop guidelines . . . for submission to Congress . . ." and urge that the same approach be included in the text of the bill.

In closing, I would like to reiterate the importance for the future of distance education of allowing the same educational content remotely that occurs locally in a physical classroom. Anything short of that will doom distance education to second-class status and cripple its enormous potential to expand dramatically the educational capacity of our nation and its ability to compete in the new world economy. As both local and remote educational content increasingly involves new multimedia material, the disparity in treatment under current law will place a growing burden on digital distance education. Thus, enactment of legislation such as S. 487 is imperative to the development of distance education and its capacity to expand the boundaries of teaching and learning in time, place, content, and category of student.

We commend you for this bill, and we look forward to working with you to add refinements to it and enact it into law.

Thank you for this opportunity to testify on this important legislative and educational initiative.

Chairman HATCH. Thank you, Mr. Heeger.

Mr. Adler?

STATEMENT OF ALLAN R. ADLER, VICE PRESIDENT FOR LEGAL AND GOVERNMENTAL AFFAIRS, ASSOCIATION OF AMERICAN PUBLISHERS, WASHINGTON, D.C.

Mr. ADLER. Thank you, Mr. Chairman. We appreciate the opportunity to appear here today to present the views of America's book publishing industry.

Mr. Chairman, since both you and Senator Leahy, I know, had distinguished careers as lawyers prior to coming to the Senate, I think you will appreciate our approach in pleading in the alternative with respect to this bill. So the first argument we will make, knowing that you have already introduced the bill, and hearing your enthusiasm for pursuing it, is nevertheless to ask you to reconsider whether this is the appropriate time, given the condition in the marketplace, for legislation to change copyright law.

We have testified twice, in July 1999 before the House Judiciary Subcommittee and again in July 2000 before the Web-based Education Commission, explaining our views that the record and landscape documented in the Register's report did not justify a change in copyright law as proposed by the Register.

We believe that the developments in the area of distance education since then reaffirm our conclusions with regard to that report. First, let me just briefly summarize the reasons why we believe this is true.

Given the fact that the marketplace for distance education, as documented in the Register's report, continues to grow at an exponential rate and is extremely vibrant and bustling with competition and innovation, we don't believe that the Copyright Act is really holding back in any serious way the production of high-quality digital content and the ability to have that content available for use in distance education.

One has to ask, given the level of investment and entrepreneurial activity in this area both by non-profit and for-profit entities, including those in the education field, how have they been able to be successful in growing this field if the Copyright Act was indeed such an obstacle.

The reason is very simple. These people are able to create their own digital content. They are able to digitize preexisting public domain materials. They are able to make fair use of preexisting third-party works, and they are able to obtain licenses for using preexisting third-party works to create multimedia and other kinds of works for use in online distance education.

No doubt, there is anecdotal evidence of licensing problems, and we are not here to defend those instances where license requests have been made and the responses have been either unreasonable or what some people in the user community might even characterize as abusive. But those problems, too, are being addressed, and I would point out to you that in our written submission we give examples of the things that many publishers are doing to go online with their permissions process to make it more convenient for users who want to be able to use materials to which they hold copyright.

Secondly, we believe that the proposed legislation is unjustifiable, again, because of the level of activity in the marketplace. It is quite clear that distance education is growing by leaps and bounds. And again, if that were something that would be held back by the restrictions of copyright, I think we would have seen more manifestations of that than have been documented in the Register's report.

Third, the proposed legislation unworkable. It is unworkable basically for two reasons. One is because the Register recognizes that in order to maintain a proper balance between the concerns of copyright owners and the user community, it is important that any exemption be based upon the application of technological safeguards to ensure that after legitimate access to work through distance education programs occurs, there is no unauthorized further reproduction or distribution or other use of those materials.

The Register's report documented in May 1999 that such sophisticated technologies may become widely available in the near fu-

ture, but they are not there yet in a convenient and affordable manner that can protect all varieties of works and market uncertainties remain. That situation is still true today.

I would also point out to you that in the interim period since the report, we have seen other reasons to be somewhat dubious about the ability to ensure that proper treatment of copyright owners' concerns will be afforded if such an exemption is enacted into law.

For example, in the situation of the Napster phenomenon which two Federal courts enjoined as fostering ongoing instances of blatant copyright infringement on an unprecedented mass scale, it should be noted that this phenomenon was chiefly pursued by students using campus-based Internet access and computer networks.

We also are concerned about the aversion and distrust directed toward legal prohibitions enacted in the DMCA by the education community, as evidenced in their testimony at hearings conducted last year by the U.S. Copyright Office on the circumvention issue.

Finally, we are concerned that recent rulings by the U.S. Supreme Court and other Federal courts of appeals which have barred lawsuits for damages against State entities for violations of Federal statutory rights may have eliminated the primary incentive for public educational institutions to comply with legal standards that protect the rights of copyright owners.

Our other concern in this area is the fact that the exemption maintains the 25-year-old application specifically to non-profit educational institutions, despite the fact that the Register documented 2 years ago, and the market has continued to proceed in a way that completely blurs and obliterates the distinction between the involvement of non-profit and for-profit entities.

Again, as I said at the outset, we are pleading in the alternative. Our other argument would be that if you believe that it is still, despite these reasons, justified to go forward with legislation, we have set forward a number of concerns in our testimony that we hope will allow you to revise this legislation in a way that will properly balance the concerns of copyright owners and the user community so that the clever acronym that you have come up with for this legislation, TEACH, does not devolve into something that really would stand more for the Technology, Education and Copyright Heist Act, in the way it would be performed in application.

We have divided those comments into areas that would affect the scope of the legislation, particularly the scope of the exemption, who is eligible for applying the exemption, and the safeguards that are involved in them. We would be happy to answer any questions both today and in writing with respect to those particular suggestions.

[The prepared statement of Mr. Adler follows:]

PREPARED STATEMENT OF ALLAN R. ADLER, VICE PRESIDENT FOR LEGAL AND GOVERNMENTAL AFFAIRS, ASSOCIATION OF AMERICAN PUBLISHERS

Mr. Chairman and Members of the Committee:

Thank you for inviting me to appear here today on behalf of the Association of American Publishers ("AAP") to discuss S. 487, the proposed "Technology, Education And Copyright Harmonization Act of 2001" (or the "TEACH Act").

As the principal national trade association of the U.S. book publishing industry, AAP represents some 300 member companies and organizations that include most of the major commercial book publishers in the United States, as well as many small and non-profit publishers, university presses and scholarly societies.

AAP members publish hardcover and paperback books in every field of human interest. Among these members are the nation's leading trade publishers, who produce a wide array of fictional and non-fictional literary works that include the "best sellers" enjoyed by millions of readers of all ages and backgrounds. Also among them are the nation's leading educational publishers, who produce textbooks and other instructional and testing materials covering the entire range of elementary, secondary, postsecondary and professional educational needs.

While continuing to serve market demands for paper-based books and journals, many AAP members now operate Internet websites and produce computer programs, databases, multimedia products, and other electronic software for use online and in other digital formats. Many are also making substantial investments in the nascent "e-book" market, where the reader's use and enjoyment of all kinds of literary works may be greatly enhanced through the added functionality that books in digital formats can offer when read on computer screens or through hand-held personal digital appliances.

Many AAP members are vigorously responding to the popular embrace of the Internet as an exciting new commercial and educational medium. They understand the medium's unprecedented capabilities for flawless and instantaneous reproduction, distribution, performance and display of text, images and sounds on a global basis. Like other media industries, book publishers are rethinking and revising their business models to adjust to the opportunities and risks created by these capabilities in a marketplace of increasing competition and evolving consumer preferences. Confidence in their ability to exploit and enforce copyright interests in the digital online environment is a key factor in shaping these new business models.

ORIGINAL AAP OBJECTIONS TO THE REGISTER'S RECOMMENDATION: STILL VALID TODAY

The proposed legislation before the Committee today is based on the legislative recommendations contained in the Register of Copyright's May 1999 "Report on Copyright and Digital Distance Education." That report critically evaluated the educational community's assertions that "outdated" provisions of copyright law, as well as extant copyright licensing practices and the deployment of technological protection measures by copyright owners, would hold back the development of Internet-based "distance education" unless Congress took action to mitigate their impact.

In July 1999 before the House Judiciary Subcommittee on Courts and Intellectual Property, and again in July 2000 before the Congressionally-mandated Web-Based Education Commission, AAP reviewed the state of Internet-based "distance education" as documented in the Register's Report and concluded that the Register's recommendations to amend current copyright law were (1) *unnecessary* to ensure the availability of diverse, high-quality online educational programs; (2) *unjustifiable* in the face of the bustling marketplace for the production of digital content; (3) *unworkable* insofar as they were contingent upon the deployment of technological safeguards not yet widely-available in the marketplace; and (4) *unfair* insofar as they ignored the exploding competition, collaboration and consolidation among for-profit and not-for-profit providers of online education programs.

Moreover, since no one has been advocating that Congress should enact legislation eliminating the need to pay for computers, software, Internet access, faculty salaries, costs of administrative personnel, and tuition in connection with online education programs, the AAP questioned why the costs of course content and, therefore, the copyright owners who create and produce them—should stand alone among the necessary elements of online educational programs as exempt from payment of fair market prices for the value they provide in the competitive "distance education" marketplace.

Today, faced with Congressional consideration of proposed legislation embodying the Register's legislative recommendations, AAP maintains that the objections it raised and the question it asked in response to previous consideration of the Register's recommendations remain valid.

The proposed legislation is unnecessary—Although the "distance education" provision in Section 110(2) of the Copyright Act was written for instructional broadcast television, and does not really apply to Internet-based online education, current copyright law nevertheless provides adequate bases for the creation and acquisition of online digital content. In fact, the admittedly limited scope of the existing statutory exemption for "distance education" has been largely irrelevant to the growth of the marketplace because, in most instances (as documented in the Register's Report), providers of online educational programs are able to:

- create their own digital content;
- digitize preexisting "public domain" materials;

• make "fair use" of preexisting third-party works; or,
• obtain licenses to use preexisting third-party works.

While the Register's Report noted anecdotal evidence of licensing problems "primarily involving difficulty in locating owners, inability to obtain a timely response, and unacceptable terms," it rejected any need for a legislative solution; concluded that many of these problems "should diminish with time and experience;" and recommended "giving the market for licensing of nonexempt uses leeway to evolve and mature." (p.164–167).

Although some licensing problems are still encountered in today's marketplace, substantial progress toward making the licensing process more convenient and comprehensible for both parties has occurred since the Register's Report was issued. Recent actions reported by AAP members bear out the Register's prediction that such problems will continue to be addressed as the marketplace evolves and matures. For example:

• Houghton Mifflin's College Division has upgraded its Permissions Department's website so customers can submit permission requests by using online "fill-in-the-blank" forms or downloading PDF templates to fill out and submit by fax. At the same time, the College Division is conducting a pilot program with Copyright Direct, a permissions tool of Yankee Rights Management that permits users to obtain real-time permissions online. The College Division is also working with Reciprocal, a "secure system" provider for granting and holding permissions, which also provides "secure containers" that permit rights and permissions information to be carried online with the content to which its relates.

• Pearson Education's Prentice Hall subsidiary has established a "Companion Website Gallery" which provides descriptions and links for an array of textbook-supporting websites that correlate additional learning activities with specific college textbooks. In addition, like several other AAP members, it has contracted with NetLibrary, an online provider of e-books, to make some of its college texts available for online access with full-text search capabilities. Computer Curriculum Corporation, a separate division of Pearson Education, also offers CCC Destinations Internet, a comprehensive online learning program that permits remote delivery of customized, essential skills education for adolescent and adult learners in community colleges, correctional education programs, and public housing education programs.

• Elsevier Science has established ScienceDirect, an online current awareness service with a "click-through" license that allows institutional subscribers to their print journals to have free remote online access to the most recent twelve months of journal issues on a rolling basis. If the subscriber allows all or selected members of the public to access its collections, the license allows such persons to access the journals online from workstations in the institutional facility.

• Thomson Learning's Global Rights Group has established a website for online evaluation and disposition of permission requests for all Thomson Learning Higher Education and Lifelong Learning companies. The website cannot be used to order and purchase materials, but provides for the use of online permission request forms and a "Lookup" status check button for all materials produced by Thomson Learning's ten higher education companies.

• Harcourt College Publishers, one of Harcourt General's higher education companies, has established an Online Learning Center that utilizes the WebCT platform to deliver courses customized by instructors to accompany many of its main textbooks. Its Custom Publishing operation allows instructors to request modifications to the company's own products, including removal of excess chapters, addition of instructor materials, institutional personalization, and the combination of several products into one. Archipelago Productions, another Harcourt higher education company, which develops multimedia courseware for distance and distributed learning, has announced alliances with WebCT and Blackboard, Inc., both well-known providers of online education platforms, to deliver Archipelago's Online Courses in a hybrid "netCD" environment that leverages CD-ROM and Internet technologies to feature the presentation benefits of CD-ROMs and the interactivity of Web browsers embedded into the disks.

• Wiley InterScience is an online journals service through which John Wiley & Sons, a leading scientific publisher, allows all users to browse and search Tables of Contents of all of its journals online, and obtain online access to abstracts for all of its titles. Depending on the type of subscriber, the service can also offer online access to the full text of all subscribed journals.

The proposed legislation is unjustifiable—Proof that current copyright law has not produced what the Register would have called a "dysfunctional market" for the provision of online educational content was affirmed by the Register's own characterizations of that marketplace, including the following:

Distance education in the U.S. is "a vibrant and burgeoning field" which the advent of digital and other new technologies for delivery has made "the focus of great creativity and investment." (p.1)

"[T]he expanded audiences for these programs represent a potentially lucrative market, which the varied participants in the process, including both corporations and educational institutions, are seeking to tap." (*Id.*)

"[D]igital technologies have fostered a rapid expansion in recent years, as well as a change in profile [in which] many more distance education courses are being offered than ever before, and the number is growing exponentially." (p.9)

"Today's distance education courses use digital technology extensively for varied purposes and in varied ways. The addition of digital technologies to the distance education palette has produced new models of learning, resulting in a richer and more interactive class environment." (p.13)

The continuing vigor of the Internet-based "distance education" marketplace was reaffirmed more than a year after the issuance of the Register's Report when the Web-Based Education Commission, in December of last year, reported that many private-sector providers are now shifting from producing content to aggregating instructional information and acting as "portals" for other content-based resources. Paradoxically, it also noted that, unless state and local educational agencies "create significant demand for innovative online learning materials, it may not be economically feasible for many online education content providers to stay in business." (The Commission, which received testimony from the Register of Copyrights and other proponents of "updating" the copyright laws to facilitate Internet-based education, noted the anecdotal record of asserted problems, but did not urge legislative action to amend the copyright laws.)

The proposed legislation is unworkable—While the Register recognized that an "updated" exemption must be conditioned on the application of effective technological safeguards in order to ensure that the balance of interests between copyright owners and users of works would be "comparable" to what Congress had carefully crafted into the existing exemption, this key element of the Register's recommendation was effectively undercut by the Register's observation that:

"Sophisticated technologies capable of protecting content against unauthorized post-access use are just now in development or coming to market, and may become widely available in the near future. But they are not there yet in a convenient and affordable form that can protect all varieties of works, and market uncertainties remain." (p.141)

This situation has not substantially changed since the Register's Report was issued in May 1999. At present, no one really knows the costs or other burdens involved in implementing the technological measures requirement in the proposed legislation. But, even if the necessary technological safeguards were widelyavailable in "a convenient and affordable form" in today's market, copyright owners have, in the period since the issuance of the Register's Report, acquired some legitimate reasons to entertain doubts about the willingness of many "non-profit educational institutions" to take on the full costs and responsibility of good-faith compliance in their implementation. Some of these reasons are based on the extent to which the Napster phenomenon, which two federal courts have enjoined as fostering ongoing instances of blatant copyright infringement on an unprecedented mass scale, has been chiefly pursued by students using campusbased Internet access and computer networks. Others may be based on the evident aversion and distrust directed toward legal prohibitions against circumventing such technological safeguards by representatives of the higher education community in hearings conducted last year by the U.S. Copyright Office. Still others may be based on the fear that recent rulings by the U.S. Supreme Court, which have barred lawsuits for damages against State entities for violations of federal statutory rights, have eliminated the primary incentive for public educational institutions to comply with legal standards that protect the rights of copyright owners.

The proposed legislation is unfair—The Register's proposed retention of the existing exemption's application to "nonprofit educational institutions" cannot be squared with the realities of the online education marketplace where, based on the following unequivocal finding by the Register, it would create unfair and unjustifiable inequities among providers of distance education programs:

"While mainstream education in 1976 was the province of nonprofit institutions, today the lines have blurred. Profit-making institutions are offering distance education; nonprofits are seeking to make a profit from their distance education programs; commercial entities are forming partnerships with nonprofits; and nonprofits and commercial ventures are increasingly offering competitive products." (p.152–153)

In order to appreciate the continuing validity of this finding, consider the explosion of entrepreneurial activity involving the higher education community's own efforts to create and market online education courses. For example, the following developments occurred *after* the issuance of the Register's Report, as reported in weekly editions of the Chronicle of Higher Education last year:

• A for-profit company, Final-Exam.com, announced plans to sell Webbased study guides for survey-level college courses, using textbook authors and other scholars to edit and market them with the option of customization by professors from their own syllabi. (January 14, 2000)

• Following the examples of New York University, Columbia University and the University of Maryland University College, Cornell University announced creation of a for-profit subsidiary, "eCornell," to market its online courses and materials online. (March 24, 2000)

• Together with five other leading educational and culture institutions, Columbia University announced the creation of a for-profit subsidiary, "Fathom," to operate a website for marketing their respective "authenticated" original scholarly resources online. (April 14, 2000)

• Following the lead of Stanford University's NextEd portal, Class.com, a for-profit subsidiary of the University of Nebraska at Lincoln, will be selling its online course content for high-school programs internationally, with eventual conversion of the content "to account for cultural differences." (May 5, 2000).

• Rupert Murdoch's News Corporation has entered a joint venture with Universitas 21, a network of 18 universities, to market custom-designed academic programs online to working college students. (June 2, 2000)

• Cognitive Arts, a for-profit entity, is working with Harvard Business School Publishing, a nonprofit subsidiary of the business school, to market online courses to entering students and to other business schools and corporations. (June 9, 2000)

For all of these reasons, AAP concludes that, regardless of the good intentions underlying the Register's legislative recommendations, they were clearly at odds with the accompanying findings and observations based on the evidentiary record compiled by the Register. And, on the specific points discussed above, developments in the marketplace since the Register's Report was submitted to Congress in May 1999 continue to undercut the recommendations, inasmuch as the requisite post-access technological protection measures are still not yet generally available for deployment in a convenient and affordable manner, and the "*for-profit*" v. "*non-profit*" distinctions among providers have—for all practical purposes—been all but obliterated in the marketplace.

ISSUES REGARDING SPECIFIC PROVISIONS IN THE PROPOSED LEGISLATION

However, in the event that this Committee rejects the arguments presented by AAP and decides to seek enactment of legislation embodying the Register's proposed amendments to the Copyright Act, AAP would urge Congress to revise S.487 so that, in practical application, the helpful "TEACH Act" acronym does not come to represent the "Technology, Education And Copyright *Heist* Act."

To this end, we request that the following considerations should be clarified or otherwise explicitly embodied in the legislation:

1. The complete exclusion of works "produced primarily for instructional use" (p.2, lines 7–8) from the scope of Section 110(2), as it would be amended, is absolutely essential to ensure, as the Register's Report noted, that the exemption does not "significantly cut into primary markets [of educational publishers], impairing incentives to create." The exemption should not cover such works, and this exclusion should not be limited, conditioned or qualified in any way.

2. The exemption, as it would be amended, should be applicable only to an accredited "nonprofit educational institution" pursuant to established standards for accreditation in the relevant educational field. In keeping with the Register's emphasis on tying the exemption to the concept of "mediated instruction" (i.e., described in the Register's Report as "the type of performance or display that would take place in a live classroom setting... a use of the work as an integral part of the class experience, controlled by the instructor, rather than as supplemental or background information to be experienced independently "), the exemption should not apply to libraries, archives, scholarly societies, or "think tanks" because the activities of these entities generally do not constitute "mediated instruction."

3. The "display of a work" (p.2, line 16) should be qualified, as is the performance of "any other work" (p.2, line 15), by the phrase "reasonable and limited portions" (or, better still, "reasonably limited portions ") so that it is clear the exemption does not permit such works to be displayed online in their entiret . In a recent submission to the U.S. Court of Appeals for the Second Circuit in its consideration of *New*

York Times v. *Tasini*, the Register of Copyright explained that, even in the preInternet world of 1976, Congress anticipated that the newly-established "display" right could displace traditional means of reproduction and delivery of copies in the context of information networks, and understood that the "display" of a work online "could eventually provide libraries and individuals throughout the world with access to a single copy of a work by transmission of electronic images." Although this realization had little significance in 1976, when Congress was creating an "instructional broadcast television" exemption from the display right, the expansion of that exemption to cover that right in the context of interactive digital networks could have extraordinary repercussions for the display of works which are—not excluded from the exemption as works "produced primarily for instructional use." For example, trade books in electronic formats would be vulnerable to the broadest claims of exemption, so that online courses in contemporary fiction or classic 20t" century literature could allow readers to consume entire "best sellers" or a publisher's most valuable backlist properties in the guise of "distance education"—cutting directly into the primary markets for "e-books." Congress must recognize the new implications of "displaying" a textual work or database online, and limit them accordingly, consistent with the limited purpose in amending the exemption. In essence, this would permit a "fair use" display of the work online, consistent with the reasonable expectations of both the copyright and user communities. The failure of Congress to recognize the importance of this issue could have dire consequences for the nascent "ebook" market and for such diverse new related services as those provided by netLibrary (www.netlibrary.com), Ebrary (www.ebrary.com), Questia Media (*www.guestia.com/guestia.html*) and others. If, as in the case of a photograph, painting or even a short poem, Congress believes it is appropriate and not a danger to the copyright owner's rights to permit the online display of the entire work, these considerations should be explicitly delineated in the exemption (e.g., perhaps through reference to codified terms such as "graphic, pictorial or sculptural works"). (See further discussion below regarding the "class session" language on p.3, line 2).

4. The statutory language should make clear that the exemption, as it would be amended, applies only to copies of a work that are already in digital form, and does not authorize the digitization, for example, of a print book through scanning (which would involve the exercise of the "adaptation" right). We understand this is the Register's intention as embodied in the explicit, limited authority under Section 112 of the Copyright Act, as it would be amended, to make copies "embodying the performance or display to be used for the purpose of making transmissions authorized under Section 110(2)." However, the lack of authorization to digitize should be made explicit in the statutory language.

5. In addition to the requirements that the "transient copies" authorized under Section 110(2), as it would be amended, must be "created as part of the automatic technical process of a digital transmission" (p.2, lines 18–19) and "retained for no longer than reasonably necessary to complete the transmission" (p.3, lines 15–17), the exemption should explicitly require that such copies must be non-accessible and secure against interception or reproduction. This will make the treatment of "transient copies" under this section more consistent with the treatment of such copies under Section 512 of the Copyright Act.

6. It is our understanding that, consistent with the previous discussion of the "mediated instruction" concept in point 2 above, the language on p.3, line 2 referring to "an integral part of a class session" is intended to ensure that the online display of a work pursuant to the exemption, as it would be revised, is limited to reasonable portions of such work as would be used in a typical, off-line live class setting, rather than the entire work. This should be clarified by amending the cited phrase to refer to something like "an integral part of a class session, and in no larger portion than might reasonably be expected to be used in a single such session. . ." Once again, the point is to generally bar the online display of a work in its entirety.

7. With respect to the requirements in paragraph (E) concerning the "policies regarding copyright" which must be instituted by the transmitting body or institution, a requirement should be added for adoption of a policy and procedure regarding termination of those who abuse this exemption to engage in repeated copyright infringements, and to require that those who rely on this exemption must affirmatively respond to "standard technical measures" of the kind used to protect copyright and referred to in Section 512(i) of the Copyright Act. Congress should also compare the requirement to "provide informational materials to faculty, students, and relevant staff members that accurately describe, and promote compliance with, the laws of the United States relating to copyright" to a similar requirement for universities seeking to limit their liability for copyright infringement under Section 512(e)(1)(C) of the Copyright Act, and assess compliance with the latter requirement.

8. With respect to the requirement to apply "technological measures" on p.4, line 5, the legislation should clarify what is intended by the phrase "reasonably prevent" and should provide some objective criteria for evaluating compliance. In addition to "unauthorized access to and dissemination of the work," the provision should require that such measures must also "reasonably prevent" unauthorized downloading, printing or otherwise copying of the work as well. In its current form, the proposed legislation provides no mechanism or standard for enforcing the requirements relating to technological measures, or any other requirements of the exemption, as it would be amended. The requirements are meaningless without a meaningful capability to enforce them.

9. The requirement at p.4, lines 8–10, to ensure that the transmitting body or institution "does not intentionally interfere with technological measures used by the copyright owner to protect the work" sets an impossibly high evidentiary standard for proving violations. The word "intentionally" should be deleted from the cited phrase to establish an affirmative obligation to not interfere; if this is unacceptable to Congress, then, at a minimum, the requirement should be amended to require that the body or entity "do nothing that reasonably could be expected to interfere" with such measures. This would at least provide an objective standard by which to assess compliance.

10. In addition to the requirements already in the proposed legislation, State entities that assert the exemption, as it would be amended, should be considered with respect to such transmissions to have waived their Eleventh Amendment sovereign immunity for purposes of any related copyright infringement lawsuit concerning the transmitted performance or display of a copyrighted work. Without such a requirement, such entities may feel little obligation to comply with the "technological measures" or other limiting requirements of the exemption, given their current immunity from damage suits for copyright infringement under recent Supreme Court rulings.

11. With respect to the U.S. Copyright Office's implementation of requirements for a report and conference under Section 4 of the proposed legislation, it would be appropriate to add such matters as the treatment of technological measures in digital distance education programs and other matters of concern to copyright owners with respect to such programs, so that implementation is based on a balanced examination of the concerns of owners and users of copyrighted works in digital formats.

CONCLUSION

As documented in the Register's Report and through subsequent developments during the past year, the marketplace for producing high-quality content for Internet-based higher education programs is a diverse, dynamic and expanding world of evolving experimentation, collaboration and innovation. Rapid technological change is producing revolutionary rethinking of business and academic models, related institutions, and the whole educational enterprise.

While providers may occasionally have problems with copyright and related licensing issues, these instances are the by-product of marketplace "growing pains," rather than the result of inadequate copyright law, and have in no way denied Internet providers of higher education the opportunity to produce exciting new educational experiences for a broad range of students through digital technologies.

If Congress is looking for ways to ensure the availability of high-quality digital content for Internet-based "distance education," AAP believes that it should express its largesse through the provision of funding, tax credits and other financial means of support to various public and private entities for the production and acquisition online educational content. Otherwise, there is ample time and reason to let the flexibility of the marketplace, with the inherent checks and balances of competition, work out continuing copyright and content quality issues without the intrusion of government mandates. As long as legal copyright protections are adequate to meet the needs of such new applications, AAP believes that policy-makers can look to the marketplace to solve most other problems.

If, however, Congress determines to go forward with legislation based on the Register of Copyright's recommendations regarding the revision of Sections 110(2) and 112 of the Copyright Act, AAP urges Congress to make the clarifications discussed above and to call upon the AAP for assistance in ensuring that the resulting legislation properly balances the interests of owners of copyrighted works with those of the users of such works.

Chairman HATCH. Thank you so much.

Mr. Siddoway, we will turn to you.

STATEMENT OF RICHARD M. SIDDOWAY, PRINCIPAL, UTAH ELECTRONIC HIGH SCHOOL, SALT LAKE CITY, UTAH

Mr. SIDDOWAY. Thank you, Senator Hatch, Senator Leahy.

Utah's Electronic High School began as a brain child of Governor Michael Leavitt about 8 years ago, and during the last 6 years we have brought it into partial fruition. We serve four major groups of students: those who have failed a class and want to make up credit, those who wish to take classes they are unable to take at their local high schools, those who wish to take extra credit and graduate early, and those who are home-schooling.

We deliver in three basic ways: broadcast television to PBS channels that public education owns time on; on a two-way voice video data system called EDNET—there are about 200 EDNET studios at 165 locations across the State; all of the public universities, colleges, applied technology centers, and most high schools have them—and then on the Internet. The classes that are delivered on both broadcast television and the EDNET system are synchronous in nature with definite beginning and ending dates. The Internet courses are not for the most part. It has grown significantly in the 6 years.

In concert with that—and I have more of that in the written testimony, but in concert with that we have also begun delivering college and university courses across the State, and that has grown, as Mr. Adler suggested, fairly exponentially in the last few years. Last year, some 8,000-plus students across the State had their courses delivered to them through distance learning.

Now, we are in perfect congruence with what Ms. Peters said concerning the regulations that should be in place. We believe, just as we have in face-to-face instruction, we should have any of this material an integral part of the curriculum. The only thing we would like to do is to be able to distribute it in a distant learning situation.

All of our classes are controlled to access. There are password controls on the Internet. Obviously, in an EDNET situation you have to be in a place where there is an EDNET studio. Even the broadcast television courses—in order to obtain credit, you have to have registered through a university and through a high school, most of them being concurrent enrollment.

So we encourage the adoption of the TEACH Act. It would free us to enhance the courses that we are offering across the State of Utah. In 11 months, Utah will welcome the world with the 2002 Olympics. With the Electronic High School, we have begun welcoming the world already. Our most distant student is in Ulan Bator, Mongolia.

We appreciate the work that you are doing.

[The prepared statement of Mr. Siddoway follows:]

PREPARED STATEMENT OF RICHARD M. SIDDOWAY, PRINCIPAL OF UTAH'S ELECTRONIC HIGH SCHOOL

Utah has a unique demography. Of the two and one quarter million residents, nearly 85% reside in an area called the "Wasatch Front," which is a narrow strip of land between the west slope of the Wasatch Mountains and the shores of the Great Salt Lake and Utah Lake. Salt Lake City, Ogden, Provo, and the cities and towns between comprise this area of the state. Conversely, the other fifteen percent of the state's population are distributed over 90% of the state's area. The original

mission of distance learning in Utah was to serve that widely dispersed rural population.

With that population in mind, Governor Michael Leavitt proposed that Utah develop an electronic high school that would deliver all of the secondary curriculum throughout the state. The nine state operated colleges and universities were likewise charged to deliver courses to rural Utah. However, it quickly became obvious that Wasatch Front students were also able to benefit from electronic delivery.

The Electronic High School serves four major groups of students: those who have failed a class and need to make up credit, those who wish to take a class not offered at their school, those who wish to take additional classes to accelerate graduation, and those who home school. We deliver our courses using three different media: broadcast television, a two-way voice/video/data system (EDNET), and over the—Internet,

The broadcast television courses are generally concurrent enrollment courses where students earn both high school and college credit concurrently, They are taught by college or university personnel. These classes are synchronous—that is, they have a definite starting date and stopping date.

The EDNET courses are delivered either by microwave, T–1 line, or fiber optic line to about 200 studios in 165 high schools, applied technology centers, colleges, universities, and a few scattered additional sites. A typical studio has two or more television sets, two or more cameras, a computes, and a tax machine. The teacher is located in one studio and students are located in two or more other EDNET locations. These classes are also synchronous.

The internet classes are typically asynchronous. Students may begin on any given day and work at their own pace. There are a few exceptions, such as our English courses that begin each eight weeks in order to keep a cadre of students together for interaction. By September of this year we will have all thirty secondary core courses available with twenty additional courses under development.

All of these services travel through the Utah Education Network (UEN) facilities housed at the Eccles Broadcast Center on the University of Utah campus. UEN also handles High Education's electronic traffic.

Higher education's delivery of classes differs froze the Electronic High School in. a significant way. They are delivering distance-learning courses for original credit only. With only nine state-supported colleges and universities, the distance-learning network reaches into remote areas of Utah with great success. Utah State University has an extensive network of distance-learning satellite reception sites that have been positively augmented with EDNET studies. Bait Lake Community College, Utah Valley State College (Provo/Orem), and Southern Utah University (Cedar City) have begun aggressively producing Internet delivered classes

The numbers of students served during the past academic year include:	
The Electronic High School	37 broadcast television classes 168 EDNET classes 12 Internet classes
Total enrollment—32,000 credits (equivalent to a 4,600 student high school)	
Higher Education	35 broadcast television classes 233 EDNET classes 181 Internet
Total enrollment	8,134 students

Each of the courses taught, whether in public or higher education, is comprised of a finite number of students with access to the class controlled by password or student enrollment—Students who take classes delivered by broadcast television must enroll with a college or university in order to have credit recorded. Similarly, they must have received permission from a high school counselor in order to receive high school credit.

Students who enroll in EDNET courses must have access to an EDNET studio. The numbers of students enrolled are similar to those in a face-to-face teaching situation.

Students who enroll in internet courses go through a password-protected portal to enter the class. The numbers are controlled and access to materials limited by the teacher.

The benefits of distance learning are many and varied. Perhaps the most significant benefit is the availability of courses to students who live in remote areas of

the state. An example would be West Desert High School in Trout Creek, which has a total 7th through 12th grade population of 29. Although this school does not have a level-4 licensed math teacher, every senior was able to take calculus last year through distance-learning.

The Electronic High School is developing foreign language courses in Spanish, French, German, Japanese, Russian, and Arabic. Each of these courses draws on native speakers who can be accessed over the internet, The Navajo Nation is also developing courses in the Navajo language that well be accessible electronically.

Distance education levels the playing field for students across the state. It does not matter whether they are in a densely populated urban area or a sparsely populated rural. setting, every class is available to them

The flexibility we .rseod i.s to be a.ble to treat each distance learning class as if it is, in fact, face-tofare anstmction with the earns fair use guidelines we enforce in traditional classrooms. We are fully in support of S. 487.

Chairman HATCH. Well, thank you, Mr. Siddoway. We appreciate you.

Mr. LeBlanc?

STATEMENT OF PAUL LEBLANC, PRESIDENT, MARLBORO COLLEGE, MARLBORO, VERMONT

Mr. LEBLANC. Mr. Chairman, Mr. Leahy, thank you for the opportunity to offer testimony on the TEACH Act.

I would like to just offer a little bit of brief background on Marlboro College. We have used distance education to reach beyond our relative remoteness, our geographical remoteness, to create and extend programs in ways unimaginable to us just 10 to 15 years ago.

We offered the country's first e-commerce degree program 3 years ago, and have since expanded to work with engineers and educators. We offer a combination of wholly online programs and hybrid programs, programs that ask students to work online with their instructors for 2 weeks at a time and then travel to Vermont. We just returned from Europe, where we are about to pilot a new program that will simultaneously serve learners in Europe, the Middle East, Africa, and India at the same time.

Our distance learning programs and activities have also become the core of a number of other important initiatives in southern Vermont, including a new technology incubator and work in open source courseware. One of the great strides really in the last 10 years in distance learning has been the creation of extremely powerful online learning environments, and one of the things that makes those learning environments as powerful as they are is the ability, in combination with broader bandwidth, to offer rich media to students at a distance.

Turning to the specifics of the TEACH Act, we applaud the elimination of current eligibility requirements having to do with physical classrooms. The essential and core benefit of distance education is to free learners from traditional constraints of time and space.

Our students come to Marlboro every other weekend, and in the intervening 2 weeks they are widely and geographically distributed. They go online at a variety of times. They do it from a variety of places, including their offices and often at home, at night, when the kids are tucked in, the dishes are picked up, and they finally can turn to their learning experience.

To the extent that distance education can help us control the cost of higher education, an ongoing issue, insisting on the provision of

physical classrooms for online delivery is simply out of step with how it happens and it is simply out of step with any attempt to try to control those costs.

The second proposal of the TEACH Act that we would like to address has to do with transmission. The proposal seems to us a common-sensical response to some basic tenets or facets of network topography. Our students at any given time are working from home, as I mentioned before, and for them to download material, that material literally hits in some cases thousands of servers, passing their way through the network until they arrive at the student's own computer and cache.

We see no basic threat to copyright in this basic condition of how networks operate. Caches are routinely flushed. As many of you know, servers are often maintained and flushed on a 2-hour basis. In combination with the use of portions of rich media materials, which is pointed out later, and also the fact that most of our providers have access passwords—we are protecting our markets in some ways, and the combination of those aspects, we think, serve to address the concerns of copyright owners in this matter.

The exemption regarding the use of various media is also extremely important to us. We certainly respect the anxiety that copyright owners feel over control of their properties, but we see no legitimate threat in the regular use of portions of those materials for the purposes of instruction.

We have had any number of examples in our own work where we have come up against what we think are too rigid restrictions on use. For example, a few years ago, in teaching a Shakespeare class we had students creating multimedia presentations on a number of plays. In one case, a student wanted to use 15 seconds from Kenneth Branaugh's "Henry V." It took us almost 2 weeks to track down the right person with whom to speak, and when we finally had that conversation they reported back to us that it would cost the student $2,000 for a one-time use of that video.

More recently, we have a student in our graduate class who has done a wonderful presentation for a marketing online course, but could not share that with his students in a study group because, again, he had to wait until they arrived on campus 2 weeks later. I would like to show it to you very quickly, and I will show you the piece that was in question.

[Video shown.]

Mr. LEBLANC. The approximately 8 seconds of audio you heard was the audio in question. We could not use it in the instructional setting. We think that no reasonable even practiced Napster user would be interested in such a short clip from a popular piece of music.

At the K–12 level, I think the issue is even more pressing. We have students working in a master of arts in teaching program, and in one case a teacher of a graduate student who wanted to use a small portion of the Magic School Bus program tried to track down licensing, in this case had to turn to the MPLC, and in this case the fees were between $2 and $8,000, depending on the length of the clip.

By the way, again, the interaction took more than 2 weeks and really mitigates against any timely and responsive instruction for

classroom teachers. We think this is a tremendous issue, actually, in K–12, a more pressing issue.

Lastly, we would like to turn to and applaud the reiteration of the Kerrey Commission's call for agreed-upon guidelines for fair use of digital materials.

Senator Leahy [presiding]. Mr. LeBlanc, I don't want to interrupt, but we are going to have votes scheduled. I don't want to cut into Mr. Carpentier's time.

Mr. LEBLANC. The last piece, only that we do see a need for clarification on this. We do believe there are many good resources available. We use them in training our own teachers. They exist at the college level. They don't exist in K–12.

Thank you.

[The prepared statement of Mr. LeBlanc follows:]

PREPARED STATEMENT OF DR. PAUL LEBLANC, PRESIDENT, MARLBORO COLLEGE, MARLBORO, VT

Thank you Mr. Chairman, Senator Leahy.

I'd like to begin with some background on the Graduate Center of Marlboro College, an innovative branch of our institution that provides internet-based curriculum to working professionals.

Three years ago, we introduced the first e-commerce degree in the nation, followed quickly by two additional graduate programs for engineers and educators. In addition, we're preparing to launch a wholly online Internet Teaching Certificate program that will target K–12 teachers specifically. Given our programming, the proposed TEACH legislation is of great interest to us and we applaud your extensive work with the Office of Copyrights to enact these minor changes that will so greatly expand what our students are able to accomplish in their studies.

Other activities of The Graduate Center have included innovative partnerships and software development to foster a richly-interactive, comprehensive virtual learning environment.

The software environment that our designers have created is capable of supporting rich media; however, it is currently underutilized due to the prohibitive expense and paperwork involved in licensing and distributing copyrighted materials for use in distance instruction.

I'd like to pause for a moment to address the technological aspects of transient copies. As many of you know, a network server must send digital packets to literally hundreds of servers before it reaches the intended recipients through the world wide web. However, servers that receive intermediate copies routinely have their memory cache flushed, the remnants of those data are often incomplete, and if the proposed amendments are approved, at best, "hackers" would obtain unauthorized access to small excerpts of rich media, which, out of the context of instruction, are essentially so devoid of value as to be an insignificant threat to primary markets for the source materials.

Although this transmission technology is also safeguarded by the provisions of secure servers, encryption, and user passwords, we are still experiencing the frustration of not being able to serve our distant students as fully as we are currently able to serve their residential counterparts who can attend in a "traditional" classroom.

One example that comes to mind from my personal experience was the request to use a small excerpt from the Branagh version of a Shakespeare play, which would have taken months of paperwork and thousands of dollars to accomplish. Unfortunately for our students, I abandoned a sound pedagogical plan because of the obstacles.

An example taken from our graduate courses demonstrates clearly as well, the ongoing struggle between valid instructional use of copyrighted materials and the restrictions against using sound recordings in our online courses.

As this marketing student's campaign illustrates, the inclusion of just 8 seconds from the licensed popular song "Everybody Dance Now" has now rendered an otherwise excellent model of instructional excellence in developing an effective campaign inaccessible to our distant students.

We see this disadvantage even more dramatically at the K–12 level, where one of our education students was interested in obtaining a segment of the popular "Magic School Bus" science series, the production of which is co-sponsored by the NSF. The teacher found that the process and expense of obtaining license from the

MPLC were both prohibitive and prevented the delivery of timely instruction in an innovative delivery system.

Finally, in closing we'd like to applaud the Senators' provisions of copyright education resources to all students and faculty members who engage in distance learning environments. At Marlboro College, we are grateful to the Library of Congress for its excellent website, filled with educational resources to which we regularly refer our teachers and students in their coursework. In addition, we refer our faculty specifically to the "Crash Course in Copyright" website hosted at the University of Texas, in Austin.

Thank you for your attention, Mr. Chairman, Senator Leahy.

Senator LEAHY. Thank you very much. As you know, I have visited up there and I am very impressed with what you are doing.

Professor Carpentier? We would say in Vermont Carpentier. How do you pronounce it?

Mr. CARPENTIER. Both.

Senator LEAHY. Both, OK. Go ahead.

STATEMENT OF GARY CARPENTIER, ADJUNCT PROFESSOR OF LAW, WASHINGTON COLLEGE OF LAW, AMERICAN UNIVERSITY, WASHINGTON, D.C.

Mr. CARPENTIER. It is a great privilege to speak to you today about the Technology, Education, and Copyright Harmonization Act of 2001. I am Gary Carpentier, Adjunct Professor of Law at the LL.M. Program in International Legal Studies at the Washington College of Law. My views here today are my own and not the views of the College of Law.

Together with my colleague, Professor James Holbein, the Washington College of Law is creating an Internet-based law course on the North American Free Trade Agreement. The Washington College of Law has created a consortium of nine different schools on the North American continent—Case Western Reserve University School of Law and University of New Mexico School of Law in the United States, three schools in Mexico, and three schools in Canada.

This legislation comes at an important juncture in the evolution of distance education. Traditional teaching techniques have been outpaced by the opportunities in an online world. The Act strikes a balance between the creators and the holders of the copyright and those seeking to use such works in education and research. It broadens the existing definitions of reproduction and distribution rights, and it modifies our reality and our concept of permitted transmissions under existing exemptions and the fair use doctrine.

The debate continues between copyright-holders and users, and how technological advances work for both groups and satisfy their needs. Content owners can be secure in knowing that there are limitations in place to assure that their works will not be otherwise commercially exploited. Educators will employ this legislation as a guideline to permissible activities within such limited and reasonable uses of expanded categories without the chilling effect of negotiating a license for every type of transmission.

The bill preserves many of the underlying policy objectives and the intent of traditional systematic education or classroom experience. Even though transmissions are not limited to the physical classroom, the bill includes safeguards of restricting the classes of

eligible recipients to those students and employees enrolled in courses in which such transmissions are made.

In the design of our online NAFTA course, we have to consider the evolution of the current copyright regime. This legislation will make our job easier to allow us to stay on the cutting edge of technology, and thereby providing the best education for our students in all nine law schools in the consortium.

It was also useful to examine the relationship of this proposed legislation on our international trade agreements. It is my opinion that S. 487 should not violate our obligations under international intellectual property agreements.

The Berne Convention provides for the copying of the portions of work that have already been made available to the public if it is within the guidelines of the fair use doctrine and does not exceed the justified purpose. In addition, it is a matter of domestic law to determine the use of works protected by copyrights for teaching purposes.

The WTO Agreement on Trade-Related Aspects of Intellectual Property Rights, generally known as TRIPS, provides that exceptions to the copyrights must be limited to special cases that do not conflict with the normal exploitation of the work and do not unreasonably prejudice legitimate interests of the rights-holders. In establishing the right to use limited portions of copyright works for teaching purposes, this legislation falls within the parameters of these international obligations.

In the interests of time, I would like to conclude that the Act has embodied recommendations suggested by the U.S. Copyright Office Report on Copyright Law and Digital Distance Education. It promotes digital distance learning by permitting certain limited instructional activities to take place without the risk of copyright infringement, and encourages the transmitters of such information to inform its users about the proper use of copyright laws.

This legislation will greatly enhance the use of cutting-edge technologies such as public and private key encryption techniques to restrict the retransmission of documents, books, streaming music, and streaming video clips, digital certificates that authenticate the identity of users, as well as digital watermarks that help track location and use by unauthorized users.

I look forward to working with the Committee to help enact this legislation into law. It is critical that we respond with solutions that enable our citizenry. I am in particular support of Chairman Hatch's suggestions and reforms that allow students to take a lighter class load than is now required to benefit from financial aid. Imagine the opportunities and the impact that non-traditional students such as working mothers and lifelong learners will be able to take advantage of such online offerings.

We must enable smaller institutions to out-source Web service to enable them to join the online educational community. They must be able to overcome the barriers to entry to this market. They must be able to access infrastructure, capital, and human resources. Altogether, this makes for a formidable package of reforms to promote the use of the Internet in educational offerings to all American students, no matter what age or locale—access to the best education anytime, anywhere.

I want to thank Chairman Hatch and Senator Leahy for this opportunity to testify before you today.

[The prepared statement of Mr. Carpentier follows:]

PREPARED STATEMENT OF PROFESSOR GARY CARPENTIER, ADJUNCT PROFESSOR OF LAW, LL.M., PROGRAM IN INTERNATIONAL LEGAL STUDIES, THE WASHINGTON COLLEGE OF LAW, THE AMERICAN UNIVERSITY, WASHINGTON, DC

Thank you Chairman Hatch, Senator Leahy, distinguished Senators and colleagues, it is a great privilege to speak with you today about the "The Technology, Education and Copyright Harmonization Act of 2001". lam Gary Carpentier, Adjunct Professor of Law in the LL.M. Program of International Legal Studies at The Washington College of Law at the American University here in Washington, DC. The views that I am presenting here today are my own and not those of The Washington College of Law.

Together with my colleague, Professor James Holbein, the Washington College of Law is creating an Internet based law course on the North American Free Trade Agreement. The Washington College of Law has created a consortium of nine law schools on the North American continent that will present this course. Case Western Reserve University Law School and the University of New Mexico School of Law in the United States, three university law schools in Canada and three in Mexico.

This legislation comes at an important junction in the evolution of digital distance education. It embraces the need to adapt to new technological advancements in information delivery and educational synthesis. Traditional teaching techniques have been outpaced by the opportunities in an online world.

The Technology, Education and Copyright Harmonization Act of 2001 strikes a balance between the rights of the creators and holders of the copyright and those seeking to use such works for education and research.

S. 487 broadens existing definitions of reproduction and distribution rights. It modifies the reality of our concept of permitted transmissions under existing exemptions and the fair use doctrine.

The debate continues between copyright holders and users about how can technological advances work for both groups and satisfy their needs. Content owners can be secure in knowing that there are limitations in place to assure that their works will not be otherwise commercially exploited. Educators will employ this legislation as a guideline to permissible activities within such "limited and reasonable" uses of expanded categories without the chilling effect of negotiating a license for every type of transmission.

The bill preserves many of the underlying policy objectives and intent of the traditional systematic educational or classroom experience. Even though transmissions are not limited to a physical classroom, the bill includes the safeguard of restricting the classes of eligible recipients to those students and employees enrolled in courses in which such transmissions are made.

I feel that the Committee should seek more meaningful and contemporary criteria for eligibility requirements of institutions seeking any exemption under the contemplated legislation. Bona fide educational institutions are no longer limited to "non-profits". While accreditation status advances the analysis, it still leaves many questions unanswered. Until standards become more uniform, this is our most rational starting point. We can no longer theorize how a system "should" work. We must put theory into action.

In the design of our online NAFTA course, we had to consider the evolution of the current copyright regime. This legislation will make our job easier and allow us to stay on the cutting edge of technology and thereby providing the best possible education for students in all nine law schools in the consortium. They are: The Washington College of Law; Case Western Reserve University Law School; The University of New Mexico School of Law; University of Ottawa; Universite de Montreal; University of Western Ontario; Universidad Nacional Autonoma de Mexico (UNAM) in Mexico City; Universidad de Guanajuato in Guanajuato; and Universidad de Baja California (UABC): Tijuana.

It is also useful to examine the relationship that this proposed legislation has on our international trade agreements. It is my opinion that S. 487 should not violate our obligations under international intellectual property agreements. The Berne Convention provides for the copying of portions of a work that has already made available to the public, if it is within the guidelines of the fair use doctrine and does not exceed that justified purpose. In addition, it is a matter of domestic law to determine the use of works protected by copyright for teaching purposes. The World Trade Organization (WTO) Agreement on Trade-Related Aspects of Intellectual

Property Rights, generally know as the TRIPS Agreement, provides that exceptions to copyrights must be limited to special cases which do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the rights-holder. In establishing the right to use limited portions of copyrighted works for teaching purposes, this legislation falls within the parameters of these international obligations.

This legislation is consistent with the Berne Convention and the TRIPS Agreement. It is confined to the non-commercial use of some aspects of copyrighted works, for teaching and research purposes only. This is a very different situation than the disputes that have arisen under the TRIPS Agreement. For example, Canada permitted one of its cable television channels to receive and re-broadcast country music without paying the appropriate license fees to U.S. rights holders. A resolution to that dispute was reached under the NAFTA Chapter 20 consultation process. This situation is different from the limited, non-commercial, educational uses of protected works already covered by Sections 107 and 110 of the Copyright Act.

Under U.S. law the doctrine of "fair use" in Section 107 covers the activities envisioned in the legislation. Section 110, which is being amended, already permits the use of these types materials for teaching purposes. Typically, educators are reasonably careful to obtain copyright permission when using portions of protected works for classroom presentation, handouts, textbooks, etc. That practice is not discouraged by this legislation. Rather, this Act will help to ensure the free exchange of ideas within the contemplated in the U.S. Constitution in article I, section 8. where it states, "Congress shall have the power to promote the progress of science and useful arts. . . ." In order to stay competitive in a global economy, we must foster "anytime, anywhere learning" to fit the needs of young people and lifetime learners.

I look forward to working with the Committee to help enact this legislation into a law. It is critical that we respond with solutions that enable our citizenry. I am in particular support of Chairman Hatch's suggested reforms that allow students who take a lighter class load than is now required benefit from financial aid. Imagine the opportunities and impact that would have on non-traditional students, such as working mothers and lifelong learners to be able to take advantage of online offerings. We must enable smaller institutions to outsource web services to enable them to join the online educational community. They must be able to overcome the barriers to entry to the market. They must be able to access infrastructure, capital and human resources. All together, this makes a formidable package of reforms to promote the use of the Internet in educational offerings for all American students, no matter what age or locale. Access the best education, anytime, anywhere.

I want to thank Chairman Hatch and the Committee for this opportunity to testify before you today.

Senator LEAHY. Thank you.

We will hold for just a moment.

Senator Hatch is back.

Chairman HATCH. I apologize for having to leave for a minute. Let me just ask a few questions.

Mr. Siddoway, you mentioned how the Electronic High School serves students with special needs in Utah, including those who cannot get to class because they either have a disability that keeps them from school or they live far enough away from the school that offers that particular class.

Could you tell us how important making these classes available online is to those students and tell us how you think audio-visual or sound recording components to a language class or a science class offered on the Internet would enhance the learning opportunities of those students in Utah and elsewhere?

Mr. SIDDOWAY. Thank you for that question. As you may be aware—I know Senator Hatch is—Utah is a fairly rural State. We have 2.25 million people. Of those 2.25 million people, 85 percent of them live on a 75-mile strip, on what we call the Wasatch Front, the west slope of the Wasatch Mountains. The rest of the State is fairly rural, and 90 percent of the geography of the state houses that 15 percent.

We are delivering courses to such diverse places as Trout Creek, West Desert High School, with a total 7–12 population of 29; to Navajo Mountain that you cannot reach from Utah. You go into Arizona to get back to Navajo Mountain. All of those classes are enhanced.

We are video streaming and we are audio streaming now. For example, we have a Navajo language class beginning in Blanding, Utah. Of course, Navajo was the one code that the Japanese did not break during the Second World War. It is a difficult language, and if we are not able to audio stream it—and, of course, we are doing it with Native speakers, so that is available. A number of these courses could benefit greatly if we could use commercially prepared material and have the rights to use portions of it over the Internet.

Chairman HATCH. I see.

Mr. Carpentier, as a lecturer and course designer, do you think our legislative efforts that we are offering here will significantly help promote the use of high-technology tools like the Internet in education?

Mr. CARPENTIER. It gives the ability of a teacher to create compelling courses, hyperlinks that can access resources, music clips, video clips. The copyright laws as they are framed within your legislation helps the less savvy copyright user to create new and interesting course work. It is really important that they can use this as a guideline and can take advantage of this opportunity.

In addition to giving this copyright a safe harbor, I think it is important to highlight the reforms that you mentioned in your opening statement, and that is to give access to institutions and students within the system. Smaller institutions need access to infrastructure, capital, human resources.

Non-traditional learners such as working mothers, people in rural settings, also need access to the system. This legislation gives those folks that ability to learn anytime, anywhere, and I think it is really important that we all work together to come up with a solution immediately to stay competitive.

Chairman HATCH. Well, thank you.

In addition to chairing this Committee, I chair the Trade Subcommittee of the Finance Committee, as well, and I have long been concerned about effective copyright protection abroad.

Ms. Peters, I am a strong supporter of the TRIPS agreement. Would an expanded section 110(2) exemption be consistent with our obligations under the Berne Convention and the WTO TRIPS agreement?

Ms. PETERS. Professor Carpentier basically said that he thought that it would not violate our international agreements, and I clearly think it does not. The way that the TRIPS agreement is worded, you can have exceptions or limitations if there are certain special cases and if they don't conflict with the normal exploitation of the work and don't unreasonably prejudice the legitimate interests of the rights-holder.

Clearly, systematic instructional activities is a very limited, special case. I think the safeguards that are put in here with regard to who can get the work and the reasonable and limited portions for audio-visual works on sound recordings, as well as the require-

ment for technological protection measures, clearly make this an exception that would pass muster.

Chairman HATCH. Mr. Heeger—and the other representatives of educational institutions can also address this if they wish—do you now employ in your Internet offerings access and copy controls, and do you believe most educational institutions could comply with the requirements of this bill to implement such controls?

Mr. HEEGER. Mr. Chairman, quality distance education carries the obligation on the part of the provider to provide extraordinary and deep services to the students, and to provide controls as well on the copyrighted material. At my university, we have put a great deal of effort in terms of copyright management programs. We have an extensive licensing program and we have an extensive program of access control.

Nonetheless, I think managing those issues is onerous, and institutions have to learn a great deal in order to do it. We are committed to complying with all the regulations. I have found in my work across the country all of the institutions that I am working with are equally committed to complying with all of the regulations, and I have no doubt as copy control techniques become more and more available, those too will be eagerly embraced. Institutions need clear rules of the road so that they can function effectively in developing distance education.

Chairman HATCH. Thank you, Mr. Heeger.

My time is up.

Senator Leahy?

Senator LEAHY. Thank you, Mr. Chairman. I notice in Mr. Adler's testimony he speaks of our legislation as being unworkable, and if it continues as it is that apparently Senator Hatch and I are involved in a theft. He would call it the Heist Act. At another time, I used to prosecute thieves. I have never been accused of being one.

I have a great deal of respect for both Mr. Adler and the publishers, but I think that this may be protesting a bit much. I totally disagree with him, but he may draw that conclusion.

Ms. Peters, do you think this legislation is unworkable?

Ms. PETERS. No. Obviously, we wouldn't have proposed it if we thought it was unworkable. I think it is carefully crafted. I think that the concerns that Mr. Adler spoke of—his concern about having full text available, his concern that it interfered with licensing markets—are concerns, but I do think that the way that this is crafted, those markets are preserved and the technological protection measures will take care of a lot of the concerns that he has.

Senator LEAHY. Thank you.

Yesterday, 18 leading high-tech CEOs sent a letter to the President and also to the Congressional leadership, and they said that improving the Nation's education system must be a national priority. Teachers and students have to have a high-quality curriculum; they have to have sustained professional development, particularly in math, science and technology skills.

I happen to totally agree with that, and I think that if we are going to compete with the rest of the world, we have got to do much, much better than we are currently doing. I know this is not news to Mr. LeBlanc, as President of Marlboro College. As his tes-

timony shows, they have begun offering a graduate program for teachers on how to use the Internet for instruction.

A lot of the focus of the distance learning debate has been on college and adult-level education, and computers and the promise of distance learning, the opportunity of students at any age. I am concerned with small schools, and I am thinking of one.

Paul, I don't know if you know it, but in Granville, Vermont, there is one of the very few one-room schoolhouses still existing. It is one of the schools I go online with all the time because the kids ask such great questions. Some of them go on to become Merit Scholars. Many of them have gotten scholarships to some of the most prestigious universities in our country.

But I worry that they are not near a college; they are not near a university. They are down in a small forestry product community, and I wonder if they could end up either misusing digital information or not taking full advantage, out of fear that they may overstep their bounds. They are not going to have lawyers on staff to tell them what they can or cannot do.

One of the things that Senator Hatch and I thought about in the TEACH Act is we want a conference that will try to provide easy to understand guidelines for schools in the use of copyrighted works, so somebody can just go out and say, yes, no, can I do this, can I not do this. Would this be helpful in small schools, elementary schools, I mean the kinds of things that you and I are familiar with in our own State of Vermont?

Mr. LEBLANC. It would be extremely helpful. Teachers often in those rural, more isolated schools don't have access, as you have pointed out, to these sorts of guidelines. We could do a better job of creating guidelines that fit more precisely the K–12 context, and then I would argue those guidelines should be available in the training which gets teachers to use them and understand how to use them and where they are. And they can be made simple. We think there are ample models out there now, by the way, as I said at the end of my testimony. We think it is important piece.

Right now, what we are seeing is that access and cost of technology is outstripping the ability to deliver rich content to kids; that is, schools are being wired, the cost of boxes or computers are coming down. Yet, it is very difficult for our teachers, the teachers we are training, to easily get access to content and to do it in an affordable manner.

Senator LEAHY. Let me ask a question of Ms. Peters, and anybody else can feel free to jump in on it. The TEACH Act expands the distance education exemption in current law. It permits the reproduction and distribution of copyrighted works to the extent technically necessary to transmit work otherwise covered by the exemption. But the copies are not to be retained any longer than necessary to complete the transmission. If they are, the exemption doesn't apply any longer.

Some institutions have raised the question of caching or automatic storage in the Internet service browser. Do we need additional language in here to make clear that automatic caching would be covered by the expanded exemption?

Ms. PETERS. In our testimony, we mentioned that we probably were too restrictive and that institutions don't have control over

what happens down the line, and that we would be willing to work out language that is appropriate.

Senator LEAHY. I am concerned about some potential liability for the schools, when it wasn't something they tried to do.

Does anybody else care to speak to that?

Mr. ADLER. Senator, if I may comment, let me say that neither I nor the publishers I represent would ever have any reason to suspect either you or the Chairman of untoward motivations in introducing this legislation.

Senator LEAHY. I don't want to leave the suggestion that you do. As I said, I have a great deal of respect both for you and your organization.

Mr. ADLER. We are simply concerned that in your beneficence you may inadvertently provide the tools for some people to do that.

On the issue of automatic caching, we understand the problem, and the comments we have made in the testimony with respect to transient copies basically would apply there as well so long as the cached copies cannot themselves be accessed to be used independently for reproducing and redistributing these materials. We understand the role that caching plays in the process and we will work with you and the Register to accomplish that.

Senator LEAHY. You know, what might be a good idea, Mr. Chairman, is at some point—and it might be good not as a regular hearing, but it might be good for the other members of the Committee just to get some of the technical people in and do a demonstration, and have Ms. Peters and Mr. Adler and others here to say, OK, that we like, that we don't like. I think it could be something even the Internet Caucus could put together. It is so easy to speak on the dry aspects of it, but to see what really does work and what would be allowed under the law and what would not be allowed under the law might be something worth trying.

Chairman HATCH. Sure.

Well, this has been an interesting panel to me. We are trying to do what is right here, and we have paid particular attention to you, Mr. Adler, and your concerns. But each one of you has been very helpful to the Committee here today. We are going to try and do what is right.

Blame Ms. Peters.

[Laughter.]

Mr. ADLER. Mr. Chairman, we would like just to ask you, in particular, to pay particular attention to how the issue of displaying a work is treated because display in the context of interactive digital networks like the Internet now means something very different than it did in the context of analog broadcast television. It is essentially the basis of the nascent e-book to display a work, but to do so in digital formats that allow it to be fully usable, searchable, capable of being notated.

Chairman HATCH. And downloaded, and so forth. We understand.

Senator LEAHY. Yes. In fact, we are dealing with a whole change in your business, in publishing, of course. I am very conscious of the fact that we are not going to have any works to display unless people can be paid for the product of their work. Now, that may

be a lot different in the future in the way they are going to distribute it. The type of payment and all may change.

The good part is that authors and scholars who create these works should be paid for what they are doing, and the people who publish them, and so on. But, also, you don't want the situation we have. We have schools in this country, and some in some fairly affluent areas, where if you go to the government text Jimmy Carter is still President. You can imagine what it is like when you go to either world history or world geography kinds of things and you have got globes and maps with countries that no longer exist and a whole lot of countries that have come into being.

My eldest son was at the house the other day and we were cleaning out a closet and there was a globe he had in high school, which was the most modern, up-to-date at the time. This was 15 years ago, and I remember when we gave it to him it was the most up-to-date globe you could get. And it was remarkable. I mean, you go to the former Yugoslavia, you go to the former Soviet Union and you see all these changes.

But with constant electronic updating, children can keep up with that, and so we have got to get that balance. Children should not have totally out-of-date texts. They should not have to study that way, but we need to get the balance right.

Chairman HATCH. Well, we look forward to working with everybody who happens to be interested in updating and improving the educational opportunities of our students around the country. By using technology like the Internet and by assisting our educators in offering compelling content, we think that we can upgradethe quality of education for our kids all over America.

So we want to particularly thank you again, Ms. Peters, for the work that you have done in helping us. You have heard some of the suggestions here today. We would like to have your best advice on this bill. We don't want to do anything that isn't right, but we do think that this is something that has to be done. So we want to thank all of you for being here.

With that, we are grateful for this hearing and we are grateful to have your testimony. We will adjourn until further notice.

[Whereupon, at 11:04 a.m., the Committee was adjourned.]

[Questions and answers and a submission for the record follow:]

QUESTIONS AND ANSWERS

Responses of Allan Robert Adler to questions submitted by Senator Leahy

Question 1: The TEACH Act does not change the limitation in current law applying the distance education exemption in section 110(2) only to "non-profit" educational institutions. For-profit educational institutions have never qualified for the exemption. The Copyright Office and content owners have raised a legitimate question about whether "non-profit" is an appropriate qualifier since some "non-profit" institutions may not be *bona fide educational institutions. Should the requirement that the educational institution be "accredited" before it is able to qualify for the exemption be added*?

Answer: 1: The proposed revised exemption will confer a substantial economic benefit on eligible institutional users of copyrighted works at the expense of the lawful property interests of authors, publishers and other copyright owners. To justify such a government mandate and prevent abuses of the privilege it bestows, institutions seeking to use such works pursuant to the exemption should at least be required to demonstrate that they reasonably can be expected to do so in compliance with both (1) the terms of the exemption and (2) the intent of Congress that the exemption should serve to facilitate the provision of high-quality online educational experi-

ences. One way in which this can objectively be accomplished is through "accreditation" requirements for eligibility to claim the exemption. [*NOTE*: AAP understands this question to ask whether "accredited" should be "added" to the current "non-profit" qualifier, rather than substituted for it. If, however, this understanding is incorrect, and the intent of the question is to inquire whether "accredited" educational institutions should qualify for the exemption, *regardless* of their non-profit or for-profit status, the responses to Questions 1 & 2 should be read together.]

For institutions of higher education, "accreditation" is a well-established prerequisite of eligibility to participate in the federal Title IV student financial assistance programs. The Secretary of Education, pursuant to Congressional directives, has already promulgated standards and criteria that accrediting agencies must meet in order to be "recognized" by the Secretary as qualified to accredit both for-profit and non-profit institutions of higher education for the purpose of making such institutions eligible to participate in Title IV funding programs. *See* 20 U.S.C. 1099b; 34 CFR 602.1–602.50. These include detailed specifications regarding various aspects of an institution's programs, performance and resources that must be assessed in order to make an accreditation decision.

At present, distance education programs offered by such institutions are restricted from full Title IV eligibility, pending Congressional review of the Secretary's report evaluating "demonstration programs" that were authorized by Congress to permit participating institutions to offer such programs without meeting certain requirements that generally restrict their Title IV eligibility. *See* 20 U.S.C. 1093. Among the recommendations of the Web-Based Education Commission is a full review and, if necessary, a revision of the 12-hour rule, 50 percent rule and other specific requirements that currently restrict full eligibility of distance education programs for Title IV funding.

A review by the Department of Education and Congress of the appropriate distance education accreditation standards and requirements with respect to Title IV student financial assistance eligibility for offering institutions of higher education could, in turn, help to determine appropriate accreditation standards and requirements to qualify distance education programs of non-profit institutions of higher education with respect to eligibility for coverage by the revised distance education copyright exemption proposed in S. 487. Assuming that this exercise would appropriately address the institutional issues that are relevant to eligibility for the exemption but are not currently assessed under existing accreditation criteria (such as the institution's compliance with the exemption's requirements to apply "technological measures" that reasonably prevent unauthorized access to and dissemination of copyrighted works used in the exempt transmissions), such accreditation standards and requirements could also be adapted for purposes of qualifying the eligibility of non-profit elementary and secondary education institutions for coverage by the exemption. Unlike institutions of higher education, institutions that provide elementary and secondary education are not currently subject to general accreditation standards and requirements with respect to their eligibility for participation in federal education funding programs, but instead must qualify for eligibility under the particular standards and requirements of each of the many different funding programs according to the purpose of each program.

Question 2: Many sponsors of distance education programs are not purely "non-profit." Some non-profit schools have begun to engage in distance education for profit, some commercial entities are forming partnerships with non-profit institutions to offer distance education, and some commercial textbook publishers, like Harcourt General, want to provide full-service distance education programs for accredited college degrees directly. Competition between the non-profit and for-profit distance learning programs is good for the country. *Do you think that retaining the non-profit requirement in current law helps non-profit educational institutions compete*?

Answer: 2: It seems logical to assume that retaining the "non-profit" requirement in the revised exemption *would* help non-profit educational institutions to compete with for-profit educational institutions in the provision of distance learning programs because, in many instances, it would effectively allow the former to avoid certain costs that may have to be borne by the latter for their identical uses of the same copyrighted works in offering online distance education programs. Absent a credible "fair use" claim, these costs consist of expenditures in time, effort and money necessary to obtain the permission of the copyright owner for that use. Assuming that other costs to produce and deliver similar programs are the same, the avoidance of these costs result in lower costs for the non-profit's production of the online education program, and would presumably allow the non-profit institution to offer the program for a lower fee or tuition, which would (other things being equal) make its program more attractive in the marketplace than the same program offered by the for-profit institution. Moreover, avoidance of these costs could allow the

non-profit institution to use more or better-quality copyrighted works that might be unaffordable for the for-profit institution, again making the non-profit's program more attractive in the marketplace.

Of course, asking whether retention of the "non-profit" requirement helps such institutions to compete is much different than asking either whether retention of the requirement is *needed* in order for non-profit educational institutions to compete, or whether it helps them to compete *unfairly*. non-profit educational institutions, it must be remembered, comprise a class that includes numerous major public and private higher education entities that are supported by various combinations of substantial taxpayer funding, alumni donations, tuition payments, and corporate or foundation grants, as well as income from patent and other property rights. For many, if not most, of these institutions, retention of the "non-profit" requirement in the revised exemption is not needed to permit them to compete with for-profit institutions of higher education or other for-profit providers of online education programs. It may, in fact, simply provide them with an unfair competitive advantage over such competitors.

Similarly, with respect to non-profit elementary and secondary education institutions, it is not clear why they would "need" the exemption to compete, since this class consists predominantly of public, tax-supported schools which are not currently facing any substantial competition from for-profit entities. If, however, the advent of charter schools, tuition voucher policies, and the like were to produce such competition from for-profit entities, retention of the "non-profit" requirement for the revised copyright exemption might nevertheless be viewed as giving the non-profit institutions an unfair competitive advantage with respect to the use of copyrighted works in the provision of online education programs.

Hence, the quandary in limiting eligibility for the revised exemption to "non-profit educational institutions"—while it is difficult to justify a government mandate that would allow for-profit educational institutions to freely ride on the investments of copyright owners (including other for-profit providers), it is clear that establishing the revised exemption for the benefit of "non-profit" educational institutions is, for many such entities, an unnecessary and unfair advantage in a competitive marketplace that has made the distinction between "non-profit" and "for-profit" providers largely irrelevant.

Question 3: The bill contains safeguards to minimize the risk to copyright holders that the use of works under the expanded exemption could result in copyright piracy. Among those safeguards is a provision requiring the school to use "technological measures that reasonably" prevent unauthorized access and dissemination. *Could you describe the technological measures that copyright owners are using todgy to minimize the risk of unauthorized downstream use of copyrighted works in distance learning programs*?

Answer: 3: Less than two years have passed since the Register of Copyrights issued the "*Report on Copyright and Digital Distance Education*," including the legislative recommendations on which S. 487's proposed revision of Section 110(2) of the Copyright Act is based. Although the DMCA debates and the compression of events in "Internet time" might have led many people to expect extraordinary developments from copyright owners in the design and deployment of "technological measures" during this period, the description of "Technologies To Protect Content" in the Register's Report (p.57–67) remains largely accurate and current—at least with respect to the publishing industry—in its survey of extant uses of technologies to control unauthorized downstream use of copyrighted works in online education programs.

Secure digital containers and proprietary viewers, encryption, streaming formats, and digital watermarking continue to be the leading options available to copyright owners, with new variations on these themes emerging as part of the development of commercially-viable "e-book" presentation and delivery mechanisms. Much of what is occurring in these areas, however, is considered proprietary and confidential. As a result, there is little detail on the public record to document or explain current developments.

Question 4: Some copyright owners have argued that distance learning is flourishing and that expanding the scope of the exemption provided in section 110(2) may interfere with the primary market of educational publishers, if distance educators can get this material for free under the exemption. The bill expressly removes from the coverage of the exemption "work produced primarily for instructional use" since we want educational publishers to have the incentive to invest in and publish innovative educational materials that copyright protection can provide. *Do you see any risk to publishers of educational materials from expansion of the distance education exemption in the limited fashion posed in the TEACH Act*?

Answer: 4: For AAP, one of the most important provisions in S. 487 as introduced was the bill's exclusion of works "produced primarily for instructional use" from the scope of the proposed revised Section 110(2) exemption. Commercial educational publishers in particular were relieved to see that the cosponsors of the legislation understood and agreed with the concern expressed by the Register of Copyrights that application of the exemption to such works "could significantly cut into primary markets, impairing incentives to create."

AAP believes that this exclusion is not only necessary to the continued viability of primary educational publishing markets in the U.S., but also necessary to ensure that the revised exemption does not run afoul of U.S. obligations under international copyright agreements that protect the interests of educational publishers in markets abroad. For example, Article 13 of the TRIPS Agreement, which incorporates and extends the substantive obligations of the Berne Convention, states that "Members shall confine limitations or exceptions to exclusive rights to certain special cases which do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the right holder." This obligation is also endorsed in the WIPO Copyright Treaty, which updates and supplements Beme and TRIPS with respect to their application in the digital environment. Without the exclusion, AAP believes the proposed revised exemption would violate these international agreements.

For these reasons, AAP also believes that the exclusion from the exemption of works "produced primarily for instructional use" should not be limited, conditioned or qualified in any way, including by carve-outs which would make use of certain instructional works or limited portions of such works explicitly subject to the exemption. In this vein, we note our concern regarding the hearing testimony of Gerald A. Heeger on behalf of the Association of American Universities, the American Council on Education, the National Association of State Universities and Land-Grant Colleges, and the Association of Research Libraries. Mr. Heeger specifically urged that "instructional audiovisual materials" should fall within the scope of the exemption, but he argued more generally that "[i]nstructional materials often will be essential to effectively harmonizing the content of local and remote instruction." In that context, Mr. Heeger's request regarding audiovisual materials is likely to become the proverbial "camel's nose under the tent," and there will be no logical place to draw the line on further carve-outs if this one is accepted. Following this path could broaden the exemption to the point where it becomes the basis for creating "electronic coursepacks" or so-called "e-reserve" collections, neither of which could be justified by the Register's statements in support of a limited revised exemption.

Question 5: To encourage the use of the Internet in distance learning, the TEACH Act would expand the distance education exemption in current law to permit the reproduction and distribution of copyrighted works to the extent technically necessary to transmit the work otherwise covered by the exemption. These copies are not to be retained any longer than necessary to complete the transmission and, if they are, the exemption will no longer apply. Educational institutions have raised a concern over caching, which is an automatic storage of a copy in an Internet Service Provider's server or a user's browser to make the Internet run more quickly. The school doing the transmitting of a copyrighted work under the exemption may have no knowledge of or control over the caching of copies of the work, even though such caching might result in potential liability for the school. T3Should additional language be added to the bill to make clear that such automatic caching would be covered by the expanded exemption and, if so, what language would you suggest?

Answer: 5: It would appear to AAP that the described concern regarding potential liability of transmitting educational institutions for cache copies in an ISP's server or a user's browser does not arise at all to the extent that, in the circumstances of a particular online education program, the institution is acting as an ISP and qualifies for the liability limitations contained in Section 512 of the Copyright Act, as amended by the DMCA. Given the myriad variations in the ways in which such programs may be produced and delivered to or accessed by students, we recognize that sometimes this situation will exist and sometimes it will not. However, this leads us to inquire why, in cases where the institution is *not* acting as an ISP as defined in Section 512, or is acting as an ISP which does *not* qualify for the liability limitations under Section 512, the institution should be entitled to special treatment under the law regarding its potential liability.

Assuming without certainty that the examples of cached copies offered to illustrate the indicated concern have been validly characterized in technological terms, it would appear to AAP that there is no valid reason to prescribe special treatment for such institutions.

In the case where the transmitting institution is *not* acting as an ISP, it would appear to have no potential liability arising from such copies because, as stipulated

in the testimony of the Register of Copyrights and in the related question framed above, apart from initiating the transmission, the transmitting institution would have had no role in the making and retention of such copies, no actual knowledge or reason to believe that such copies were being made, and no ability to prevent them from being made. Under such circumstances, it is difficult to understand under what theory of copyright liability the transmitting institution would be potentially liable.

But in the case where the transmitting *is* acting as an ISP but either acts or fails to act in a manner that disqualifies it from eligibility for the liability limitations provided in Section 512, it is clear that certain theories of liability may apply, yet it is unclear to AAP why the transmitting institution should categorically be immunized from any theory of legal responsibility for such copies simply because it is engaged in the provision of online educational programs. It may, perhaps, be reasonable to provide some special conditional limitation on the institution's potential liability for direct infringement in such cases, provided that the conditions to be satisfied are parallel to those prescribed in the appropriately analogous provisions of Section 512 (depending on the circumstances in which the copies were made). However, given the very real potential for further unauthorized uses of the transmission and its included copyrighted work to occur as the result of the creation of these copies, it is difficult to conceive why the usual criteria for secondary liability under theories of contributory infringement or vicarious liability should not be applicable to the transmitting institution if such unauthorized uses in fact occur.

Question 6: Both the Copyright Office report and the report of the Web-Based Education Commission headed by Senator Bob Kerrey noted that educational institutions have difficulty with licensing for digital distance education. Even after schools determine who the copyright owner is, they often face delays in locating the owner, obtaining permission and then may incur substantial costs. The TEACH Act proposes a study by the Copyright Office on the licensing problems encountered by schools. *Are there any steps being taken by schools or copybright owners to make the licensing process easier to understand and to pursue?*

Answer: 6: The written testimony submitted by AAP for the Committee's hearing on 5.487 contained examples of recent actions that show how publishers are attempting to make the licensing process easier to understand and to pursue. These examples, excerpted for your convenience below, bear out the Register's prediction that such problems will continue to be addressed as the marketplace evolves and matures. For example:

• Houghton Mifflin's College Division has upgraded its Permissions Department's website so customers can submit permission requests by using online "fill-in-the-blank" forms or downloading PDF templates to fill out and submit by fax. At the same time, the College Division is conducting a pilot program with Copyright Direct, a permissions tool of Yankee Rights Management that permits users to obtain real-time permissions online. The College Division is also working with Reciprocal, a "secure system" provider for granting and holding permissions, which also provides "secure containers" that permit rights and permissions information to be carried online with the content to which its relates.

• Pearson Education's Prentice Hall subsidiary has established a "Companion Website Gallery" which provides descriptions and links for an array of textbook-supporting websites that correlate additional learning activities with specific college textbooks. In addition, like several other AAP members, it has contracted with NetLibrary, an online provider of e-books, to make some of its college texts available for online access with full-text search capabilities. Computer Curriculum Corporation, a separate division of Pearson Education, also offers CCC Destinations Internet, a comprehensive online learning program that permits remote delivery of customized, essential skills education for adolescent and adult learners in community colleges, correctional education programs, and public housing education programs.

• Elsevier Science has established ScienceDirect, an online current awareness service with a "click-through" license that allows institutional subscribers to their print journals to have free remote online access to the most recent twelve months of journal issues on a rolling basis. If the subscriber allows all or selected members of the public to access its collections, the license allows such persons to access the journals online from workstations in the institutional facility.

• Thomson Learning's Global Rights Group has established a website for online evaluation and disposition of permission requests for all Thomson Learning Higher Education and Lifelong Learning companies. The website cannot be used to order and purchase materials, but provides for the use of online permission request forms and a "Lookup" status check button for all materials produced by Thomson Learning's ten higher education companies.

• Harcourt College Publishers, one of Harcourt General's higher education companies, has established an Online Learning Center that utilizes the WebCT platform to deliver courses customized by instructors to accompany many of its main textbooks. Its Custom Publishing operation allows instructors to request modifications to the company's own products, including removal of excess chapters, addition of instructor materials, institutional personalization, and the combination of several products into one. Archipelago Productions, another Harcourt higher education company, which develops multimedia courseware for distance and distributed learning, has announced alliances with WebCT and Blackboard, Inc., both well-known providers of online education platforms, to deliver Archipelago's Online Courses in a hybrid "netCD" environment that leverages CD–ROM and Internet technologies to feature the presentation benefits of CD–ROMs and the interactivity of Web browsers embedded into the disks.

• Wiley InterScience is an online journals service through which John Wiley & Sons, a leading scientific publisher, allows all users to browse and search Tables of Contents of all of its journals online, and obtain online access to abstracts for all of its titles. Depending on the type of subscriber, the service can also offer online access to the full text of all subscribed journals.

In a recent follow-up with Houghton Mifflin, we learned that last year the College Division processed 122 requests to post HM materials to intranets and passwordprotected Internet pages, and to digitize audio or video ancillary materials. Most of these were academic requests (*i.e.*, from instructors, campus language labs, and libraries), which were all granted. Comparing this with 76 such requests received in 1999 and 56 such requests received in 1998, it seems clear that the publisher's efforts to improve the handling of such requests has thus far kept pace with the increase in the number of such requests. Overall, the Division's Permissions Web Page has become the pipeline for all sorts of permissions requests, involving both print and non-print uses. Customers continue to use e-mail forms to make their requests (up 75% from the previous year), as well as downloadable pdf forms to make their requests by fax.

It is also AAP's understanding that the website of the National Association of College Stores ("NACS ") has recently added "digital distribution" to their downloadable sample permissions request form, facilitating more rapid submissions of complete and accurate permissions requests.

Of course, many educational publishers continue to make an increasingly diverse array of digital content available on line for customized use by instructors. For example, Pearson's Higher Education Division has partnered with a leading "e-learning" infrastructure company to create and release "CourseCompass"—a nationally-hosted Web-based e-learning platform which enables educators to easily customize extensive content offerings from Pearson and integrate them with their own materials. Pearson Education has undertaken a similar venture with another technology partner to deliver an online teaching and professional development platform to teachers for elementary and secondary schools.

Question 7: The bill requires the educational institution to limit reception of an exempted transmission to enrolled students or government employees "to the extent technologically feasible." In addition, the bill requires the educational institution to apply technological measures "that *reasonably* prevent unauthorized access" to the work.

(a) *Would the fact that these requirements are not identical to each other pose a problem for educational institutions to comply or are the requirements complementary*?

Answer: 7(a): The requirements of the two provisions are somewhat overlapping due to the fact that "reception" of the transmission in this context would presumably provide "access" to the copyrighted work performed or displayed therein, even if decryption was required to facilitate such reception. (A different view might apply if the performance or display were somehow separately encrypted within the otherwise unencrypted transmission and thus required a separate step apart from "reception" of the transmission to actually provide "access" to the performance or display of the work.). However, the requirements may be distinguished by virtue of the fact that the latter requirement is an obligation explicitly imposed on "the transmitting body or institution" while the former requirement characterizes the transmission itself, rather than any explicit duty of "the transmitting body or institution." Moreover, since the latter provision addresses unauthorized postaccess *uses* of the work, as well as unauthorized *access* to the work, the two provisions could be viewed as intended to address distinct concerns. AAP believes it is appropriate to separately treat the need to limit reception of the transmission and access to the copyrighted works embodied therein, on the one hand, and the need to prevent unauthorized

post-access uses of such works, on the other, but urges that the standards be harmonized as explicit obligations of the "transmitting body or institution."

Moreover, in harmonizing the provisions, AAP believes it would be appropriate and advisable to apply the same "technologically feasible" standard to *both* categories of concern. Requiring that unauthorized access and dissemination must be achieved "to the extent technologically feasible" is, in our view, a higher and more objective standard than requiring that such conduct must be "reasonably prevent[ed]" because, unless "reasonably" in the latter context is explicitly understood to mean "to the extent technologically feasible," the standard would permit the requirement to be met through use of technological measures that are known to be less effective than available alternatives, since all that would be required is that they "reasonably" prevent such occurrences, rather than prevent them altogether. While we understand that no technological measure can be absolutely guaranteed to withstand circumvention efforts and be effective in all instances, there is no reason why the "transmitting body or institution" should not be required to use the most effective technological measures available, rather than permitted to use alternatives that are merely "reasonably" effective.

(b) *Do you believe these requirements would impose any obligation on educational institutions to use technology to prevent students from freely downloading the materials transmitted*?

Answer: 7(b): Absolutely, and we believe they should be obligated to do so in order to maintain the balance of user and copyright owner interests that Congress built into the existing exemption. Nothing in the current language of Section 110(2) authorizes students to make copies of the instructional broadcasts authorized under this exemption; to the extent that any copies of such transmissions are authorized to be made under the current language of Section 112(b), it is the governmental body or non-profit educational institution entitled to transmit the performance or display under Section 110(2) that is authorized to make the copies, not the recipients of the transmission. Similarly, nothing in the proposed revised exemption should permit the students or government employees who can receive or access the transmission embodying the exempt performance or display to freely download the materials in question and open them up to further unauthorized reproduction, distribution or other use. To clarify this matter, AAP believes that the term "dissemination" should be replaced by the phrase "reproduction, distribution or other use."

(c) *What degree of protection would be "reasonable"*?

Answer: 7(c): As noted above, if the qualifying term "reasonably" is to be retained as part of the provision describing the obligation of the transmitting body or institution to apply technological measures, it should be explicitly defined to mean "to the extent technologically feasible." Moreover, however the phrase "technologically feasible" is ultimately used in either or both of the above-referenced provisions, it should clearly be understood to refer to "feasibility" in terms of the state-of-the-art technological capabilities available in the marketplace, not in terms of the capabilities of the technology already used by the transmitting body or institution. In other words, the limits of technological feasibility should be based on what is available in the market, not merely on what will work with the equipment or facilities used by the transmitting body or institution. There is no justification for making the copyright owner assume the risk of inadequate technological measures simply because the transmitting body or institution has failed to keep up with the state-of-the art in the technology used to make the transmission.

Question 8: It has been almost two years since the Copyright Office issued its report on distance learning and made its legislative recommendations. Are there any new developments, new concerns or significant advances in technology that would affect any part of the analysis in that report?

Answer: 8:

With respect to developments in technology, see our response to Q3 above.

With respect to other new developments and concerns since the issuance of the Register's Report, AAP reiterates and urges the Committee to carefully consider the issues raised in our written submission for the Committee's hearing: At present, no one really knows the costs or other burdens involved in implementing the "technological measures" requirement in the proposed revised exemption. But, even if the necessary technological safeguards *were* widely-available in "a convenient and affordable form" in today's market, copyright owners have, in the period since the issuance of the Register's Report, acquired some legitimate reasons to entertain doubts about the willingness of public institutions of higher education—the most significant class of "non-profit educational institutions" offering online distance education programs—to take on the full costs and responsibility of good-faith compliance in their implementation.

Some of these reasons are based on the fact that the Napster phenomenon, which two federal courts have enjoined as fostering ongoing instances of blatant copyright infringement on an unprecedented mass scale, has been chiefly pursued by students using campus-based Internet access and computer networks. Although universities and colleges were not themselves perpetrators of the infringing music-swapping activity, their failure to act in some cases to block student access to Napster's server contributed substantially to the magnitude of the problem. Many of these institutions continue to express ambivalence regarding their obligations or abilities to deal with "the technical, legal, and moral issues raised by Napster and other file-sharing, bandwidth clogging, copyrightchallenging programs." *See, e.g., Carlson, Scott, "Get Ready for an Encore of the Napster Controversy, " The Chronicle of Higher Education*, September 8, 2000, p.A51.

Others reasons may be based on the evident antagonism that representatives of the higher education community demonstrated toward legal prohibitions against circumventing certain kinds of technological measures in hearings held by the Copyright Office last year for the so-called "Section 1201 anticircumvention rulemaking" conducted by the Librarian of Congress. Although their request to legalize circumvention of access controls with respect to maps, newspapers, databases, textbooks, scholarly journals, academic monographs and treatises, law reports and educational audio/visual works was rejected by the Librarian, at the recommendation of the Copyright Office, it is notable for the disturbingly narrow view it represents regarding the legitimate right of copyright owners to use technological measures to control access to copyrighted works. *See* Library of Congress, *Final Rule: Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies*, 65 Fed. Reg. 64555 (daily ed. October 27, 2000.)

Still other reasons may be found on the fear that recent rulings by the U.S. Supreme Court and the Fifth Circuit U.S. Court of Appeals, which have barred lawsuits for damages against State entities for violations of federal statutory rights, have eliminated the primary incentive for public educational institutions to comply with legal standards that protect the rights of copyright owners. *See, e.g.*, Department of Commerce Patent and Trademark Office, *Notice of Conference on State Sovereign Immunity and Intellectual Property Rights*, 65 Fed. Reg. 11987 (daily ed. March 7, 2000).

These developments, separately and in combination, should be evaluated by the Committee to realistically assess the likelihood of full good-faith compliance by nonprofit educational institutions with "technological measures" requirements imposed by the legislation at issue.

Question 9: The Copyright Office report noted that access control measures to copyrighted works, such as passwords, were already in widespread use, but technologies that control post-access uses for all types of works were not widely available. *Are technical measures now more readily available to control post-access distribution of works and, if so, please describe those that are available*?

Answer: 9: See response to Q3 above.

Response of Allan Robert Adler to a question from Senator Blanche L. Lincoln submitted on her behalf by Senator Leahy

Question: I believe visually impaired students should have access to the same educational opportunities that are available to sighted students. Unfortunately, many blind students are denied equal access to instructional materials today because the process of converting textbooks for use by the blind can be costly and time consuming. According to constituents I've met with regarding this issue, some non-sighted students must wait up to 6 months to receive required classroom materials that are made available to sighted students on the first day of class.

Mr. Adler, can you describe what steers publishers have taken or plan to take to make textbooks and other instructional materials available to non-sighted students in a timely manner? Also, does the Association of American Publishers recommend any federal legislative changes that would facilitate the availability of required classroom materials for the blind?

Answer: In recent years, under the direction of our President and CEO Pat Schroeder, AAP has worked closely with the leading blind advocacy groups to address problems encountered by blind and other persons with disabilities in gaining access to books and other printed materials in specialized formats for their use. Perhaps the best-known example of our successful collaboration with these groups is a provision in the Copyright Act that allows previously-published nondramatic lit-

erary works to be reproduced and distributed in specialized formats for blind and other persons with disabilities without the need to obtain permission from the copyright holder. Popularly known as the Chafee Amendment, this 1996 addition to copyright law has eliminated a substantial practical hurdle to ensuring that instructional materials and many other print works can be made available to blind and other persons with disabilities in the specialized formats they require.

During the past year, we have been working with the blind advocacy groups to draft federal legislation which would replace a patchwork quilt of State legislation addressing various issues regarding how textbooks and other instructional materials are provided by publishers to local educational agencies in electronic file formats suitable for efficient conversion into specialized formats for blind and other persons with disabilities. The purpose of the federal legislation would be to prescribe uniform national standards and procedures for the provision of such electronic files for conversion into specialized formats in order to achieve the goal of ensuring that blind and other children with disabilities in elementary and secondary schools will have their assigned textbooks and other instructional materials available to them in specialized formats at the same time as the regular printed versions of these materials are provided to their classmates.

The effort has been complicated by the number and nature of issues to be addressed, but all parties have continued to work closely with good faith efforts. The issues include (1) defining the kind of instructional materials that will be subject to the legislation; (2) calculating a quick but workable timeframe for the publisher's provision of the electronic files to the responsible state officials after receiving notice of their request for such files in connection with specific materials required for students in particular classes; (3) establishing plans for a national repository to which such files can be sent to remain on deposit for use by educational officials in different states as required; (4) devising a technical standard-setting proceeding to combine the publishing industry's evolving practices with the practical needs of the persons who convert works into Braille and other specialized formats in order to establish a national standard format for these electronic files; and, (5) addressing the needs of conversion personnel for funding and training to be able to take advantage of the national standard format (likely to be XML-based) when the transition period for its adoption has run.

As you know, crafting federal legislation to preempt existing State laws is always a very delicate task, and the effort to reach consensus before moving the issue to the Hill has been a conscious and deliberate plan of all parties involved. Each of the issues highlighted above presents its own problems for resolving current differences among the States, half of which have specific requirements on these matters and half of which do not.

AAP would be delighted to further brief you and your staff on the status of these current efforts at your convenience.

Responses of Gary Carpentier to questions submitted by Senator Leahy

Question 1: The TEACH Act does not change the limitation in current law applying the distance education exemption in section 110(2) only to "non-Profit" educational institutions. For-profit educational institutions have never qualified for the exemption. The Copyright Office and content owners have raised a legitimate question about whether "non-profit" is an appropriate qualifier since some "non-profit" institutions may not be bona fide educational institutions. Should the requirement that the educational institution be "accredited" before it is able to qualify for the exemption be added?

Answer: The concept of accreditation, seems to me, to be a more valid and appropriate qualifier to allow a learning institution, whether "non-profit" or "bona fide for-profit," to be granted an exemption. Accreditation is an easier, more useful criterion that can be implemented to make this legislation work. It is my opinion that the term "accredited, bona fide educational institution" should replace "non-profit educational institution" in the current law and any future legislation.

Question 2: Many sponsors of distance education programs are not purely "non-profit." Some non-profit schools have begun to engage in distance education for profit, some commercial entities are forming partnerships with non-profit institutions to offer distance education, and some commercial textbook publishers, like Harcourt General, want to provide full-service distance education programs for accredited college degrees directly. Competition between non-profit and for-profit distance learn-

ing programs is good for the country. Do you think that retaining the non-profit requirement in current law helps non-profit educational institutions compete?

Answer: I think that the "non-profit" requirement in current law does not help non-profit educational institutions compete. At this time, these educational institutions have an advantage to be part of the system merely because they represent or might provide a large group potential end-users of distance education. By retaining the "non-profit requirement" in current law, innovation is stymied. For educational institutions to truly become participants in the distance education market, all barriers to entry must be removed and the playing field leveled. The market will determine winners and losers.

Question 3: The bill contains safeguards to minimize the risk to copyright holders that the use those safeguards is a provision requiring the school, to use "technological measures that reasonably [sic]" to prevent unauthorized access and dissemination. Could you describe the technological measures that copyright owners are using today to minimize the risk of unauthorized downstream use of copyrighted works in distance learning programs?

Answer: There are dozens of "Digital Rights Management" ("DRM ") solutions available to fight copyright piracy. A survey of DRM solutions show that:

The core element of the DRM architecture operates on PCs and servers. DRM processing acts as a secure 'virtual system' that can manage each parties' digital rights remotely. Each local, secure database stores the user's rights, identities, transactions, budgets, and keys.

Protected information in the system is encrypted and stored in a secured file. Once in a secured file, the information can flow across unsecured networks, and only a user satisfying the required rules can access and process the information. Information in a secured file remains protected even after a user has accessed it, providing persistent protection of the information and continuing control over its use, regardless of where the information travels.

Content usage is managed by rules, including price, payment offer, play, view, print, copy, save, super-distribution, and others. Many "solutions" provide a variety of tools for allowing providers to create and change rules, and associate them with digital information. Rules are protected in the same way content is protected. As with content, rules are stored in secured files for distribution. Rules can travel with the information, or separately, allowing copyright holders the flexibility to change any rule, including rights or price, after content has been delivered. An architectural system such as this ensures that applicable rules are followed every time an information usage 'event' is requested.

Question 4: Some copyright owners have argued that distance learning is flourishing and that expanding the scope of the exemption provided in section 110(2) may interfere with the primary market of educational publishers, if distance educators can get this material for free under the exemption. The bill expressly removes from the coverage of the exemption "work produced primarily for instructional use" since we want educational publishers to have the incentive to invest in and publish innovative educational materials that copyright protection can provide. Do you see any risk to publishers of educational materials from expansion of the distance education exemption in the limited fashion proposed in the TEACH Act?

Answer: No, the reward to educational publishers far outweighs the risk mentioned. Despite copyright owner arguments that "distance learning is flourishing," quite the opposite is true. Distance education business models reflect enormous frontend capital requirements to create and maintain operations in the early stages of initial trial and adoption. Without the content available to educators and endusers, distance education providers will be further ham-strung. A more reasonable approach to consider might be to limit the amount of content from "work produced primarily for instructional use" that may be covered under the exemption. That may satisfy all concerned parties.

Question 5: To encourage the use of the Internet in distance learning, the TEACH Act would expand the distance education exemption in current law to permit the reproduction and distribution of copyrighted works to the extent technically necessary to transmit the otherwise covered by the exemption. These copies are not to be retained any longer than necessary to complete the transmission and, if they are, the exemption will no longer apply. Educational institutions have raised a concern over caching, which is an automatic storage of a copy in an Internet Service Provider's server or a user's browser to make the Internet run more quickly. The school doing the transmitting of a copyrighted work under the exemption may have no knowledge of or control over the caching of copies of the work, even though such caching might result in potential liability for the school. Should additional language

be added to the bill to make clear that such automatic caching would be covered by the expanded exemption and, if so, what language would you suggest?

Answer: If appropriate Digital Rights Management protections are put in place on the content transmitted, the notion of protection of cached content residing on remote servers will be moot.

Question 6: Both the Copyright Office report and the report of the Web-Based Education Commission headed by Senator Bob Kerrey noted that educational institutions have difficulty with licensing for digital distance education. Even after schools determine who the copyright owner is, they often face delays in locating the owner, obtaining permission and then may incur substantial costs. The TEACH Act proposes a study by the Copyright Office on the licensing problems encountered by schools. Are there any steps being taken by schools or copyright owners to make the licensing process easier to understand and pursue?

Answer: Not that I am aware of. Currently, the educational institution requires the Professor or instructor to personally obtain any and all copyright permission for content incorporated in his or her course. Some institutions pursue the purchase of an "educational use license" from publishers or copyright holders and others pursue the option of purchasing a "blanket license" from copyright management organizations.

Question 7: The bill requires the educational institution to limit reception of an exempted transmission to enrolled students or government employees "to the extent technologically feasible." In addition, the bill requires the educational institution to apply technological measures "that reasonably prevent unauthorized access" to the work.

Question (a): Would the fact that these requirements are not identical to each other pose a problem for educational institutions to comply or are the requirements complementary?

Answer: These requirements are complementary. As mentioned above, there are dozens of Digital Rights Management solutions available to copyright holders that will solve this problem for them as well as the educational institutions.

Question (b): Do you believe these requirements would impose any obligation on educational institutions to use technology to prevent students from freely downloading the materials transmitted?

Answer: Possibly. The proposed legislation requires that end-users of the content transmitted be authorized users and enrolled in a course at the institution. So naturally, there is an interface between the originator of the content, the Professor or instructor who desires to use the content in a course, the educational or governmental institution which provides the names of the enrolled end-users and the actual Internet Service Provider which transmits the content to the end-user. It is the obligation of the institution to manage the set of end-users authorized to receive the content. This includes authorizing students/employees as well as denying access. There are many existing technologies that can "reasonably prevent unauthorized access" to content transmitted over the Internet.

Question (c): What degree of protection would be "reasonable"?

Answer: Complete protection is "reasonably" and entirely obtainable.

Responses of Gerald Heeger to questions submitted by Senator Leahy

Questions 1 and 2: Raise related issues, question 1 asking whether accreditation should be added to non-profit status as a qualifying condition for the exemption, question 2 asking whether retaining the non-profit requirement aids nonprofit institutions in competition with for-profit institutions. We would like to address the questions raised in these two issues as follows:

The principal objective of the distance education exemption should be to enhance the breadth and quality of distance education content. To the extent that accreditation can effectively identify institutions or programs that deliver quality educational content, it is reasonable to argue that any accredited institution, whether non-profit or for-profit, should be eligible for the distance education exemption. The U.S. accreditation system includes regional and national accreditation agencies recognized by the Council on Higher Education Accreditation and the U.S. Department of Edu-

cation.[1] Accreditation by these recognized accrediting agencies would provide reasonable assurance that the distance education exemption is used by legitimate educational institutions and programs for the purposes intended in law. Accreditation of an institution cannot guarantee that an institution will use distance education materials appropriately but would provide additional assurance of appropriate use that would be a useful addition to the other safeguards already included in S. 487. Since the U.S. accreditation system accredits both non-profit and for-profit institutions, there does not seem to be a compelling reason to limit the distance education exemption to non-profit institutions.

Questions 3: The question asks what technological protections copyright owners are employing to protect against unauthorized downstream redistribution of copyrighted works. Although a great deal of work is underway to develop such technology, we are not aware of widely available, effective technologies to control downstream redistribution. Colleges and universities are using a number of technological protections such as PIN numbers and passwords to control online access to copyrighted material and will certainly use technological protections that are reasonably available and affordable to control downstream uses of copyrighted works once such protections are developed.

However, technological protections that control downstream uses of copyrighted works are only one category of protection of copyrighted works in S. 487. Access controls, which, as noted above, colleges and universities already employ, as well as portion limitations, mediated instruction, and limiting the retention of temporary copies provide substantial protection against the misuse of copyrighted material.

Therefore, we suggest that the language of S. 487 concerning the use of technological protection measures that reasonably protect against unauthorized downstream redistribution be qualified to obligate institutions to employ such protections that are "technologically feasible and economically reasonable." Currently, such protections are not available, and we do not believe that unavailability should freeze the deployment of online distance education. When such technologies do become available, they must be available on terms that allow institutions to implement them effectively: one could imagine the development of a technology that provided protection against downstream uses but was so prohibitively expensive that it was effectively out of reach of all institutions.

Question 4: This question asks whether S. 487, with its several safeguards, poses a threat to publishers of educational materials. Since S. 487 would require the use of lawfully made and acquired material,[2] we believe that there is no credible threat to the market for publishers of educational materials. Indeed, we believe that the educational materials market will expand if S. 487 is enacted into law, because such a law will enable more institutions to expand their online offerings, thereby expanding the educational market. Moreover, because of the inclusion in S. 487 of requirements for using only lawfully made and acquired materials, in addition to the inclusions of the other safeguards such as portion limitations noted above, we believe that the exemption should include, rather than exclude, instructional works. Given the requirements and safeguards included in the bill, the risks to educational publishers are minimal, but the educational consequences of exclusions of instructional materials would be substantial. A risk-benefit analysis would therefore strongly favor inclusion of instructional works in the exemption provided in S. 487.

Question 5: This question asks whether additional language needs to be added to deal with automatic caching. The educational community is concerned with several aspects of the limitations on the reproduction right, and believe that several changes in S. 487 are warranted to conform with the technical realities of the Internet and to ensure that institutions do not lose the benefit of the exemption as a result of activity beyond their reasonable control.

First, we believe that the reference to "transient" copies should be changed to refer to "temporary copies" in order to conform to the way in which those terms were used in the DMCA. In section 512 of the Copyright Act, enacted as part of the DMCA, Congress differentiated between "transient" and "temporary" copies. The term "transient" was used to describe router copies or other "conduit" copies. See § 512(a). The term "temporary" was used to describe server caching, among other copies of somewhat longer duration. See § 512(b). Cached copies, as well as copies

[1] The CHEA–USDA recognition system is critical. A number of non-recognized accreditation agencies exist to "accredit" diploma mills; neither these agencies nor the institutions they accredit should be included in a distance education exemption.

[2] Section 110(1) currently requires only that material used for classroom performance or display be lawfully made. The addition in S. 487 of "lawfully acquired" therefore constitutes an added requirement but is one that we would find acceptable.

made by the receiving students' browser software, are typically beyond the control of the originating institution. An institution should not lose the exemption if such copies are made.

Further, the bill would limit such copies "to the extent technologically necessary to transmit the performance or display." It has been argued that caching, though important for Internet efficiency, is not strictly "necessary" for the completion of a transmission. The bill should not impose this limitation, which could be read to preclude cached copies.

Finally, subparagraph (D) would require that "any transient copies are retained for no longer than reasonably necessary to complete the transmission." This language raises three issues. First, it uses the term "transient" rather than "temporary." Second, it again interposes a requirement of "necessity," which may or may not be strictly satisfied by caching. Third, it subjects an institution to potential liability for retention of material often beyond its reasonable control.

We suggest that the following be substituted for subparagraph (D): "the transmitting entity does not cause a temporary copy made as part of the automatic technical process of the digital transmission to be retained beyond a period that is reasonable in light of the purpose of the transmission for which a copy is created."

Question 6: This question asks what steps are being taken to make the licensing process easier to understand and pursue. Both the higher education community and copyright owners have taken a number of steps to try to improve the licensing process. Numerous meetings and conferences have been held to discuss the problems of licensing, within the higher education community and between the higher education and content communities. The Copyright Clearance Center attempts to provide a "one-stop shopping" service for facilitated licensing transactions. Universities have formed consortia to pursue multi-institutional site licenses. Although all these efforts have yielded benefits of varying degrees, licensing remains a problem and will for the foreseeable future, a point which simply underscores the importance of the harmonization of the distance education exemption to the digital world as proposed in S. 487.

Question 7: asks about several aspects of S. 487 language concerning the use of technological protection measures. The educational community is concerned about the potential inconsistency of the requirements of subparagraph (C) and the access requirement of subparagraph (E)(ii). For example, it is not clear how the provisions would be construed if access limitations that were technologically feasible were deemed not to provide a reasonable limitation of access. Moreover, even if the provisions were fully consistent, we would be concerned about their apparent redundancy. Courts often start with the premise that Congress would not have included unnecessary language in legislation, so that apparently redundant provisions may be misconstrued in an effort to supply some meaning. Thus, we do not believe that subparagraph (C) and the access provision of subparagraph (E)(ii) should both remain in the bill. We believe the requirement is best expressed in subparagraph (C), requiring a limitation of access to the extent "technologically feasible." It makes no sense to require unfeasible technological protection measures.

Further, we believe that a provision limiting the obligation to restrict access to that which is economically reasonable also is warranted, and could easily be included by adding the words "and economically reasonable" after the words "technologically feasible." There should not be an obligation to apply access limitations that are not reasonably available to non-profit educational institutions.

We are not clear on part (b) of question 7 relating to "freely downloading" course materials. Enrolled students must be able to download the materials used in the course. Downloading is the normal process by which the materials can be viewed and used. Others will not have access to the material, as discussed in the preceding paragraph. Nor do we believe the access control obligations are intended to prevent downloading. The act that should be prevented, to the extent reasonable and technologically feasible, is the further dissemination of downloaded material to others. That obligation is contained in subparagraph (E)(ii). Our position with respect to such measures is discussed in response to question 3, above.

We believe access control through the use of password protection, a widely used method of access control for distance education, is reasonable.

Responses of Richard M. Siddoway to questions submitted by Senator Leahy

Question 1: The TEACH Act does not change the limitation in current law applying the distance education exemption in section 110(2) only to "non-profit" educational institutions. For-profit educational institutions have never qualified for the exemption. The Copyright Office and content owners have raised a legitimate question about whether "non-profit" is an appropriate qualifier since some "non-profit" institutions may not be bona fide educational institutions. Should the requirement that the educational institution be "accredited" before it is able to qualify for the exemption be added?

Answer: It seems appropriate to me that the institution should be accredited. I would go further to suggest the accreditation be done by the appropriate Association of Schools and Colleges. In our geographic location that is the Northwest Association, but this varies by geographic location. There are any number of "accreditations" that could be claimed by various institutions, which may not bring any more validity to the process than *status quo*.

Question 2: Many sponsors of distance education programs are not purely "nonprofit." Some nonprofit schools have begun to engage in distance education for profit, some commercial entities am forming partnerships with nonprofit institutions to offer distance education, and some commercial textbook publishers, like Harcourt General, want to provide full-service distance education programs for accredited college degrees directly. Competition between the non-profit and for-profit distance learning programs is good for the country. Do you think that retaining the nonprofit requirement in current law helps non-profit educational institutions compete?

Answer: Realize that I am speaking for the public K–12 school community. It appears to me that one reason the fair use provisions have existed for public schools is because of their free public education status. Private non-profit schools have enjoyed that same freedom because of their non-profit status. Both public and private non-profit schools are working with fixed, limited financial resources. Unlike public schools whose budgets are controlled by state legislatures and local board decisions, private schools have the ability to alter their budgets through increased tuition and fees. Consequently, I believe the non-profit requirement is an appropriate restriction.

Question 3: The bill contains safeguards to minimize the risk to copyright holders that the use of works under the expanded exemption could result in copyright piracy, Among those safeguards is a provision requiring the school, to use "technological measures that reasonably" prevent unauthorized access and dissemination. Could you describe the technological measures that copyright owners are using today to minimize the risk of unauthorized downstream use of copyrighted works in distance learning programs?

Answer: Again speaking for our particular Electronic High School, we have three different delivery methods that each has its own safeguards. Our broadcast television courses (largely concurrent enrollment, where students earn both college and high school credit) purchase the copyright releases on any materials that are broadcast. Printed materials are sent only to registered students as are e-mailed materials.

Our EDNET courses axe deliverer) over a closed system. The teacher is in one location and students are in distant locations but located in an EDNET studio, which gives them access to voice/video/and data communication. Each distance learning site has a site facilitator who controls the class and distributes printed materials that have been transmitted through mail or by e-mail. Only registered students are allowed in the classes.

Our internet class members enter the classes through password protection. Only registered members of the class are able to participate and receive information.

Question 4: Some copyright owners have argued that distance learning is flourishing and that expanding the scope of the exemption provided in section 110(2) may interfere with the primary market of educational publishers, if distance educators can get this material for free under the exemption. The bill expressly removes from the coverage of the exemption "work produced primarily for instructional use" since we want educational publishers to have the incentive to invest in and publish innovative educational materials that copyright protection can provide. Do you see any risk to publishers of educational materials from expansion of the distance education exemption in the limited fashion proposed in the TEACH Act?

Answer. No. I don't see a problem. At the present time all of our internet teachers are avoiding using textbooks and other educationally published materials because of the copyright restrictions. Instead, they are looking for web sites that provide similar material and "hot-linking" to them In other words, they are staying away from published materials because of the currently understood restrictions. If they do use a textbook in their class, they are having the students acquire those textbooks either by borrowing from their local school or purchase.

Question 5: To encourage the use of the Internet in distance learning, the TEACH Act would expand the distance education exemption in current law to permit the reproduction and distribution of copyrighted works to the extent technically necessary to transmit the work otherwise covered by the exemption,. These copies are not to be retained any longer than necessary to complete the transmission and, if they are, the exemption will no longer apply. Educational institutions have raised a concern over caching, which is an automatic storage of a copy in an Internet Service Provider's server or a user's browser to make the Internet run more quickly. The school doing the transmitting of a copyrighted work under the exemption may have no knowledge of or control over the caching of copies of the work, even though such caching might result in potential liability for the school, Should additional language be added to the bill to make clear that such automatic caching would be covered by the expanded exemption and, if so, what language would you suggest?

Answer. At the risk or injecting any even thornier conundrum, let me suggest that there is a larger problem. The assumption that the transmission of the material will occur in a restricted bane frame makes the assumption that the class is synchronous. That is, the students are all taking the class at the same moment. In the case of the Electronic High School, we have open entry, open exit of students. Consequently, we have students distributed through any and all of the waits in a course at any given moment. In order for a teacher to have the materials available for students he/she must be able to maintain the material for an extended period of time sufficient to allow all students who are registered, at the time the materials are made available, to complete the unit for which the materials are intended. However, if the appropriate password protections, or other technological limitations are placed on students who are taking a class, this does not seem to be an onerous task.

Question 6: Both the Copyright Office report and the report of the Web-Based Education Commission headed by Senator Bob Kerrey noted that educational institutions have difficulty with licensing for digital distance education. Even after schools determine who the copyright owner is, they often face delays in locating the owner, obtaining permission and then may incur substantial costs. The TEACH Act proposes a study by the Copyright Office on the licensing problems encountered by schools. Are there any steps being taken by schools or copyright owners to make the licensing process easier to understand and to pursue.

Answer. There are data bases that list copyright owners of various kinds of media. The larger problem often is that there are multiple copyright owners of motion media materials, (script, music, choreography, for example). It would be very handy to have a single clearinghouse of materials.

Question 7: The bill requires the educational institution to limit reception of an exempted transmission to enrolled students or government employees "to the extent technologically feasible." in addition, the bill requires the educational institution to apply technological measures "that *reasonably* prevent unauthorized access" to the work.

Question (a): Would the fact that these requirements are not identical to each other pose a problem for educational institutions to comply or are the requirements complementary?

Answer. They seem to be complementary requirements.

Question (b): Do you believe these requirements would impose any obligation on educational institutions to use technology to prevent students from freely downloading the materials.Is transmitted?

Answer. The restriction seems to be on the transmission end, not the reception end of the process. If the institution has taken appropriate measures to ensure that only enrolled students are able to receive the materials, it appears they have met the test of the law.

Question (c): What degree of protection would be "reasonable"?

Answer. If students are able to gain access to the class and its associated materials through password access, that would seem to be reasonable. Encoding is becoming more and more affordable, but seems unnecessary if password protection is in place.

Thank you for the opportunity to testify before the sub-committee. We appreciate so much the work that Senator Hatch and Senator Leahy are doing to help us provide high quality educational opportunities through distance learning.

Richard M. Siddoway

Responses of Marybeth Peters to questions submitted by Senator Leahy

Question 1: The TEACH Act does not change the limitation in current law applying the distance education exemption in section 110(2) only to "non-profit" educational institutions. For-profit educational institutions have never qualified for the exemption. The Copyright Office and content owners have raised a legitimate question about whether "non-profit" is an appropriate qualifier since some "non-profit" institutions may not be bona fide educational institutions. Should the requirement that the educational institution be "accredited" before it is able to qualify for the exemption be added?

Answer: We recognize that a "non-profit" qualifier is not sufficient. However, we also have some concern about the use of accreditation as a criterion, notwithstanding the support it enjoyed at the time we prepared our Report. One of our concerns is that mandating accreditation would rule out some institutions that are presently eligible for the exemption in section 110(2), even for the instructional broadcasting activities that are covered by the existing exemption. Another is the multiplicity of accrediting bodies and lack of uniform national standards for accreditation.

One way around this latter concern could be to establish uniform national standards for eligibility in lieu of accreditation. These standards could be developed by the Department of Education and incorporated into the bill or into regulations under Title 17.

Question 2: Many sponsors of distance education programs are not purely "non-profit." Some non-profit schools have begun to engage in distance education for profit, some commercial entities are forming partnerships with non-profit institutions to offer distance education, and some commercial textbook publishers, like Harcourt General, want to provide full service distance education programs for accredited college degrees directly. Competition between the non-profit and for-profit distance learning programs is good for the country. Do you think that retaining the non-profit requirement in current law helps non-profit educational institutions compete?

Answer: The Copyright Office analysis on the qualifier issue was based on basic copyright principles. We did not undertake an analysis based on competitive effects. In our 1999 Report, the Copyright Office recommended maintaining existing standards of eligibility for the exemption. At the same time, we acknowledged that the lines between for profit and non-profit institutions were becoming blurred and that there was widespread support for requiring accreditation as a condition for eligibility.

Now, nearly two years later, the lines have blurred even further. Nonetheless, we still view the non-profit criterion as an appropriate dividing line, perhaps in conjunction with one or more additional criteria. (See response to Question 1.)

Question 3: The bill contains safeguards to minimize the risk to copyright holders that the use of works under the expanded exemption could result in copyright piracy. Among those safeguards is a provision requiring the school to use "technological measures that reasonably" prevent unauthorized access and dissemination. Could you describe the technological measures that copyright owners are using today to minimize the risk of unauthorized downstream use of copyrighted works in distance learning programs?

Answer: When we prepared our report in 1999, we noted that technologies to prevent unauthorized downstream copying were under development, but not yet in widespread use. We are aware of no significant change in the intervening two years.Q02

Question 4: Some copyright owners have argued that distance learning is flourishing and that expanding the scope of the exemption provided in section 110(2) may interfere with the primary market of educational publishers, if distance educators can get this material for free under the exemption. The bill expressly removes from the coverage of the exemption "work produced primarily for instructional use" since we want educational publishers to have the incentive to invest in and publish innovative educational materials that copyright protection can provide. Do you see any risk to publishers of educational materials from expansion of the distance education exemption in the limited fashion proposed in the TEACH Act?

Answer: The Copyright Office believes that the recommendations in our 1999 Report, as implemented in the bill, represent a balanced approach that minimizes the risks to educational publishers. The bill, with one important exception, preserves the same balance struck in the present copyright law, updating it to account for digital technology.

The principal difference from the balance struck in 1976 is the addition of categories of works other than nondramatic literary and musical works. In preparing our recommendations we were persuaded that expanding the exemption to include other categories of works was appropriate and necessary to permit distance educators to make the best pedagogical use of the technology of digital distance education. Rather than being merely a direct substitute for instructional broadcasting, digital technology enables a more compelling teaching experience which often requires the use of multimedia and other materials. However, the expansion to additional categories of works is balanced by confining the exemption to performance of "reasonable and limited portions" of such works, and requiring that they be used in the course of an instructor-mediated class session.

We are aware that some content owners have expressed concern about the application of the existing exemption from the public display right to literary works in the context of digital distance education. Specifically, they are concerned that permitting the display of entire literary works in the context of digital distance education has a much greater impact on copyright holders that permitting the display of entire works for purposes of instructional broadcasting. Congress, in exempting entire works from the display right in 1976, did not intend to permit uses that were more extensive that those that were possible under the technology of the time (e.g., holding up a book for the camera to see). We believe that the concern of the copyright owners is addressed through the limitation of permitted displays in amended section 110(2) (A) to those made "as an integral part of a class session." Further, it is the view of the Copyright Office that by specifying that the copy of the work from which the performance or display is transmitted must already be in digital form, Congress ensures that the exemption does not itself authorize digitizing works. Such authorization would need to be obtained from the copyright owner, or found in another provision of the law such as fair use. Technological protection measures provide publishers of educational literary works with yet another safeguard against use by persons other than those enrolled in the class and against unauthorized retention or downstream use.

Question 5: To encourage the use of the Internet in distance learning, the TEACH Act would expand the distance education exemption in current law to permit the reproduction and distribution of copyrighted works to the extent technically necessary to transmit the work otherwise covered by the exemption. These copies are not to be retained any longer than necessary to complete the transmission and, if they are, the exemption will no longer apply. Educational institutions have raised a concern over caching, which is an automatic storage of a copy in an Internet Service Provider's server or a user's browser to make the Internet run more quickly. The school doing the transmitting of a copyrighted work under the exemption may have no knowledge of or control over the caching of copies of the work, even though such caching might result in potential liability for the school. Should additional language be added to the bill to make clear that such automatic caching would be covered by the expanded exemption and, if so, what language would you suggest?

Answer: Yes, language should be added or substituted to address concerns about institutional liability for caching. Pages 4–6 of my testimony discuss the caching issue in detail. The Copyright Office is presently working with the affected parties to craft appropriate language to propose to the Committee.

Question 6: Both the Copyright Office report and the report of the Web-Based Education Commission headed by Senator Bob Kerrey noted that educational institutions have difficulty with licensing for digital distance education. Even after schools determine who the copyright owner is, they often face delays in locating the owner, obtaining permission and then may incur substantial licensing costs. The TEACH Act proposes a study by the Copyright Office on the licensing problems encountered by schools. Are there any steps being taken by schools or copyright owners to make the licensing process easier to understand and to pursue?

Answer: The Copyright Office lacks sufficient information to answer this question at this time.

Question 7: The bill requires the educational institution to limit reception of an exempted transmission to enrolled students or government employees "to the extent technologically feasible." In addition, the bill requires the educational institution to apply technological measures "that reasonably prevent unauthorized access" to the work.

Question (a): Would the fact that these requirements are not identical to each other pose a problem for educational institutions to comply or are the requirements complementary?

Answer: After further review of the language of the bill, we have concluded that the requirements are complementary, and refer to two different technological controls. The condition in subparagraph (C), appearing at lines 5–7 on page 3 of the bill, relates to controls over access to the transmission—e.g., who can access the material from the university server. The condition in subparagraph (E)(ii), appearing at lines 5–7 on page 4 of the bill, relates to access control measures that are to be applied to the work itself—e.g., persistent file-level access control technologies—so that the work cannot be accessed if it is somehow further distributed

Question (b): Do you believe these requirements would impose any obligation on educational institutions to use technology to prevent students from freely downloading the materials transmitted?

Answer: The bill requires educational institutions to prevent students from freely downloading the materials transmitted by requiring (a) that the transmission be limited to enrolled students "to the extent technologically feasible"; (b) that the institution use technological measures to reasonably prevent unauthorized access to or dissemination of the work; and (c) that technological protection measures used by the copyright owner not be interfered with. Each of these conditions require the use of technology.

Question (c): What degree of protection would be "reasonable?"

Answer: Reasonableness would vary depending on such circumstances as the effectiveness of the protection, the types of protection available in the marketplace, and the degree of risk that particular content will be subject to unauthorized use.

Questions for Marybeth Peters and Allan Adler:

Question 1: It has been almost two years since the Copyright Office issued its report on distance learning and made its legislative recommendations. Are there any new developments, new concerns or significant advances in technology that would affect any part of the analysis in that report?

Answer: The Copyright Office has received no information in the interim that would lead us to change the conclusions that we drew in the Report.

Question 2: The Copyright Office report noted that access control measures to copyrighted works, such as passwords, were already in widespread use, but technologies that control post access uses for all types of works were not widely available. Are technical measures now more readily available to control post-access distribution of works and, if so, please describe those that are available?

Answer: While the Copyright Office has not completed any study of this issue, we have received anecdotal evidence that such technologies are not yet available.

Responses of Gerald A. Heeger to questions submitted by Senator Thurmond

Question 1: Mr. Heeger, Subsection 1 of Section 2 of the proposed legislation would broaden the Section 110(2) exemption to allow educational institutions and government entities to utilize the performance of audiovisual works under limited circumstances. Should we refrain from legislative activity due to the rapid development of technology and licensing systems? Would it be advisable to take a "wait and see" attitude, allowing the market to handle our concerns first? It appears that copyright owners are concerned about broadening the exemptions because of the possibilities of unauthorized downstream use of copy righted material. If we delay the enactment of legislation in this area, will technology develop to the point of allaying the fears of copyright owners?

Answer 1: The primary need in this area of copyright and exemptions is for parity. Whatever is possible and allowed in the classroom should also be possible and allowed in the online environment. To delay this will frustrate the emergence of distance learning in accredited institutions. The current situation puts an unnecessary burden on institutions that is difficult for them to handle. S. 487 contains a number of safeguards in addition to technological protections, such as portion limitations, that address concerns of the copyright owners. The sooner that we can move in the direction of the proposed legislation, the sooner that it can be demonstrated that these safeguards are effective, and the sooner we can move to greater cooperation in licensing.

Question 2: Mr. Heeger, the proposed legislation would require educational institutions to utilize measures designed to protect copyright owners in exchange for the broadening of Section 110 (2)'s exemptions. What will be the costs incurred by educational institutions and government entities in complying with these protective measures, i.e., instituting policies, providing information to facility and students, and purchasing appropriate software.

Answer 2: It is clear from experience that universities have implemented strong policies for following appropriate copyright laws with their faculties and students. I am unable to estimate the cost of compliance, but those costs could pose a problem if, for example, S. 487 were to obligate universities to employ technological protections that were prohibitively expensive. It is important that S. 487 stipulate that universities employ technological measures that are "technologically feasible and economically reasonable." Parity with what happens in a face-to-face classroom is what is necessary. The enforcement objectives should be the same in either case, and online requirements need to be reasonable.

Question 3: Mr. Heeger, some educational institutions are considering the establishment of for-profit subsidiaries in order to provide distance education. This bill would apply to non-profit educational institutions. Will for-profit subsidiaries of educational institutions be the wave of the future, thereby frustrating our current reform attempts.?

Answer 3: There needs to be a distinction between for-profit teaching *institutions* and more limited for-profit *Subsidiaries*. For the most part, for-profit subsidiaries of non-profit institutions have been organized for specific functions separate from the instructional functions of the university, for marketing of developing course materials, for example. All non-profit universities, regardless of how innovative, intend to continue operating as non-profit teaching and research institutions. The creation of new for-profit subsidiaries shouldn't frustrate progress in the area of copyright agreements.

Responses of Marybeth Peters to questions submitted by Senator Thurmond

Question 1: Ms. Peters, the Copyright Act is reflective of the teaching environment in the 1970s when there was a great proliferation of distance education utilizing analog technology. Wouldn't a broadening of Section 110 (2)'s exemption rights to include limited rights of reproduction and distribution maintain current policy objectives, only reformatting the statute to conform with technologies inherent in digital systems? Specifically, do you foresee any unexpected harm to copyright owners as a result of this seemingly innocuous change (assuming technology is implemented to protect unauthorized downstream use of copyrighted material)?

The broadening of the section 110(2) exemption to cover the rights of reproduction and distribution to a limited extent is intended to preserve, in the face of technological changes, the policy objectives embodies in the current provision. The additional rights are covered only to the extent necessary to permit institutions to carry out permitted transmissions over a digital network. In addition, institutions are required to use technological measures to assure that only the students for whom a transmission is intended can use the copyrighted material in the transmission. The Copyright Office does not foresee any unreasonable harm to copyright owners as a result of this change, although copyright owners have raised concerns with regard to the display right (which is discussed below in my response to Question 3).

Question 2: Ms. Peters, Subsection 1 of Section 2 of the proposed legislation would broaden the Section 110(2) exemption to allow educational institutions and government entities to utilize the performance of audiovisual works under limited circumstances. Should we refrain from legislative activity due to the rapid development of technology and licensing systems? Would it be advisable to take a "wait and see" attitude, allowing the market to handle our concerns first? It appears that copyright owners are concerned about Broadening the exemptions because of the possibilities of unauthorized downstream use of copyrighted material If we delay the enactment of legislation in this area, will technology develop to the point of allaying the fears of copyright owners?

I recommended expanding the exemption to include audiovisual works because of educators' concerns. They indicated that there was a strong pedagogical value in using this important and popular category of work for teaching purposes and noted the difficulty of obtaining digital licenses from owners of audiovisual works. Additionally, digital distance education is using more and more multimedia works, which

incorporate audiovisual works and may be considered audiovisual works themselves. Instructional audiovisual works are excluded from the exemption (as are all instructional works) and the use of audiovisual works is confined to limited and reasonable portions (e.g., a film clip, not a substantial part of a film). I believe that the proposed expansion safeguards copyright owners, especially since the proposed exemption is contingent on the use of technological measures that control downstream uses of copyrighted works.

Question 3: Ms. Peters, you stated in your testimony that Subsection 2 of Section 2 of the proposed legislation would prohibit the display of copyrighted materials in their entirety because entire works could not possibly be "an integral part of a class session," as required by the bill. Wouldn't this language allow instructors of courses to provide substantial portions of copyrighted materials such as books, justifying the substantial portions as being integral to a students preliminary understanding during the class session? Why not amend the bill to treat displays the same as performances and treated in Subsection 1 of Section 2 of the bill, which requires reasonable and limited portions of the performance of a work?

The Copyright Office believes that a fair interpretation of the limitation that requires displays exempted under section 110(2(A) to be made " as an integral part of a class session" would not permit the consumption of substantial portions works such as textbooks, notwithstanding the fact that the exemption for the display of works is not subject to quantitative limitations. A "class session," even in the online world, must be limited in scope and duration. Even if an instructor has the legal right to display an entire text, the "class session" limitation would not permit the student to consume it in its entirety. There are problems inherent in limiting the display right. For example, it would be impractical and unreasonable no to permit and instructor to display an entire painting, photograph, or short textual work such as a poem. Moreover, since the current exemption permits the display of entire works, such a limitation would bar activities using analog technology that are currently permitted.

Question 4: Mr. Peters, the fair use doctrine incorporated into Section 107 of the Copyright Act is supposed to be technology-neutral. In you opinion, does digital technology add new ambiguities to the fair use doctrine?

Note really. As you have stated, the fair use exception, section 107 of the Copyright Act is technology-neutral. Courts have been applying the fair use doctrine to numerous cases occasioned by changing technologies in the past decades without the exemption itself growing any more ambiguous. Courts are today applying section 107 to works in digital from with no greater conceptual difficulty than in fair use cases generally.

There is much confusion and misunderstanding about the fair use doctrine, especially in a digital environment. I did suggest some clarification through report language that explicitly addresses certain fair use principles and confirms that the doctrine applies to activities in the digital environment, as well as inclusion of some examples of digital uses that might qualify as fair use. The law, however, should not be amended.

Question 5: Ms. Peters, would it be advisable to legislate some minimum levels of fair use in lieu of amending the language of Sections 110 (1) and (2)? It appears that educational institutions are wary of using fair use as a safe harbor because of the lack of certainty associated with it. Do you think we could accomplish the same policy objectives by attempting to legislate some minimum uses of copyrighted works that would qualify as "fair use"?

Although there is a the lack of certainty inherent in the use of the doctrine of fair use as an affirmative defense to copyright infringement, it would nonetheless not be desirable to legislate minimum levels of fair use in lieu of amending the language of section 110(2). Fair use is intended to be a balancing test of factors that operates independently from the other specific exemptions and limitations in sections 108 through 122. Specific exemptions already exist in section 110(1) and 110(2) to provide educators with strictly delineated parameters for their use of copyrighted works. Indeed, section 110(1), which addresses face-to-face teaching activities, appears to be functioning appropriately, and I am not aware of any calls for legislative change.

Question 6: Ms.. Peters, the proposed legislation would require educational institutions to utilize measures designed to protect copyright owners in exchange for a broadening of Section 110(2)'s exemptions. What will be the costs incurred by educational institutions and government entities in complying with these protective measures, i.e., instituting policies, providing information to faculty and students, and purchasing appropriate software.

Educational institutions already take some responsibility for the security of materials they disseminate; use of passwords and other access controls is widespread. Moreover, many also require compliance with copyright policies and inform students and faculty about the law. The only issue seems to be technologies to prevent unauthorized downstream copying of copyright works. At present, these technologies are not widely available in the marketplace; thus the actual cost is not known at this point in time. Nonetheless, we believe that the use of such technological safeguards is an important part of the policy balance should the section 110(2) exemption be extended to the digital realm.

Question 7: Ms. Peters, Subsection 4 of the Section 2 of the bill would make the protection of the exemptions contingent upon the use of "technological measures that reasonable prevent unauthorized access to and dissemination of the work. . . ." What does "reasonable" mean in this context? Will educational institutions be pulled into litigation over whether their technological measures are reasonable?

I do not believe that educational institutions will be forced into excessive litigation over whether their technological measures are reasonable, because in all likelihood, most educational institutions will make good faith efforts to institute effective technological measures to prevent unauthorized access and dissemination. However, courts have always established standards for what is "reasonable" under the law. Reasonableness would vary depending on such circumstances as the effectiveness of the protection, the types of protection available in the marketplace, and the degree of risk that particular content will be subject to unauthorized use. What is clear, however, is that the technical measure does not necessarily need to be 100% effective-indeed, no technology can be 100% effective.

Question 8: Ms. Peters, some educational institutions are considering the establishment of for-profit subsidiaries in order to provide distance education. This bill would apply to nonprofit education institutions. Will for-profit subsidiaries of educational institutions be the wave of this future, thereby frustrating our current reform attempts?

The Copyright Office analysis on the qualifier issue was based on basic copyright principles. In the 1999 Copyright Office Report on Digital Distance Education, I recommended maintaining existing standards of eligibility for the exemption. At the same time, the Report acknowledged that the lines between for-profit institutions were becoming blurred and that there was widespread support for requiring accreditation as a condition for eligibility. Now, nearly two years later, the lines have blurred even further. Nonetheless, I still view the non-profit criterion as an appropriate dividing line, perhaps in conjunction with one or more additional criteria. The Copyright Office doesn't believe that limiting the exemption to nonprofit institutions will frustrate the reform efforts. A basic principle of copyright is the for-profit entities engaged in for-profit activities should license or purchase copyrighted materials.

Question 9: Ms. Peters, when digital technology is used to transmit abroad, what are some of the options we have to address choice of law problems? Can these types of problems be solved in the context of current statutes and treaty provisions?

When educational institutions in the United States use digital technology to transmit courses abroad, a number of legal questions relating to choice of law are raised. Unfortunately, under current legal doctrines, answers to these questions are still unclear. In the traditional analog world, the generally accepted view is that questions of authorship and ownership are governed by the law of the work;s country of origin, while questions of rights and remedies are governed by the law of the country where the infringing act takes place. In the digital realm, however, the situs of the relevant act is not always clear. Resolution of these difficult issues has been a focus of attention among law professors and others in recent years. However, at this point we cannot say whether or not these issues can be solved within the current framework of treaty provisions and domestic law.

SUBMISSION FOR THE RECORD

Statement of Hon. Maria Cantwell, a U.S. Senator from the State of Washington

Chairman Hatch and Senator Leahy, thank you for calling this hearing. Distance learning programs are critical to meeting the goal of bringing quality education to all Americans.

From my perspective, distance education offers two great opportunities: first, providing a better education for those in our rural communities, and second, providing job training and retraining to America's workforce to meet the needs of the New

Economy. Distance learning is a critical component in our strategy to build a better educated, more fully employed—and employable—America.

But as we consider changes to copyright law, I want to sound a word of caution. Intellectual property has been a cornerstone of our prosperity. When we consider changes to intellectual property law, we should be sure that the technology is working in our favor. I understand that some here today are concerned that the exemption that we are considering is inappropriate for two principle reasons. First, they argue it is premature since the marketplace hasn't had adequate time to develop. Second, that technological protections for intellectual property are not widely in use in distance education programs, and therefore, the bill is based on a false premise. As to the first point, I disagree, but as to the importance of technological protections, I share the concern to some extent.

LET ME EXPAND ON EACH OF THESE POINTS:

One of the greatest promises of distance education is the ability to make a high quality education affordable and accessible to those in hard to reach rural areas throughout the U.S. I have made it a priority to enhance federal funding for rural distance education—and distance medical care programs. This is an area where technology has proven to be extremely valuable. As we enhance federal funding, Congress must also examine federal law to see where the law might impair the deployment of new and innovative programs.

To maintain our edge in the global economy we must ensure that every American has the opportunity to learn the necessary skills. Distance learning programs are important to retraining our existing workforce and bringing into the economy those communities with historically high unemployment rates. Very simply put, the growth of distance education will improve our ability to fully employ our domestic workforce.

That said, we must act with the awareness that intellectual property is the underpinning of the traditional hightech industries, those directly involved in developing hardware and software, and other industries equally critical to the growth of our domestic economy: publishing, entertainment and the media. And I have heard concerns that this bill may not adequately protect the intellectual property produced by these industries.

Specifically, I have heard two concerns I want to focus on: First, that the distance education marketplace is nascent and rapidly changing, and that the education and copyright communities haven't had a chance to work through copyright issues. To this I respond that distance education is likely to be forever evolving, with infinite variations and innovations in technological and teaching models. We need to consider these circumstances as we look at revising the law, but we need not wait for the industries to "settle down" to identified business models or routine practices.

The second concern that I have heard is that as we consider amending copyright law to make it easier for teachers to use copyrighted materials in their online classrooms, we make sure copyright owners have adequate assurance that their works will be protected from unauthorized use or distribution. I share this concern since adequate technological protections for intellectual property are not yet widely available to online educators. So I am interested in hearing more about how educators are currently addressing the need to protect copyrighted materials, and how in the future they will provide adequate assurances to copyright owners that their materials will not be distributed beyond their bona fide students.

I would be interested in working with the Chairman, Senator Leahy, educators and the copyright community to encourage wider use of appropriately protective technologies and I look forward to doing what I can to help move this bill forward expeditiously.

I look forward to hearing from our witnesses today and thank you all for coming.

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