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ACHIEVING THE PROMISES OF THE AMERICANS WITH DISABILITIES ACT IN THE DIGITAL AGE—CURRENT ISSUES, CHALLENGES, AND OPPORTUNITIES

HEARING

BEFORE THE

SUBCOMMITTEE ON THE CONSTITUTION, CIVIL RIGHTS, AND CIVIL LIBERTIES

OF THE

COMMITTEE ON THE JUDICIARY
HOUSE OF REPRESENTATIVES

ONE HUNDRED ELEVENTH CONGRESS

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ACHIEVING THE PROMISES OF THE AMERICANS WITH DISABILITIES ACT IN THE DIGITAL AGE—CURRENT ISSUES, CHALLENGES, AND OPPORTUNITIES

THURSDAY, APRIL 22, 2010

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON THE CONSTITUTION,
CIVIL RIGHTS, AND CIVIL LIBERTIES,
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The Subcommittee met, pursuant to notice, at 1:10 p.m., in room 2141, Rayburn House Office Building, the Honorable Jerrold Nadler (Chairman of the Subcommittee) presiding.

Present: Representatives Nadler, Scott, Jackson Lee, Chu, and Sensenbrenner.

Staff Present: (Majority) David Lachmann, Subcommittee Chief of Staff; Heather Sawyer, Counsel; and Paul Taylor, Minority Counsel.

Mr. NADLER. This hearing of the Subcommittee on the Constitution, Civil Rights, and Civil Liberties will come to order please.

Before we begin, if you want to take advantage of the sign language interpreter for today's hearing, we have reserved some seats up front for that purpose.

I would also ask those of you with cameras please refrain from taking flash pictures today.

We will start by I will recognize myself for a 5-minute opening statement.

Today's hearing examines the application of the Americans with Disabilities Act in the digital age. This July, we will celebrate the 20th anniversary of the Americans with Disabilities Act of 1990.

Often described as the most sweeping civil rights legislation since the Civil Rights Act of 1964, the ADA embodies our promise that the gateways to participation in American society, avenues to work, public services, and public accommodations will be open to people with disabilities. We renewed that promise 2 years ago when we came together in a fully bipartisan effort to pass the ADA Amendments Act of 2008, which responded to court decisions interpreting the definition of disability too narrowly and in a manner that was completely at odds with the broad remedial purposes of this great law. I want to thank the Ranking Member, my colleague from Wisconsin, Jim Sensenbrenner, the Chairman of the full Com-

mittee, John Conyers, and the majority leader, Steny Hoyer, for their particular leadership on that bill.

Today's oversight hearing shows that our commitment to achieving the ADA's promise did not end 2 years ago. That commitment endures, and as the world around us changes and new gateways to participation in American life are opened, we must ensure that people with disabilities are included.

When Congress passed the ADA 20 years ago, we were not communicating by e-mail, blog, or tweet; we were not filling virtual shopping carts with clothes, books, music, and food; we weren't banking, renewing our driver's licenses, paying taxes or registering for and taking classes online.

Congress could not have foreseen these advances in technology. Despite Congress' great cognitive powers, it could not have foreseen these advances in technology which are now an integral part of our daily lives. Yet Congress understood that the world around us would change and believed that the nondiscrimination mandate contained in the ADA should be broad and flexible enough to keep pace.

As one Committee report explained, we quote, intend that the types of accommodation and services provided to individuals with disabilities under all of the titles of this bill should keep pace with the rapidly changing technology of the times, closed quote.

Today, we have a chance to hear from the Department of Justice and other experts on whether Congress' expectation is being met. Through informal guidance, the Department consistently has taken the position that public and private entities must ensure that individuals with disabilities have equal access when the goods or services are provided over the Internet or through other evolving technologies. But the Department has yet to modernize its regulations to make that clear, and the courts have struggled to articulate a consistent approach.

This lack of clarity is harmful and places individuals with disabilities at great risk of being left behind. It also leaves public and private entities uncertain as to whether they are subject to and, for that matter, in compliance with ADA requirements. I therefore urge the Department to update its regulations and hope to hear today about its plans to issue guidance that clarifies application of the law and provides meaningful resources for entities seeking to comply.

With this additional clarity and guidance, I am hopeful that we will avoid a repeat of the problems that we encountered with the court's misinterpretation of the definition of the word "disability" in the ADA. In correcting the courts unduly restrictive interpretation of this term, we made clear that we will not tolerate a narrow reading of the ADA.

That same message should apply with full force as the courts interpret and apply key phrases like "place of public accommodation" in Title III of the Act. The notion that Congress prohibited discrimination only when it occurs in a physical place or required structural changes only to physical places is not consistent with the spirit and the plain language of the law.

In recognizing and seeking to remove barriers that had limited access and opportunity of individuals with disabilities, Congress

certainly did require changes to physical structures, but that was not all. Congress also required, among other things, reasonable accommodations and modifications to policies, practices, services, or activities, the provision of auxiliary aides, and the removal of communication barriers. None of these requirements can accurately be characterized as limited to physical spaces.

I am confident that removing barriers, whether they occur in physical or cyberspace, and ensuring accessibility and equal opportunity when jobs, public services, and public accommodations rely upon access to new technologies benefits all of us. I am also confident that achieving this goal is not unduly burdensome, and it will not staunch innovation or creativity.

Having been fortunate enough to work with a young attorney on the Subcommittee who, in addition to being brilliant and thoughtful, is also blind, I have seen and enjoyed the benefits that a few simple accommodations can bring. And I can assure you that we all have a lot to lose if and when those accommodations are not made.

I am pleased to welcome our witnesses today, and I look forward to hearing from them on how we can continue to ensure that the promise of the ADA is achieved in the digital age.

The Chair will now recognize the distinguished Ranking Member for 5 minutes for an opening statement.

Mr. SENSENBRENNER. Thank you, Mr. Chairman.

Twenty years ago, this country took a significant step forward in eliminating the barriers that for far too long kept disabled Americans from fully participating in the American dream. Prior to the ADA Act of 1990, disabled Americans faced not only physical barriers in almost all aspects of society but also attitudinal barriers which relegated them to a form of second-class citizenship. Moreover, because Federal and State laws were ill-equipped to protect disabled Americans at the time, false stereotypes and discriminatory treatment employed by others created a vicious cycle. As a result, disabled Americans experienced lower graduation and employment rates, higher poverty rates, and less personal freedom and independence than more able-bodied citizens.

The ADA enacted on July 26, 1990, broke this vicious cycle by helping restore the full meaning of equal protection under the law. Like the civil rights laws that came before it, this landmark bipartisan law has worked to transform our Nation. As a result of the ADA, fewer citizens are judged by their physical and mental impairments and are now evaluated according to their character and qualifications.

In the last Congress, I worked with Chairman Conyers and Majority Leader Hoyer to achieve the enactment of the ADA Amendments Act of 2008, which further fulfilled the promise of the ADA by resolving the intent of Congress to cover a broad group of individuals with disabilities under the Act. That legislation served to eliminate the problems of courts focusing too heavily on whether individuals are covered by the law rather than on whether discrimination occurred.

My wife, Cheryl, who was then chairman of the board of the American Association of People with Disabilities and who is in the audience today, was dogged in her advocacy for that legislation.

Many members report still hurting when she hit them over the head with her cane.

Still, the fight for fair and equal access continues. Through the ADA's clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities, communities have visibly become more accessible and more friendly to disabled citizens. The ADA has encouraged conscious change to our infrastructures, governments, businesses, policies, and practices.

Part of that changing infrastructure is the Internet. With the ever-expanding and increasingly inexpensive bandwidth, technology is now helping to solve many accessibility issues by allowing the disabled to interact more easily with other people, businesses, and government from their own homes. Just like buildings, Web sites can be designed to meet the needs of everyone, including the disabled.

In our new digital age, an accessible online environment is part of what is required by the ADA's reasonable accommodation standard, as Federal appeals courts have already recognized. Students are coming to expect better access to long-distance learning courses, consumers are reasonably expecting an easier transaction with businesses, and citizens are expecting better interaction with their government.

While lawsuits continue to spur greater accommodations within the digital landscape, technology is rapidly making it easier for ADA-covered entities to avoid lawsuits by simply providing reasonable accommodations. That may have been the case a decade ago that companies wondered how they could make online interactions with the disabled more accommodating. But today the question is how do we do it and should give way to just do it as the advance of technology makes former excuse making incredibly untenable.

The ADA has been one of the most effective pieces of civil rights laws passed by Congress. This continued effectiveness is paramount to ensuring that the transformation that our Nation has undergone continues in the future and that the guarantees and promises on which this country was established continue to be recognized on behalf of all of our citizens.

I am happy that all of our witnesses are here today and that they will tell us more about how technology is helping to make compliance with the ADA even easier.

I thank the Chairman for the time and yield back.

Mr. NADLER. I thank the gentlemen.

In the interest of proceeding to our witnesses and mindful of our busy schedules I ask that other Members submit their statements for the record.

Without objection, all Members will have 5 legislative days to submit opening statements for inclusion in the record.

Without objection, the Chair will be authorized to declare a recess of the hearing, which, since the House is not in session, we expect no votes, I don't expect to have to do.

We will now turn to our first panel. As we ask questions of our witnesses, the Chair will recognize Members in the order of their seniority in the Subcommittee, alternating between majority and minority, provided that the Member is present when his or her turn arrives. Members who are not present when their turns begin

will be recognized after the other Members have had the opportunity to ask their questions. The Chair reserves the right to accommodate a Member who is unavoidably late or only able to be with us for a short time.

Our first witness and our first panel is Samuel Bagenstos, who is the Principal Deputy Assistant Attorney General in the Civil Rights Division of the Department of Justice. As Principal Deputy AAG, Mr. Bagenstos assists in the overall management of the Division and directly supervises the Division's appellate and disability rights sections, as well as the disability rights work of the Division's special litigation section.

From 1994 to 1997, he worked as a career attorney in the appellate section of the Division. Prior to rejoining the Department, Mr. Bagenstos was a law professor, having taught at Harvard, Washington University at St. Louis, UCLA, and the University of Michigan. He is a graduate of the University of North Carolina and received his J.D. magna cum laude from Harvard law school.

I am pleased to welcome you. Your written statement in its entirety—and I will address this to the witnesses in our second panel, too, so I will say it in the plural. Your written statements in their entirety will be made part of the record.

I would ask each witness to summarize his or her testimony in 5 minutes or less. To help you stay within that time, there is a timing light at the table. When 1 minute remains, the light will switch from green to yellow and then red when the 5 minutes are up. I will lightly tap the gavel when the light turns yellow and then tap it harder when it turns red.

Before we begin, it is customary for the Committee to swear in its witnesses. If you would please raise your right hand to take the oath.

[Witness sworn.]

Mr. NADLER. Let the record reflect that the witness answered in the affirmative.

I will now recognize Deputy Assistant Attorney General Bagenstos for 5 minutes for his opening statement.

TESTIMONY OF THE HONORABLE SAMUEL R. BAGENSTOS, PRINCIPAL DEPUTY ASSISTANT ATTORNEY GENERAL, U.S. DEPARTMENT OF JUSTICE

Mr. BAGENSTOS. Thank you, Chairman Nadler and Members of the Committee. It's a great pleasure and honor to appear today to discuss the rights of individuals with disabilities to access emerging technologies, particularly as we come up to the 20th anniversary of the ADA this summer.

Under the ADA, access to the Internet and emerging technologies is not simply a technical matter, it's a fundamental issue of civil rights. And as more and more of our social infrastructure is made available on the Internet, and in some cases exclusively online, and as emerging technologies play an increasingly central role in education, employment, and other important areas of civic and economic life, access to information and electronic technologies is increasingly becoming the gateway civil rights issue for persons with disabilities.

The Internet and emerging technologies certainly hold enormous promise for people with disabilities, just as they do for everyone else. But a digital divide exists and threatens to grow between people with and without disabilities. When Web sites are inaccessible because they incorporate untagged images, for example, that can't be read by a screen reader, individuals with disabilities are shut out of the opportunities that the Web site provides. And inaccessible Web sites that are operated by State and local governments or private businesses undermine the ADA's promise that people with disabilities will have full and equal access to all areas of civic and economic life.

Where schools use electronic text or e-book readers that are inaccessible because, for example, they lack a text-to-speech function, they deny people with disabilities the full and equal access to class materials and opportunities that the ADA demands.

Ensuring that people with disabilities have an equal opportunity to access the benefits of emerging technologies is an essential part of our disability rights enforcement at the Department of Justice. We have long taken the position that both State and local government Web sites and the Web sites of private entities that are public accommodations, whether or not they operate exclusively online, are covered by the ADA. In other words, entities covered by both Title II and Title III of the statute are required by law to ensure that their sites are fully accessible to individuals with disabilities.

The Department is considering issuing guidance or additional regulations on the range of issues that arise with regard to the Internet sites of private businesses that are public accommodations covered by Title III of the ADA, and in so doing we intend to solicit public comment from the broad range of parties interested in the issue.

There's no doubt that the Internet sites of State and local government entities are covered by Title II of the ADA. As to places of public accommodation, there are only two cases, both in Federal District Court, that specifically address the application of ADA Title III, and those cases have reached differing conclusions.

Mr. NADLER. Don't assume everybody knows what Title III is automatically. Describe that in one sentence.

Mr. BAGENSTOS. Title III of the ADA, meaning the part that covers places of public accommodation.

But the position of the Department of Justice has been clear. Title III applies to the Internet sites and services of private entities that meet the definition of public accommodations set forth in the statute, whether or not they operate exclusively online, and the implementing regulation.

The Department first made this position public in a 1996 letter from Assistant Attorney General Patrick which did not specifically address online-only enterprises. But later the Department filed an amicus brief in the Fifth Circuit in a case called *Hooks v. OKBridge*, which involved a Web-only business and explained that businesses providing services solely over the Internet are subject to the ADA's prohibitions on discrimination on the basis of disability. And we continue to endorse that position.

There are several sets of standards that I'm happy to talk about how to make Web sites accessible. But I want to talk about another area that we're also working in in the emerging technology area.

We're also working aggressively in terms of e-book readers. In June of last year, we received several complaints from the National Federation of the Blind, the American Council of the Blind, and the Coalition of Disability Rights Groups that are known as the Reading Rights Coalition which allege that colleges or universities were violating their obligations under the ADA by having students use electronic book readers that were inaccessible to individuals who were blind for course materials.

We investigated each complaint. In January, we announced that we had reached separate settlement agreements with Case Western University, Reed College and Pace University; subsequently also Princeton and Arizona State Universities. These settlement agreements provide that the universities will not purchase, require, or in any way incorporate into their curriculum the Kindle DX or any other dedicated electronic book reader to the extent it's not fully accessible to individuals who are blind or have low vision. These agreements underscore that requiring the use of emerging technology in the classroom that is inaccessible to persons with disabilities is discrimination that's prohibited by the ADA in 504.

The happy result, during the course of our investigations and negotiations with these colleges, Amazon.com, which is not covered by the ADA directly, announced that it is intending to make the Kindle DX fully accessible to individuals who are blind or have low vision by extending its text-to-speech feature to these functions by the end of the year 2010.

As we come to realize anew each day, the pace of technological change is amazing and what appeared impossible just months or years ago is now commonplace. Advancing technologies can open doors for people with disabilities and provide the means for them to have a full, equal, and integrated experience and access to American life. But technological advances will leave people with disabilities behind if technology developers and manufacturers do not make their new products accessible. We must make sure that the legal protections to the rights of individuals with disabilities are sufficiently strong to ensure opportunities for everyone, and we must avoid the travesty that would occur if the doors that are opening for Americans with advancing technologies were closed for individuals with disabilities simply because we are not vigilant.

Thanks, and I look forward to answering your questions.

[The prepared statement of Mr. Bagenstos follows:]

PREPARED STATEMENT OF THE HONORABLE SAMUEL R. BAGENSTOS

Department of Justice

STATEMENT

OF

SAMUEL R. BAGENSTOS
PRINCIPAL DEPUTY ASSISTANT ATTORNEY GENERAL FOR CIVIL RIGHTS
DEPARTMENT OF JUSTICE

BEFORE THE
SUBCOMMITTEE ON THE CONSTITUTION,
CIVIL RIGHTS, AND CIVIL LIBERTIES
COMMITTEE ON THE JUDICIARY
UNITED STATES HOUSE OF REPRESENTATIVES

CONCERNING
EMERGING TECHNOLOGIES AND THE RIGHTS OF INDIVIDUALS WITH DISABILITIES

PRESENTED ON
APRIL 22, 2010

Samuel R. Bagenstos
Principal Deputy Assistant Attorney General for Civil Rights
Department of Justice

Before the
Subcommittee on the Constitution,
Civil Rights, and Civil Liberties
Committee on the Judiciary
United States House of Representatives

Concerning
Emerging Technologies and the Rights of Individuals with Disabilities

Presented on
April 22, 2010

Chairman Nadler, Ranking Member Sensenbrenner, and Members of the Subcommittee, it is an honor to appear before you today to discuss the rights of individuals with disabilities to have access to emerging technologies. The Civil Rights Division enforces the Americans with Disabilities Act ("ADA") and Section 504 of the Rehabilitation Act, and we have a substantial role in implementing Section 508 of the Rehabilitation Act. Pursuant to these statutes, access to the internet and emerging technologies is not simply a technical matter, but a fundamental issue of civil rights. As more and more of our social infrastructure is made available on the internet – in some cases, exclusively online – access to information and electronic technologies is increasingly becoming the gateway civil rights issue for individuals with disabilities.

Congress adopted the Americans with Disabilities Act in 1990. The statute is a comprehensive, broad-reaching mandate to eliminate discrimination on the basis of disability in all of the areas of American civic and economic life. The Department of Justice is responsible for enforcement and implementation of Titles II and III of the ADA, which cover State and local government entities and private businesses, respectively. We also enforce Title I of the ADA, which prohibits disability discrimination in employment, in cases involving State and local government employees. Most of the nondiscrimination requirements of Title III apply to private businesses that fall within one of the categories of "public accommodation" established in the statute and the Attorney General's implementing regulations. The Department also enforces the statute on which the ADA is based, Section 504 of the Rehabilitation Act of 1973, 29 U.S.C. 794, which prohibits discrimination in federally assisted and federally conducted programs and activities.

When Congress enacted the ADA and Section 504, the internet as we know it today – the ubiquitous venue for information, commerce, services, and activities – did not exist. For that reason, although the ADA and Section 504 guarantee the protection of the rights of individuals with disabilities in a broad array of activities, neither law expressly mentions the internet or contains requirements regarding developing technologies. When Congress amended the Rehabilitation Act in 1998, it added section 508. That provision specifically requires Federal

government agencies to ensure that their electronic and information technologies, including their websites, are accessible to individuals with disabilities. 29 U.S.C. 794(d). Within the Civil Rights Division the Disability Rights Section is responsible for enforcement of the civil rights statutes relating to the accessibility of information technologies to individuals with disabilities.

In this testimony, I will first discuss the importance of accessible technology to people with disabilities. I will then talk about the significant barriers that keep people with disabilities from having full and equal access to emerging technologies. I will then discuss the actions the Department of Justice is taking to ensure that emerging technologies do not leave people with disabilities behind.

Disability Rights and Developing Technologies

Information technologies play a significant and ever expanding role in everyday life in America. The most developed and entrenched of these technologies, the internet, has become a gateway to the full range of activities, goods, and services available offline. Constituents of State and local government use the internet to renew library books and driver's licenses, to file tax forms, and even to correspond with elected officials. Increasingly, businesses – even those with substantial physical sales facilities – use websites to sell goods and services to their customers. So-called e-commerce is a rapidly expanding segment of the American economy. Ensuring nondiscriminatory access to the goods and services offered through the internet is therefore essential to full societal participation by individuals with disabilities.

It is not simply e-commerce that is affected, however. Electronic and information technologies are swiftly becoming a gateway to employment and education. Employment recruiting and hiring systems are often web based. In many cases, the only way to apply for a job or to sign up for an interview is on the internet. Job applicants research employment opportunities online, and they use the internet to most efficiently learn about potential employers' needs and policies. And schools at all levels are increasingly offering programs and classroom instruction through the internet. Many colleges and universities offer degree programs online; some universities exist exclusively on the internet. Even if they do not offer degree programs online, most colleges and universities today rely upon the internet and other electronic and information technologies in course assignments and discussion groups, and for a wide variety of administrative and logistical functions in which students and staff must participate.

For many individuals with disabilities who are limited in their ability to travel or who are confined to their homes, the internet is one of the few available means of access to the goods and services of our society. The broad mandate of the ADA to provide an equal opportunity for individuals with disabilities to participate in and benefit from all aspects of American civic and economic life will be served in today's technologically advanced society only if it is clear to businesses, employers, and educators, among others, that their web sites must be accessible.

But the internet is not the only information or electronic technology that is altering the way in which we do business and provide education in this country. Facing an exponential rise

in the cost of standard print text books, colleges and universities are beginning to use electronic books and electronic book readers instead. Electronic book readers are typically lightweight, hand-held devices with screens and operating controls. Texts in an electronic form appear on the screens of these devices to simulate the experience of reading a book. The texts that appear on screen are formatted to look just like they would in a print version. Colleges and universities are likely to use digital and electronic text books more and more. Some experts predict that traditional print texts will be replaced by electronic or digital texts within three to five years.

As public servants entrusted with the welfare of our citizens, we in the Federal government must provide the leadership to make certain that individuals with disabilities are not excluded from the virtual world in the same way that they were historically excluded from "brick and mortar" facilities. Emerging technology promises to open up opportunities for people with disabilities throughout our society. But a digital divide is growing between individuals with and without disabilities. If we are not careful, as technology becomes more sophisticated the gap will grow wider, and people with disabilities will have less access to our public life.

These problems—and the corresponding opportunities—are likely to become more acute in the years to come. As the population ages, more and more Americans will need access to emerging technologies to continue working and to access the healthcare system. The 2006 National Health Interview Survey (NHIS), revealed that 13.6 percent of Americans 65 to 74 years of age reported having a vision loss and 21.7 percent of Americans 75 years of age and older reported having a vision loss. Advances in the availability of accessible technologies will increase—and are already increasing—the long-term employability of individuals with progressive blindness and other vision disabilities.

Technological Barriers to Accessibility

Millions of people have disabilities that affect their use of the web – including people with visual, auditory, physical, speech, cognitive, and neurological disabilities. People who are blind or have low vision are often the most affected by inaccessible information and electronic technology.[1] Many individuals with visual impairments use an assistive technology known as a screen reader that enables them to access the information on computers or internet sites. Screen readers read text aloud as it appears on the computer screen. Individuals who are blind may also use refreshable Braille displays, which convert the text of websites to Braille. Sometimes, those individuals will use keyboards in lieu of a mouse to move up and down on a screen or sort through a list and select an item.

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[1]People who have difficulty using a computer mouse because of mobility impairments, for example, may use an assistive technology that allows them to control software with verbal commands. But websites and other technologies are not always compatible with those assistive technologies. Captioning of streaming videos may also be necessary in order to make them accessible to individuals who are deaf or hard of hearing. And individuals with difficult memory or cognitive impairments may be affected by complex websites.

The most common barriers on websites are posed by images or photographs that do not provide identifying text. A screen reader or similar assistive technology cannot "read" an image. When images appear on websites without identifying text, therefore, there is no way for the individual who is blind or who has low vision to know what is on the screen. The simple addition of a tag or other description of the image or picture will keep an individual using a screen reader oriented and allow him or her to gain access to the information the image depicts. Similarly, complex websites often lack navigational headings or links that would make them easy to navigate using a screen reader. Web designers can easily add those headings. They may also add cues to ensure the proper functioning of keyboard commands. They can also set up their programs to respond to voice interface technology. Making websites accessible is neither difficult nor especially costly, and in most cases providing accessibility will not result in changes to the format or appearance of a site.

Accessibility issues arise outside of the internet as well. Most significantly, as schools increasingly use electronic texts, the inaccessibility of many electronic book readers has become more and more salient. At the same time, however, the use of electronic texts holds great promise for people with disabilities. Students who are blind or have low vision have long used a form of electronic text as an accommodation that enables them to access the course materials their classmates use. These electronic texts, which are converted from standard print texts, are read on a computer, using a screen reader or a refreshable Braille display. In order for these electronic texts to be truly usable by someone who is blind or who has low vision, however, the texts must be coded with structural data so that the assistive technology can properly identify where to begin reading or where a sentence or paragraph begins and ends.

This system disadvantages blind students in colleges and universities as compared with sighted students, because it can take considerable time for a university to locate texts from publishers, and convert the text to a format usable by a screen reader or similar assistive technology. As a result, all too often course materials are not available to blind students until well after classes have begun.[2] If you ask just about any disability student services center at a major university, you will learn how significant this problem really is. Imagine as a student being unable – on a routine basis – to obtain your course materials for the first four months of the semester. As an alternative to obtaining converted texts from the publisher, universities may scan printed texts in order to provide them in electronic form. But this method can result in a "text dump," which lacks structural data to ensure proper reading by assistive technologies. Conversion errors, too, are common. So, the choice available to blind students prior to use of the new, electronic book readers, was to receive accurate materials months into the semester or inaccurate materials in a more timely manner.

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[2]As the Disability Resource Center ("Center") at Arizona State University, one of the universities involved in the Kindle matter that I will discuss in a moment, informs blind students in its handbook, for example, "textbook/print conversion is a time intensive process, especially for technical subject matter, and *can require up to four months to complete*." *See* www.asu.edu/studentaffairs/ed/drc/services_alternative_format_procedure.htm. (emphasis added).

The emergence of dedicated electronic book readers thus holds great potential to place students with disabilities on equal footing with other students. But that happy result will occur only if the electronic book reader is equipped with text-to-speech capabilities, so that it may read the electronic text aloud. In a few moments, I will discuss the Department of Justice's settlements in investigations of colleges and universities that used the Kindle DX, an inaccessible electronic book reader, as part of a pilot project. At the time the Kindle DX was used in this pilot project, it contained text-to-speech capabilities – meaning that it could read the electronic text aloud, rendering the text audible and therefore accessible to blind persons. Unfortunately, the device did not include a similar audio option for the menus or navigational controls. Without text-to-speech for the menu or navigational controls, blind students could not operate the electronic book reader independently, because they had no way of knowing which book they selected or how to access the search, note taking, or bookmark functions of the device. Electronic book readers developed by companies other than Amazon also pose barriers to use by individuals who are blind or have low vision, typically because they entirely lack a text-to-speech function.

But a dedicated electronic book reader can be made accessible. From the user perspective, an accessible electronic book reader might speak each option on a menu aloud, as the cursor moves over it, and then speak the selected choice aloud once made by the user. Special key strokes might be programmed specifically for blind users. For example, the user would press the alt-A key any time something related to accessibility is needed, at which point a menu with additional choices would come up allowing the user to scroll over the menu as described above. Appropriate coding would mean that the text, even mathematical formulas, or poetry in which line lengths vary, would be read aloud coherently. In this way, the user with the disability would gain access to all the information on the printed page.

The Department of Justice Positions Regarding Website Accessibility.

Ensuring that people with disabilities have a full and equal opportunity to access the benefits of emerging technologies is an essential part of our disability rights enforcement at the Department of Justice. Because the internet was not in general public use when Congress enacted the ADA and the Attorney General promulgated regulations to implement it, neither the statute nor the regulations expressly mention it. But the statute and regulations create general rules designed to guarantee people with disabilities equal access to all of the important areas of American civic and economic life. And the Department made clear, in the preamble to the original 1992 ADA regulations, that the regulations should be interpreted to keep pace with developing technologies. 28 C.F.R. pt. 36, App. B.

The Department of Justice has long taken the position that both State and local government websites *and* the websites of private entities that are public accommodations are covered by the ADA. In other words, the websites of entities covered by both Title II and Title III of the statute are required by law to ensure that their sites are fully accessible to individuals with disabilities. The Department is considering issuing guidance on the range of issues that arise with regard to the internet sites of private businesses that are public accommodations covered by

Title III of the ADA. In so doing, the Department will solicit public comment from the broad range of parties interested in this issue.

There is no doubt that the internet sites of State and local government entities are covered by Title II of the ADA. Similarly, there is no doubt that the websites of recipients of Federal financial assistance are covered by Section 504 of the Rehabilitation Act. The Department of Justice has affirmed the application of these statutes to internet sites in a technical assistance publication, *Accessibility of State and Local Government Websites to People with Disabilities* (http://www.usdoj.gov/crt/ada/websites2.htm), and in numerous agreements with State and local governments and recipients of Federal financial assistance. Our technical assistance publication also provides guidance with simple steps to ensure that government websites have accessible features for individuals with disabilities.

As to private places of public accommodation, only two cases – both in Federal district courts – have specifically addressed the application of ADA Title III to their websites, and those cases have reached different conclusions. But the position of the Department of Justice has been clear: Title III applies to the internet sites and services of private entities that meet the definition of "public accommodations" set forth in the statute and implementing regulations. The Department first made this position public in a 1996 letter from Assistant Attorney General Deval Patrick responding to an inquiry by Senator Harkin regarding the accessibility of websites to individuals with visual impairments. The letter has been widely cited as illustration of the Department's position. The letter does not state whether entities doing business exclusively on the internet are covered by the ADA. In 2000, however, the Department filed an amicus brief in the Fifth Circuit in *Hooks v. OKbridge*, which involved a web-only business; the Department's brief explained that a business providing services solely over the internet is subject to the ADA's prohibitions on discrimination on the basis of disability.[3] And in a 2002 amicus brief in the Eleventh Circuit in *Rendon v. Valleycrest Productions*, the Department argued against a requirement, imposed outside of the internet context by some Federal courts of appeals, that there be a nexus between the challenged activity and a private entity's brick-and-mortar facility to obtain coverage under Title III. Although *Rendon* did not involve the internet, our brief argued that Title III applies to any activity or service offered by a public accommodation either on or off the premises.[4]

The Disability Rights Section of the Department of Justice's Civil Rights Division began to provide technical assistance to a host of public and private entities that were in the process of assisting Federal agencies with Section 508 compliance, and much of its guidance on making internet sites accessible developed from there. There are several sets of standards describing how to make websites accessible to individuals with disabilities. Government standards for

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[3] *Department of Justice Brief as Amicus Curiae* at p. 7, Case No. SA-99-CV-214-EP, Aug. 1, 2000 (on appeal from the United States District Court for the Western District of Texas.) The unpublished, per curiam opinion can be found at 232 F.3d 208 (5th Cir. 2000).

[4] *Department of Justice Brief as Amicus Curiae,* Case No. 01-11197, June 18, 2002 (on appeal from the United States District Court of the Southern District of Florida). 294 F.3d 1279 (11th Cir. 2002).

website accessibility were developed pursuant to Section 508. Many entities elect to use the standards that were developed and are maintained by the Web Accessibility Initiative, a subgroup of the World Wide Web Consortium ("W3C®").

The Department of Justice Positions Regarding Other Emerging Technologies

In June of last year, the Department of Justice received several complaints from the National Federation of the Blind ("NFB"), the American Council of the Blind ("ACB"), and a coalition of disability rights groups collectively known as the Reading Rights Coalition – each alleging that colleges or universities were violating their obligations under the ADA and Section 504 by having their students use electronic book readers that were inaccessible to individuals who are blind for course materials. Case Western Reserve University, Princeton University, Pace University, Reed College, and Arizona State University, among others, had formed a pilot project with Amazon.com, Inc., to evaluate the viability of using the Kindle DX in a classroom setting. The NFB and the ACB, along with an individual blind plaintiff, also filed suit in Federal district court against Arizona State University; they argued that the pilot project violated Title II and Section 504. *Nat'l Fed. of the Blind, et al. v. Arizona Bd. of Regents, et al.*, Case No. CV 09-1359 GMS (D. Az. 2009).

The Department of Justice investigated each complaint and, on January 13, 2010, the Department issued a press release announcing that it had reached separate settlement agreements with Case Western Reserve University, Reed College, and Pace University.[5] The Department of Justice and the NFB and the ACB also jointly settled the litigation against Arizona State University in an agreement signed on January 11, 2010. Since that time, on March 29, 2010, the Department entered into a final settlement agreement with Princeton University.

These settlement agreements provide that the universities will not purchase, require, or in any way incorporate into the curriculum the Kindle DX or any other dedicated electronic book reader that is not fully accessible to individuals who are blind or have low vision. The agreements become effective at the end of the pilot projects. The agreements also contain a functional definition of accessibility when applied to dedicated electronic book readers – the universities must ensure that students who are blind or have low vision are able to access and acquire the same information, engage in the same interactions, and enjoy the same services as sighted students with substantially equivalent ease of use. The purpose behind these agreements is to underscore that requiring use of an emerging technology in the classroom that is inaccessible to an entire population of individuals with disabilities–individuals with visual disabilities–is discrimination that is prohibited by the Americans with Disabilities Act of 1990 ("ADA") and Section 504 of the Rehabilitation Act of 1973 ("Section 504").

During the course of its investigations and negotiations with the colleges and universities, Amazon.com, Inc., which is not covered by the ADA or Section 504 in its capacity as the

[5]Agreement between United States and Case Western Reserve University, Jan. 13, 2010; Agreement between United States and Pace University, Jan. 13, 2010; Agreement between United States and Reed College, Jan. 13, 2010.

Mr. NADLER. Thank you very much, and we will begin the questioning by recognizing myself for 5 minutes.

Sir, you testified that the Department is considering issuing guidance with regard to Internet sites of public accommodations.

Can you give us a stronger commitment for the record that the Department will update its regulations?

Mr. BAGENSTOS. It's certainly our intention to update our regulations, absolutely.

Mr. NADLER. Can you give us a date?

Mr. BAGENSTOS. I can't give you a date because, obviously, it's a process within the Department.

Mr. NADLER. An estimated ETA.

Mr. BAGENSTOS. We intend to make an announcement on something like this in the months ahead.

Mr. NADLER. In several months, in other words.

Mr. BAGENSTOS. Yes.

Mr. NADLER. Okay. Thank you.

The Department's consistent position has been, as you've stated, that Titles 2 and 3 reach covered entities operating in cyberspace. What is the legal requirement placed on them? Must they make Web sites themselves accessible or are there other alternatives?

Mr. BAGENSTOS. Well, the legal requirements are the requirements that apply to any business, first of all, that's covered by the public accommodations' provision of the ADA. So they have to provide individuals with disabilities the full and equal enjoyment of the goods, services, facilities, privileges, advantages, and accommodations of the business.

When a business is operating through a Web site, whether as an adjunct to a bricks-and-mortar operation or simply on a Web site, those principles imply a set of requirements, a requirement to make sure that everything on the Web site is fully accessible. Or we have said in the past that there are ways in which it's conceivable theoretically for a business to provide the exact equivalent of what's on the Web site not through the Web site to people with disabilities. That might be by having someone available 24 hours a day to answer questions.

But we were very clear that, to the extent that's what on the Web provides a unique experience or a unique opportunity for people who use the Web, that unique experience or opportunity has to be provided to people with disabilities. And I think that's the essence of the Kindle case.

Mr. NADLER. So you say, in effect, a Web site must be equally accessible or if that is not the case something else equally effective.

Mr. BAGENSTOS. Right. It has to be equally effective in providing all the opportunities.

Mr. NADLER. And it must be as convenient, I assume.

Mr. BAGENSTOS. Yes.

Mr. NADLER. In other words, 24 hours.

What alternatives might qualify, given the relative ease and convenience of the Internet or other emerging technologies like the e-readers noted in your testimony?

Mr. BAGENSTOS. I'm sorry, I didn't hear the first part of the question.

Mr. NADLER. What alternatives might qualify, given the relative ease and convenience of the Internet, like the e-readers noted in your testimony, for example.

Mr. BAGENSTOS. Right. I think that in the case of the e-readers it's difficult to think of the alternatives that qualify. Because what

the e-reader provides is not just access to the information that would be in a textbook but a way of accessing that information that is uniquely convenient that allows for searching in uniquely good ways. And so that would have to be provided to people with disabilities. In that context, because these devices are so revolutionary, it may be difficult to have anything else that's equivalent to it, and if there is nothing else that's equivalent to it then the e-reader or the Internet site or whatever must be made fully accessible.

Mr. NADLER. Thank you.

Assistant Attorney General Tom Perez in a recent speech at a disability law symposium noted a number of different technologies. He mentioned Web sites, cell phones, ticket kiosks, and other devices that currently are not accessible to people with disabilities. Will the Department be updating its guidance to address this full range of issues?

Mr. BAGENSTOS. We are certainly looking into that full range of issues, what's going to be exactly and what comes out. I think we intend to issue technical assistance about all those issues at some point, and we're also looking into a regulatory solution as well.

Mr. NADLER. You testified that the Department has provided letter advice and filed amicus briefs but that the courts still have reached different conclusions on the coverage of Web sites under Title III. What is the Department's game plan for getting better results in consistency in cases going forward? And, specifically, also, is part of your game plan or might it be to ask for some legislative changes?

Mr. BAGENSTOS. Well, we haven't asked for some legislative changes.

Mr. NADLER. You have not.

Mr. BAGENSTOS. We have not. We think that the statute is clear, and we think there's been just very little litigation under it and certainly especially litigation in which we have participated. So our game plan is to do a couple of things. First of all, we want to do more in the regulation, guidance, technical assistance area to make clear what our position is.

Mr. NADLER. Make clear to the courts.

Mr. BAGENSTOS. Make clear to the courts and to the public what our position is. And also to provide assistance as to how to comply. And then at the same time to look strategically at cases that exist and cases that we might bring, complaints that come to us, and look for opportunities to make our position clear.

That's something we did in the Kindle case. It's not with respect to the Internet. But with respect to e-book readers, when the complaints came to us, we saw this as an exceptionally important area to make clear it needs to be accessible to people with disabilities and so decided to jump right into it. And that's the kind of thing we're doing.

Mr. NADLER. My last question is, in the cases involving the Kindle DX, you testified that technology existed for Amazon to make the Kindle usable by blind students but that it hadn't done so although is now planning to do so. Why hadn't they and what happens when the technology does not yet exist to make a new technology accessible? Does the school or business have to hold up using the new technology until it can be made accessible?

Mr. BAGENSTOS. I don't know about Amazon.com's motives. I can tell you the general pattern that we've seen in disability rights through the years, and it's true in technological areas as well as in all older sorts of accessibility areas, has been just a failure to think of the market of people with disabilities as a market that products are designed for, institutions are being designed for.

The technology certainly exists. It's in other devices. Amazon is going to put it into the Kindle. So the technology certainly exists. And as to why it wasn't put in there, I think it's just——

Mr. NADLER. They didn't think of it.

Mr. BAGENSTOS [continuing]. Less of people with disabilities that Congress adopted the ADA to combat.

Mr. NADLER. And my second question, when the technology does not yet exist to make a new technology accessible, does the school of business have to hold up using that new technology until it can be made accessible?

Mr. BAGENSTOS. I guess a couple of points about that.

Often, in a typical case, it is quite possible to make the technology accessible. I think there are cases where, to the extent there is a case where for a period there is no means of making the technology accessible, what a school or an institution has to do is provide something that, to the greatest extent possible, gives people with disabilities the same experience in terms of convenience in terms of all the opportunities provided by the technology. That may be difficult.

Mr. NADLER. Okay. Thank you.

My time is expired. I will now recognize the gentleman from Virginia.

Mr. SCOTT. Thank you.

As I understand it, the access is both the employees and the customers.

Mr. BAGENSTOS. Yes, that's right. Different provisions of the ADA apply. Title I of the ADA applies with respect to employees. Title III with respect to customers. But, yes, the statute requires access for both.

Mr. SCOTT. You talked about books. One of the ways you can make books accessible to those who are blind is to have audio tape recordings. Many books are published in audio tape. Could you comply with the ADA by having someone read the book and make your own copy without getting into copyright complications?

Mr. BAGENSTOS. I think the copyright issues here I know have been a significant source of discussion. Mr. Goldstein, who is going to testify on the next panel, has engaged in some litigation around that and I think might have a useful discussion of the parameters of those issues.

And certainly copyright issues are not issues that we deal with in the Civil Rights Division. There are many ways without running afoul of copyright to provide equal and full access to people with disabilities to the text that appears in books.

Mr. SCOTT. One of the things you have to do with employees is make reasonable accommodations. Do we need any new laws to clarify what a reasonable accommodation is, and how much expense would you have to go to to stay within the realm of reasonableness?

We had an ADA equivalent in Virginia before the ADA, and one of the things we put in that law was a presumption that anything under $500 was presumptively reasonable. Do you have any guidelines on what's reasonable and what's not in terms of expense to accommodate employees' disabilities?

Mr. BAGENSTOS. What the statute provides is that an employer is required to provide a reasonable accommodation that doesn't lead to undue hardship. And the statute talks about what undue hardship means as being especially difficult or especially expensive and gives a series of factors for that. As to what's a reasonable accommodation, there is a degree to which in the case law what the courts look at is a rough proportionality kind of a rule. So Congress when it adopted the ADA originally resisted imposing any specific number targets because——

Mr. SCOTT. We found in Virginia that 80 percent—just to get past the legislative process, found that 80 percent of the accommodations could be done under $500, so that's why we came up with that number.

Mr. BAGENSTOS. Right. And I think that is true nationwide as well. In all of the studies of accommodation that I've seen in the employment sector, the overwhelming majority of accommodations occur at less than $500, that's true. Many have no direct costs at all. And so certainly there are a lot of cases where there ought to be no argument about what's a reasonable accommodation.

Mr. SCOTT. So we do not need to clarify the law. You can work with the law that we have on what a reasonable accommodation is.

Mr. BAGENSTOS. That's certainly what we've been working with for a number of years.

What we have seen before the ADA amendments Act was a lot of cases getting knocked out before they got to the point of reasonable accommodation being defined or elaborated. So I think we have to see what's going to happen now that courts will be less able to kick cases out just on the grounds that the plaintiff doesn't have a disability after Congress adopted the ADA amendment, so we will have to look into that.

Mr. SCOTT. Thank you. Thank you.

Mr. NADLER. I thank the Assistant Attorney General.

I'm sorry. I didn't see Ms. Chu. I now recognize the gentlelady from California.

Ms. CHU. Thank you, Mr. Chair.

I'm so pleased to welcome you here today, Mr. Bagenstos; and I commend your many years of service as an educator. And certainly I can relate my—I understand you came from UCLA.

Mr. BAGENSTOS. I did teach at UCLA for a while, yes.

Ms. CHU. Okay. Right. And as one who taught there as well I certainly am concerned about how students with disabilities are utilizing the digital classroom technologies.

After hearing about your example of the Kindle projects that were there with the pilot project in the university classrooms, I wanted to ask you what the role of the DOJ is in creating and providing guidance for all universities who may want to test, buy, or use new classroom technologies in the future.

Mr. BAGENSTOS. I think we have a very significant role. One of the reasons why we wanted to pursue these Kindle investigations

was to make clear that this is a very important technology. It's a technology that can provide lots of opportunities for people but that it was leaving people with some disabilities behind and that we need to make clear to universities that their obligations of nondiscrimination and accommodation apply not just in the bricks-and-mortar physical world but also in terms of these electronic devices.

I think also something that we ought to do and we will do is, based on our enforcement experience, having dealt with a few of these cases, issue some broader, more perspective guidance to regulate institutions; and we intend to do a number of things in that regard in the months to come.

Ms. CHU. Are you going to be releasing common guidelines to schools so that they can design their pilot projects to adequately include students with disabilities?

Mr. BAGENSTOS. What we certainly intend to do is communicate with schools in a general and prospective way that there are ways of doing this that harness the benefit of emerging technologies and keep people with disabilities having full access, and so that's something we intend to do.

Ms. CHU. And are you working with the Department of Ed. to make sure that these guidelines are distributed?

Mr. BAGENSTOS. We are working with the Department of Education to figure out exactly how and when we are going to talk to the universities and the schools about how they can comply with their obligations under the ADA and, of course, also the Rehabilitation Act, so, yeah.

Ms. CHU. There are more online classes in the universities now, and currently there are over 6,500 online courses available. What would happen if a disabled person was mandated to take a course like this but the technology was not available to them?

Mr. BAGENSTOS. Well, I think you're defining something that would probably be a violation of the ADA or the Rehabilitation Act. To the extent that online courses exist, I mean, it's relatively simple to make them accessible. If there's something special and unique about them, and one of the things that's unique about them is the convenience factor, at least in many cases, then that ought to be made accessible. Or an individual with a disability shouldn't certainly be required to take a course where there's an alternative that is inaccessible.

Ms. CHU. There are many businesses that try to avoid ADA compliance by claiming that it's an undue burden on business, and yet there is a way to make a Web site useful for a blind person or putting captions on an online video that would appear to not cost a lot of money. What is the Justice Department's position on this issue with regard to businesses reacting to lawsuits seeking to make their online services available to disabled Americans?

Mr. BAGENSTOS. Well, certainly we believe that, and it's our experience that the kinds of changes that need to be made to make Web sites accessible are not especially difficult or expensive. There's always, you know, some transition cost, but the things you're talking about, captioning of videos, that's something that a number of institutions do that is not especially costly. And that may be the most costly thing. I mean, if you look at tagging of images or something like that or providing a means for computers to

kind of read where keyboard controls should be used, again, not that difficult. I mean, these are fairly simple technological solutions. So our experience is it's not that complicated or expensive.

Ms. CHU. Thank you. I yield back.

Mr. NADLER. Thank you, and I thank the witness.

We will now proceed with our second panel, and I would ask the witnesses on our second panel to take their places.

In the interest of time, I will introduce you while you are taking your seats.

Mark Richert is Director of Public Policy for the American Foundation for the Blind, which I am proud to say is headquartered in my district. A member of the Florida bar since 1993, Mr. Richert served as the AFB's primary representative to the Congress and to Federal agencies with responsibility for programs, services, and enforcement of rights important to individuals with vision laws.

Additionally, Mr. Richert serves as a co-chair of the Civil Rights Task Force of the Consortium for Citizens with Disabilities and is a co-founder of the Coalition of Organizations for Accessible Technology, a cross-disability coalition advocating for the rights of all people with disabilities to full access to digital age telecommunications and video technologies.

Judy Brewer directs the Web Accessibility Initiative at the World Wide Web Consortium. Since 1997, she has worked to ensure that the W3C technologies support accessibility, promoting standardization efforts for W3C awareness and implementation of Web accessibility internationally and ensuring effective dialogue among industry, the disability community, accessibility researchers, and government on development of consensus-based accessibility solutions.

She holds a research appointment at MIT's computer science and artificial intelligence laboratory and is a consultant at the European Research Consortium on Informatics and Mathematics.

Steve Jacobs has been in the computer industry for 35 years and is President of IDEAL Group, whose subsidiary companies provide services and applications to make new technologies available to the disability community. Mr. Jacobs previously served as chairman of AT&T Global Information Solutions Project Freedom, which pioneered the use of interactive video technology in support of sign language communication over the Internet. Mr. Jacobs is a 1973 graduate of Ohio State University.

And, finally, Daniel Goldstein is an attorney with the law firm of Brown, Goldstein and Levy. He has been practicing disability rights law for nearly 25 years and through litigation has worked to, among other things, increase accessibility to the Internet to make consumer kiosks such as ATMs accessible, to make voting accessible through suits against States and counties, and to make mainstream digital book systems accessible through suits against educational institutions. Before setting up his private practice in 1982, Mr. Goldstein was an Assistant U.S. Attorney for the District of Maryland for 6 years.

I am pleased to welcome all of you. I will not repeat the boilerplate that we usually go into about the timing lights. I presume you've heard that.

Your written statements will be made part of the record in their entirety.

But it is customary before we begin for the Committee to swear in its witnesses. Would you please raise your right hands to take the oath.

[Witnesses sworn.]

Mr. NADLER. Let the record reflect the witnesses answered in the affirmative. Thank you.

We will begin by recognizing our witnesses. I will begin by recognizing Mr. Richert for 5 minutes for an opening statement.

TESTIMONY OF MARK D. RICHERT, ESQ., DIRECTOR, PUBLIC POLICY, AMERICAN FOUNDATION FOR THE BLIND

Mr. RICHERT. Thank you very much, Mr. Chairman and Members of the Committee. It's such a pleasure to be here and to listen to that first panel and Mr. Bagenstos' comments. It is a thrill to hear that the Department of Justice is exercising the kind of leadership that we know the Department can and indeed has for such a long time with respect to folks with disabilities and their needs for technology equity.

For us and for folks with disabilities generally the question has never been does the ADA apply to the Internet. The question really or the issue really is that the ADA applies today, as it always has, to employers, to State, and local government entities, to public accommodations. And we know that the ADA and the promise of full inclusion that the ADA stands for cannot be avoided simply because we go online in this 21st century.

The statement that we submitted for the record I think has a lot of compelling stories. We asked folks with disabilities from across the country to sort of weigh in and give their own personal perspective on how they deal with technology in the Internet every day and, quite frankly, some of the stories are heart wrenching. I'll only just share one here, because I think it connects well with what Mr. Bagenstos was talking about.

Pat from California tells us that her bank is very reluctant to provide to her the kind of information that's available to everybody else online. She happens to be a woman who is visually impaired, and she's alerted the bank to this challenge that indeed the site is inaccessible. She cannot manage her checking account the way everybody else can, she can't check her balance, she can't find out exactly whether or not the bank is levying annoying extra charges and the like and, quite frankly, she has a right——

Mr. NADLER. So, unlike the rest of us, she's not annoyed?

Mr. RICHERT. Yeah. You're fair to draw that conclusion, I guess.

She's alerted them to this issue and, quite frankly, the response to her is we will be happy to read through your statements over the phone. And she's told them in no uncertain terms, probably in more polite terms than I would use if I were in her situation, that, you know, it's going to take forever to read through a bank statement and, quite frankly, it doesn't provide her the same level of accuracy and independence with the use of that statement as everyone else is given.

That's just simply not acceptable. If a person with a disability showed up in person at the bank and the bank refused to provide services to them, I think we would all find that disgusting, let alone a violation of the law. And, quite clearly, we can't tolerate

that kind of conduct in a digital age. And it's great not only to know that the ADA provides a remedy but to hear it affirmed again today, and I look forward to the kind of guidance that we expect to see.

We know that people with disabilities are not utilizing the benefits, the full benefits of the Internet as do all of the rest of us. Data, such as we have it, would suggest that at least 60 percent of Americans have some kind of ability to connect to the Internet. That data, of course, is a couple of years old, which means naturally it's a light year's time difference, so undoubtedly that number is much higher. The same numbers would suggest that less than 30 percent of people with disabilities have access to the Internet.

And the Federal Communications Commission similarly did a survey in the last few months asking the question of the folks who don't have access to the Internet, let's find out more about who those folks are so we can address the issue and make sure that folks are given connection to broadband and to the Internet. And they found that something like 39 percent of the people who are not connected to the Internet are folks with disabilities. That's pretty astounding.

There are lots of reasons for why that's the case. We know, of course, that affordability is a major limiter for folks access with and without disabilities to high-speed data and broadband. But we also know that inaccessibility exacerbates the problem. And what we need to do is to look, frankly, to the future to opportunities to address the inaccessibility of the Web and to make sure, frankly, that the technologies that are used to access to get online and to browse and enjoy full inclusion along with everybody else are themselves accessible.

We know that this can be done. The American Foundation for the Blind has proudly worked with Marriott Corporation. Others with whom we partner, the American Council of the Blind and others, have worked certainly with CBS and Rite Aid and Radio Shack. All of these groups and companies have committed to the concept that Web access is a right and, frankly, is good business and have found success in making the Web more accessible.

But we need to look more to the future, and I think this hearing talks about challenges and opportunities. Quite frankly, one of the major policy opportunities that this Congress has is to remember that Web accessibility is not and cannot be considered in isolation. We can't talk about Web accessibility without talking about the technologies that gets you there.

One of the best things that this Congress can do and in my mind one of the best ways to commemorate the 20th anniversary of the Americans with Disabilities Act this year would be to promptly pass H.R. 3101, the 21st Century Communications and Video Accessibility Act introduced by Mr. Markey. And that is, in fact, bipartisan legislation. Once passed, this legislation will ensure that more and more of the technologies that we use—the mobile technologies that we use that connect to the Internet—are themselves accessible. Most are not, and we can do better.

With that, Mr. Chairman, thank you very much for the opportunity. I really appreciate you and indeed all Members of this Subcommittee for the attention.

[The prepared statement of Mr. Richert follows:]

PREPARED STATEMENT OF MARK D. RICHERT

Statement of the
American Foundation for the Blind

Submitted to the
Subcommittee on the Constitution, Civil Rights and Civil Liberties
House Judiciary Committee

In the matter of

Achieving the Promise of the Americans with Disabilities Act in the Digital Age –
Current Issues, Challenges, and Opportunities

Public Hearing
April 22, 2010

Prepared by
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Introduction

Good afternoon, Chairman Nadler and Subcommittee members, and thank you for the opportunity to share with you our enthusiasm for the work that the U.S. Department of Justice is undertaking to make it clear that the Americans with Disabilities Act (ADA) will continue to be the emancipation proclamation for all people with disabilities in the digital age. Indeed, the title of today's hearing, *Achieving the Promise of the ADA*, could easily be reworded to *Keeping the Promise of the ADA*. People with disabilities have always been confident in our understanding that the reach and relevance of the ADA can, does, and must endure in a world that is increasingly reliant on technology and the Internet in literally every area of daily life.

My name is Mark Richert, and I serve as the Public Policy Director for the American Foundation for the Blind (AFB), the national organization to which Helen Keller devoted more than four decades of her extraordinary life. I am proud to speak this afternoon on behalf of the more than 25 million Americans living with significant vision loss. In addition I serve as a co-chair of the Civil Rights Task Force of the 100-organization-member Consortium for Citizens with Disabilities and a co-founder of the Coalition of Organizations for Accessible Technology, the nation's largest cross-disability coalition advocating for the right of all people with disabilities to full access to telecommunications and video technologies. I am keenly aware of the power of technology and the Internet to transform the lives of tens of millions of Americans living with a variety of disabilities. I also know from personal experience that, in many instances, unusable Internet sites and inaccessible communications and high-speed data equipment serve as the very barriers to employment, civic participation and quality of life that such powerful tools can and should be particularly useful in breaking down. Following the charge of today's hearing to explore the major issues, challenges and opportunities about which we must be aware to fully realize the promise of the ADA in the digital age, let me first turn to a very brief analysis of the public policy context in which we are having this discussion.

Issues

Although no one could have fully grasped in 1990 when the ADA was enacted exactly how technology would so fundamentally transfigure our lives, all who gloried in the ADA becoming the law of the land rallied behind one overarching moral call, as the first President Bush proclaimed it, to "Let the *shameful wall* of exclusion finally come tumbling down." Internet inaccessibility is itself a shameful and unnecessary obstacle but with the added complication of being somewhat less visible than the physical steps that even today may bar people with disabilities from entering a place of employment, a store or courthouse. When access to employment, education and information is locked behind an inaccessible website, access to justice and full participation in society is denied for people with disabilities. This is why the disability community has long understood that the ADA is as essential in the digital age as it has always been.

The question is not whether the ADA applies to the Internet. Rather, the ADA applies, as

it has always applied, to a range of entities who are not and should not be free to shut out people with disabilities virtually just as they may not do so physically. An array of divergent court decisions have scrambled the common sense understanding that the ADA's nondiscrimination mandate applies to public accommodations regardless of the modality they use to conduct business, in person, by phone or online. As a result, the disability community has consistently called for the U.S. Department of Justice (DOJ) to bring some order out of this needless chaos and restate, with specificity, the ADA's role in ensuring accessible e-commerce.

As the Presidentially-appointed National Council on Disability (NCD) declared in its 2009 ADA Progress Report (www.ncd.gov/newsroom/publications/2009/publications.htm):

> Use of the Internet is an inherent part of life today. For people with disabilities, however, access is not guaranteed. Because the ADA was passed before the Internet became pervasive, and the Department of Justice (DOJ) regulations do not address Internet access specifically, many Web sites still are not designed to be accessible by people with certain disabilities. ... Implementation of the Section 508 Web Accessibility standards in the Federal sector, as well as the global impact of the World Wide Web Consortium's Web accessibility standards, demonstrate that the means for making Web sites accessible are well-established, and a Federal requirement for full accessibility of public Web sites is long overdue.

In 2003, NCD released "Application of the ADA to the Internet and the Worldwide Web" (www.ncd.gov/newsroom/publications/2003/publications.htm) in which the issues and case law surrounding Internet access were examined. Concluding that public accommodations are not relieved of their nondiscrimination obligations under the ADA merely by moving online, the NCD called on DOJ to clarify the rights of people with disabilities to have access to the Internet. Since that time, people with disabilities have had to continue to fight for access to commercial web sites, including having to resort to litigation.

Most recently, the Federal Communications Commission (FCC) released its much-anticipated *National Broadband Plan*, a comprehensive set of policy objectives intended to make broadband affordable and accessible to all Americans. Among its many significant recommendations of particular impact on the lives of people with disabilities, the FCC is calling for the following:

> Accessibility laws, regulations and subsidy programs should be updated to cover Internet Protocol (IP)-based communications and video-programming technologies. To do so: The FCC should ensure services and equipment are accessible to people with disabilities. The FCC should extend its Section 255 rules to require providers of advanced services and manufacturers of end-user equipment, network equipment and software used for advanced services to make their products accessible to people

> with disabilities. ...The federal government should ensure the accessibility of digital content. The DOJ should amend its regulations to clarify the obligations of commercial establishments under Title III of the Americans with Disabilities Act with respect to commercial websites. The FCC should open a proceeding on the accessibility of video programming distributed over the Internet, the devices used to display such programming and related user interfaces, video programming guides and menus.

In addition to the FCC's recommendation that DOJ's ADA regulations be clarified to resolve any lingering doubts about the relevance of the ADA to commercial websites, the FCC is recognizing in its recommendations the inextricable connection today between use of the Internet itself and the accessibility of the devices and services needed to access the Internet. This is why, though the anticipated improvements to the ADA rules announced by DOJ are critical, such a move is only one vital piece of the policy puzzle. As people with disabilities, the sites we visit online that are run by employers, governments and public accommodations that the ADA covers must be accessible to us, but the mobile and other technologies we use to get there must themselves be accessible.

Challenges

Research reveals that Internet use by people with disabilities is much lower than that of the general population. Specifically, fewer than 30% of people with disabilities over the age of 15 were shown to have access to the Internet, compared to more than 60% of people without disabilities. Also, people with disabilities in both metropolitan and non-metropolitan areas have lower rates of Internet use than their geographic counterparts with no disability, with non-metropolitan people with disabilities having the lowest rate of Internet use (26.7%) of all groups. (See Enders, Alexandra. "Ruralfacts: Disability and the Digital Divide: Comparing Surveys with Disability Data." Research and Training Center on Disability in Rural Communities, The University of Montana Rural Institute, Missoula, MT. June 2006, at http://rtc.ruralinstitute.umt.edu/TelCom/Divide.htm; *See also* Dobransky, Kerry and Hargittai, Eszter. "The Disability Divide in Internet Access and Use." *Information, Communication and Society.* 9(3):313-334. June 2006 at http://eszter.com/research/a18-disabilitydivide.html.)

Moreover, this past February, the FCC released the results of a consumer survey (conducted in October 2009), *Broadband Adoption & Use in America*, that found affordability and lack of digital skills are the main reasons why 93 million people -- or one third of the country -- are not connected to high speed Internet at home. Perhaps most astoundingly the survey found that 39 percent of all Americans without broadband have some type of disability. (See FCC's "Broadband Adoption & Use in America," at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296442A1.pdf.)

These numbers demonstrate, among other things, that people with disabilities are being left behind as America migrates to broadband. There are of course many factors contributing to this inequity, particularly the inability of many people with disabilities to

afford high-speed connection to the Internet. These challenges, however, are further exacerbated by the routine every-day experience of people with disabilities who, once they get online, run into very real barriers.

To understand the impact, both positive and negative, that technology and the Internet has on the daily lives of people with disabilities, one must first have a general sense of how people with disabilities use and interact with such technologies. For individuals who are blind or visually impaired, the most commonly used means for connecting to the Internet and browsing the web are software applications that either magnify or enhance the text and images on the screen of the computer or hand-held device, read the text and images aloud through synthetic speech, or combine both of these approaches. To be effective, these applications need to operate in a predictable environment, meaning that the online destination to which a user goes must incorporate common design features with which these special applications can interact. When that environment is not so designed, the consequences can be devastating.

Take, for example, the case of Pam from Chicago who wrote to me in response to my invitation to share with this Subcommittee personal stories about the every-day online experiences of people with disabilities. As a mom who happens to be blind, Pam wants desperately to play as much of a role in the education of her son as would any loving parent. However, because the website used by her son's school system to allow parents the ability to track their children's progress, review teacher comments, and even peek at assignments that are in fact completed and grades received, does not incorporate basic web site accessibility design, Pam feels frustrated and ineffective as a parent. She of course is not an ineffective and uninvolved parent. She is, however, being shut out, through deliberate indifference by the school system that is aware of the website limitations, from her right as a parent to be fully involved with the education of her son. No half measures or alternative approaches that the school system might offer her can possibly afford Pam with the same degree of instant access, privacy, convenience and control over her ability to be a supportive and full partner in her son's education as is afforded parents who do not happen to have a disability. We can do better, and the promise of the ADA means that we must.

Try to imagine, if you can, how frustrating it is for people with vision loss to make the investment in frequently expensive specialized software and hardware for the express purpose of taking advantage of the world of possibilities open to anyone who can connect to the Internet only to find that much of what is available is just out of reach. Sophisticated software programs commonly used by people who are blind to read aloud the text on the computer screen can only work well when the websites visited allow them to do their job. My fellow panelists are certainly more well-versed than I about the technical requirements needed to ensure website accessibility, but I do know that the solutions to the most common website barriers are known and have been known for some time. The key is to incorporate accessible design at the earliest possible stage and not, as seems to be the case in Pam's situation, to leave accessibility as an afterthought.

Pat from California described her frustration with her bank which provides a website for

customers to use to review statements and otherwise manage their accounts but which has failed to take accessibility into account. As she put it:

> When I told my bank that I'm blind and can't use the website with my screen reader, they told me that they had heard that complaint before and that they knew it wasn't all that useful but that I could simply go over the information I was interested in by phone with them. I tried explaining to them that having them read through all the figures in my checking account over the phone would take forever and not let me see the information for myself, but they said that was the only option I had.

What Pat regularly experiences with her bank is an all-too-common problem. If Pat went into the bank and asked for help, and the bank refused outright to be of assistance to her, of course the ADA would give her a remedy. But in this instance, the bank is essentially saying that the first-class, up-to-date, information available to all customers will not be made available to Pat because they are providing inferior alternatives. That, of course, is the point. Increasingly, the web is providing more timely and accurate ways to manage our financial, health, and other data records—for all of us, that is, except too many people with disabilities. The ADA can, does, and must stand for the proposition that communication should be as effective for customers with disabilities as it is for those who do not have disabilities. In Pat's case, no alternative can afford the same degree of privacy, convenience, accuracy of information, and timeliness that the online statement and account management provides. Therefore, the promise of the ADA is only fulfilled when banks such as Pat's make their websites accessible.

John from Washington State emphasizes the online barriers to employment. He writes:

> An increasing number of individuals with disabilities seeking gainful employment into the nation's workforce continue to be significantly disadvantaged, and thereby left under or unemployed and reliant of the public safety net, because of the growing trend of online employment application processes, that are inaccessible to them. As an Employer Relations Manager ... in the State of Washington, it is brought to my attention constantly that employers have shifted their pre-employment process to the internet, that this shift has become very frustrating for job applicants with conditions such as blindness, deafness, reading disabilities, learning disabilities and many others. The lack of accessible application processes have an adverse impact on the desire of many qualified applicants to enter the labor force. We must do everything possible to increase the employment of people with disabilities, which includes removing the first barriers experienced in the hiring process.

John is right about a lot of things. He is right that making the Internet more accessible will have a direct impact on the ability of people with disabilities to obtain work and remain in the workforce. But he is also right in pointing out that web accessibility is not just a priority for people with vision loss. For example, people with motor difficulties or who may have cognitive disabilities frequently struggle to fill out online forms with built-

in time-out features. Because the individual might not be able to complete the online form as quickly as might someone without those disabilities, the form "times out" and information entered is lost. Even many users without disabilities find this frustrating, but an accessibility solution that can be implemented allowing the user to opt out of the time-out function or to regularly save what information has been entered before the time runs out would be a tremendous help. The recognized web accessibility guidelines take such issues into account and, if implemented, would increase the usability of websites for many people with and without disabilities.

Opportunities

In assessing trends in online shopping, comScore, Inc. (www.comscore.com) found that, in spite of a volatile economy, the 2009 November-December holiday season was a remarkable one for e-commerce with more than $29.1 billion in online retail spending reported. In fact, December 15, 2009, was an historic moment with the highest ever online spending in a single day, more than $913 million in sales. It is more than superfluous to say that e-commerce is booming and holds tremendous promise for business and customers alike. It is equally as clear that people with disabilities, either as employees, customers, or business owners can share in this potential but largely do not. As I have discussed and as my colleagues will further demonstrate, solutions currently exist that would, if more widely used, turn this unfortunate and unnecessary inequity around.

In fact, we know that this is already proving to be the case. Over the last few years, through measured advocacy, information sharing, and cooperative negotiation, several major companies, among them Marriott, CVS, RiteAid, and Radio Shack, have committed to making their websites much more accessible (See the impressive array of structured negotiation press releases at www.lflegal.com). What this important work shows is that companies committed to meeting the needs of all their customers can and do achieve what some nay-sayers allege cannot be done. Most recently, Major League Baseball has committed to making www.mlb.com fully accessible, making literally millions of fans of America's favorite pastime happy while demonstrating conclusively that significant progress toward an inclusive online world is within our reach.

More and more educational institutions are waking up to their responsibilities to ensure that students with and without disabilities can achieve academically by benefiting equally from the online learning tools and methods available. But even as we are pleased with the progress, we know there are many more opportunities to break down needless barriers to full participation by people with disabilities. As Claudia, a visually impaired veteran of the Persian Gulf War, explained it to me:

> I am currently enrolled in an online program with the University of Phoenix in the doctorate program for industrial and organizational psychology. I have noticed that the university goes through extensive efforts to make all forms of their online program accessible, however, this is not easily accomplished with copyrighted material for some scholarly articles provided through EBSCOHost, ProQuest, and

> Thomson Gayle databases. All of the databases are used by most libraries and provide extensive articles for research in any school projects. I have to spend numerous hours trying to get the articles to be accessible for me, therefore, I have to spend more hours and do lots of extra unnecessary steps to get the article. I think that companies make profits from universities, but never have any accountability for providing accessible documents to the university. ... I hope that your efforts are heard loudly and bring some accountability to those companies that use the internet to consider making the services accessible to all parties that could potentially use their services.

A Strategy for Ensuring Digital Independence

What Claudia, John, Pat and Pam all know from their personal experiences and those of their family members, friends, coworkers, employees and clients, is that this question of the ADA's role in the digital age, as important as it is, cannot be considered in isolation. How do we, for example, ensure that a student who is blind can access her college's online portal from her mobile phone just like her classmates regularly do? How can we be sure, as online library websites are made accessible to more people with disabilities, that our copyright law rewards author and publisher creativity and investment while permitting all those with a right to read the materials to do so without artificial or unnecessary access barriers? How can we know for certain that a deaf couple will be able to rent and download movies from an online video store and have confidence that the captions provided with the original movie will be passed through to the couple's computer or Internet-equipped television? How we will ensure that people with vision loss have access to programs with description on televisions with controls they can independently use? And how will we know that the plentiful gadgets that hotels, universities, schools, conference centers, health facilities, and a host of other venues will increasingly offer, if not require us to use, will truly be usable by all of us?

The answer is that the DOJ's commitment to affirm and clarify the ADA's applicability to commercial websites is a critical component of a much larger policy agenda. The Congress can help to keep the ADA's promise of full inclusion by looking beyond the four corners of the ADA itself, beginning that commitment anew this year and promptly enacting H.R. 3101, the Twenty-first Century Communications and Video Accessibility Act. This landmark bipartisan legislation would ensure that mobile and other Internet-equipped devices and video technologies are accessible to and usable by people with disabilities. It makes no sense for us to praise ourselves for our commitment to the promise of the ADA if we fail to ensure that commonly available high tech tools are liberators and not liabilities for people with disabilities. There is no greater statement that the U.S. House could make this year to commemorate the twentieth anniversary of the ADA than the passage of H.R. 3101.

Additionally, the DOJ must take action to clarify that accessibility obligations under the ADA also extend to high-tech equipment. The DOJ must ensure that the pending refresh of the ADA regulations incorporates meaningful guidance to ADA covered entities with respect to their obligation to offer accessible equipment to patrons and customers. The

proposed Title II and Title III regulations fail to address the need for accessibility to equipment provided by state and local government entities and public accommodations. Indeed, the regulations implementing the ADA have never adequately accounted for the need for access to equipment by people with disabilities, and the Department has acknowledged as much in the narrative accompanying the proposed regulations. For example, according to the Department,

> When the title III regulation was initially proposed in 1991, it contained a provision concerning accessible equipment, which required that newly purchased furniture or equipment that was made available for use at a place of public accommodation be accessible, unless complying with this requirement would fundamentally alter the goods, services, facilities, privileges, advantages, or accommodations offered, or would not be readily achievable. See 56 FR 7452, 7470-71 (Feb. 22, 1991). In the final title III regulation promulgated in 1991, the Department decided not to include this provision, explaining in the preamble to the regulation that 'its requirements are more properly addressed under other sections, and '... there are currently no appropriate accessibility standards addressing many types of furniture and equipment.' 56 FR 35544, 35572 (July 26, 1991). ' . . . The Department has decided to continue with this approach, and not to add any specific regulatory guidance addressing equipment at this time.

Unfortunately, the other regulatory provisions that the Department says should address free standing equipment accessibility are at best vaguely applicable. They do not specifically mention equipment accessibility or provide examples of some of the most commonly used items.

As a result, ADA coverage for most of the equipment to which people with disabilities, such as people with vision loss, for example, need access is at best in doubt. There is no specific regulatory hook clearly requiring accessibility of, for example, exercise equipment using electronic interfaces, computers at Internet cafes or hotel business centers, reservations kiosks used by hotels in lieu of an in-person check in procedure, and devices provided by medical facilities with which a patient must interact reliably.

Sometimes making such equipment accessible can be as simple as labeling a few basic controls in braille or large print, and sometimes equipment accessibility demands the modification or purchase of additional software or hardware. The combined effect of miniaturization, reduced power consumption, increased memory and functional capacity, and ever-lowering costs, means that making electronic and information technology (E&IT) and other equipment utilizing visual displays accessible is significantly more accomplishable today than was the case when the original ADA regulations were published.

In spite of the fact that the Department is proposing not to address equipment accessibility, the Department is certainly aware of the issues. Remarkably, instead of spelling out additional regulatory requirements per se, the Department merely acknowledges in the narrative accompanying the proposed rules that,

> If a person with a disability does not have full and equal access to a covered entity's services because of the lack of accessible equipment, the entity must provide that equipment, unless doing so would be a fundamental alteration or would not be readily achievable.

We therefore urge the Department to specifically reference the accessibility of both fixed and free standing equipment in sections 36.302 and 36.304 entitled "Modifications in Policies, Practices, or Procedures" and "Removal of Barriers" respectively. The Department should reference specific examples of equipment (such as those outlined above) that best illustrate how such equipment's use is key to allowing people with disabilities to benefit from the goods and services offered by public accommodations such as private universities, hotels, medical facilities, gymnasia, business centers, retailers and others. Equipment accessibility is equally relevant in the context of Title II. Equipment such as automated teller machines, information kiosks and vending machines are frequently located in facilities operated by state and local government entities and hence, equipment accessibility should be addressed in the Title II regulations in a comparable manner to that which we propose for the Title III regulations.

Conclusion

In summary, we congratulate the DOJ for its leadership in ensuring the ADA's full relevance in the digital age. Hopefully the new rules will go a long way toward breaking down the often unseen but very real technology barriers that confront so many people with disabilities. We also know that much more needs to be done, and the American Foundation for the Blind is committed to working in partnership with you to expand possibilities for people with vision loss and all people with disabilities. Thank you.

Mr. NADLER. I thank you, and I now recognize Ms. Brewer for 5 minutes.

TESTIMONY OF JUDY BREWER, DIRECTOR, WEB ACCESSIBILITY INITIATIVE, WORLD WIDE WEB CONSORTIUM

Ms. BREWER. Mr. Chairman, Members of the Committee, thank you for this opportunity to talk with you again regarding accessibility of the Web.

My name is Judy Brewer, and I direct the Web Accessibility Initiative at the World Wide Web Consortium.

For the Web to work, computers need to be able to talk to each other across the Internet in the same computer languages, and W3C is where those languages are agreed upon. W3C has developed over 100 technical standards and guidelines ranging from HTML and XML to graphics, math, voice, rich media, mobile devices, Web services, linked data, security privacy, e-government, internationalization and more.

Among its other work, W3C hosts the Web Accessibility Initiative. WAI develops standards, guidelines, and resources to make the Web accessible for people with disabilities. It ensures accessibility of all those W3C technologies that I listed a moment ago and develops educational resources to support Web accessibility.

WAI is supported in part by the National Institute on Disability and Rehabilitation Research at the U.S. Department of Education and others. My comments do not necessarily represent those of WAI's funders.

Ten years ago, this Subcommittee invited me to address early questions about Web accessibility. A discussion that started with many myths and misperceptions concluded with a much clearer picture of the realities and promise of Web accessibility.

In the intervening years, we've shown that businesses can flourish while producing accessible Web sites and services.

We've shown that a multi-stakeholder process that includes industry, disability organizations, accessibility researchers, and governments can develop consensus solutions.

We've developed guidelines and standards for Web content, authoring tools, browsers, media players, and rich Internet applications.

In particular, we've shown that the Web Content Accessibility Guidelines, WCAG 2.0, are feasible for simple mom and pop Web sites, as well as for complex and dynamically generated million-page Web sites; are technology neutral, meaning they can be applied to any Web technology; and are more sustainable, yet support innovation.

Web developers from around the world have shown that accessible Web sites can be colorful, media rich, dynamic, interactive, device independent, and international.

The Web has changed immensely in the past 10 years. Many of our activities have moved to the Web. We get our education, jobs, health care, and tax forms online, buy music, clothes, and tickets, get our news, and not only buy but also read our books online. We use our mobile phones to do our banking and our laptops to make phone calls. We do social networking with colleagues, family and friends.

In contrast to 10 years ago, many of these services exist only on the Web through real-time transactions yet are as vital to our social and economic life today as any bricks-and-mortar business of the past.

W3C's consensus-based standards development process, multistakeholder participation, broad public reviews, and implementation testing prior to finalization of standards have been an advantage to the development of the Web as a whole and equally to Web accessibility. These processes have enabled the disability community to be present at the design table for Web standards, to influence technologies that are newly moving onto the Web, and to influence accessibility of Web-based interfaces as they move beyond the traditional Web into environments such as household devices and medical equipment.

In 2008, the standards process produced the Web Content Accessibility Guidelines 2.0. The U.S. Access Board has stated its intent to harmonize the Web portions of its Section 508 regulations with WCAG 2. WCAG has been referenced in the Department of Justice ADA technical assistance manual and in negotiated settlements within banking, retail, and sports sectors. During the past year, we've seen countries in Europe as well as Japan, Australia, New Zealand, and many others move from other Web accessibility standards to WCAG 2. This standards harmonization is immensely helpful because it creates a unified market and drives improvements in software, such as authoring tools, that can facilitate Web accessibility.

Surveys of Web accessibility progress continue to show barriers, the majority of which are due to failure to apply existing solutions, despite the good business case for Web accessibility. Barriers include missing alternative text for images, missing captions for audio, forms that "time out" before you can submit them, images that flash and may cause seizures, text that moves or refreshes before you can interact with it, and Web sites that don't work well with assistive technologies that some people with disabilities rely on. The impact on people with disabilities ranges from exclusion from social networks, to missed school admissions, lost jobs, and an inability to access lifesaving health care information.

There are many opportunities to improve and accelerate Web accessibility. These include publishing existing data on compliance of Federal Web sites with Section 508 requirements and conducting new studies that evaluate gaps in ADA compliance across Title II and Title III entities; communicating the applicability of the ADA to the Web more clearly, with updated guidance reflecting the benefits of standards harmonization at international, Federal, and State levels; promoting development of improved authoring tools that facilitate the production of accessible Web content and that include accessible templates for Web site development; continuing research and development on accessibility techniques for new technologies, improved accessibility supports for cognitive disabilities, and more affordable assistive technologies.

I would like to express my gratitude to the many hard-working participants and supporters around the world in the ongoing work on Web accessibility, and my sincere thanks to the Subcommittee

for your continued attention to accessibility of information technologies.

[The prepared statement of Ms. Brewer follows:]

PREPARED STATEMENT OF JUDY BREWER

Statement of Judy Brewer
Before the U.S. House of Representatives Judiciary Committee
Subcommittee on the Constitution, Civil Rights, and Civil Liberties
Hearing on Achieving the Promise of the Americans with Disabilities Act in the Digital Age – Current Issues, Challenges, and Opportunities
Thursday, April 22, 2010

Mr. Chairman, Members of the Committee, thank you for this opportunity to talk with you again regarding accessibility of the Web. My name is Judy Brewer, and I direct the Web Accessibility Initiative[i] (WAI) at the World Wide Web Consortium[ii] (W3C).

For the Web to work, computers need to be able to talk to each other across the Internet in the same computer languages – and W3C is where those languages are agreed upon. W3C is an international standards body with over 300 member organizations, primarily web industry leaders. We are based at the Massachusetts Institute of Technology, the European Research Consortium on Informatics and Mathematics in France, and Keio University in Japan. W3C is directed by Tim Berners-Lee, inventor of the Web, and a strong believer in the Web for All. W3C has developed over one hundred technical standards and guidelines, ranging from HTML and XML, to graphics, math, voice, rich media, mobile devices, web services, linked data, security, privacy, e-Government, internationalization, and more.

Among its other work, W3C hosts the Web Accessibility Initiative. WAI develops standards, guidelines and resources to make the Web accessible for people with disabilities; ensures accessibility of W3C technologies; and develops educational resources to support web accessibility. WAI is supported in part by the National Institute on Disability and Rehabilitation Research at the US Department of Education; the European Commission; WAI Sponsors; and W3C Member organizations. My comments do not necessarily represent those of WAI's funders.

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concluded with a much clearer picture of the realities and promise of web accessibility.

In the intervening years:

- We've shown that businesses can flourish while producing accessible websites and services.
- We've shown that a multi-stakeholder process that includes industry, disability organizations, accessibility researchers and governments can develop consensus on web accessibility solutions.
- We've shown that accessibility solutions for people with different disabilities, including those with accessibility issues due to aging, are complementary, not conflicting, and are best achieved through a unified accessibility standard.
- We've developed guidelines and standards for web content, authoring tools, browsers, media players, and rich internet applications.
- In particular, we've shown that the Web Content Accessibility Guidelines (WCAG) 2.0:
    - are feasible for simple Mom & Pop websites, as well as for complex and dynamically-generated million-page websites;
    - are "technology neutral" – meaning that they can be applied to any web technology;
    - are more testable, yet support innovation;
    - have extensive, freely available technical support materials.
- Web developers from around the world have shown that accessible websites can be colorful, media-rich, dynamic, interactive, device independent, and international.

The Web has changed immensely in the past ten years. Many of our activities have moved to the Web – we get our education, jobs, health care, and tax forms online; buy music, clothes, and tickets; get our news, and not only buy but also read our books online. We use our mobile phones to do our banking, and our laptops to make phone calls. We do social networking with colleagues, family and friends. In contrast to ten years ago, many of these services exist only on the Web, through real-time transactions, yet are as vital to our social and economic life today as any bricks-and-mortar business of the past.

W3C's consensus-based standards development process, multi-stakeholder participation, broad public reviews, and implementation testing prior to finalization of standards have been an advantage to development of the Web as a whole, and equally to web accessibility. These processes have enabled the disability community to be present at the design table for web standards; to influence technologies that are newly moving onto the Web; and to influence accessibility of web-based interfaces as they move beyond the traditional Web into environments such as household devices and medical equipment. Development of accessibility solutions in a standards environment has ensured that web accessibility is consistent with and can evolve with the architecture of the Web. For technical communities outside of W3C and unused to the process of ensuring web accessibility in standards development, it has sometimes been a learning experience – yet this is also a reason why organizations seek out W3C as a standards development environment. W3C's accessibility guidelines respect the Web's capacity for innovation by providing a comprehensive and stable framework of principles, guidelines, and success criteria, with informative techniques to which developers can add and share innovations.

In 2008 this standards process produced the Web Content Accessibility Guidelines (WCAG) 2.0. The US Access Board has stated its intent to harmonize the web portions of its Section 508 regulations with WCAG 2. WCAG has been referenced in a Department of Justice ADA technical assistance manual, and in negotiated ADA settlements within the banking, retail and sports sectors. During the past year we've seen countries in Europe, as well Japan, Australia, New Zealand and many others move from other web accessibility standards to WCAG 2. This standards harmonization is immensely helpful because it creates a unified market and drives improvements in software, such as authoring tools, that can facilitate web accessibility.

Surveys of web accessibility progress continue to show barriers, the majority of which are due to failure to apply existing solutions – despite the good business case for web accessibility. Barriers include missing alternative text for images, missing captions for audio, forms that "time out" before you can submit them, images that flash and may cause seizures, text that moves or refreshes before you can interact with it, and websites that don't work with assistive technologies that

many people with disabilities rely on. The impact on people with disabilities when there is a lack of accessibility ranges from exclusion from social networks, to missed school admissions, lost jobs, and inability to access life-saving health care information.

Opportunities to improve and accelerate web accessibility include:

- publishing existing data on the compliance of federal websites with Section 508 requirements, and conducting new studies that evaluate gaps in ADA compliance across Title II and Title III entities;
- communicating the applicability of the ADA to the Web more clearly, with updated guidance reflecting the benefits of standards harmonization at international, federal, and state levels;
- promoting development of improved authoring tools that facilitate the production of accessible web content, and that include accessible templates for website development;
- continuing research and development on accessibility techniques for new technologies, improved accessibility supports for cognitive disabilities, and more affordable assistive technologies.

The Web remains a springboard for innovation, exquisitely suited to support accessibility. Digital technology has already demonstrated how it can improve lives; let's make sure that people with disabilities are not excluded from its promise.

I would like to express my gratitude to the many hard-working participants and supporters around the world in the ongoing work on web accessibility; and my sincere thanks to the Subcommittee for your continued attention to accessibility of information technologies.

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[i] Web Accessibility Initiative http://www.w3.org/WAI/
[ii] World Wide Web Consortium http://www.w3.org/

Mr. NADLER. Thank you.
I will now recognize Mr. Jacobs for 5 minutes.

TESTIMONY OF STEVEN I. JACOBS,
PRESIDENT, IDEAL GROUP, INC.

Mr. JACOBS. Mr. Chairman and other Members of the Committee, thank you for this opportunity to present testimony at this important hearing.

My name is Steve Jacobs. I've been in the computer industry for 35 years. As president of IDEAL Group, a 2002 spin-off from IDEAL at NCR Corporation, I've been intimately involved in the technological issues, challenges, and opportunities being discussed here today.

As part of my testimony, I am going to show by example that there are alternatives to certain beliefs and concerns held by those who feel it isn't reasonable, technically possible, or economically feasible to design accessible electronic and information technology.

Over the past 10 years, our industry has grown exponentially, which, on the surface, can easily appear to exacerbate technology accessibility issues. The number of Internet users has risen from 361 million 10 years ago to over 1.8 billion users today. If this growth rate continues, half the world's population will be using the Internet by the end of 2012.

Web-based social networking applications and Web sites are now frequented by over half a billion people. 4.1 billion SMS messages are being sent on a daily basis. The number of organizations using Web-delivered applications, like Google apps, is tens of millions and increasing rapidly. 6,500 college courses are offered online. Shopping and making travel arrangements online is less expensive than brick-and-mortar alternatives. The trend in online learning is headed skyward, because it is a less expensive method of delivering course materials to wider audiences of students.

Technology is woven into every aspect of life as we know it today. The ADA is about civil rights of people with disabilities. When technology is inaccessible to people with disabilities seeking to access the same resources as their nondisabled counterparts, it violates their civil rights.

I manage four companies that market E&IT products and services. All of our solutions are accessible to people with disabilities. It is now more reasonable, technically possible, economically feasible, and profitable to develop accessible E&IT than ever before in history.

For example, up until recently, individuals who are blind had to pay $300 to $400 extra just to screenreader enable a cell phone. And it's separate, and separate but equal has a rather ugly history in this country. It's not equal. Then along came Google with Android, which is a free, open-source operating system for cell phones. All Android cell phones come with a free screen reader, as well as other accessibility applications. The iPhone and iPad include free accessibility features, including screen readers.

Google and Apple are not in business to lose money. They would not be integrating accessibility features into their devices for free were it not technically possible, economically feasible, and profitable.

Google provides free tools and platforms that enable companies to develop accessible Web-based applications. For example, one of our companies, Apps4Android, was formed in January of 2009.

They develop accessible applications for Android cell phones. In 15 months, our user base grew from zero to 600,000 users in 25 countries. The focus of our apps are assistive technology apps, by the way.

If our small company can be successful designing and selling accessible applications, so can other companies. It used to be technically difficult and expensive to retrofit Web-based applications to be accessible. That's no longer the case. Google's AxsJAX is an environment that enables developers to create dynamically changing scripts that make Web applications more accessible even after the fact. Another of our subsidiary companies, IDEAL Conference, has been providing fully accessible distance learning, online conferencing, and webinar services to hundreds of thousands of users over the past 8 years. Approximately 40 percent of our users are individuals with hearing impairments, people who are deaf, consumers with vision loss, people with speech disabilities, and persons with mobility disabilities.

It makes good business sense, is reasonable, technically possible, economically feasible, and profitable for us to do what we do. We are in business to make money. Just imagine the possibilities if large companies currently developing similar but inaccessible products would do the same.

In closing, I encourage all of you not to permit the sometimes exaggerated perceptions of accessible design issues and challenges cloud the fact that there are now more opportunities than ever before in history to design accessible and profitable E&IT products and services.

Thank you very much.

[The prepared statement of Mr. Jacobs follows:]

Prepared Statement of Steven I. Jacobs

President, IDEAL Group, Inc.

before the Committee on the Judiciary, Subcommittee on the Constitution, Civil Rights, and Civil Liberties on Achieving the Promise of the Americans with Disabilities Act in the Digital Age

Current Issues, Challenges, and Opportunities

Thursday, April 22, 2010

Mr. Chairman, Representative Nadler, and Representative Sensenbrenner, Ranking Member, and other Members of the Committee, thank you for this opportunity to present testimony on the current issues, challenges and opportunities in this digital age in regard to the Americans with Disabilities Act.

My name is Steve Jacobs. I have been in the computer industry for 35 years. As President of IDEAL Group[1], a 2002 spin-off from IDEAL at NCR Corporation[2] I have been intimately involved in the technological issues, challenges, and opportunities being discussed today.

As part of my testimony, I am going to show, by example, that there are alternatives to certain beliefs and concerns held by my industry colleagues at other IT companies.

Over the past 10 years our industry has experienced exponential growth which, on the surface, can appear to be exacerbating technology accessibility issues.

The number of internet users has risen from approximately 361 million[3] ten years ago to 1.8 billion[4] users at the end of 2009. This represents a 26.6% cumulative average growth rate. If this growth rate continues half the world's population will be using the internet by the end of 2012[5].

Web-based social networking communities are now frequented by over half-a-billion people every year[6].

4.1 billion SMS messages are being sent on a daily basis[7].

LinkedIn, an Internet-based business networking community has over 65 million members in 200 countries[8]. LinkedIn is accessible to a greater than lesser extent. Because of this, organizations of individuals with disabilities are able to participate and interact with each other.

The number of organizations using web-delivered applications is increasing rapidly. There are 25 million users of Google applications[9].

There are 6,500 online college courses offered[10].

Shopping and making travel arrangements online is less expensive than brick-and-mortar alternatives. The trend in online learning is pointed upward.

Technology is woven into every aspect of life as we know it today. The ADA is about the civil rights of people with disabilities. When technology is inaccessible to people with disabilities seeking to access the same resources as their non-disabled counterparts... it violates their civil rights.

I manage four companies that market E&IT products and services. All of our products and services are accessible to people with disabilities. Designing accessible E&IT is easier, more technically possible, more economically feasible and more profitable to develop than ever before in history.

For example, up until recently, individuals who are blind had to pay $300-$400[11] extra for screenreading software in order to use a cell phone. Then along came Google Android[12] a free, open source, operating system for wireless smartphones. A smartphone is a mobile phone offering advanced capabilities, often with PC-like functionality. Thanks to innovative works of TV Raman and Charles Chen, two brilliant Google scientists and engineers, all Android smartphones come with a free screenreader and other accessibility applications. The iPhone[13] and iPad[14] also include free accessibility features. Google and Apple are not in business to lose money. They would not be integrating accessibility features into their smartphones for free if it were technically difficult, expensive or, if they lost money doing so.

Google provides the interfaces, development tools, platforms, marketing tools and distribution resources companies need to develop accessible applications[15]. Many accessibility applications have come on to the market[15a]. Our company formed Apps4Android[16], a Google smartphone application development company, in early 2009. In 14 short months our user base has grown to 600,000 users in 25 countries.

If our small company can be successful designing and selling accessible mainstream applications for this market, so can other companies. Wireless service providers, such as T-Mobile[17], have been open to learning more about potential opportunities in this space.

It used to be impractical to retrofit a web-based application to be accessible. That's no longer the case. Google AxsJAX[18] enables developers to create dynamically changing scripts that make their web applications more accessible. One of our subsidiary companies, IDEAL Conference[19], in partnership with Talking Communities has been provideding fully-accessible distance-learning, online conferencing and webinar services and accessibility training to hundreds of thousands of over the past eight years. Among those users are individuals with hearing impairments, people who are deaf, consumers with vision-loss, people with speech disabilities, persons with mobility disabilities and more.

It was reasonable, technically possible, economically feasible and profitable for us to do so. We are in business to make money. Just imagine the

possibilities if large companies that currently market similar but inaccessible products and services would do the same.

Every minute, 20 hours of video are uploaded to YouTube. How can we expect every video owner to spend the time and effort necessary to add captions to their videos? Even with all of the captioning support already available a majority of user-generated video content online is still inaccessible to people who are deaf.

Ken Harrenstien a Google Software Engineer recently combined Google's automatic speech recognition (ASR) technology with the YouTube caption system to offer automatic captions, or auto-caps for short.

Auto-caps use the same voice recognition algorithms in Google Voice to automatically generate captions for video. While the captions may not always be perfect they can still be incredibly helpful, and the technology will continue to improve with time. If implementing these technologies were not technically possible, economically feasible and profitable, Google would not be evolving them.

Partners for the initial launch of auto-caps are UC Berkeley, MIT, Yale, UCLA, Duke, UCTV, Columbia, PBS, National Geographic, Demand Media, UNSW, and most Google and YouTube channels[20].

In addition to automatic captions Google is also launching automatic caption timing, or auto-timing, to make it significantly easier to create captions manually. With auto-timing, you no longer need to have special expertise to create your own captions for YouTube videos. All you'll need to do is create a simple text file with all the words in the video and use Google's ASR technology to figure out when the words are spoken and create captions for your video. This should significantly lower the barriers for video owners who want to add captions, but who don't have the time or resources to create professional caption tracks[20]. Talk about technically possible and economically feasible!

Our National Broadband Plan[21] is shaping the future of issues that matter to all of us. Broadband networks and applications are critical to the competitive advantage and future success of our country. Broadband will serve as the platform to stimulate the creation of innovative business, education, government, entertainment and social online products and services. Health-focused broadband applications will transform health care. All patients will want to exercise their legal and civil rights to obtain personal health records, interact with physician offices, obtain lab results, schedule appointments... and much more... all online.

We've known it for a long time: the web is big. The first Google index in 1998 already had 26 million pages, and by 2000 the Google index reached the one billion mark. Google has now indexed far in excess of one trillion unique URLs[22]. Internet users conduct over two billion Google searches every day[23].

Georgia Tech's sonification lab[24] is using free, open source, software developed by NASA Learning Technologies[25] to create fully-accessible, free, web-based resources designed to enable the participation and enhance the performance of America's students with print disabilities in science, technology, engineering, and mathematics (STEM)[26]. This include efforts not only from the Federal Government but also from leading companies, foundations, non-profits, and science and engineering societies. These organizations would not be making the commitments of technology and resources if achieving these technology objectives were technically impossible, economically unfeasible or would cost a lot of money... especially in today's economy.

Thanks to Dr. Margo Izzo a researcher at The Nisonger Center at The Ohio State University[27] and talented software developers from around the world, students with disabilities are now being provided with free, portable, high-quality, assistive technology software smartdrives to benefit students with disabilities in the following ways:

- Enables students attending any school/university to use their AT software on practically any PC they desire/need to use;
- Significantly reduces the cost of providing AT software to students who desire/need to use it;
- Reduces incompatibility/interoperability issues with applications currently installed on the PC being used;
- Eliminates vandalism and innocent corruptions of PC-based AT software since portable AT applications are not installed on the PC being used. Students simply carry their AT software, personal files, and configuration files with them;
- Eliminates licensing limitations that preclude students from using AT software on any PC they desire/need to use;
- Eliminates the problem of too few AT software-equipped computers in schools, colleges, libraries, community centers, places of employment etc.;
- Improves transition outcomes for AT software users from school to school, high school to college, high school to employment and in adult life in general;
- Eliminates financial losses due to AT software abandonment;
- Eliminates acquisition time and red tape;
- Eliminates installation problems; and,
- Eliminates the stigma of having to use "special" PCs.

IDEAL Group is looking forward to exploring the possibilities of distributing our assistive technology software smartdrives though State Assistive Technology Act (ATAP) Programs, funded under the AT Act of 1998, as amended.

In closing, I encourage all of you not to permit the sometimes exaggerated perceptions of technology accessibility issues and challenges cloud the fact that there are now more opportunities than ever before in history to design accessible and profitable E&IT products and services.

All of you on this subcommittee are in the enviable position to help every person, regardless of ability, be able to exercise their civil rights by having equal access to E&IT.

There is additional information in PowerPoint format, as part of this testimony, at the end of this written statement.

Thank you!

About IDEAL Group, Inc.

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IDEAL Group, Inc. is a 2002 spin-off from IDEAL at NCR Corporation (NYSE: NCR). IDEAL Group has four subsidiary companies:

1. Online Conferencing Systems Group, Inc.
   http://onlineconferencingsystems.com
   Online Conferencing Systems Group provides fully accessible, 508 compliant, online conferencing, distance learning and Webinar services. OCSG has served hundreds-of-thousands of users worldwide over the past eight years.
2. InftyReader Group, Inc.
   http://www.inftyreader.org
   InftyReader Group provides applications that recognize and translates science, technology, engineering, and math (STEM) documents into accessible formats for individuals with print disabilities.
   See our Accessible math resource: http://www.accessiblemath.org/
   See our Speech Recognition-Based Math Accessibility Project: http://inftyreader.org/speech-recognition.htm
3. Apps4Android, Inc.
   http://apps4android.org
   Apps4Android is a Google Android smartphone assistive technology software development company. Apps4Android is dedicated to developing free/low-cost, high-quality, mobile applications that enhance the quality-of-life, independence and employability of individuals with disabilities. After only 14 months in business, Apps4Android applications are being used by more than 600,000 users in 25+ countries.
   See our Android Accessibility Project: http://accessibility-android.info/.
4. EasyCC, Inc.
   http://easycc.org/
   EasyCC is the newest IDEAL Group subsidiary company. EasyCC provides real-time captioning services to organizations wishing to accommodate the access needs of individuals who are deaf.

References:

1. History of IDEAL Group: http://www.ideal-group.org/history/
2. NCR Corporation website: http://www.ncr.com/
3. 361 million: http://www.internetworldstats.com/stats.htm
4. 1.8 billion: http://www.internetworldstats.com/stats.htm
5. 1.8B x 126.6 x 126.6 x 126.6 = 3.65B
6. Social networking statistics:
   Facebook: http://tinyurl.com/356y6s
   Twitter: http://tinyurl.com/y9dm7sh
   MySpace: http://tinyurl.com/y4fk6rm
7. 4.1 billion: http://tinyurl.com/y4n86vm
8. LinkedIn: http://press.linkedin.com/about
9. Google apps: http://tinyurl.com/yyqd3pq
10. Online courses: http://www.elearners.com/courses/
11. Nuance TALKS: http://tinyurl.com/y74zh97
    Mobile Speak: http://tinyurl.com/y5979gg
12. Google Android: http://www.android.com/
13. iPhone accessibility: http://tinyurl.com/6optfu
14. iPad Accessibility: http://tinyurl.com/yfw54rv
15. Android Market: http://www.android.com/market/
    15a. http://www.accessibility-android.info/stats.htm
16. Apps4Android: http://apps4android.org
17. T-Mobile: http://tinyurl.com/yybvqh8
18. Google AxsJAX: http://tinyurl.com/yysav2m
19. IDEAL Conference: http://onlineconferencingsystems.com
20. Google Captions: http://tinyurl.com/ykzj44a
21. National Broadband Plan: http://www.broadband.gov/
22. Google indexed websites: http://tinyurl.com/5blvgm
23. Google Searches: http://tinyurl.com/9oo4te
24. Georgia Tech's Sonification Lab: http://sonify.psych.gatech.edu/
25. NASA Learning Technologies: http://tinyurl.com/y37l22r
26. Educate to Innovate: http://tinyurl.com/yb3sjr3
27. Nisonger Center: http://nisonger.osu.edu/
28. ATAP: http://www.ataporg.org/atap/index.php

Prepared Statement of Steven I. Jacobs
President, IDEAL Group, Inc.
before the Committee on the Judiciary, Subcommittee on the Constitution, Civil Rights, and Civil Liberties on Achieving the Promise of the Americans with Disabilities Act in the Digital Age
Current Issues, Challenges, and Opportunities

Mainstream Market Forces Driving the Development of Accessibly-Designed Electronic and Information Technology (E&IT)

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Definition of E&IT

E&IT includes:

- Telecommunication products
- Information and self-service kiosks
- Application software
- Worldwide web sites
- Web-based applications
- Office equipment

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Definition of Accessibly Designed E&IT

E&IT that has been designed to be accessible to as many consumers as *reasonable, technically possible and economically feasible*.

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Supply-Push Market Forces

1. Are not self-sustaining without a **push** from government, society or laws.
2. Supply-push market forces that **COMPEL** companies to enhance the accessibility of their products, services and workplaces are driven by:
   - **C**ulture
   - **O**rganizations (internally)
   - **M**orality
   - **P**olitics
   - **E**thics
   - **L**aws

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Demand-Pull Market Forces

1. Are self-sustaining so long as demand exists;
2. Demand-pull market forces that **INSPIRE** companies to enhance the accessibility of their products, services, and workplaces are driven by:
   - **I**ncome
   - **N**ew Customers
   - **S**ales
   - **P**rofits
   - **I**nnovation
   - **R**evenue
   - **E**arnings

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1. Government Standards as a Catalyst

- Electronic and Information Technology Accessibility Standards (Section 508)
- Section 255 of the Telecommunications Act
- The U.S. government is budgeted to purchase $72.7 - $78.4 billion in E&IT in 2010

Source: http://ideal-group.org/business_benefits_final/2010_budget.xls

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2. Consumer Behavior

- Increased technical literacy
- Increased mobility
- Less patient
- Higher expectations
- Desire personal attention

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3. Technology Trends

of Smart Devices

- Decreasing size
- Increasing power
- Increasing functionality
- Increasing demand

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4. Marketing Trends

- Consumer expectations are growing
- Brands are barely keeping up with consumer expectations now. Every day consumers adopt and devour the latest technologies and innovations, and hunger for more.

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5. Low-Bandwidth Infrastructures

(1 of 2)

Websites and web-based applications that adhere to the W3C's Web Content Accessibility Guidelines (WCAG) 2.0 are;

- More accessible and usable from within low-bandwidth infrastructures;
- More easily converted into mobile formats;
- Accessible by smart devices using voice recognition and text-to-speech synthesis

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5. Low-Bandwidth Infrastructures

(2 of 2) Broadband Subscribers per 100 inhabitants

- **C**hina: 6.23
- **I**ndia: 0.45
- **B**razil: 5.26
- **I**ndonesia: 0.18
- **R**ussia: 6.56
- Canada: 29.59
- United States: 23.46
- World: 6.08

http://tinyurl.com/ideal-bandwidth

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6. Aging Populations

(1 of 2)

In 2007, the prevalence of disability in the U.S. was:

- 14.9 percent for persons ages 5+
- 6.3 percent for persons ages 5 to 15
- 6.8 percent for persons ages 16 to 20
- 12.8 percent for persons ages 21 to 64
- 29.7 percent for persons ages 65 to 74
- 52.9 percent for persons ages 75+

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6. Aging Populations

(2 of 2) 65 and over (millions)

- **C**hina: 108
- **I**ndia: 61
- **B**razil: 13
- **I**ndonesia: 14
- **R**ussia: 19
- Canada: 5
- United States: 39
- World: 516

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7. People with Disabilities

(1 of 4)

Disabilities that impact accessing and using E&IT:

- Hearing
- Vision
- Speech
- Mobility
- Learning Disabilities
- Mental Retardation

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7. People with Disabilities

(2 of 4)

Disabilities that do not, necessarily, impact accessing and using E&IT so they are not included in the stats:

- Lung / Heart disease
- Cancer
- Diabetes
- Asthma
- HIV carriers
- Alcoholism / Drug addiction

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7. People with Disabilities (est. millions)

(4 of 4)

- China: 133.9
- India: 115.7
- Brazil: 19.9
- Indonesia: 24.0
- Russia: 14.0
- Canada: 3.3
- United States: 30.7
- World: 679.0

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8. Users of ESL

- Users of English as a Second language number more than a billion worldwide
- Are not as proficient in reading English content as are native English users
- Find plain language (accessibly-written) content more understandable.

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9. Need for Language Translation

- Over 150 languages are spoken in the top 10 developing countries alone.
- There is an ever-increasing need to translate content
- Plain language content is less expensive to translate into other languages

Plain Language

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9. Need for Language Translation

Humorous Translation Errors:

- Braniff translated, "Fly in leather," into Spanish. It came out as "Fly naked."
- Coors translated its slogan, "Turn it loose," into Spanish. It read "Suffer from diarrhea."
- Chevy Nova: "No va" means "it doesn't go" in Spanish.

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9. Language Translation

- Languages used by a minimum of 500K people by country:
  - China: 37
  - India: 65
  - Indonesia: 30
- 132 languages are spoken, by at least 500,000 people, in just the top 3 big emerging markets;

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9. Language Translation

Plain Language:

- Significantly reduces the cost of language translation
- Reduces ambiguity
- Speeds reading
- Improves understanding for people using English as a second language
- Reduces liability of misunderstandings

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10. People who Never Learned to Read

- China: 121.8
- India: 451.2
- Brazil: 22.7
- Indonesia: 23.1
- Russia: 0.8
- Canada: .3
- U.S.: 3.1
- World: 1,222.2

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10. People who Never Learned to Read

Text-to-speech technologies that accommodate the access needs of users who are blind also work for people who never learned to read. The quality of synthetic has improved dramatically over the years.

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11. Different Learning Styles

- Visual
- Kinesthetic
- Auditory
- Various combinations of the above

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12. Different Levels of Experience

Not all people have the same experience using PCs….

- First-time user
- Novice
- Average
- Experienced
- Expert

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13. Legislation

- Americans with Disabilities Act
- Section 255 of the Telecommunications Act
- Section 508 of the Rehabilitation Act

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13. Legislation

The American with Disabilities Act:

- Gives people with disabilities civil rights protection
- Guarantees equal opportunity for people with disabilities
- ADA Accessibility Guidelines

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13. Legislation

Section 255:

- Established by FCC
- Covers all telecom products and services plus IVRs
- Legal standard is “readily achievable”
- Telecommunications Act Accessibility Guidelines

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13. Legislation

Section 508:

- Uses federal purchasing power
- Burden is on federal department or agency. Uses “undue burden” standard.
- 508 is used by some states.
- E&IT Accessibility Standards

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14. Standards

- International Organization for Standardization (ISO)
- International Electrotechnical Commission (IEC)
- International Telecommunication Union (ITU)

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Mr. NADLER. Thank you. And I will now recognize Mr. Goldstein for 5 minutes.

TESTIMONY OF DANIEL F. GOLDSTEIN,
BROWN, GOLDSTEIN & LEVY, LLP

Mr. GOLDSTEIN. Mr. Chairman, it's a pleasure and honor to be here. I was extraordinarily heartened by your opening statement and wish you would consider a second career as a Federal judge. Before I go to my statement, I want to mention that, from first-

hand meetings with Amazon, I can answer your question if it's still in your mind.

Electronic information is woven into the fabric of our lives, from the Internet to cell phones to, most recently, e-books like the Kindle. Because digital information consists of zeros and ones, it is not inherently visual or tactile or aural but rather can be displayed in any one or all three of those manners. So it holds great promise to change the lives of those with print disabilities and those who are deaf. Instead of persons with those disabilities needing separate and rarely comparable accommodations, there is the potential for mainstream access. Unfortunately, at present, digital information is often only displayed for one sense, excluding persons with disabilities from participation in these innovations.

Mainstream access to digital information could be transformative. Consider e-books. The contents of an e-book could be displayed on a refreshable Braille display or it could be read out loud. The number of books available on the Kindle since the Kindle was first introduced on the market in November, 2007, already exceeds all of the Braille books currently available to blind readers.

When commercial e-books are accessible to those with print disabilities, which includes not just the blind but those with a host of other disabilities like dyslexia or, for that matter, severe arthritis, their disability will no longer exclude them from mainstream participation in reading what the rest of us read.

The ADA has played a valuable role in helping the disability community move toward full integration into American society. In the field of technology, the ADA has been instrumental in making some Web sites, workplace software applications, ATMs, point of sale machines, cell phones, and e-book reading devices accessible to people with disabilities. However, as we stand here today, we are not even halfway there on making the Internet accessible; and we are even further away from equal access to technology used in the workplace and those offered through public accommodations like educational institutions.

In the educational sector, the accessibility gap is particularly severe. A 2008 study found that 97 percent of university home pages contain significant accessibility barriers. Even as online education is steeply increasing and digital books, course management systems, and other technologies have become an integral part of post-secondary and K-12 education, most of these technologies are gratuitously inaccessible.

The barriers to technology are not for the most part the result of intractable technological issues and need not slow down innovation. Where an understanding of ADA obligations and commitment to accessibility exist, accessibility is achieved. For example, Microsoft's first release of Windows Vista and Windows 7 were accessible from day one; and the same is true of Apple's iPad, which was recently released to much hoopla. Clearly, accessibility has not hampered these companies' innovation.

The ADA is a tremendous normative statement of the importance we attach as a Nation to equal opportunity without regard to disability. However, the need for clarity as to its application to the digital age is significant.

Title III of the ADA applies to public accommodations. We believe both the intent and the language of the ADA cover Web sites and other digital information and services provided by these covered entities, regardless of whether those accommodations also operate brick-and-mortar locations.

On behalf of the NFB, I have filed two lawsuits in Federal Court against companies for violating Title III by failing to make their Web sites accessible to the blind, one against America Online in 1999 and one more recently against Target. In both instances, the companies decided to make their Web sites accessible and settled, so we have not yet been able to establish judicial precedent that eCommerce falls within the ADA.

Opponents of applying Title III to Web sites might point to a line of reasoning that a place of public accommodation must be an actual "physical place." One District Court has wrongly applied such reasoning. This approach stands in stark contrast to the commonsense view that the phrase "public accommodation" encompasses more than just physical structures. Most circuit court cases addressing the "physical place" argument have been in the context of insurance. So we don't currently know what conclusion the courts would reach on this precise question.

In today's increasingly online society, limiting the ADA or any civil rights law only to those businesses that operate in physical facilities would undermine the ADA's essential purpose to eliminate discrimination against people with disabilities in the basic day-to-day activities that are a fundamental part of living and functioning in the community.

The near future will see the further spread of digital information in critical sectors, including health care records, education, employment, commerce, and social life. If we do not ensure that people with disabilities have equal access to digital information, they face greater exclusion from participation in our society. If we do not ensure that application of the ADA to public accommodations Web sites is clear, accessible electronic resources will continue to be hit or miss; and covered entities will continue to take their chances.

Thank you.

[The prepared statement of Mr. Goldstein follows:]

PREPARED STATEMENT OF DANIEL F. GOLDSTEIN

Statement of Daniel F. Goldstein, Esq.
Partner, Brown, Goldstein & Levy, LLP

Before the United States House Committee on the Judiciary

Subcommittee on the Constitution, Civil Rights,
and Civil Liberties

on

Achieving the Promise of the Americans with Disabilities Act in the
Digital Age – Current Issues, Challenges, and Opportunities

Thursday April 22, 2010

Mr. Chairman, members of the Committee, thank you for inviting me here today. As a partner in the Baltimore, Maryland law firm of Brown, Goldstein & Levy, LLP, I have been engaged in disability rights law, principally on behalf of the National Federation of the Blind ("NFB"), since 1986. In 1999, the NFB asked me to assist it in devising a strategy to promote the accessibility of digital information through education, negotiation and litigation. I have devoted much of the last 11 years to that effort.

The ADA has played a valuable role in that undertaking, as we have worked to make websites, workplace software applications, ATMs, voting machines, cell phones and e-book reading devices accessible to people with vision and print disabilities.

The challenge is immense. Digital information is everywhere, from consumer electronics and home appliances to the internet, computer screens and mobile devices to ticket kiosks and ATMs. It is difficult to identify an activity in modern American life in which digital information does not play a role.

Because digital information is composed of zeros and ones, it is not inherently visual, aural or tactile but can be presented in any one or all of those modes with equivalent facility. Thus, the ubiquitous use of digital information should be great news for those who cannot access print because of a disability – whether it's a vision disability, a learning disability, an intellectual disability, or a manual impairment or spinal cord injury. Similarly, digital information that was traditionally presented as speech can now produce mainstream accessibility for those with hearing impairments.

Sadly, however, the potential for the disability community to have mainstream and therefore equal access has not been realized. So much

electronic information is presented so that it is accessible only to one sense, resulting in persons with disabilities having unequal access and therefore being denied the opportunity for equal participation in all spheres of life. Thus, to give you a homely example, something as simple as setting the thermostat in one's house, which a blind person could formerly do by adding tactile markings to the dial that controlled the thermostat, is now an inaccessible activity. Even though digital temperature controls could communicate both visually and audibly, most provide only visual information, leaving blind people worse off than before.

A. The ADA and Public Accommodation Websites

The ADA is key to unlocking these doors. Title III of the ADA applies to public accommodations, defined as 12 categories of commercial entities that interact with the public. We believe both the intent and the language of the ADA cover websites and other digital information and services provided by those covered entities, regardless of whether those entities also operate brick-and-mortar locations.

In 1999, on behalf of the NFB, I filed suit in federal court in Massachusetts against America Online for violating Title III of the ADA by failing to make its service accessible to the blind. The First Circuit had held in the context of insurance services that a public accommodation may be covered under Title III of the ADA without the activity being linked to a physical place of public accommodation. We were anxious to follow that case law to its logical conclusion that websites that offer the services of a public accommodation, as delineated in Title III, are likewise covered by the ADA. However, AOL quickly decided to make

its website fully accessible, so the matter was settled without creating any judicial precedent.

In 2006, we filed suit against the Target Corporation over the inaccessibility of its website. After the federal court in San Francisco ruled that the portions of the website that had a nexus to the physical stores were covered by the ADA,[1] Target settled and has since made its website fully accessible.[2]

Opponents of the application of Title III to commercial and educational websites might argue that some federal case law supports the proposition that e-commerce is outside the scope of the ADA. There is a line of reasoning adopted in some circuits that a place of public accommodation, within the meaning of Title III, must be an "actual, physical" place.[3] These courts have held that to state a claim under Title III, the plaintiff must allege either that there has been discrimination in a physical place, or that there is a "nexus" between the challenged act of discrimination and a physical place of public accommodation. This approach stands in stark contrast to the more commonsense view adopted by several other circuits that the phrase "public accommodation" encompasses more than just physical structures.[4]

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[1] *Nat'l Fed'n of the Blind v. Target Corp.,* 452 F.Supp.2d 946 (N.D. Cal 2006).

[2] *Nat'l Fed'n of the Blind, v. Target Corp., No.* 3:06-cv-01802-MHP Doc. 210 (N.D. Cal. Mar. 9, 2008) (final judgment and order approving settlement and dismissing claims).

[3] *See Weyer v. Twentieth Century Fox Film Corp.*, 198 F.3d 1104, 1114 (9th Cir. 2000) (concluding that places of public accommodation are "actual, physical places."); *see also Ford v. Schering-Plough Corp.*, 145 F.3d 601, 612–13 (3d Cir. 1998) (holding that plaintiff failed to allege a nexus between the place of public accommodation and the insurance benefits offered by the employer); *Stoutenborough v. National Football League*, 59 F.3d 580, 583–84 (6th Cir. 1995) (affirming the dismissal of a claim under Title III because the challenged service, the live telecast of a football game, was not offered by a place of public accommodation, the stadium).

[4] *See Carparts Distribution Ctr., Inc. v. Automotive Wholesalers Assoc. of New England, Inc.*, 37 F.3d 12, 19–20 (1st Cir. 1994) (holding that "public accommodations" encompasses more than

Most cases addressing the "place" argument have been in the context of insurance, considering whether the ADA's non-discrimination requirements govern the substance of insurance policies. None of the circuit courts adopting the "physical place" line of reasoning have addressed the precise question of whether public accommodations that operate through the internet or its websites are places of public accommodation under Title III. So we do not currently know what conclusion these circuits would reach on that issue.

In today's increasingly online society, limiting the ADA (or any civil rights law) to only those businesses that operate in physical facilities would undermine the fundamental goals of civil rights. Given that one of the essential purposes of Title III is to eliminate discrimination against people with disabilities in the basic, day-to-day activities that are a fundamental part of living and functioning in a community, it is hard to imagine that coverage would depend on whether a covered entity offers its services and goods in a physical location, door-to-door, by phone, or online. In an age where hundreds of millions of Americans are increasingly using the internet every day to shop for groceries, plan their travel, conduct business, do their banking, attend college classes, and socialize with friends and family, it is undeniable that these websites are an indispensable part of basic, day-to-day life in the community.

Despite this obvious reality of life in the internet era, one district court, in *Access Now v. Southwest Airlines Co*. has erroneously extended the "physical place" line of reasoning to conclude that it would not apply Title III to prohibit

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actual physical structures and includes the defendant insurance company); *Doe v. Mutual of Omaha Ins. Co.*, 179 F.3d 557, 559 (7th Cir. 1999) (noting that a "place of public accommodation" encompasses facilities open to the public in both physical and electronic space, including websites).

discriminatory access to Southwest's website where the plaintiff had failed to allege a "nexus" between the site and a physical, brick-and-mortar place.[5] I have no doubt that the district court's interpretation of Title III in the *Southwest* case was incorrect, and that a federal Court of Appeals squarely presented with the issue should reach the conclusion that Title III applies to goods and services provided over the internet. But the fact that the district court strayed so far from Title III's fundamental purpose was troubling, and is one of the reasons that I applaud the Committee's decision to hold this hearing.

In light of Assistant Attorney General Perez's affirmation last week that the Department of Justice continues to believe that public accommodations are covered by Title III even when they reach the public only via websites, it seems to me that the time has come to test this proposition in the courts as well as through the development of regulations by the Department of Justice.

Court cases aside, in the years since the internet has become a mainstay of American life, some advocates and covered entities have reached agreements about accessibility of internet sites. Among the websites that have reached such agreements, variously, with the NFB, the American Council of the Blind and the New York and Massachusetts Offices of Attorney General are: Amazon.com, Apple's iTunes, Major League Baseball, CVS, Radio Shack, Rite Aid, Staples, Ramada Hotels, and Priceline.com. Other companies with commercial websites have reached out proactively to secure certification from the NFB that their

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[5] *Access Now, Inc. v. Southwest Airlines Co.*, 227 F.Supp.2d 1312 (2002). On appeal, the 11th Circuit dismissed the appeal without reaching the merits of the case, so the 11th Circuit has not yet addressed the issue. *See Access Now, Inc. v. Southwest Airlines Co.*, 385 F. 3d 1324 (11th Cir. 2004).

websites are accessible, including both large companies like G.E. and NewEgg and small businesses like my law firm.

These agreements and the *Target* case have had a positive impact in increasing website accessibility across the commercial industry. A study of the top thirty-two online retailers' websites that analyzed the websites' accessibility one year before the *Target* decision and one year following the decision found a significant improvement in overall accessibility.[6]

Using the standards and tools provided by the ADA, we are seeing voice-guided ATMs and Accessible Point-of-Sale Machines. In the case of the former, with the recent announcement by Bank of America that all of its ATMs now have voice-guidance and my settlement with the largest nonbank deployer of ATMs, Cardtronics, inaccessible ATMs are becoming the exception rather than the rule.

ATMs, however, provide an important lesson. The technology to make ATMs accessible is older than the technology to make ATMs and the additional cost of accessibility in manufacturing and deploying ATMs is marginal. However, delay by banks and other deployers of ATMs to comply with the ADA until the national fleet of ATMs was mature led to a tremendous and unnecessary increase in costs in retrofitting or replacing functioning inaccessible ATMs. It also needlessly delayed the blind from having this convenience that so many rely on.

When new technologies find acceptance in the marketplace, their adoption and improvement often occurs with dizzying speed. When accessibility is not built in from the outset, however, the disability community suffers significant

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[6] Jonathan Frank, "Web Accessibility for the Blind: Corporate Social Responsibility? or Litigation Avoidance?," pp.284, Proceedings of the 41st Annual Hawaii International Conference on System Sciences (HICSS 2008), 2008.

competitive disadvantages whose later correction may come only as that technology is being replaced by something newer or better. When a Microsoft offers first Windows Vista and then Windows 7 that were accessible from the day each went on the market, or Apple develops, as it has, a technology that allows the controls of its iPad to be accessible to the blind, this is cause for celebration.

The list of other technologies that have been accessible from their entry into the market, however, remains far too short. Gratuitous barriers to accessibility are still the rule, not the exception. Improved clarity about the application of the ADA to public accommodations operating over the internet will help. As is demonstrated by the experience of educational institutions, once the purchasers of technology understand their obligations and insist on accessibility by their suppliers, accessibility becomes mainstreamed.

B. Inaccessible Digital Information in Education

Nowhere is the impact of digital information felt more than in the field of education. The impact is pronounced here, perhaps more than in any other sphere because digital information and electronic technology have the potential to change the game for students with print disabilities. However, educational institutions are not meeting that potential. For example, a 2008 study that examined the accessibility of postsecondary education web pages found that 97% of the institutions in its sample contained significant accessibility barriers.[7] The

[7] Project GOALS Evaluates 100 Pages in Higher Education for Accessibility Against Section 508 Standard, NCDAE Newsletter, April 2008. Retrieved: http://ncdae.org/community/newsletter/april2008/

study examined only top or home pages of university websites, suggesting that the significant barriers are even more deeply entrenched than indicated by the study.

That the vast majority of educational institutions fail to recognize their obligations under the ADA to make their website information accessible is only the tip of the iceberg. Reliance on online education is steeply increasing, with online enrollments growing substantially faster than overall higher education enrollments in the past six years.[8] Meanwhile, digital books, course management systems, and other educational technologies have become an integral part of post-secondary education. Many of these technologies are completely – and gratuitously – inaccessible to students and others with print disabilities.

While universities and institutions have often failed to appreciate their obligations under the ADA and their commercial power as consumers of educational technology, some positive examples of success demonstrate the kind of impact institutions can have if their obligations under the ADA are made clear and enforceable.

i. Universities and Amazon's Kindle DX

In February 2009, the Kindle 2 was introduced with a read-out-loud feature, but with on-screen navigation that was not voiced and was therefore inaccessible to the blind. The Association of American Publishers and the Authors Guild

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[8] I. Elaine Allen and Jeff Seaman, Learning on Demand: Online Education in the United States, 2009, Babson Survey Research Group, January 2010. Retrieved at: http://www.sloan-c.org/publications/survey/pdf/learningondemand.pdf

sought to have Amazon terminate this feature. In response, the Reading Rights Coalition was formed, thirty-two nonprofits representing the print-disability community—including, among others, the blind, people with dyslexia and other learning disabilities, those with cerebral palsy, and those with upper spinal cord injuries. The Coalition worked on one hand to protect the inclusion of Text-to-Speech while fighting to have Amazon allow its menus to talk and thus make the device accessible.

In May 2009, Amazon announced the launch of its Kindle DX e-book reader, which it had designed for educational use. Because Amazon failed to include accessible navigational controls, the device was inaccessible to the blind. Six colleges and universities simultaneously announced they would be deploying the Kindle DX during the 2009 – 2010 academic year. The National Federation of the Blind and the American Council of the Blind filed a complaint in federal court against Arizona State University and filed complaints with the Department of Justice and Department of Education against the remaining schools (Pace University, Case Western Reserve University, Reed College, Princeton University, and the University of Virginia's Darden School of Business). These complaints alleged that by deploying the inaccessible Kindle, the colleges and universities violated their obligations under Titles II and III of the ADA to provide equal access to their services. While sighted students would benefit from the instant access, notetaking, and other services of the Kindle, blind students would be left behind, forced to rely on separate methods of access that are significantly inferior to even the print textbook experience. The complaint against the University of Virginia is still pending with the Department of Education, but the NFB, the ACB and the Department of Justice secured settlements with the other five schools under

which those schools agreed, after the end of this semester, not to deploy inaccessible e-book readers.

While those complaints were pending, other universities stepped forward to publicly pledge they would not adopt e-book technologies on their campus – including the Kindle – unless and until they were accessible. Those universities included Syracuse University, the University of Wisconsin and the University of Illinois. In response to this pressure, Amazon announced that it would release a fully accessible Kindle in the summer of 2010. And on March 9, 2010, the Reading Rights Coalition, the Association of American Publishers and the Authors Guild issued a joint statement, released on the White House blog, supporting mainstream accessibility when books are issued in formats other than print, such as e-books and audio books.[9]

ii. Libraries and Adobe Digital Editions

Adobe Digital Editions is the leading commercial e-book format used by libraries and also the format that can be read on the inaccessible Sony e-book reader. Until March 2009, Adobe e-books had been accessible to those who require speech to access text and who downloaded those books to a PC. In March 2009, however, Adobe stopped support of that accessible system and switched to a new, inaccessible e-book platform, called Adobe Digital Editions. As a result, numerous public library patrons with disabilities could no longer access their libraries' digital collections.

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[9] http://www.whitehouse.gov/blog/2010/03/09/one-step-closer-full-access

Advocacy from the Burton Blatt Institute and the Reading Rights Coalition prompted the American Library Association to adopt a resolution strongly recommending that libraries ensure that all electronic resources they procure are accessible to people with disabilities.[10] Shortly thereafter, the Los Angeles Public Library, responding to a letter from the Reading Rights Coalition, agreed to suspend future procurement of Adobe Digital Editions books until they are fully accessible.[11] In response, Adobe announced that it would release an accessible Adobe Digital Editions in 2010.[12] Thus, when institutional customers of technology, like libraries, act on their obligations under the ADA, the developers of those technologies find strong economic motivation to remove the barriers to accessibility.

iii. California State University and BlackBoard

California State University succeeded in moving one of the leading course-management software systems, BlackBoard Learn, toward accessibility. In the late-1990's, the Department of Education's Office of Civil Rights launched an investigation into California State University campuses' compliance with, among other statutes, Title II of the ADA. In response, the Cal State system revamped its approach to providing access to students with disabilities and has become a leader and model for educational institutions to follow. Specifically, rather than

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[10] Purchasing of Accessible Electronic Resources Resolution, American Library Association, July 15, 2009. Retrieved at: http://bbi.syr.edu/events/2009/docs/Purchasing_Accessible_Electronic_Resources_Resolution_revised_52.doc.
[11] Letter to Eve Hill from Martin Gomez, August 31, 2009. http://www.readingrights.org/477
[12] Bill McCoy, Adobe eBooks - Update on Accessibility Support, October 8, 2009. http://blogs.adobe.com/billmccoy/2009/10/adobe-ebooks--.html

delegating accessibility obligations to an isolated Disability Student Services office, as most universities do, Cal State established a system-wide, coordinated approach to accessibility. Under this approach, accessibility experts work closely with the University's information officers to ensure that the technology the university employs is accessible.

Through this arrangement, Cal State requires that new technologies it procures be accessible to its students. When Cal State put out a request for proposals for new course management software, it turned down BlackBoard – the leading purveyor of course management software – because it did not meet Cal State's accessibility requirements. Since that time, BlackBoard has issued two new releases of its software that greatly enhance its accessibility.[13]

C. The Next Steps to Access to Technology

We are not even halfway there on making the internet accessible and in making accessible the technologies used in the workplace and offered through public accommodations, like educational institutions. And, of course, new technologies continue to develop and flourish with astonishing speed. The barriers to accessibility, however, are not the result, for the most part, of intractable technological issues and need not (and as a practical matter, would not) slow down innovation. The biggest contributor to the growing accessibility gap continues to be a lack of commitment to making technology accessible.

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[13] National Federation of the Blind and Blackboard to Demonstrate New Accessibility Features at CSUN, March 25, 2010. http://www.nfb.org/nfb/NewsBot.asp?MODE=VIEW&ID=566

The ADA was a tremendous normative statement of the importance we attach as a nation to equal opportunity without regard to disability. But while the disability community has the responsibility to use the ADA and the other tools offered by federal and state laws, government must continue to make clear its commitment to that promise as well. The National Broadband Plan, for example, states as one of its goals that "every American should have affordable access to robust broadband service, and the means and skills to subscribe if they so choose."[14] It envisions, among other things "improvements in public education through e-learning and online content" and improvements in health care through the expansion of "e-care."[15] Without concrete steps to build in accessibility at every stage and level, this promise to "every American" will not be realized. Recognizing this, the National Broadband Plan specifically states that "hardware, software, services and digital content must be accessible and assistive technologies must be affordable."[16] The Plan calls on the federal government to be a model of accessibility, to specifically support innovation in accessibility, and to clarify and modernize its accessibility laws, enforcement efforts, and subsidy programs. In that respect, the federal government has a long way to go, as it has failed to monitor and enforce the provisions of Section 508 of the Rehabilitation Act.

The National Education Technology Plan, currently in draft form, addresses to some degree the need for Education Technology to be designed for mainstream accessibility for those with disabilities and we hope the final draft will

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[14] http://www.broadband.gov/plan/executive-summary/ ("National Broadband Plan").
[15] *Id.*
[16] National Broadband Plan at 181 ("Addressing Issues of Accessibility for Broadband Adoption and Utilization").

be more robust. However, recent draft rules regarding Health Information Technology fail to wholeheartedly incorporate accessibility. Again, the federal government must make sure that the execution follows the good intentions.

Our milestones under the ADA thus far have been significant, but we remain far behind where we ought to be in an era that relies so intrinsically upon digital information. The near future will only expedite the transition to digital information in critical sectors – including education, employment, health care, commerce and social life. If we do not ensure that people with disabilities have equal access to digital information, they face exclusion from participation in our society.

The commitment we have already seen from the Department of Justice will take us nearer that goal. The Department of Education, Department of Health and Human Services, General Services Administration, Federal Communications Commission, and others have important opportunities to advance accessible technology as well. There are good reasons to believe that the disability community, acting for itself and with the support of governmental entities, can make great strides toward the day that it no longer must settle for separate and unequal access to technology, but will have, instead, the same access to mainstream technology and thus an equal opportunity to participate in the educational, economic and social life of this country.

Thank you

Mr. NADLER. Well, thank you.

I'll begin and, apparently, end the questioning with myself. I will not limit it to 5 minutes.

For Mr. Goldstein first, in the Target case, the court found that Target's Web site was covered at least to the extent that there is

overlap between products in the Web site and in Target's brick and mortar stores. How did that ruling impact Target's behavior?

Mr. GOLDSTEIN. Well, there was also a claim brought under California's Unruh Act, which is not a public accommodation statute but applies to business establishments. And Target, as a business establishment, made the whole Web site susceptible to the claim under State law. The two claims together convinced Target that it was time to fix their site; and that's what they did, the entire site.

Mr. NADLER. And did other businesses take notice of the ruling and increase their efforts toward accessibility?

Mr. GOLDSTEIN. Indeed. A study that had been done of major retailing sites both before and after the lawsuit showed that there was a one-third increase in accessibility of major retail Web sites.

Mr. NADLER. Thank you.

Now, it sounds like there have been a number of voluntary agreements under which businesses have taken steps to make their Web sites accessible. What's your sense as to why businesses appear not to be taking sufficient steps on their own without having to be contacted about potential litigation?

Mr. GOLDSTEIN. There's not a one-size-fits-all answer. Part of it is that something as simple as Web site developers when they compete for the bid to develop the company's new Web site list accessibility as an option as a separate line item on the price.

Mr. NADLER. Why is that? Why do they list it as an option? Don't they know the law?

Mr. GOLDSTEIN. Well, but the Web site developers aren't subject, unfortunately, to Title III. There's no joint and several liability here. So you want to compete on price. And what happens is between the procurement officer wanting to look good to the boss and the Web site developer wanting to offer the best price, a lot of this happens without——

Mr. NADLER. So they are misleading their clients?

Mr. GOLDSTEIN. Well, they may be leading their client to a position where they are liable and end up with lawsuits.

Mr. NADLER. Well, they are misleading their clients as to the law, no?

Mr. GOLDSTEIN. I don't know that they are advising the client on the law, but they are certainly leaving the client high and dry.

Mr. NADLER. They are putting them in a bad legal position.

Mr. GOLDSTEIN. Yes, in a very bad legal position.

Mr. NADLER. Do you think that regulations from DOJ may impact on this dynamic?

Mr. GOLDSTEIN. I think they would be a huge help.

Mr. NADLER. And that regulations from DOJ should directly address this problem of Web site developers directing their clients into a vulnerable position?

Mr. GOLDSTEIN. I think that would be extremely helpful.

Mr. NADLER. Now you testified that we are not even halfway there in achieving accessibility. How do we accelerate the pace and get businesses and schools to do better?

Mr. GOLDSTEIN. Well, I think the Department of Justice Civil Rights Division's decision to become active in this area is going to accelerate things tremendously. I was very excited by what Mr.

Bagenstos said today, and the conversations we have had with the Civil Rights Division convince me they are for real.

Mr. NADLER. I don't know if Mr. Bagenstos is still here, but if he is not you might want to mention to him your conclusion or your answer to my question about DOJ regulations on Web site developers.

Mr. GOLDSTEIN. It is an excellent idea, and I will pass it along.

Mr. NADLER. Thank you.

Let me just ask if anyone else want to comment on the last couple of questions. Yes, Ms. Brewer.

Ms. BREWER. Yes, my impression is that there are a number of issues which sometimes cause delay in implementation, and they can start from a very simple level of lack of sufficient awareness and training for the developers, managers' decision, competing design priorities, and so forth.

I work for an international standards consortium. I get phone calls from people saying, does the ADA apply to my business? So my impression is that there is a lack of clarity: If it does, what should I use? And so I think there is a lack of clarity not just with regard to coverage but what standard to apply. It may be that those things might also help in terms of the compliance. There may also be other things that can accelerate implementation, such as improved authoring tools and so forth.

Mr. NADLER. Again, you think the DOJ could help with regulations here?

Ms. BREWER. It sounds as though it may address the questions that come in to us, yes.

Mr. NADLER. Thank you.

Does anyone else—Mr. Jacobs.

Mr. JACOBS. Yes, I want to make sure I remember the question correctly. It was, why do you think more companies have not made their products and services accessible; is that correct, Mr. Chairman?

Mr. NADLER. Well, how we accelerate the pace, yeah.

Mr. JACOBS. Well, there, of course, needs to be more research. But, from my experience, if you look at who makes the purchasing decisions in companies, it is executive management, marketing people, business people, MIS people, computer science, financial people. If you look at their courses that they take in college, they are never taught about the business benefits of accessible design. The individuals who do learn that, major in ergonomics or other disciplines that teach them that.

I think one of the solutions could be going back to the universities, going back to the accreditation agencies, and working with them and companies to ensure that the right people are learning the right things.

In addition, I don't see anything wrong with our natural market forces. If companies stopped purchasing inaccessible electronic and information technology when accessible versions of that same technology are available, that does two things. It makes the statement that, hey, it must be possible to develop this because we are buying it, and the competition isn't getting the business. So they have to make a decision. Do we want their business? Do we want business

from other companies? If we do, maybe we should take a look at what we're doing and change it.

Mr. NADLER. So you're saying that, despite the market forces that would operate in a positive direction here, the ignorance of people making decisions on these questions operates in a negative direction.

Mr. JACOBS. Yes, I would say their lack of knowledge does work——

Mr. NADLER. So it is back to the old Edgar Snow question of the two cultures. Thank you.

Mr. Richert.

Mr. RICHERT. It is peer pressure. I have got to join—since the other three did, I have to put myself in.

You asked these questions which are very salient, and one of the probably biggest things that we could do is use the buying power of the Federal Government to spur the kind of development and, frankly, awareness-raising that needs to be done on the technology solutions that do exist.

Mr. NADLER. Let me stop you right there. That's a very good idea, but let me ask you, is it your experience that the procurement officers in the Federal Government are aware of this and are acting accordingly?

Mr. RICHERT. Perhaps you might have anticipated that I was going to go there.

Yes, I think what we do know is that the Federal Government has not lived up to its responsibilities under section 508 of the Rehabilitation Act. Twelve years' worth of that law being on the books has not resulted in the kind of changes that we need to see. And why is that? I think, such as we know it, we know that it is not because making Federal Web sites or buying, procuring technology is so hard to accomplish. It is frankly bureaucratic inertia.

One of the things that we could be doing, and I would urge my colleagues from the Justice Department who have heard any of a number of us say this many times before, that the Justice Department itself has statutory obligations to monitor and report on what the Federal Government is doing; and, frankly, over the course of the last 10 years the Justice Department has not lived up to those obligations. That would be extraordinarily helpful in keeping the Federal Government accountable in living up to its requirements to make technology that it purchases and that it operates and maintains more accessible.

Mr. NADLER. I would make the same suggestion to you. You might want to talk with Mr. Bagenstos about this one, too.

Thank you. My time has expired. I now recognize for 5 minutes the gentlelady from Texas.

Ms. JACKSON LEE. Let me thank the Chairman for this hearing and also the witnesses that have appeared as well as the Justice Department.

I think that what I've gleaned and what I—I would not say be surprised but maybe somewhat disappointed because we live in a technological society that means that our minds should think accordingly, and we must look at the vast array of Americans that are distinctively different and unique. And it looks as if, wanting to be market savvy, I would work to have the quality product that

allows access to new technologies by the disabled and, in particular, removing barriers to Web information which clearly impacts employment, health, educational, and financial information.

Working with a senior age mother who is in her eighties, that is not classified as a disability, but it is an aged person who doesn't live in the world of technology. The kind of help that is needed to access medical records or medical information or to provide information is enormous.

So what about the young person or the person who is in the work market right now? Why should they be denied opportunities because we haven't thought forthrightly?

So let me ask Mr. Goldstein, who spoke of what I, too, think is favorable, that the Justice Department will look at rule making. But in the course of your thoughts or your positive comments on that, let me ask you the question, is that going to be fast enough? What do we do in Congress to make sure that it moves quickly?

And I think you mentioned the Civil Rights Division. And you're right. What a breath of fresh air under the present Administration. But is that fast enough? Is there a sense of urgency? And I happen to think there is. Because as we have a population of disabled, there are others of an age that are in the school system, that are going to college. So that question and then what are the best ways to ensure that accessibility is considered at the front end when technology is being initially developed, which includes the private sector.

Mr. GOLDSTEIN. Thank you, Congresswoman.

I think regulations, by themselves, are not going to be fast enough. One of the things that we see with technology is that technologies that find a place in the market take off very, very fast and grow at a logarithmic rate. So you can't be a near follower of technology. If you don't get in on the ground floor, you get left out.

Ms. JACKSON LEE. Right.

Mr. GOLDSTEIN. I, of course, think of litigation as a tool, because that's what I do for a living. But one of the things that Congress can do here is this isn't all just with the Department of Justice. The Department of Education can play a very significant role here because of their responsibility with respect to Title II and with respect to 504 as far as K through 12 and postsecondary public education is concerned. Health and Human Services is going to have a lot to say with respect to health care records. The FCC is going to have a lot to say with respect to broadband plans. Anything that this Subcommittee or the Congress can do to heighten the awareness that a disability isn't an afterthought in going forward, that it needs to be in there at the ground floor would be of extraordinary assistance.

Ms. JACKSON LEE. Well, I like your approach, and I would just like to offer this before I ask the other witnesses to comment on the forward-thinking approach, is to make mention of the fact that in my State alone, the State of Texas, there are 3 million and counting people with disability. And the University of Texas, you may be familiar with, has established the Texas Center for Disability Studies, which carefully looks at different disabilities and finds fresh and new innovative ways to treat them and make the simpler things in life more accessible. Maybe institutions like that

need to really expand into the technology area and pull this from a perspective of the disabled people wanting to be able to help themselves and not be given something.

With that in mind, I want to compliment my staff, Ms. Floyd. We're going to introduce a piece of legislation called the Wonder Act. We have been working with Stevie Wonder, named after him, by the way. And the Wonder Act, which stands for ways to open doors through education resources, goes right to the Department of Education and is designed to impact the visually impaired students at the elementary, secondary, and postsecondary level. It addresses major concerns of visually impaired Americans that were brought to our attention through meetings with organizations representing those visually impaired. And we hope to put a technology component in that legislation, but we want to start early to be able to enhance the civil rights of the disabled.

Might I just ask in my closing question the other witnesses to be able to answer the question how do we get in front of this, as opposed to addressing the question at this point? And maybe Mr. Richert could start first, and then we'll go to the witnesses who have not answered the question. And any thoughts about a bill that deals with the impaired in the early stages, elementary and secondary. Mr. Richert.

Mr. RICHERT. Sure. Thank you very much, Congresswoman. I appreciate that. Wow. Congratulations on your leadership. We need all the help we can get with respect to raising the awareness and indeed making substantial changes in our public policy along the lines that you're describing.

I think one of the things that we've tried to beat the drum about up here is that access to information is not just something particularly critical for folks who are blind or visually impaired. Indeed, it is something that is essential for all students with disabilities.

Over the course of the last, gosh, 10, 15 years, or more, we've sort of latched onto this notion of people with print disabilities, the concept that there are certainly more than folks like myself who are blind or visually impaired for whom access to information is very critical and because of disability they may not be able to interact with a book or equipment effectively. So I guess I would certainly encourage you and your colleagues as you're considering the Wonder Act and other public policy changes to remember that, indeed, access questions go well beyond folks who are blind or visually impaired.

That having been said, it sounds cliche, but, quite frankly, hearings like this are essential to getting, quote, unquote, out in front of the issue. You would be amazed, or maybe you wouldn't be, on how much change in technology seems to happen whenever there is a sense that legislation or regulation is going to be coming down the pike.

It is fascinating how when hearings take place up here or there are public hearings that are held around the country, as there just recently were under the auspices of the Department of Labor, of the disability employment policy, among many, many others, how simply having a presence out and about talking about disability and talking about it in connection with, frankly, everyday life does so much to get out in front of the issue. People then start to come

to us, all four of us and plenty of others at this table, to ask us, my gosh, somebody's got a crazy idea to regulate in this area. How can we get ahead of this?

Regulation is not the only thing we can do, but it is certainly one area, and, frankly, raising awareness about this whole matter is something that can be done just, frankly, from drawing attention to it and bringing the spotlight to it, as you're doing today.

Ms. JACKSON LEE. Thank you.

Mr. Chairman, will you allow Mr. Jacobs quickly just to answer and Ms. Brewer?

Mr. NADLER. Without objection.

Ms. JACKSON LEE. If you would, with the Chairman's great indulgence, I know that we have constituent engagements in our districts, so I thank you for your courtesy. Thank you, Mr. Chairman, for your courtesy.

Mr. JACOBS. The most important think I would like to say is that you and I have to talk. There are a lot of reasons why students K through 12 and college students don't have the assistive technology that they need. It is because of cost. It is because of licensing limitations. Assistive technology software is among the only software that I'm aware of in the marketplace that has not been reduced in price over the past 10 years. Check it out.

There is something called open source software like Firefox browser, like FileZilla. Hundreds of millions of copies of high-quality software are out there. There are open-source assistive technology applications.

We were fortunate enough to be part of a Department of Education grant. We are in the second phase. We have taken 30 of these applications. They are all high quality, and they accommodate just about every type of disability you could imagine. They are free. The student could take them to school and use them and take them home to do homework. They don't need to worry about infringing upon the IP rights of the developer, because these applications are open source.

So my thought is why not look at legislation to have organizations purchasing AT software first look at open source software that is free. If they can't find something that meets a student's needs, then go buy commercial. But I could tell from you my experience there are a lot of very good applications out there.

So that is how I would address your question and congratulations.

Ms. JACKSON LEE. We will engage you. You have just given some very vital information.

Ms. Brewer, do you have a quick response?

Ms. BREWER. Yes, and I appreciate the Congresswoman's question.

A few comments with regard to the needs of older Web users, your initial comment. The Web Accessibility Initiative has conducted an extensive international literature research regarding the needs of older users who may sometimes have similar accessibility needs. And the accessibility needs are actually—the functional needs are pretty much the same as people with disabilities and are already addressed by existing Web accessibility guidelines which we have developed with the World Wide Web Consortium. Our con-

cern is still that these solutions are not being applied anywhere near as broadly as people with disabilities and older users need.

You asked about potential accelerators. The clarifying of applicability of the ADA we believe would help, based on the questions we get where people are puzzled if they are covered or not. The clarifying of the standards to use is something that I also believe would help quite a bit. The adoption of a multi-stakeholder consensus standard as exists in the area of Web accessibility can help by removing uncertainty about what standard to use. It also enables sharing of technical support resources, enables repurposing of training materials without having to redevelop those, recreate the wheel each time.

Also, in the IT industry it is very important to know what your development target is when product managers are making decisions about what features to implement. And if they see a range of different standards in every State or in different parts of the Federal Government, there is much less incentive. It is also very hard to decide which ones to support. And so these are things that may indeed help accelerate this.

One other thing would be studies on adoption or implementation of Web accessibility across different sectors that relate to Title III, for instance, so that people who work in the field could more easily address the gaps that seem to be there. We develop extensive amounts of technical guidance, and we could target that if we knew where the worst gaps were.

Ms. JACKSON LEE. Thank you. Thank you, Mr. Chairman.

Mr. NADLER. Thank you, and I thank the witnesses.

Without objection, all Members will have 5 legislative days to submit to the Chair additional written questions for the witnesses which we will forward. And I ask the witnesses to respond as promptly as they can so that their answers may be made part of the record.

Without objection, all Members will have 5 legislative days to submit any additional materials for inclusion in the record.

With that, we thank the witnesses; and the hearing is adjourned.

[Whereupon, at 2:32 p.m., the Subcommittee was adjourned.]

APPENDIX

MATERIAL SUBMITTED FOR THE HEARING RECORD

PREPARED STATEMENT OF THE HONORABLE SHEILA JACKSON LEE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS, AND MEMBER, SUBCOMMITTEE ON THE CONSTITUTION, CIVIL RIGHTS, AND CIVIL LIBERTIES

First and foremost, I would like to extend my gratitude to Chairman Nadler for holding this important Subcommittee Hearing addressing the applicability of the Americans with Disabilities Act as we navigate through this digital age, and technologies change day to day. Secondly, I would like to recognize the Honorable Samuel Bagenstos, the Principal Deputy Assistant Attorney General of the U.S. Department of Justice. Your participation in today's hearing is appreciated and I look forward to hearing more about what the Department of Justice is doing and plans to do to address this issue.

I would like to thank our distinguished witness on the second panel: Mr. Mark Richert, the Director of Public Policy for the American Foundation for the Blind; Ms. Judy Brewer, Director of the Web Accessibility Initiative of the World Wide Web Consortium; Mr. Steve Jacobs, President of the IDEAL Group; and Mr. Daniel F. Goldstein, of Brown, Goldstein, and Levy, LLP.

As we all know, we live in a technological age. Many of the tasks that used to require a physical process are now paperless, virtual, and can be done online. We shop online, apply for jobs online, and pay our bills online, just to name a few things. Many schools and universities hold classes online, supplement their curriculums online, and use electronic versions of textbooks. Many retailers have an online component, offering exclusive merchandise and internet discounts, while some conduct all operations online and have given up "brick and mortar" establishments entirely.

We are a digital culture by definition. Ten years ago, only 46% of adults even used the internet, and of that 46%, only 5% had a broadband connection and almost none used wireless connections. The present day portrait of American society is very different. Over 75% of adults use the internet, and the percentage is even higher for children. Of those 75%, 62% have a broadband connection in their home and 53% use a wireless connection. Many people even use mobile broadband to communicate for both business and entertainment purposes.

These advancements in technology, especially with respect to public services, have made life much more convenient for many Americans in many ways. In some ways, it has improved accessibility by eliminating required physical presence and arduous paper processes. While technology has done a lot of good, it has also created some barriers that limit accessibility, and in some cases completely alienate, those Americans who are handicapped or disabled.

The Americans with Disabilities Act of 1990 was implemented to ensure inclusion and opportunity for those considered handicapped or disabled. Congress was aware that technology would continue to evolve and expressed it belief that the non-discrimination mandate contained in the ADA would be broad and flexible enough to keep pace. Thus, ensuring that, as technology evolved, people with disabilities are not excluded when jobs, public services, or public accommodations that require access to new technology. However, in 1990, one could not have imagined that extent of the role which technological innovation plays in our lives.

Today, just about every business, retailer, government and public service has a website which is intended to increase accessibility and make certain processes easier. For those with handicaps and disabilities, especially those who are blind or hearing-impaired or cannot manipulate a mouse, there are software programs and make use of these websites available to those with handicaps—programs read websites and images.

However, there are simple features that need to be incorporated into websites in order for these programs to be effective, and many web designers are likely unaware. Something as simple as adding a caption to a picture or a photo would make a website more easily translatable. We need to figure out a way to ensure that these simple facts are known and implanted, especially on local, state, and federal government websites, and site that deal with other public services or accommodations.

In my home state of Texas, over 3 million people have a disability. The University of Texas has established the Texas Center for Disabilities Studies which carefully looks at different disabilities and finds new and innovative ways to treat them and make the simple things in life more accessible to those with such disabilities. They have also established the Texas Technology Access Program which leads the state's efforts to carry out Federal initiatives associated with the ADA. The programs mission is to increase access for people with disabilities to assistive technology that provides them more control over their immediate environments and an enhanced ability to function independently.

Furthermore, given the subject matter of this hearing, I find it apropos to mention my plan to soon introduce a piece of legislation called the "WONDER Act," named after the legendary singer and humanitarian, Stevie Wonder. The WONDER Act, which stands for "**W**ays to **O**pen **D**oors through **E**ducational **R**esources," is designed to impact visually impaired students at the elementary, secondary, and post-secondary levels. It addresses major concerns of visually impaired Americans that were brought to my attention through meetings with organizations representing those who are visually impaired.

Today, we are hoping to figure out what the Department of Justice can do, and we, as Congress can do to make sure that the ADA continues to fulfill its goal of inclusion. Thank you Mr. Chairman, and I yield back the remainder of my time.

PREPARED STATEMENT OF THE HONORABLE HENRY C. "HANK" JOHNSON, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF GEORGIA, AND MEMBER, SUBCOMMITTEE ON THE CONSTITUTION, CIVIL RIGHTS, AND CIVIL LIBERTIES

Thank you, Mr. Chairman, for holding this very important hearing on the Americans with Disabilities Act, commonly referred to as the ADA.

Congress passed the ADA in 1990. The ADA was recently amendment in 2008 to revise the definition of "disability" to more broadly encompass impairments that substantially limit a major life activity. The ADA is extremely vital as it aims to prohibit discrimination against individuals with disabilities in American civic and economic life.

This hearing is important because it will give us the opportunity to examine how the ADA can achieve its promise of equal opportunity and full participation for people with disabilities as technology continues to advance and grow.

The internet and web-based technology has significantly changed our lives. Today, you can earn a college degree online without ever stepping foot in a classroom. Our constituents look for jobs online, do their banking online, and go shopping online.

Years ago, many of these activities could only be done by leaving one's home and entering a physical building such as a bank, college, or store.

The times have surely changed. Today, many of us are frustrated when the internet is down or feel helpless without our BlackBerries which give us 24 hour access to the internet.

In this digital age, we cannot afford to leave anyone behind. We must ensure that people with disabilities have the necessary tools to fully access the internet and all it has to offer. This includes screen readers, Braille displays, captions for audio, and other assistive technologies.

Millions of people have disabilities that affect their use of the web. These individuals have the right to access emerging and innovative technology. As I think about my constituents, I am anxious to examine what Congress can do to ensure that individuals with disabilities have full access to the internet.

I thank the Chairman for holding this hearing, and I look forward to hearing from our witnesses today.

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