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65-010

2000

APPLICABILITY OF THE AMERICANS WITH DISABILITIES ACT (ADA) TO PRIVATE INTERNET SITES

HEARING

BEFORE THE

SUBCOMMITTEE ON THE CONSTITUTION

OF THE
COMMITTEE ON THE JUDICIARY
HOUSE OF REPRESENTATIVES

ONE HUNDRED SIXTH CONGRESS

SECOND SESSION

FEBRUARY 9, 2000

Serial No. 96

Printed for the use of the Committee on the Judiciary

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C O N T E N T S

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Conway, Susyn, Reston, VA

Cooper, Charles J., Carvin & Rosenthal

Dorminey, Elizabeth K., Wimberly, Lawson, Steckel, Nelson & Schneider, P.C.

Hayes, Dennis, chairman, U.S. Internet Association

Lucas, Dr. Steven, CIO and senior vice president, Privaseek, Inc.

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APPLICABILITY OF THE AMERICANS WITH DISABILITIES ACT (ADA) TO PRIVATE INTERNET SITES

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WEDNESDAY, FEBRUARY 9, 2000

House of Representatives,
Subcommittee on the Constitution,
Committee on the Judiciary,
Washington, DC.

The subcommittee met, pursuant to call, at 1:10 p.m., in Room 2237, Rayburn House Office Building, Hon. Charles Canady [chairman of the subcommittee] presiding.

Present: Representatives Charles T. Canady, William L. Jenkins, Melvin L. Watt, and Barney Frank.

Also present: Representative Robert C. Scott.

Staff present: Cathleen Cleaver, chief counsel; Paul B. Taylor, counsel; Susana Gutierrez, clerk; and Anthony Foxx, minority counsel.

OPENING STATEMENT OF CHAIRMAN CANADY

Mr. **CANADY**. The subcommittee will be in order.

By now, most of us are aware of the significant impact the Internet has had on the American economy and on the availability of vast new sources of information to more people than ever before. Thankfully many of the benefits of the Internet have been shared by the disabled community, including the blind, whose independent access to information has been substantially enhanced by the Internet. The Internet industry has also responded to recent concerns expressed by the disabled community that they continue to share the benefits of new and advancing ways of communicating ideas and information.

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By early March, we anticipate the Federal Government will promulgate handicapped accessibility regulations that will apply to Federal department and agency Internet sites and be enforceable beginning August of this year. The proposed rules—as drafted by the Electronic and Information Technology Access Advisory Committee for Federal department and agency online publishing—include provisions that may require streaming audio or audio files to be accompanied by simultaneous text; that require that streaming video be captioned; that require the use of color to convey information be restricted in some ways; and that require Web masters to provide at least one mode that does not require user vision by formatting all information so that it is compatible with Braille and speech synthesis devices. Other provisions may ban touch screens, prohibit moving text or animation, unless the user can go to a static display with the same information, and require all Web sites to, "provide at least one mode that minimizes the cognitive and

memory ability required of the user."

This endeavor on the part of the Federal Government can help serve to educate both the public and private sectors concerning how greater handicapped accessibility of the Web can be achieved with certain relatively low cost solutions. However, it is the opinion of the Department of Justice currently that the accessibility requirements of the Americans with Disabilities Act already apply to private Internet Web sites and services. I will also note that on November 2nd of last year, the National Federation for the Blind filed a class action lawsuit against America Online, alleging that the ADA's accessibility requirements apply to AOL's Internet services and that the manner in which such services are currently provided violates the ADA. At issue in particular is title III of the ADA which requires a subset of private employers, including most businesses to which the public has access, to ensure that individuals with disabilities have full and equal enjoyment of the facilities they provide when the provision of such access is reasonable.

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In light of the significant impact of the Internet on the economy, the potential costs that application of the ADA may impose on that rapidly expanding segment of the economy and the innovations it has encouraged, and the substantial first amendment implications of applying the ADA to private Internet Web sites and services, I believe it is appropriate for the Constitution Subcommittee to consider the impact of the ADA on the Internet.

That is the purpose of today's hearing. I look forward to hearing the testimony of all the witnesses today.

Mr. Watt.

Mr. **WATT**. Mr. Chairman, I want to thank you for calling a hearing on a subject that is of obvious importance and obvious interest, especially noting the fact that a number of people have shown up to listen to the testimony and stay abreast of the issues. I endorse the purpose of the hearing, to make us more aware of the implications of the existing ADA law to the Internet and whether there are additional changes that may be necessitated in the ADA. This is the way we inform ourselves better.

I am confident that we have a good cross-section of witnesses who will present all sides of this issue. At the end of the day, we all will be better informed and advised about what, if anything, we need to do with reference to this issue.

I yield back the balance of my time in the interest of expediting getting to the witnesses and again express my appreciation for the hearing.

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Mr. **FRANK**. Mr. Chairman.

Mr. **CANADY**. Mr. Frank.

Mr. **FRANK**. Thank you, Mr. Chairman. I look forward to what people have to say and obviously the purpose of a hearing is to listen. I do think some context is relevant. I was here when we passed the original Americans with Disabilities Act and we heard a lot of predictions of disaster. Fortunately, none of them have come true.

As we evaluate the arguments we hear today, I think it is relevant to keep in mind the experience we have had, and I think the experience we have had is that we have been able as society to administer the Americans

with Disabilities Act in a reasonable way. We were told, for instance, it would be a great drag on the economy. The economy has of course in the period since the Americans with Disabilities Act performed extremely well. Clearly it was not a serious drag on the economy.

That doesn't mean everything was perfect and that no mistakes were made. It does mean that overall we were able to pass an act and, more importantly, enforce it in ways that have helped many of our fellow citizens without having a lot of the negative effects that were predicted. That doesn't solve all the problems we will be dealing with today. But I start with the inclination to believe that with the same kind of reasonable approach we have done before, it will work in the future.

I again want to stress that many people made very dire predictions about the terrible effect the Americans with Disabilities Act would have. What we are talking about here, let's be very clear, is this: In this very wealthy society, we are talking about devoting a very, very small part of our overall resources to make an enormous positive difference in the lives of some of our citizens. We are talking about a small number of people who have disadvantages through no fault of their own and we are asking the rest of us to make a very slight change. I think that is really the key to me.

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As I look at American society since the passage of the Americans with Disabilities Act, the majority who were not the beneficiaries of the Americans with Disabilities Act in the primary sense, I think we all have been beneficiaries in that we have increased the capacity of our society as a whole but it has been no serious problem for the majority and it has in many cases led to a very significant improvement in opportunity and advantages for people who have the disabilities.

As I said, I am prepared to listen. I can't stay all day because at 2 o'clock we are going to go yell at the Secretary of Energy for not doing anything about fuel prices in the Northeast. But the hearing is an important one. I plan to read and pursue what has been said.

Thank you, Mr. Chairman.

Mr. **CANADY**. Thank you.

For the hearing today, we have divided the witnesses into two panels. The first panel will discuss some technical issues relating to the accessibility of the Internet to the disabled, and also address whether or not the Americans with Disabilities Act is an appropriate vehicle for increasing access to the Internet by the disabled. The second panel will discuss some of the policy and legal implications of the ADA's application to private Internet sites.

Now, on our first panel today, we hope to be hearing from Dennis Hayes, who has not arrived yet. I will go ahead and introduce him and hopefully he is going to be able to join us in progress. He has had problems with his plane connections, I understand. Mr. Hayes is chairman of the U.S. Internet Industry Association and the inventor of the PC modem, referred to as the Hayes modem, which he invented in 1977. Mr. Hayes later founded D.C. Hayes Associates, which became a leader in the modem industry. He retired as chairman of that company in 1998.

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We will also hear from Mr. Gary Wunder. Mr. Wunder is an expert blind computer user from Columbia, Missouri, who makes his living developing programs and supervising projects and computer technology for the University of Missouri hospitals, where he has served as a programmer analyst expert since 1978. He has

experience as both a designer and blind user of information technology. Mr. Wunder will address the significance of access to the Internet without sight.

Our third witness will be Dr. Steven Lucas. Dr. Lucas is senior vice president and chief information officer of Privaseek, Inc. He has over 18 years of experience in the information technology industry and maintains an advisory role with the Web Accessibility Initiative within the World Wide Web Consortium, where he has contributed toward industry self-regulation and standardization. Before joining Privaseek, Dr. Lucas was the CIO of Excite and a member of the technical staff at AT&T Bell Laboratories, where he participated in the design and development of the Unix operating system. Dr. Lucas received his Ph.D. in computer science from Stanford University, a B.S. in electrical engineering from the Citadel, has a J.D. from Franconia College and an M.B.A. from New Hampshire College. He is on the board of directors of the U.S. Internet Industry Association.

Our fourth witness is Judy Brewer. Ms. Brewer directs the Web Accessibility Initiative at the World Wide Web Consortium, where she coordinates five areas of work for W3C with regard to Web accessibility, ensuring that the technologies of the Web support accessibility, developing accessibility guidelines for Web content, developing tools for evaluation and repair of Web sites, conducting education and outreach on Web accessibility solutions and monitoring research and development which may impact future accessibility of the Web. She serves as a liaison on issues of Web accessibility to industry and national governments, disability communities and research organizations.

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Our fifth witness is Susyn Conway. Ms. Conway is an Internet and marketing consultant with extensive experience with the Internet industry. For the last 9 years, she has worked in news media marketing, including CD ROMs, the Internet and other extensions of traditional marketing and promotion. Previously, she was the director of corporate programming and the director of market research at America Online, Inc. She is speaking for the U.S. Internet Industry Association.

I want to thank all of you for being here with us this afternoon. I would ask that you do your best to summarize your testimony in 5 minutes or less. Without objection, your full written statements will be made a part of the permanent hearing record. If you will observe the light, when it is green, 5 minutes is running. When it is yellow, your time is about up and when it is red, your 5 minutes is gone. I don't think anyone is going to insist on strict enforcement of the 5-minute rule, but it would be helpful if you could do your best to finish within 5 minutes because we do have a subsequent panel. With that, unfortunately Mr. Hayes has not arrived yet so we will begin with Mr. Wunder. We will also give a signal rather than just using the light, I will maybe gently——

Mr. **WUNDER**. Accessibility in action.

Mr. **CANADY**. I appreciate that. I will gently tap my——

Mr. **FRANK**. The only other accommodation we could make, Mr. Chairman, is we have to explain to the dogs that only the Members of Congress are allowed to bark at each other.

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Mr. **CANADY**. And no biting is allowed. I will gently tap the gavel when there is 1 minute remaining, which is what the yellow light indicates.

Mr. Wunder.

STATEMENT OF GARY WUNDER, PROGRAMMER ANALYST-EXPERT, ITS-HOSP BUSINESS APPS, THE UNIVERSITY OF MISSOURI

Mr. **WUNDER**. Thank you, Mr. Chairman.

I am here today not as an expert on the law but as one who knows the marvelous possibilities of the Internet and the technology it represents and also as one who knows something about the problems which come when one doesn't have access. I want to explain to you that blind people use the Internet by using what we call screen readers. That lets us get information in audio format and in Braille that you see on the screen. We also can use our keyboards to enter those things for which you often use a mouse. You move your mouse and click, we tab to an item and press enter. You press a scroll bar to move up and down through a list while we use our up and down arrows to do the same thing. Both of us, blind and sighted, have access if the graphics, boxes and buttons have labels, or little textual descriptions telling us what they are and if programs allow us to use the keyboard to simulate what you do with the mouse.

Our problem is not graphics or the mouse. Our problem is that sometimes designers forget that we have money and need the goods and the services they offer and in so doing they fail to offer us what we would call nonvisual alternatives. Often when we hear about new software and ask that accessibility be designed into it, as we did in the case of Microsoft Windows, we are told we need to wait to see if the program will be a commercial success. Then when it is selling like hot cakes and we are losing jobs right and left because of inaccessibility, we are told that what we want is hard to implement in an already existing product and that we should have been involved when it was being designed. The physical corollary is that it is much easier to design an elevator into a new building than it is to find a place for an elevator shaft in one which is already full.

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Ten years ago, I worked as a manager not only writing programs but also supervising others doing the same thing. Gradually our tools became more and more graphical and fewer nonvisual alternatives existed. One such tool was Microsoft Project, which listed all my assignments and the assignments of those working for me, along with their key dates, both intermediate and final. These were displayed on a screen, such that those needing to be completed first were in bright red and those with due dates further out were in lesser shades. The information I needed could have been more easily displayed on a list ordered by due date, but no alternative to the flashy visual display was available. I took a demotion from manager to programmer because of this kind of software. It wasn't that I couldn't understand the software, it wasn't that I couldn't manage the tasks. My demotion came from the fact that only one paradigm; that is, screen mouse graphics, was considered, and there was no nonvisual alternative, a simple list.

Mr. Chairman, the blind and the disabled have a contract with our society. You say to us that you will provide money for training, money for education and a climate of opportunity for those of us whose abilities have far too often been overlooked. Our part of the bargain is to be self-reliant, to use our minds, to adapt, to ask only for those things we need to really live, compete and pull our own weight. If screen reading technology could read any Web site that someone might concoct, if we can perform great feats of mental gymnastics and simply memorize screens which are difficult for us to navigate, then I wouldn't be here today asking that my needs and those of millions of Americans be considered by business and by government. We need the innovation and the good will of business who recognize the buying power we and the millions of senior citizens have. We also need government leading by example and expressing the clear expectation that businesses and business opportunities be open to all.

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Lessened access for the blind is ominous, Mr. Chairman. The Internet is not just a window on the world but more and more the Internet is the world. It is where we talk, it is where we shop, and it is where we make our living. It is the extension of the personal computer. If we lower the bar for accessibility here, we will lower it for all consumer products involving the computer.

Today, let's lower it for Web sites and the Internet. Tomorrow Microsoft Word, Corel Word Perfect, the list goes on and on. And with each function which fails to be made accessible goes another job which a blind or disabled person can fill. The Internet is business. It is business today and it is business in the future. My business communication runs on e-mail. My meeting calendar is maintained using the tools of the Internet. And even the list of phone numbers I use to contact colleagues must be retrieved on the Internet.

I urge you to affirm this country's commitment to access. Weigh in on the side of those who need it and differentiate between the real needs and solutions demonstrated here today and the hypothetical and yet unproved burden to the growth of this industry. What we need is achievable, what we are asking is reasonable, and if we stay the course, all of us, business and consumers, will be the beneficiaries.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Wunder follows:]

PREPARED STATEMENT OF GARY WUNDER, PROGRAMMER ANALYST-EXPERT, ITS-HOSP
BUSINESS APPS, THE UNIVERSITY OF MISSOURI

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Good morning, Mr. Chairman and members of the Subcommittee. My name is Gary Wunder. I work as a Programmer-Analyst Expert for the University of Missouri and serve in a volunteer capacity as a member of the Board of Directors of the National Federation of the Blind.

I come today to speak to the issue of access to the Internet and the extent to which that access is protected under federal law. I do not come as an expert on the law. I am here as a person who makes his living writing programs and getting information to medical doctors and hospital administrators. I am also here as a person who has been the beneficiary of the computer age and the Internet, and I also come as one who has paid the price when access to computers and the Internet were off limits to me because only the needs of visual users were considered in the design of some very important products. Lastly, Mr. Chairman, I also come as a person who is blind and who knows both how difficult accessing electronic information can sometimes be and how liberating that access can be when just a little thought is given to alternative methods of access.

Blind people look to the Internet as a long-sought solution to the problems of communication that result from lack of sight. Ask any blind person what physical problems confront him as a result of blindness, and he'll tell you they are access to the printed word and not being able to drive. Think now about the beauty of the Internet for this group. Material typed into a computer can generate print for the sighted, Braille for the blind, or synthesized speech for either group.

Because a user can travel from web site to web site without ever leaving his chair, the difficulty posed by transportation in the conduct of business is also significantly reduced. I should note in discussing access that the vast majority of blind people are over age sixty-five. I think it would be a costly mistake for us to overlook the needs of this community and the significant purchasing power they represent.

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Since members of this Committee are sighted, perhaps it would be helpful for me to explain how a person without vision uses the Internet. Many of us purchase programs called screen readers which look at the information sent to the screen and attempt to tell us, through speech or Braille, what is displayed there. The text on the screen is converted to something we can hear or feel, as well as the little pictures and graphics known as icons. If there is a button we are to push to move to the next screen, our screen readers say "NEXT-BUTTON." If we are presented with a form where we are to enter our name and address, the screen reader will say "NAME" when we are in the name field, and when we come to the area of the screen where we are to enter our state, it will say "COMBO BOX" and allow us to move through the choices until the two letter abbreviation we want is found. Those kinds of boxes, which usually appear in alphabetical order, leave me wishing I was from Alabama or Alaska instead of Missouri.

Most of you make extensive use of a mouse when you navigate the Internet, but blind people cannot do this. Instead of a mouse used to point and click, we use the tab and arrow keys to move from item to item on a screen. Therefore, our request of web site developers is that each item which can be accessed with a mouse also have provision for being accessed by the keyboard. This could mean a tab stop or perhaps a key sequence which could perform the same task as clicking with a mouse.

In many ways, living in what has come to be called the Information Age is a dream come true for people who are blind. Not so long ago, writing this testimony for you would have meant first writing a draft in Braille, writing a second Braille copy to perfect the draft, and then typing that Braille document so you could read it in print. Imagine the difficulty if, while trying to transcribe the Braille into print, I was interrupted by a phone call. Where did I leave off in the transcription? Have I made any typographical errors, and if I have, can they be corrected with white out? The fact is that to ensure I had written a quality presentation for this subcommittee would have taken the involvement of someone with sight to proofread my final product. Now, with the advent of the personal computer, speech and Braille technology, and the Internet, I can write my material myself, proof it myself, send it to others for their comments and criticisms, and eventually send the final draft halfway across the country for printing and distribution. Never in my wildest imaginings did I conceive of this possibility when I was typing my high school and college papers, but I would be hard-pressed to do without this now.

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For all of our progress and the opportunity the Internet holds, there are still some problems we face in using the services which more and more Americans take for granted. One of our biggest difficulties comes when we try to shop on-line using pages where the creator of the web site has failed to label the pictures he shows with a brief textual description. Computer technology is not yet sufficiently advanced to recognize a picture and tell us that what appears on the screen. For this information we must rely on the creator of the page we're viewing to add a line of text which says, for example, "Swiss Army Knife" or "Queen Size Electric Blanket." These explanations are easily added and are of tremendous benefit not only to the blind but also to people who see.

Sometimes newspaper articles, in an attempt to be helpful to the blind, have left the impression that graphical displays are an obstacle for us. The presence of graphics is not the problem, but the presence of unlabeled graphics and the design of systems which rely only on graphics are what cause us tremendous difficulty. People who have things to market should make their pages as visually attractive and marketable as they can, in the same way they would design a store window. Making services available to the blind isn't a matter of deciding whether to make a screen visually appealing or audibly accessible. It means taking thirty seconds to add a textual description to the graphic you've decided to display, and thereby expanding your customer base to include the ever-growing number of persons who either do not see or do not see well.

Some have suggested that labeling graphics and push buttons might constitute an undue burden on small businesses and Internet start-ups. This is to state the problem in the negative. However, one could also say with equal plausibility, that choosing graphics rather than text is the burden. Either one—used exclusively—limits the audience that can be reached and results in missed opportunities to communicate and sell products.

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Whatever costs there are in making the Internet accessible, one thing can be stated without argument—designing accessibility in from the start is easier than trying to incorporate it after the fact. As we know from experience with physical structures, it is much easier to plan for an elevator than it is to figure out where to put an elevator shaft in an already occupied building.

In recognition of this concept, and because of the economic benefits derived from an accessible Internet, representatives from industry, government and the general public have collaborated through the Web Access Initiative of the World Wide Web Consortium, which has developed and promulgated guidelines and recommendations to enhance and ensure accessibility to the World Wide Web. This group has made great strides in achieving a consensus, and its work has been largely responsible for developing the infrastructure which has incorporated concepts to encourage full access into its basic design.

When we discuss the economics of access, we dare not overlook the broader commercial applications for the products created to meet special needs. Well known are the spin-offs from our exploration of space which have resulted in products as technologically simple as the Corning Ware used in our ovens, to the relatively complicated handheld calculator which helps us balance our checkbooks. Less commonly understood is the role of access technology in advancing the frontiers of consumer products.

In 1976, the first reading machine for the blind was developed which could look at ink print on a page, scan it into a digital image, recognize its ink shapes as letters, and then verbalize the resulting text in human-like speech. Now scanning devices are readily available to the general public. The recognition of text from a page allows many companies to store paper documents in their electronic data banks, and the text-to-speech pioneered in this first machine is now common in everything from simple children's toys to complicated telephone answering machines. Let us also not forget that the first efforts to get a computer to understand human speech came as a result of trying to give people who could not use a keyboard access to the world of computing. Now this technology is sufficiently advanced to allow the dictation of this very statement and its accurate transcription.

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Sometimes, when I've spoken on behalf of accessibility, the argument that adding textual labels will result in the elimination of visual attractiveness and program responsiveness has been advanced. Technologically there is little merit in this position. A graphic displayed on a screen may take upwards of half a million computer characters to display, while its text description will take less than 100. The text we need is displayed on the screen only when a user focuses on the graphic to which it pertains. It is even possible to have text labels which are never displayed on the screen but which exist in the background and are only retrievable by the screen readers we use.

Mr. Chairman, blind people are caught in a catch-22 when arguing for accessibility. When we go to a company which is trying to develop a new product as we did when Microsoft started marketing the Windows operating system, we are told that we need to wait and see whether the product will be accepted by the public. We're assured that blind people are valued customers and that our needs will be addressed as soon as the technology demonstrates it's viability. Then, after the product is selling like hot cakes and we're losing

access to jobs and information, we're told that it is difficult and time consuming to modify the existing product. It may not be the next release or the one after that, but be assured that eventually our needs will be considered.

My own experience as a programmer testifies to the fact that it is often easier to write a program from scratch than it is to go into someone else's program, figure out what they were trying to accomplish, and then determine what I can do to make the requested changes. The place for considering usability by people who will not use the computer under the traditional mouse/screen paradigm is here at the beginning. This is where it is least expensive and most likely to be truly integrated into the product.

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What we are discussing when we talk about access is not whether it is technologically possible but whether we plan to use this technological revolution to include people who have all too often been excluded. Let me give you an example of the technology which gives me difficulty as I try to earn my living and advance to ever greater responsibility.

Microsoft Project is a program which lets people manage the work tasks they've been assigned. Each project has a due date, and if it is large, as many projects are, it will have subtasks which themselves have intermediate due dates. When a manager looks at his projects, he is presented with a screen showing those projects which are most critical in bright red, and those of less criticality in lighter shades. It is intuitively obvious as he looks at the screen which projects need his immediate attention and which will wait. The calculations done by this program are simple and straightforward: check today's date against the due date of each project and assign a color for display based on the difference between the two.

No matter how obvious the technique, that number is still inaccessible to me. If someone had thought about the nonvisual user when designing this system, it would have been easy to put out a list in order of due dates. A list with the most critical project first and the least critical last would have given me exactly the same information gained by my sighted colleagues, but a mechanism for making that program produce a simple list was not a part of its design.

I could give you many other examples of software which has been similarly inaccessible, but the important point is that the information which was needed was displayed with only one audience in mind—the visual user—although there is nothing inherently visual about two dates and the number of days which separate them. In fact, much more effort went into figuring out how to display those projects in a visually attractive color scheme than went into determining their order.

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I said at the beginning of this testimony that I knew the blessing of access and the curse of inaccessibility. Programs such as the one I have described resulted in my taking a demotion from Project Manager to Senior Programmer. No one had problems with my job performance as long as we used systems which were primarily textual, but five years ago the technology I had available could not help me answer the question of how I would supervise the development, testing, and implementation of new computer systems using the tools which my organization had committed itself to purchase.

I've never seen any figures to indicate that the cost of accessibility is economically impractical, and I submit that the issue may have more to do with ideological objections to government involvement than the real cost of implementing accessible systems. Mr. Chairman, our society and its disabled people have entered into a contract in which society says to the disabled, we will give you training and we will provide opportunity if, in return, you will do what you can to join with us in work, in community, and in taking

responsibility for pulling your own weight. As blind people we have interpreted this contract to mean that we must be as self-reliant as we can, asking only from society those things we really need in order to compete. If it were possible for the makers of screen reading programs to accurately read any web page a designer could concoct, or if I could figure out a way to deal with such pages through memorization or other mental gymnastics which we who are blind are called upon to employ, then I wouldn't be here today to ask for the help of the Congress and the business community in focusing on the special needs of blind consumers.

There are many examples of companies and small businesses which have enthusiastically joined with us to make their E-businesses friendly for blind users, but the importance of government leading by example and the law expressing the clear expectation that all segments of our society have access dare not be overlooked.

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A decision to lessen the expectation that E-business be accessible is ominous for the blind, for we know that the Internet is not just a window on the world, but more and more it is the world. It is where people talk, where people shop, and where people increasingly make their living. Lowering the bar for access won't simply mean fewer shopping sites for people with little or no vision. Since the Internet is only an extension of our personal computers, lessened access will mean fewer programs we can use and fewer employment opportunities for us. The line between the Internet and business is almost nonexistent. In my job, electronic mail conducted via the Internet is the standard way we communicate. Our meeting calendars are maintained electronically and shared using this same technology. Even the list I use to telephone my colleague in a neighboring building is maintained on a mailing list accessible only by using the tools of the Internet.

I urge this Subcommittee to affirm the importance of access to this new world we're entering and to differentiate between the real world needs of blind people and the hypothetical and yet unproved burden placed on small businesses being required to ensure access. The effort required of the business community is minuscule when compared with the benefits to blind and disabled people and to the society in which we live. The cost of isolating the blind, the disabled, and the senior citizens of our nation is far too high, and the benefits to all of us will be immense if only we stay the course.

Mr. **CANADY**. Thank you, Mr. Wunder. Mr. Lucas.

STATEMENT OF DR. STEVEN LUCAS, CIO AND SENIOR VICE PRESIDENT, PRIVASEEK, INC.

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Mr. **LUCAS**. Thank you, Mr. Chairman. I want to thank the chairman and the members of the committee for inviting me here to talk about this important issue. As I said before, my name is Dr. Steven Lucas, and I am the Chief Information Officer and Senior Vice President of a company called Privaseek. We are located in Colorado. We specialize in providing consumers with privacy, security and trust on the Web. I am also a member of the board of directors of the U.S. Internet Industry Association and I am an Internet professional that is deeply concerned with the ability of disabled Americans to access and utilize the Internet and its content.

Twenty-five percent of the people will experience a period of disability by age 55 and the percentage increases with age. The population of older U.S. citizens is one of the fastest growing propositions that are attempting to take advantage of the Internet. Many older individuals will be impacted by the lack of accessibility as the aging process results in a need for a Web that can accommodate their special needs.

The World Wide Web can be a powerful medium for knowledge and economic power to people with disabilities. The potential for using technology to level the playing field for people with disabilities is

unprecedented. The Internet has become a place of accommodation. Many State and local governments are transitioning to the Internet to process a variety of administrative services. If we are making these transitions using taxpayer money, we must make sure that those who are paying for it can take advantage of that transition and can participate.

The U.S. Government has taken a leadership position by implementing accessibility guidelines aimed at ensuring that Web sites operated by firms doing business with government agencies are accessible. Once implemented, these changes are likely to have a sweeping effect on commercial Web sites as well. Many commercial Web offering tools do not have the capability for Web masters to correct accessible design problems. These deficiencies result in Web engineers who are not exposed to technology that teaches them how to create accessible Web pages. The problem is even more difficult for an engineer who is disabled.

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There is also a serious lack of educational focus on accessibility in all levels of education for those interested in pursuing a career in Web development. In the early days of the Internet, it was all text based and pretty much universally accessible. The Web has now become a place full of graphical images, clicks, online forms, animated text and music. These can be obstacles to accessibility. Developing an accessible Web site does not mean a developer must abandon artistic presentation or professional look. Many Web sites that have won awards for their designs are also accessible. There are many companies and organizations that are developing technical solutions that will assist disabled users on the Web. I have included a list of some of these promising technologies in my written testimony so I won't go through them here.

While there is little argument that the current state of accessibility of the Web is not adequate, industry has made substantial progress in the area. Some regulation may be effective in compelling industry to adopt certain practices. For example, I think that it is imperative that Web sites post privacy policies that are accessible so that consumers will have access to fair information practices and can take advantage of legislation like the recently enacted Children's Online Privacy Protection Act. If you can't read the privacy policy, you can't take advantage of the information that it discloses.

However, legislation where prematurely applied can also have the effect of slowing technology innovation. Industry may become transfixed on addressing the requirements of compliance rather than thinking out of the box. Solutions may be rushed to market that do not have the quality of a well-engineered product. Application of the ADA in its current form without consideration of the progress made to date could result in companies doing just what is necessary to comply with the law instead of furthering the advancement of technology.

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Many sites will focus on avoiding litigation instead of addressing the real need of disabled citizens to have access to the valuable content they provide. The cost of potential litigation could also discourage some Web sites from coming online. There is a risk in applying the ADA to the Internet before industry has been given an opportunity to address the issues of accessibility in a commercial and a competitive environment. Incentives for early adopters might also increase the speed in which this occurs.

The online industry must begin to understand the economic importance of providing accessibility. Providing accessible sites is a way to reach tens of millions of potential customers as well as their friends, their relatives and employers. Companies are spending large sums of money on infrastructure and technology to attract more consumers and improve the Internet experience. These expenditures will not benefit millions of users if they are unable to take advantage of them. I believe that an economic motive might work better than threat of an action based on a legislative initiative. Using our collective intelligence and a willingness to

work toward a common goal, we can assist our citizens with their disabilities and the use of the Internet.

The techniques and tools are becoming available to help create a Web that is flexible enough to meet the needs and preferences of the broadest range of users of computer and telecommunications equipment for our citizens with disabilities. Before the ADA is applied to the Web, the state of current technology and the technology works in progress should be considered, a period of discussion and review should occur and appropriate amendments made to the existing ADA legislation that reflect the specific and unique requirements of the Internet.

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As the Internet becomes critically important to the daily lives of more people and as society creates greater opportunities to learn and to work and to pursue leisure activities on the World Wide Web, we can't afford to exclude anyone with desire to take advantage of this rich and rewarding experience, especially when the means to include them is within our grasp.

Thank you.

[The prepared statement of Mr. Lucas follows:]

PREPARED STATEMENT OF DR. STEVEN LUCAS, CIO AND SENIOR VICE PRESIDENT,
PRIVASEEK, INC.

Chairman Canady, and members of the Committee:

My name is Steven Lucas, and I am Vice President and Chief Technology Officer of Privaseek, Inc. I am also a member of the Board of Directors of the US Internet Industry Association, and an Internet professional deeply concerned with the ability of disabled Americans to access and utilize the Internet and its content.

An estimated 48.9 million people, or 19.4 percent of the non-institutionalized people in the United States, have a "disability" according to the President's Committee on Employment of People with Disabilities (<http://www.pcepd.gov/pubs/ek97/facts.htm>). That figure means that some form of disability will affect approximately one out of five United States citizens in their lifetime. This is one of the reasons that Congress passed the Americans with Disabilities Act (ADA).

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People with disabilities are in all professions. There are programmers, engineers, accountants, teachers, or researchers who have visual, auditory, or mobility disabilities. The number of people with disabilities needing computers to do their work or improve their lives is increasing.

Most people experience a period of disability during their lifetime. Twenty five percent of people will experience a period of disability by age fifty-five. The percentage increases with age. Most of us will experience the effect of a broken bone that requires a cast or an injury that in some way impairs our ability to function in the way we are accustomed to. There are additional situations where we experience similar problems that people with disabilities face. If you're working somewhere there is an abundance of noise such as a plane, airport, or a factory, you may experience the same condition as someone who is hearing impaired. Sometimes technology "glitches" cause us to modify the way we work. If we have a broken mouse, we may have to rely on the keyboard just as someone who's blind or quadriplegic might.

Anyone can experience conditions that impose limitations that mimic a disability, and be forced to rely on

the same sorts of solutions that are required by many of the disabled population. It is estimated that one in five people will experience a disability at some point in their lives. These numbers are sure to increase as our population ages. Perhaps that puts accessibility into another perspective.

The benefits of accessible web design extend beyond the community of people with disabilities. It eliminates the economic barriers to those who cannot afford expensive computers by enabling the use of inexpensive and less complex technology to access the Internet. For example, people who are cannot read can access the Internet by using screen readers that can convert text to voice and read out loud the content from accessible web pages.

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The population of older U.S. citizens is one of the fastest growing populations that are attempting to take advantage of the Internet. Many older individuals will be impacted by the lack of accessibility as the aging process results in the need for a Web that can accommodate their special needs.

The evolution of and the increase in the use of the Internet as a mechanism for employment, education, communication, and commerce require us to consider the technology barriers encountered by users of the incredibly important and empowering communication medium. Over 70% of people with disabilities who are willing and able to work are unemployed. Dr. James Caldwell, the Chair of the Texas Governor's Committee on People with Disabilities, notes "The current potential for providing access to professional education and employment opportunities to people with disabilities is unprecedented. The current potential for using technology to level the playing field for people with disabilities is unprecedented. We must create systematic ways for communities to realize that potential." The World Wide Web can be a powerful means of providing knowledge and economic power to people with disabilities. Ecommerce is a major initiative on the Internet. However, many potential e-customers who require the use of assistive computer technology will not be able conduct web transactions if the design of the content on the Internet does not accommodate the functional requirements of accessible Web page design.

Companies are spending large sums of money on infrastructure and technology to attract more consumers and improve the Internet users experience. These expenditures will not benefit millions of users if they are unable to take advantage of them due to content that is inaccessible by design. The term accessible needs to come to mean that when a user visits a Web site, they will be able to take advantage of the growth and innovation of the Internet regardless of their particular disability or the way they access Internet.

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The Internet has become a place of public accommodation. Many state and local governments are transitioning to the Internet to process a variety of administrative services such as license renewals and to receive and send information via e-mail to facilitate constituent communications. If we are making these transitions using taxpayer money, we must make sure that those who are paying for the transition can participate.

The US government has taken a leadership position by implementing accessibility guidelines aimed at ensuring that web sites operated by firms doing business with government agencies are fully usable by people with disabilities. Once implemented, these changes are likely to have sweeping affects on commercial sites as well.

The lack of accessibility of the Internet makes it difficult to count the number of people with disabilities who would like to use the Web. It is impossible to determine the numbers of individuals with disabilities that would like to take advantage of the web when they are being denied access and the resulting ability to be

counted.

In the US Department of Commerce report "The Growing Digital Divide In Access For People With Disabilities: Overcoming Barriers To Participation," the point is made that "The transformation of the Internet from a text-based medium to a robust multi-media environment has created a crisis—a growing digital divide in access for people with disabilities."

Technology innovation and the changing landscape of the web have had a substantial impact on the number of individuals who can access the Web. The widespread use of graphical images in content and advertising has resulted in a new problem for some disabled Web users. Until the last few years, people with visual disabilities were able to access the Internet with their screen readers audibly reading aloud the text on a web page. Today, graphical web pages present a barrier if they do not incorporate accessible web design. In their practical guide to the information economy for executives and policymakers, "*Information Rules: A Strategic Guide to the Network Economy*," authors Shapiro and Varian point out that "[t]oday more than 60 percent of Internet traffic is to Web Sites, and of the Web traffic, almost three-fourths is images." Some users have resorted to turning the graphics feature of their browsers off. Many sites become essentially useless without the graphics because the site doesn't have enough information in text format to describe the graphic.

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The effect of the lack of an accessible Web is not limited to people with visual and mobility disabilities. People with certain learning disabilities are also finding that they can no longer use screen readers with text to audio capabilities to access some Web sites. People with cognitive disabilities are having difficulty accessing the Web to the lack of navigation elements at Web sites. People with hearing disabilities cannot access the content of audio streaming and video clips that are posted on the Internet due to the absence of captioning.

Technology Issues

Many commercial web-authoring tools do not have the capability for webmasters to correct accessible web design problems. In fact, many current web-authoring tools on the market make it extremely difficult to even design an accessible web page. This deficiency in these tools results in webmasters and application programmers not being exposed to technology that teaches them how to code an accessible web page. The problem is even more difficult for a Webmaster who is disabled. There is a serious lack of web authoring tools and applications that can be utilized by this population of individuals. Disabled developers can possess not only the skills necessary to create accessible pages, but the life experience that can possibly add insight into this process. This is especially true for webmasters and application developers with mobility disabilities requiring voice, eye tracking or keyboard input/output features in web authoring applications.

In the early days of the Internet, it was all text-based and universally accessible. The Web has now become a place full of graphical images, clicks, online forms, animated text, and music. These can all be obstacles to accessibility. People with limited or no physical mobility use a keyboard or voice input; those who are blind or visually impaired use a keyboard or voice input in combination with a text screen reader. A Web site that can't be navigated without a mouse, or does not contain a description in text format about the graphics will cause some of the disabled population to abandon efforts to view the content of a site.

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A recent Internet news story about accessibility showed that many Web developers have a negative reaction to the idea of accessible design. This is based on their belief that these standards will limit their creativity. Accessibility techniques are not designed to limit the creativity of designer. The creation of

accessible Web pages will allow more people to experience their creations. Developing an accessible Web site does mean a developer must abandon artistic presentation or professional look. The artistic nature of the site will not be affected if the site is created with text-only pages first. Once the text version is created and tested for accessibility, the images and other artistic design features can be added. The site will then be accessible to most screen readers and text to voice translators. Many web sites that have won awards for their designs are also fully accessible.

There is still a lack of knowledge among Internet professionals about how to realize the full potential of the Internet by providing access to the Web to people with disabilities. While tools are still lacking many features, there are affordable and easy-to-use tools available. These tools along with accessible design techniques can make Web sites dramatically more accessible to people with a variety of disabilities. The use of accessibility based design tools can make the information on a company web site available to the millions of people with disabilities.

The experts tend to agree that universal design is good for everyone. According to Kelly Pierce, the co-founder of "Digit-Eyes," the Chicago blind computer users network, and who serves on the Techwatch committee for the National Council on Disability, "when World Wide Web sites are accessible to people with disabilities, they are highly usable and accessible to everyone else as well." He continues: "As the Web matures and grows in popularity, webmasters can be less and less certain that the visitor is using the latest version of Navigator or Explorer." In other words, accessible Web design also assures "backwards compatibility" with older Internet browser software. But it's not just older technology that benefits from good design. Many newer ways to access the Internet benefit greatly from universal design, "people may be online with their Palm Pilot, or on Web TV, or browsing using their telephone. The closer companies and other organizations design their sites to HTML standards, the more accessible they are to people with disabilities and everyone else," says Pierce.

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There are many examples of the need to address the non-conventional methods of accessing the web. Smart Cards are a good example of such a requirement. Smart cards, whether they are in the shape of credit cards, keys or rings, or demand vision to access digital displays of random password entry numbers for operation, require accessible design considerations. As businesses and governmental agencies increase their investment in these products for security or employee identification reasons, the number of consumers and employees impacted by the lack of accessible design will increase. Solutions are needed to address this problem.

Household Appliances are yet another example. Digital components with touch screen or flat screen displays are bringing common household appliances into the digital age. Unfortunately, consumers with disabilities are finding they cannot use these appliances. Whereas household appliance switches and knob settings can be brailed so that people with visual disabilities can operate the appliances, this solution is not available for appliances utilizing digital operational displays. Some of the common household appliances converting to a digital operation display include stoves, microwaves, dishwashing machines, and clothes washing/drying machines.

What Is Available Today?

There are many companies that are developing technical solutions that will assist disabled users on the Web. A few examples of these types of initiatives are:

IBM has been a leader in the development of products that address the needs of the disabled community. These products include the Healthy Computing—Keyboard, IBM Healthy Computing Ergonomics

Accessories, Screen Reader/2 Languages, FTP for Home Page Reader, IBM PC DOS: PC DOS for Special Needs, Screen Magnifier/2, and SpeechViewer III, which is a powerful speech and language tool that transforms spoken words and sounds into imaginative graphics.

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FutureForms, Inc., a division of *Pummill Business Forms, Inc.*, Grand Rapids, Michigan, introduced Verbal-eyes (patent pending), a new assistive technology software which enables visually impaired persons to fill out forms online. Since many visually impaired persons use a screen reader, the Verbal-eyes program is designed to scan the user's PC to determine if a screen reader is present and active. If a screen reader is active, the software will actually decipher the form on the screen for the user. If no screen reader is active, then the software will remain quiet and allow the user to complete the form. The Verbal-eyes program was mentioned by *Business Week* magazine as one of the most promising new products for the year 2000. For additional information on Verbal-eyes (patent pending) and other electronic form solutions, visit www.futureforms.com or www.pummill.com and link to FutureForms.

Adobe has indicated they are committed to making PDF documents accessible. *Adobe* is analyzing what needs to be added to or fixed in the PDF language definition to support the WAI Accessibility Guidelines. *Adobe* is also developing their own accessibility guidelines for PDF authoring tools. They have posted an early version of these guidelines on <http://access.adobe.com/>.

Microsoft has been making accessibility a consideration at every phase of the software development process. *Microsoft's* Accessibility and Disabilities Group works closely with their product developers, as well as with disability advocates, to ensure that accessibility features are included in *Microsoft* products. *Microsoft's* products contain features designed specifically for people with disabilities. Windows 98, Office 2000, the Internet Explorer feature in Windows, and the soon-to-be-released Windows 2000 all contain features that make them usable by people with a variety of disabilities. For example, Windows 98 includes an Accessibility Wizard for easier screen, keyboard and navigation customization. *Microsoft* Windows 2000 features several useful new accessibility tools, such as the Narrator, On-screen Keyboard and Magnifier to help people with disabilities who do not have full-featured accessibility aids available.

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There are several browsers that have been specifically designed for people with disabilities. Some examples include:

AVANTI Browser: Developed by the AVANTI Project, this browser provides for some of the diverse needs of elderly and disabled people and covers a range of disability-specific requirements.

BrookesTalk: This browser under development by Oxford Brookes University focuses on facilitating intelligent web searching. It also provides speech output, screen-magnification.

EIAD: A browser from Sarsfield Solutions, which provides enhancements specifically for people with special needs and learning difficulties. It provides touch-screen and a simplified language interface.

EMACSPEAK: The speech-enabled environment for EMACS, runs under UNIX or LINUX, includes full web browsing capabilities through W3. It provides speech output and a simple keyboard interface.

HomePage Reader: The speech-based browser from IBM, using Netscape as its engine. It provides speech output and a simple keyboard interface based on number-pad.

Marco Polo: A plug-in for Netscape Navigator from Sonicon with speech and auditory icons. It provides speech output, audio icons and a simple keyboard interface.

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MultiWeb: Disability-specific browser developed at Deakin University. It provides speech output, screen magnification, and scanning for switch devices.

PwWebSpeak: The first and longest established low-vision browser from the Productivity Works. It provides speech output, synchronized speech and screen magnification, and simple keyboard interface.

Sensus Internet Browser: A low-vision Internet browser from Sensus in Denmark. It provides speech output, Braille support, and special screen fonts.

Simply Web 98: A talking interface using the Internet Explorer engine. It provides speech output and a simple keyboard interface.

VIP InfoNet: A low--vision browser from JBliss Inc. It provides screen magnification and speech output.

A screen-reader is used to allow navigation of the screen presented by the operating system, using speech or Braille output, and should therefore enable use of any mainstream application. In the context of browsing this usually means that they are used in conjunction with Netscape, Microsoft Internet Explorer, or, less often, with one of the other non-disability-specific browsers such as LYNX and Opera.

ASAW from Microtalk: (DOS, Windows 95/98) speech.

HAL from Dolphin: (DOS, Windows 95/98 and NT) speech and Braille.

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JAWS For Windows from Henter-Joyce: (DOS, Windows 95/98 and NT) speech and Braille.

OutSpoken from Alva: (Windows 95/98, Macintosh) speech and Braille.

Simply Talker from Econonet: (Windows 95/98) speech.

Slimware Window Bridge from Synthavoice: (DOS, Windows 3.x and 95/98) speech and Braille.

Window-Eyes from GWMicro: (DOS, Windows 3.x and 95/98) speech.

WinVision from Artic: (Windows 3.x and 95/98) speech.

There are many browsers with adaptive technology. These browsers are all designed for general use, but are of interest because they may give enhanced accessibility in combination with particular adaptive systems.

AMAYA: This is W3C's test-bed browser, implementing emerging web technologies. There are versions for Windows 95/98, Windows NT and UNIX.

ARACHNE: This is a graphical browser for MS-DOS.

LYNX: This is a popular text-based browser for UNIX, Windows 95/NT and MS-DOS allowing flexible and

powerful text-based access from older platforms.

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Net-Tamer: This package runs under MS-DOS and includes both text-based and graphical browsing capabilities.

Opera: This compact browser for Windows 95/98 offers enhanced keyboard navigation and screen magnification.

These are systems that allow voice-driven navigation, some with both voice-in and voice-out, and some allowing telephone-based web access.

ConversaWeb: Voice-activated browser that allows spoken selections of links using "saycons".

PwTelephone: A telephone-based browser using the telephone keypad as an interface to navigate suitably configured pages.

SpeechHTML: A subscription service from Vocalis, allowing a participating site to provide telephone access using voice commands.

TelWeb: An experimental telephone-based browser allowing access to any site using voice and dialed commands.

Web On Call: Voice-driven browser allowing telephone access to enabled sites.

Another effort at providing accessibility is the UIML specification that is available at <http://www.uml.org>. This specification embodies a new way to build user interfaces: The developer describes the interface once, no matter what kind of hardware or software the developer wants to run it on. It doesn't matter what device is used: a desktop PC, a handheld device, or something else. It doesn't matter what interface metaphor is used: a graphical user interface (GUI) or voice. It doesn't matter whether the developer wants the interface implemented in Java or another markup language (e.g., WML or SpeechML). UIML insulates interface developers from all of these through style sheets. With UIML a developer can create Java interfaces without writing Java code. A developer can make traditional GUI interfaces accessible to people with disabilities. The developer can maintain one source base that is deployed on many disparate devices.

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Perhaps the most significant effort to provide accessibility guidelines is the effort at the World Wide Web Consortium. The Web Accessibility Initiative has been leading the effort in this area. On May 5, 1999 the World Wide Web Consortium (W3C) announced the release of the "Web Content Accessibility Guidelines 1.0 specification as a W3C Recommendation. This significant development provides a stable specification that has been reviewed and recommended by the W3C Membership as a tool for making web sites accessible. As Tim Berners-Lee, W3C Director and inventor of the World Wide Web aptly states: "The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect." The W3C Recommendation is evidence of the W3C commitment to lead the way to full participation on the Web for everyone and is an important step since the launch of the Web Accessibility Initiative (WAI) April 1997 in the County of Santa Clara, California. The W3C Web Accessibility Initiative (WAI) recognizes the problem of barriers on the Web for people with disabilities and is committed to pursuing solutions through five primary activities:

Ensuring that Web technologies support accessibility

Developing guidelines for accessibility

Developing tools to evaluate and facilitate accessibility

Conducting education and outreach

Monitoring and engaging in research and development

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The WAI technical activity addresses technology, guidelines and tools coordinated through the International Program Office. For example, in the technology arena, WAI has identified the following areas for accessibility needs: HTML, Style Sheets, Multimedia, MathML, DOM, XML, Graphics, Mobile Access, and Internationalization. Currently there is a Protocols and Formats Working Group as well as an HTML/CSS Review Working Group. There has been an increasing interest in creating accessible Web sites particularly since the May 1999 release of W3C's Web Content Accessibility Guidelines 1.0, and a correspondingly greater demand for tools that produce accessible content. Implementation of ATAG 1.0 will contribute to the proliferation of accessible Web content. "Most content on the web is created using authoring tools. If authoring tools seamlessly guide authors in creating accessible content, the wealth of information on the Web will become more accessible," said Jutta Treviranus, Chair of the Authoring Tool Accessibility Guidelines Working Group and Director of the Adaptive Technology Resource Centre at the University of Toronto. "Just as important, the Web as a means of expression should not be reserved for people without disabilities. These guidelines promote authoring tools that create content that is accessible, and authoring tools that are usable by people with disabilities, thereby cultivating a World Wide Web that we can all participate in."

There are also resources available to assist sites in evaluating their sites accessibility. Some of the resources available are:

The W3C validator at: <http://validator.w3.org/>

Bobby at the Center for Applied Special Technology (CAST): <http://www.cast.org/bobby/>

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HTML Writers Guild (HWG) AWARE (Accessible Web Authoring Resources and Education) site: <http://aware.hwg.org/>

Listed below are some resources that may be helpful in creating pages that are accessible.

Information on accessible Web page design and other issues can be found at: <http://www.eskimo.com/jlubin/disabled/web-desi.htm>.

Information about adaptive devices can be found at: <http://www.utoronto.ca/atrc/reference/tech/techgloss.html>

In addition to the resources listed, several activities have taken place that have advanced the issue of accessibility. These include:

The IBM Accessibility Center (formerly IBM Special Needs Systems) has developed a set of IBM Accessibility Guidelines.

Organized by MAIN, Goodwill Industries of Central Texas, Easter Seals, and Knowbility-AIR-Austin made the high tech community sit up and take notice as some of the city's most talented folks signed on to design web sites for more than twenty nonprofit groups—in one day!

More than 175 people on 22 teams participated in AIR-Austin, the annual web competition sponsored by IBM, Powershift Group, Infotec, Gray Cary Ware & Freidenrich, and Applied Materials.

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Application of the ADA to the Internet

While there are a number of potential ways to regulate accessibility of information technologies, these generally fall into three categories.

Government can establish that individuals with disabilities have a right to certain kinds of information.

Government can require that products or services sold within a country must meet certain criteria for accessibility.

Government can require that information technologies and information services procured by entities such as government agencies must be accessible.

The first approach that regulates access to certain kinds of information by individuals with disabilities as a civil right, such as in Australia, Canada, and the United States is more common. However, sometimes we see combinations of these approaches, or, as in the United States, all three approaches in effect. Recently, as in Portugal and Thailand, there are efforts to introduce legislation directly requiring Web accessibility. As the Web becomes an increasingly important medium for education, employment, commerce, and government, the trend is towards requiring that this technology to be accessible to people with disabilities who constitute a significant part of every country's population.

The newly revised Section 508 of the Rehabilitation Act of 1973 now imposes strict accessibility requirements for electronic and information technology developed, maintained, procured, or used by federal agencies. As part of the Section 508 implementation effort, on April 2, 1999 Attorney General Janet Reno directed that all federal agencies conduct self-evaluations of their electronic and information technology and report by June 15, 1999 the extent to which their electronic and information technology is accessible to people with disabilities. This Section 508 compliance package includes a number of accessibility checklists for software, web page, information technology machines, (ITM) and information technology (IT) equipment as well as a Resource Guide.

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The definition of electronic and information technology under Section 508 includes: computers, hardware, software, web pages, facsimile machines, copiers, telephones and other equipment used for transmitting, receiving, using or storing information. It is expected that by February 7, 2000 the Architectural and Transportation Barriers Compliance Board (Access Board) will issue standards that will define what is meant by electronic and information technology and will set forth the technical and functional performance criteria for accessibility implementation.

The evolution of our disability rights laws have resulted in the understanding that access to information and communication is a civil right for people with disabilities. Some of the current federal statutes and their implementing regulations that protect this civil right include:

Section 504 of the Rehabilitation Act of 1973

Section 508 of the Rehabilitation Act of 1973

Rehabilitation Act Amendments of 1986

Technology-Related Assistance for Individuals with Disabilities Act of 1988 (Tech Act

Americans with Disabilities Act of 1990 (ADA)

Education of the Handicapped Act Amendments of 1990

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Education for All Handicapped Children Act of 1975 (EAHCA)

Handicapped Infants and Toddlers Act

Telecommunications Act of 1996

Section 121 of the U.S. Copyright Law

Individuals with Disabilities Education Act

ADA compliance should not be the only reason to make a web site fully accessible. While some baseline regulation can be effective in identifying a need for industry to accept certain practices, it can also have the effect of slowing technology innovation. Industry may become transfixed on addressing the requirements of compliance rather than "thinking out of the box". Solutions may be rushed to market that do not have the quality that would come from a well-engineered product. While there is little argument that the current state of accessibility of the Web is not adequate, industry has made substantial progress in this area. Application of the ADA in its current form, without taking into consideration the progress made to date, could result in companies doing just what is necessary to comply to the law instead of furthering the advancement of technology.

Many sites will focus on avoiding litigation instead of addressing the real need of disabled net citizens to have access to the valuable content they provide. The cost of potential litigation could prevent some web sites from coming online. The application of the ADA to the Internet should not occur until industry has been given an opportunity to address the issues of accessibility in a commercial and competitive environment. Incentives for early adopters of accessible technology might increase the speed at which this occurs.

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Before the ADA is applied to the Web, the state of current technology should be considered. A period of discussion and review should occur and appropriate amendments made to the existing ADA legislation that reflects the specific requirements of the Internet.

Why Should Industry Respond?

Industry must begin to understand why accessibility important to Web based companies. There are many sound business reasons why web site should care about accessibility. Providing accessible sites is a way to add tens of millions of potential customers, as well as their friends, their relatives, and their employers. According to Microsoft, studies show that each person with a disability has an average of five people who care about, them, and people tend to purchase software that works for the people they care about. I hope that we can all agree that an economic motive would work better rather than the threat of legal action based on a legislative initiative.

Many companies want a standard configuration that works for everyone, including staff members with disabilities. Accessible design also improves general usability. People feel more comfortable and are more likely to enjoy what they're doing when the software lets them work the way they choose. Screens that are easy to read and controls that are easy to manipulate make it easier for everyone. They are just more important for people with disabilities.

In fact, many things that we all have grown to appreciate started out specifically for people with disabilities. The ramps cut into curbs, easy-open containers, and even the bell and light that tell you when the elevator is arriving are just a few examples of the conveniences that we use every day.

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A Call To Action

The continued practice of the inaccessible design of Internet web sites, Internet Service Providers, browsers, and ecommerce sites must be addressed before it is too late to allow many individuals with disabilities to take advantage of the digital economy. Technology is not the issue. There are new and exciting developments in the fields of information appliances, real-time conference participation, audio streaming, telephone voice browsers, search engines, news groups, chat rooms and 3-D imaging. If the ubiquitous deployment and acceptance of web design and development solutions that support the issue of accessibility and are not embraced soon, the digital divide may become impossible to bridge.

The Americans with Disabilities Act, signed into law in 1990, requires that government provide individuals with disabilities access to public places. This has resulted in the construction of new ramps, wider doorways, new elevators and Braille signs where needed. All of these allow and even encourage everyone to participate in the services these facilities provide. The Internet should also encourage and invite everyone to participate in the growth and future of the Web.

We have found ways to design buildings so that people who use wheelchairs can navigate doorways and enter buildings that were once inaccessible to them. Using our collective intelligence and a willingness to work towards a common goal, there are ways to assist our citizens with disabilities in their use of online communications. The techniques and tools are readily available to help create a Web that is flexible enough to meet the needs and preferences of the broadest range of users of computers and telecommunications equipment for our citizens with disabilities. Many of these disabled Web users use are also prospective customers, employees, and participants in online communities.

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As the Internet becomes critically important to the daily lives of more people, as society creates greater opportunities to learn, to work, and to pursue leisure activities on the World Wide Web, we can't afford to exclude anyone with a desire to take advantage of this rich and rewarding experience. Especially when the means to include them is within our grasp.

Mr. **CANADY**. Thank you, Mr. Lucas.

Ms. Brewer.

STATEMENT OF JUDY BREWER, DIRECTOR, WEB ACCESSIBILITY INITIATIVE (WAI)
INTERNATIONAL PROGRAM OFFICE, WORLD WIDE WEB CONSORTIUM (W3C)

Ms. **BREWER**. Mr. Chairman, members of the committee, my name is Judy Brewer. I am director of the Web Accessibility Initiative International Program Office at the World Wide Web Consortium. Thank you for the opportunity to speak with you today about Web accessibility. A consensus regarding Web accessibility solutions has developed over the past several years among leaders in Web industry, user representatives and accessibility researchers.

The World Wide Web Consortium, or W3C, has released two Web accessibility guidelines to date. A third is close to being finalized. Web accessibility solutions are generally inexpensive and easy to implement. They represent essentially good Web design. Web accessibility solutions bring more people onto the Web, stimulating commerce. They support the full range of creative and innovative design that draws users to the Web. They do not alter the content of Web sites.

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To quote Tim Berners-Lee, inventor of the Web and Director of the W3C, "The Web excels as a medium in which accessibility can be addressed. On the Web a computer can automatically and cost effectively represent the same information in a variety of ways according to the needs of users. Within the neutral forum of W3C, industry leaders, disability representatives and others have convened to develop accessibility solutions that are reasonable, practical and effective. Web sites designed using very simple tools naturally tend to be accessible. Even sophisticated sites designed with major effort can be kept accessible with only a small proportion of that effort."

W3C is the international vendor neutral body that develops technologies for the Web. It has nearly 400 member organizations, primarily Web industry leaders, that come together to keep the Web an interoperable and universal information medium. It has four domains, Architecture, User Interface, Technology and Society and the Web Accessibility Initiative.

The Web is information, it is commerce, education, employment opportunity and entertainment. Part of the work of W3C is to enable all users to benefit from this information medium. Companies that forget to design for accessibility inadvertently throw away part of their market plans but they also fail to prepare for the future. By the year 2001, less than 50 percent of Web access will be from traditional desktop computers. Web access from mobile phones, palm-top devices, the living room TV and the dashboard of the car all require many of the same solutions as does accessibility. Accessibility fits well within the overall context of Web development. In order to be able to use any information medium, we need common conventions on how to communicate with each other.

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If one were to frame every comment with an unintelligible prefix, it would distract from whatever substance one might say. Likewise, if this testimony were wholly made up of images and no text, it would be difficult for many to understand and one would justly feel that the business of this hearing had not been well-served. Yet that is the current state of the Web for many users today. The Web Content Accessibility Guidelines are prioritized by importance so that designers can focus on items that are most essential for

accessibility and obtain the highest return on investment.

Since much of Web accessibility is a matter of good design, the cost for accessibility on many sites is negligible. Simple sites may require only a few words of alternative text or images. On complex commercial sites, content is frequently generated by scripts from a database which can be set up to generate accessible information in place of inaccessible information. On sites with extensive multimedia, captioning of audio and description of video involves minimal production cost and server space compared to production of the multimedia itself. Redesigns for accessibility of Web sites can be addressed in an organization's periodic site redesigns, absorbing the cost of retrofitting and would not require tearing down many pages on the Web, as I am sure you may hear in another panel this afternoon.

Myths persist about what is required by Web accessibility. For instance, that every Web page should have a text only version and that this is burdensome to Web site designers. Not only is this not true, the Web Content Accessibility Guidelines strongly discourage the use of text-only pages for accessibility, but were it a recommendation it would be trivial to accomplish with many of today's authoring tools which generate customized presentations of content from the same database.

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There are several reasons that companies choose to get involved in Web accessibility. The demographics of the disability marketplace and the carryover benefits to other users from accessible design do contribute to interest in Web accessibility, but in an industry with intense competition these factors can sometimes be insufficient to lead to a critical mass of involvement or an implementation of Web accessibility.

The presence of several regulatory processes in the background has appeared to stimulate parties to come to the table who have not previously been involved in accessibility, and enabled other individuals already working on accessibility within companies to leverage more attention and implementation commitments from their colleagues. We need continued encouragement in a variety of forums for involvement and implementation of Web accessibility. We do not need myths.

You may hear fears that Web accessibility will bring the Internet industry to a screeching halt. I would note that the Department of Justice opinion in September 1996 already stated that the ADA applies to the Web and the past 3 years hardly stand out as struggling years for the Internet industry. Not one of the several hundred Web industry members of W3C has come up to me over the past 2 years and said that accessibility is ruining their business. Instead they come up and say our work is exemplary and that they are using it to improve and innovate their products in ways we haven't even considered. In an area where the pace of technology is so very rapid, lost ground is not easily made up. Let's not do anything to derail this progress. Thank you again for the opportunity to speak with you today.

[The prepared statement of Ms. Brewer follows:]

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PREPARED STATEMENT OF JUDY BREWER, DIRECTOR, WEB ACCESSIBILITY INITIATIVE (WAI) INTERNATIONAL PROGRAM OFFICE, WORLD WIDE WEB CONSORTIUM (W3C)

Mr. Chairman, members of the Committee, my name is Judy Brewer.[\(see footnote 1\)](#) I am director of the Web Accessibility Initiative (WAI)[\(see footnote 2\)](#) International Program Office, at the World Wide Web Consortium (W3C). Thank you for the opportunity to speak to you today on the issue of Web accessibility.

Overview

A consensus regarding Web accessibility solutions has developed over the past several years among leaders in Web industry, user representatives, and accessibility researchers. The World Wide Web Consortium (W3C) has released two Web accessibility guidelines to date; a third is in an implementation testing period and close to being finalized.

Web accessibility solutions are generally inexpensive and easy to implement. They represent, essentially, good Web design. They are consistent with the evolving nature of the Web and reinforce the Web's ability to work across a multitude of different kinds of devices and purposes.

Web accessibility solutions bring more people onto the Web, stimulating commerce. They support the full range of creative and innovative design that draws users to the Web. There is a strong business case for accessibility, based on disability demographics; and a strong business case based on the benefits for all users that derive from accessibility solutions.

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To quote Tim Berners-Lee, inventor of the Web and director of the W3C, "The Web excels as a medium in which accessibility can be addressed. On the Web, a computer can automatically and cost-effectively represent the same information in a variety of ways according to the needs of users. Within the neutral forum of W3C, industry leaders, disability representatives, and others convened to develop accessibility solutions that are reasonable, practical, and effective. Web sites designed using very simple tools naturally tend to be accessible. Even sophisticated sites, designed with major effort, can be kept accessible with only a small proportion of that effort."

There is more work to be done to make the Web more accessible; but we already have a solid foundation of feasible solutions, with broad industry and disability community support.

The World Wide Web Consortium and Web Accessibility

W3C is the international vendor-neutral consortium that develops technologies for the Web. It has nearly 400 Member organizations, primarily Web industry leaders that come together to keep the Web an interoperable and universal information medium.

The W3C has four domains: Web Architecture, User Interface, Technology and Society, and the Web Accessibility Initiative (WAI). WAI addresses accessibility on the level of core Web technologies, guidelines development, tools development, education and outreach, and monitoring of research and development. WAI receives support not only from general W3C Member funds but from the US government, European Commission, Government of Canada, and several industry supporters, including IBM/Lotus, Microsoft, and Bell Atlantic.

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The Role of the Web in Current Society

The Web is information; it is commerce, education, employment opportunity, and entertainment. It has more resources than the best research library in the world, and more jobs posted than any newspaper. It has resources that foster civic participation and community-building. The Web has rapidly assumed an enormous role in society. In the U.S., it is one of the driving engines of our economy, and has become our daily workplace. The W3C's Recommendations seek to enable all users to benefit from this information medium.

To be relevant in this economy—in today's information society—one needs good access to the Web. People with disabilities, already underemployed and unemployed at some of the highest rates in society, are a user group that needs access to this medium.

At the same time, our economy cannot afford the absence of their participation. With close to 20% of the US population having disabilities, and many of those disabilities affecting access to information—including visual, hearing, physical, and cognitive disabilities, as well as the changing abilities of seniors—companies that forget to design for accessibility inadvertently throw away part of their marketplace.

Companies that fail to design for accessibility also fail to prepare for the future. By 2001, less than 50% of Web access will be from traditional desk-top computers. We are seeing an explosion of access from mobile phones, palm-top devices, the living room TV, and the dashboard of the car—all devices which require many of the same solutions as does accessibility.

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An Overview of Web Accessibility Issues

I provide a brief overview here of accessibility issues for people with different kinds of disabilities. Implementation of W3C guidelines provides comprehensive solutions to all of these issues.

People with visual disabilities often use speech output, braille output, or screen magnification to access computers. On the Web, graphics and video that are labeled or described and tables and frames that are properly encoded enable users to access Web content regardless of visual disability. Audio that is captioned similarly becomes accessible to people who are deaf and hard of hearing.

Software that has keyboard alternatives for mouse-driven commands can be used by people with physical disabilities who might have difficulty using a mouse, as well as by people with visual disabilities. A consistent navigation structure within Web sites can substantially facilitate access for users with visual, cognitive, or physical disabilities.

Complementary Web Accessibility Solutions

Some solutions apply at the level of the information on a Web page, what we call "Web content." For instance, alternative text for images is already required in standard code for Web content. Others solutions apply at the level of Web browsers (such as Internet Explorer, Netscape Navigator, or Opera) for instance by providing keyboard support for mouse commands and easily-locatable directions on how to use accessibility features that are built into browsers.

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Yet other solutions apply at the level of the core Web technologies—the code used in Web pages and browsers. The Web Accessibility Initiative reviews scores of technologies under development at W3C starting from the design stage, to ensure that they provide the support needed for accessibility. W3C has therefore provided a firm technological foundation for accessibility, for instance by ensuring that multimedia presentation languages can encode captions for audio, or that standard micropayment links used for E-Commerce will notify the user of obligated payments even when the user cannot see the screen.

Additional solutions involve improving the way assistive technologies such as screen readers, which produce speech or braille output from Web pages, work with browsers.

People often ask whether there is a magic bullet for Web accessibility—something that every one of the millions of people with different kinds of disabilities could buy, be given, obtain as shareware or obtain via some gateway on the Web—so that they could access everything on the Web without Web designers ever having to think about accessibility. Not only does this unlikely scenario have a much smaller chance of success than the complementary and pragmatic solutions described above, but it would mean that the benefits of accessible design for the Web as a whole would be lost.

Accessibility and the Evolution of Web Technologies

Accessibility fits well within the overall context of Web development. In order to be able to use an information medium, we need common conventions on how to communicate with each other. For the Web, at the most fundamental level one needs three things: a common way to request and send information over the internet—HTTP; a common way to put together documents so that we can all read them—HTML; and a common way of knowing where documents are—URL's.

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Consider what happens when people talk together about business, education, or family or community matters. Without common conventions for talking to each other, communication would come to a halt. If one were to frame every comment with an unintelligible prefix, it would distract from whatever substance one might say. Likewise, if this testimony were wholly made up of images and no text, it would be difficult for many to understand, and one would justly feel that the business of this hearing had not been well-served. Yet that is the current state of the Web for many users today.

When communication is impaired in a business environment by failure to use common conventions, commerce is compromised. If communication stops even for only a group of participants in a business environment, two things happen: those participants are excluded from commerce; and the commercial sector loses the benefit of their participation.

The Web started with just three common conventions: HTTP, HTML, and URL's. As the Web has evolved, it has come to include more and more complex ways to control the appearance and encode the information in Web sites. When designers use Web technologies in non-standard ways, it reduces the potential for information to be understood by other parties, and undermines the role of the Web as a universal information medium.

Along with the evolution of more complex Web technologies, new methods of user access are also evolving. Palm-top devices, mobile phones, TV access to the Web—all these Web devices demand flexibility in how information can be accessed. We call this "device independence" of information. In the Web economy of the very near future, Web information will need to be available via any kind of device. Accessibility, because it requires flexibility of information presentation, provides one of the best paths to device-independence.

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In order to maximize the potential of the Web's future for our economy and society, accessibility is therefore an inherent part of the common conventions that we use on the Web.

Three Web Accessibility Guidelines

W3C's Web accessibility guidelines describe the common conventions that enable Web accessibility. There are three guidelines: for Web sites; for the software that Web site designers use when they build Web

sites, which we call "authoring tools"; and for browsers.

The Web Content Accessibility Guidelines, released in May 1999, explain how to make Web sites accessible enough that people with disabilities can use them with today's technologies. These guidelines were released with the support of industry leaders, as well as support from disability organizations internationally, access research organizations, and governments interested in ensuring that information on the Web is accessible.

The Authoring Tool Accessibility Guidelines, released in February 2000, provide guidance to developers of software used to build Web sites, so that software will automatically ensure accessibility of much of the code used on Web sites, and so it can better repair sites that aren't accessible. These guidelines were released also with support from industry leaders and from many organizations internationally.

The User Agent Accessibility Guidelines explain how to make browsers and multimedia players more accessible, and how to make them work better with some of the assistive technology that people with disabilities use. These guidelines entered W3C's Candidate Recommendation status in January, 2000, and are expected to go to the nearly 400 Members of the W3C for final review in February or March of 2000.

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Implementations of either of the Web software guidelines (the latter two guidelines) make it easier for Web designers to implement the Web Content Accessibility Guidelines. For instance, as browsers develop more capabilities to support accessibility, Web site designers need to do less to make their pages accessible. Likewise, as authoring tools automate more of the production of accessible Web content, site designers will be able to produce accessible Web sites with little effort.

Costs Involved in Implementing Web Accessibility

The Web Content Accessibility Guidelines are prioritized by importance, so that developers can focus on items that are most essential for accessibility to obtain the highest return on investment.

Since much of Web accessibility is a matter of good design, the cost for accessibility on many sites is negligible. Small and simple sites may require only a few words of alternative text for images—which is required for standard code in any case by HTML 4.0, released back in December 1997. On more complex commercial sites, content is frequently generated by scripts from a database, and these sites can be set up to generate accessible information instead of inaccessible information. On sites that have extensive multi-media, captioning of audio and description of video involves minimal production cost compared to production of the multimedia itself, and the size of the captions or descriptions is negligible compared to the size of the audio or video files themselves. Re-designs for accessibility of Web sites can typically be addressed within an organization's periodic site designs, absorbing the cost of retrofitting.

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Myths persist about what is required by Web accessibility—for instance, that every Web page should have a text-only version of the page, and that this is burdensome to Web sites designers. Not only is this not true—the Web Content Accessibility Guidelines strongly discourage the use of text-only pages for accessibility, for a number of reasons—but were it in fact a recommendation, it would be trivial to accomplish with many of today's authoring tools which can generate customized presentations of content from the same database.

Progress and Involvement to Date

We have seen strong interest and appreciation for WAI's work from a large number of companies. Involvement and implementation have followed from a smaller number of organizations.

The single most important need right now is for implementations of the Authoring Tool Accessibility Guidelines. As of the recent release of the Authoring Tool Accessibility Guidelines, there were public commitments from several authoring tool developers to make their products support the guidelines, and another half-dozen developers have indicated confidentially that they are already working on implementations of these guidelines. But there are hundreds of different tools used to generate content for the Web. If a majority of these tools facilitated the creation of accessible content as described by the Authoring Tool Accessibility Guidelines, there would very quickly be an enormous increase in the amount of accessible content on the Web.

There are several reasons that companies choose to get involved in Web accessibility. Two factors that are frequently mentioned include the demographics of the disability marketplace, and the carry-over benefits from accessible design, such as with the greater server efficiency and maintainability of sites which use Cascading Style Sheets (CSS) to control the appearance of sites.

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But in an industry with intense competition, for many companies these factors can be insufficient to lead to a critical mass of involvement in or implementation of Web accessibility. The presence of several regulatory processes in the background appears to have stimulated parties to come to the table who have not previously been involved in accessibility, and enabled other parties already working on accessibility within companies to leverage more attention and implementation commitments from product divisions that they work with.

Conclusion

Encouragement of involvement and implementation of Web accessibility solutions would contribute to progress on Web accessibility. In an area where the pace of technology is so rapid, lost ground is not easily made up.

This statement has described the nature of Web accessibility issues; approaches to developing accessibility solutions; and the status of involvement and implementation by industry. We need a continuation of the good work of the broad forum of organizations involved in developing Web solutions, so that the Web can move forward as a technology that serves all.

Thank you again for the opportunity to speak with you today.

Mr. **CANADY**. Thank you, Ms. Brewer.

Ms. Conway.

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STATEMENT OF SUSYN CONWAY, RESTON, VIRGINIA

Ms. **CONWAY**. Mr. Chairman, members of the committee, my name is Susyn Conway. I am an independent consultant for Internet marketing, research, design and production. I am also here as a representative of the U.S. Internet Industry Association.

The World Wide Web has just entered hypergrowth stage, both attracting and challenging ordinary people in their millions on a daily basis. It is vast, complex, dynamic but most importantly it is still daunting to those of us who have been along for the whole ride. It is being wired and strung by people who want to deliver the latest technologies to people who really don't know how to use them. Just trying to get on to the Internet is a source of constant frustration to many home users trapped behind an outdated infrastructure that was deployed to carry telephone conversations. Only a fraction of the Internet is accessible now, even to people without disabilities. The number of pages and Web sites is multiplying exponentially, far outpacing the ability of any existing tools to catalog or index its contents.

Last July, NEC research reported that the most comprehensive search engine covered only 16 percent of the Internet. Taken all together, the top 11 search engines indexed only 42 percent. An August issue of Forbes Magazine underscored the exasperating experience of trying to search for something on the Web, then estimated at 400 million Web pages. This is expected to quadruple by 2002. Seventeen percent of sites in a recent study were deemed to be "bad" in that they could not be accessed at all. The high performance Internet is several years away and will require an estimated \$1.5 trillion in infrastructure spending by 2003 to make it happen.

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New regulations imposed on companies engaged in developing this channel into a more reliable, better defined and manageable resource able to serve every segment of the society will only slow down the achievement of these goals. We have only begun to define in general terms how the Internet can serve a mainstream audience, much less the needs of handicapped Americans. Everybody involved in the Internet right now is at the low end of the learning curve. Tens of millions of dollars are being wasted on failed designs and Web sites that do not work as intended.

According to Forrester Research, sites drive away up to 40 percent of their repeat traffic by not making it easy for visitors to find the information they need. Even users without any disability find much of the Internet confusing to navigate and difficult to adapt for their individual needs. Every single Web site is unique. There are few common denominators that exist today. Every site uses different features, tools, navigation elements and functionality. Software changes on an almost daily basis and the adoption of better technology often lags because of the high cost involved in these constant changes.

The Internet is not a physical structure. It is not a facility for which some general disability-serving standards might be conceived and applied across the board. It is an assortment of sometimes conflicting technologies and business models in the trial-and-error mode. More serious consideration might be given as to the suitability of the ADA for the digital environment. In my opinion, compliance would most likely be very low, enforcement difficult and time-consuming. The industry is already moving toward making the Internet more accessible to Americans with disabilities, producing guidelines, tools and encouraging their adoption.

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The W3C was founded to lead the World Wide Web to its full potential by developing common protocols to promote its evolution and ensure its interoperability. They are actively involved in conducting research, education and outreach.

The Center for Applied Special Technology was founded to expand opportunities for the disabled through innovative technology. Their Web-based program called Bobby is already helping designers make their sites accessible. I understand that there is still not much consensus regarding what accessibility really means or requires. It appears the industry is already moving independently without the impetus of Federal laws to

address these issues. It would seem to me that Congress could more positively support the development of the Internet to serve all of its constituents by funding awareness programs which educate the marketplace on the buying power of a disabled community of some 50 million consumers. Funding might also be directed at establishing a special online community for disabled Americans and incentivizing private companies to populate it with their content, products and services.

Thank you.

[The prepared statement of Ms. Conway follows:]

PREPARED STATEMENT OF SUSYN CONWAY, RESTON, VA

Mr. Chairman, and members of the committee, good afternoon.

My name is Susyn Conway, and I am an independent consultant for Internet marketing, research, design and production. I am also here as a representative of the US Internet Industry Association.

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The World Wide Web has entered hypergrowth stage, both attracting and challenging "ordinary people" in their millions on a daily basis. It's vast, complex, dynamic—but most importantly—daunting, even to those of us who have been along for the whole ride.

It's being wired and strung by people who want to deliver the very latest technologies to people who don't really know how to use them. Just trying to get "on" to the Internet is a source of constant frustration now to many home users trapped behind an out-dated infrastructure that was deployed to carry telephone conversations.

I) Only a fraction of the Internet is accessible now, even to people without disabilities.

The number of pages and websites is multiplying exponentially; it has far outpaced the ability of any existing tools to catalog or index its contents. Last July NEC Research reported that the most comprehensive search engine of the time covered only 16% of the Internet. Taken all together, the top 11 search engines indexed only 42%.

An article in the August 23, 1999 issue of Forbes Magazine, which underscored the "exasperating experience of trying to search for something on the Web" estimated an existing 400 million Web pages, expected to quadruple by 2002. A study published in January indicates the Web now contains over a billion unique documents—and 4.5 million sites.

17% of these sites were deemed to be "bad"—in that a communications or some other problem prevented access over a 10-day period. The dream of a "high performance Internet" is several years away and will require an estimated \$1.5 trillion in infrastructure spending by 2003 to make it happen.

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New regulations imposed on companies engaged in developing this channel into a more reliable, better defined and manageable resource—able to best serve every segment of our society—will only serve to slow down the achievement of these goals.

II) We have only begun to define in general terms how the Internet can serve a mainstream audience now

coming online, much less the needs of handicapped Americans.

Everybody involved in the Internet right now, those trying to establish a new medium for their business, and those trying to utilize it—is at the low end of the learning curve.

It's an investment-intensive exercise for any company, just discovering what is required to make websites intuitive and easy to use for their particular audience or market segments. Millions, tens of millions of dollars are being wasted on failed designs and websites that do NOT work as intended.

According to Forrester Research, sites drive away up to 40% of repeat traffic by not making it easy for visitors to find the information they need. Even users without any disability find much of the Internet confusing to navigate and difficult to adapt for their individual needs.

Not every website publisher or business has the resources to conduct the continual performance monitoring that is required to improve usage value—to locate and eliminate interminable page downloads, oversized images, cluttered pages, broken links, coding errors, outdated content and other problems.

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Every single website is unique. There are few common denominators that exist today. Every site uses different features, tools, navigation elements and functionality. Software changes almost daily, and distribution or adoption of new or better technology often lags due to the high costs involved in making constant changes.

The Internet is not a physical structure, a "facility" for which some general disability-serving standards might be conceivable and applicable across the board—it is assortment of sometimes conflicting technologies, and business models in the trial-and-error mode.

More serious consideration should be given as to the suitability of the ADA for the digital environment. Compliance would most likely be very low, enforcement difficult and time-consuming.

III) The industry is already moving toward making the Internet more accessible to Americans with disabilities, producing guidelines and tools, and encouraging their adoption.

The World Wide Web Consortium (W3C) (<http://www.w3.org>) is an international organization founded in 1994 to "lead the World Wide Web to its full potential by developing common protocols to promote its evolution and ensure its interoperability."

Their commitment to lead the Web to its full potential includes promoting a high degree of usability for people with disabilities, which they are actively pursuing through ensuring that core Web technologies support accessibility, developing guidelines and tools, conducting research, education and outreach.

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On February 3, W3C announced the release of Authoring Tool Accessibility Guidelines 1.0, to provide guidance to developers on how to design accessible authoring tools that produce accessible content. This follows the release last May of the Web Content Accessibility Guidelines.

Further, the Center for Applied Special Technology (CAST) (<http://www.cast.org>), a non-profit organization founded in 1984 with the mission to expand opportunities for the disabled through innovative technology has developed "Bobby", a Web-based program to help designers make their sites accessible.

CAST promotes the adoption of Bobby among corporations, government agencies, educational institutions and other non-profits.

Currently, however, there is still not much consensus regarding what "accessibility" really means or requires. The industry is already moving as fast as it can—independently, without the impetus of any federal laws—to address these issues. The situation would be relatively easy to address from a programming standpoint, when there IS more consensus and we can begin to add true functionality for Americans with disabilities.

It would seem that Congress could more positively support development of the Internet to serve ALL of its constituents by funding awareness programs which educate the marketplace on the buying power of a disabled community of some 50 million consumers.

Funding might also be directed at establishing a special online community for disabled Americans, and incentivizing private companies to populate it with their content, products and services.

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Mr. **CANADY**. Thank you, Ms. Conway. Mr. Hayes has joined us. Welcome. Mr. Hayes, you may proceed.

STATEMENT OF DENNIS HAYES, CHAIRMAN, U.S. INTERNET ASSOCIATION

Mr. **HAYES**. Thank you very much.

Thank you, Chairman Canady and the members of the committee. I appreciate your having me here today. I had a little trouble getting out from Atlanta on time this morning. I appreciate the opportunity to be here with you.

Rather than read off a bunch of things, I have filed a written statement with you, I would like to just talk about it just a minute. First of all, my name is Dennis Hayes. I am the chairman of the U.S. Internet Industry Association, which is an association that was founded about 6 years ago to bring together various parts of the Internet infrastructure and companies involved in different aspects, largely to create a voice in Washington and to increase the awareness among the members of the association that the political arena was going to be important for the Internet players. We have been successful in working with a number of the Members on a number of issues and am certainly happy to be here today.

The issue about the application of ADA to the Internet I think is a very important issue to talk about. First of all, the Internet is an evolving media, it is constantly changing. Constant innovation is under way. As the deployment of broad band occurs over the next few years, the content is going to change more drastically than it already has from a text based content to a multimedia content, and the broad band will certainly enhance that significantly. Anything that is changing that dynamically is hard to deal with in terms of a set of fixed rules. And what would those rules need to be a couple of years from now, 5 years from now as broad band becomes widely deployed, 10 years from now, is difficult to say, because I think everyone can agree, that yes, access is a good thing to have, but what is it going to be.

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That leads to the second point I want to bring up, and, that is that while some progress has been made in working on some standards for people that are visually impaired, there are other aspects of disability that need to be looked into related to the Internet. There is the hearing impaired. And also please keep in mind

that the visually impaired and the totally blind have different issues to deal with as well but also the cognitively impaired.

How can accessibility be dealt with with the same set of rules for everyone? It may not be possible to do it with the same set of rules. In the same way that you can say walking up a set of steps, you need to have a ramp with a certain angle with a technical specification, that may be difficult to do for everyone on the Internet. But I think that there has been progress made in the industry already through the W3C which was discussed.

The third point that I would like to make is that the technical standards, such as those promulgated by the W3C, create an opportunity for us to focus on those technical standards, educate people about them, educate the e-commerce community about the importance of being able to reach their market and how much of their market they are disenfranchising by not applying those standards, and then as issues come up, take them through a standards process so that there is a discussion about them and they can become global standards and not just the local U.S. requirement.

I think the key point here is that progress made through standards bodies works very differently than progress made through courts. I think that education is much more the priority at this point than litigation should be. So if we could ask perhaps for your help in what kind of legislation would allow us to see that the funding is in place to take care of the educational side and the research side so that progress can be made that will benefit everyone.

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I think that I can kind of sum that up by saying that education is much more preferred than litigation would be. It would take years to work out in the courts how the ADA would apply. I think in those same years, the standards can proceed much more rapidly and keep things focused on the development of an important global technology where our country is the leader in that technology and where emphasis on that leadership needs to go into now educating, deploying and making it usable and accessible to everyone and making sure that the people who are taking courses on Web mastering and setting up Web sites know what those standards are, how they are created and how to apply them in their work.

Thank you very much.

[The prepared statement of Mr. Hayes follows:]

PREPARED STATEMENT OF DENNIS HAYES, CHAIRMAN, U.S. INTERNET ASSOCIATION

Chairman Canady, and members of the Committee, my name is Dennis Hayes, and I am the chairman of the US Internet Industry Association, the primary North American trade association for Internet commerce, content and connectivity.

I am also one of the individuals who made today's Internet possible.

In 1977, I sat at my kitchen table in Atlanta, GA, and developed the core technology for the Hayes asynchronous modem, a device that enabled computers to communicate with one another across common telephone lines. This device for the first time put computer communications within the reach of ordinary families. And it created the means for online services to develop—from the early services like CompuServe, to the bulletin board systems of the early Nineties, to the Internet used by 120 million Americans today.

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Because I helped to make the Internet possible, it is especially ironic that I am not able to use much of its best content. A congenital, degenerative vision condition has reduced my eyesight over the past few years. I haven't lost my sight, but do require additional magnification and other assistance to see well. And on the Internet, that is a significant problem—many of the most important destinations are so poorly designed that they are difficult for the even the average user to navigate, much less a vision-impaired user.

What this means is that for 50 million disabled Americans, the Internet is either totally or partially inaccessible. This is a source of great frustration for disabled people, since they are among the most likely to benefit from the products and services offered on the Internet.

Some in the disabled community, in frustration, are attempting to use the Americans With Disabilities Act to bring about change. Nine visually-impaired people in New England have filed suit against America Online, invoking the ADA. Other suits are contemplated, and a Federal mandate has already required accessibility on all government web sites.

But the application of the ADA to the Internet in some kind of "one-size-fits-all" mandate is not the right approach, for three reasons:

1. The Internet is an evolving media, not a physical structure. And it is a dynamic media that is changing at a rate that is not well suited to the regulatory style of the last century. If we apply regulations based on the technologies and possibilities of today, we may in fact limit the development of better access tools simply because we couldn't conceive of them when the regulation was drafted.

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2. The variety of disabilities is too broad to address in a single piece of legislation. Attempting to define how accessibility should work for the visually-impaired will do little for the hearing-impaired, or the physically handicapped, or the cognitively challenged. Meeting the needs of some at the expense of others may be worse than no change at all.

3. There are serious constitutional implications, as well as international policy problems. It is all well and good to mandate the behavior of government services, but how does this Congress intend to tell individuals how they must design and present personal web pages? At what point would such legislation cross the First Amendment? And since the United States does not own the Internet, how would we propose to regulate the rest of the world?

The Internet industry has already established a commitment to accessibility. The World Wide Web Consortium has, over the past two years, established the standards both for more accessible web sites and for the editing tools used to create them. Other efforts have enhanced the capabilities of browsers, while others yet have created specialized tools to make content of all forms more accessible.

We have accomplished these things through an open dialogue with advocates of the disabled. The first step in this dialogue has been to gain consensus on both sides as to what our expectations will be, and how we will define "accessible."

The answer to the problem of accessibility is not regulation, but rather education and participation. To that end, the support of the Congress will be essential. The Clinton administration has pledged as much as \$2 billion in tax incentives to bridge the "digital divide." I would suggest that a portion of those funds be used as well to bridge the digital doorstep—the barrier that prevents disabled Americans from sharing in the benefits of the Internet. I would ask that additional funds be allocated for research that will create new generations of

accessibility tools. That this government, and this Congress, take a leadership role in making accessibility an issue that is known and understood.

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I will not begin to suggest that we have done all that we can with respect to access to the Internet. But we have made a commitment to the goal of accessibility. We have made steady progress toward that goal.

It may well be that the final goal will require mandated guidelines. That a time may come when only the threat of court action will stimulate the changes we desire. But that time is not now, and the Americans With Disabilities Act is not the appropriate set of guidelines.

Thank you.

Mr. **CANADY**. Thank you, Mr. Hayes. Mr. Watt.

Mr. **WATT**. Thank you, Mr. Chairman. I confess to being mesmerized by all of the people testifying. This is an infinitely interesting and important subject and I find myself trying to find some parallel, some analogous situations that allow me to relate to it, so I am kind of struggling here. But we will come back to that a little bit later.

First of all, I guess I have heard a lot of people say this is going to be inordinately difficult and then I have heard some people say what I thought was at some baseline level, this is not as difficult as we are making it out to be. You all are the technical panel as opposed to the legal panel, which will be the next panel, so I want to kind of focus on the technical part of this, which I am not very good at. I am in that 65 percent or 55 percent that can't find their way even without a disability. I have got my own independent disability in that regard.

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Ms. Brewer, you have done a lot of work with this, and I understand that you have the ability to kind of walk us through or you have a video that may be able to kind of walk us through how much difference there is technologically and how Internet sites can be made accessible at least to people who are blind. I am wondering if we might take the minute and a half, Mr. Chairman, to at least see that technical part of what this witness has so that we will have a better understanding of what the technicalities of making a conversion of an Internet site are.

Mr. **CANADY**. Without objection, please proceed.

Ms. **BREWER**. Let there be power. Let's see what we have got. This will need a moment to warm up. If I may, just also to——

Mr. **WATT**. You can talk to us while it is warming up about whether this is in fact as difficult as some of the other witnesses may have implied that it is. What is your assessment of difficulty on a scale from 1 to 10?

Ms. **BREWER**. Well, I think that a few questions have been raised that I wanted to comment on with regard to Mr. Hayes' concern that with the number of different types of disabilities, there might not be comprehensive solutions. In fact, that is exactly what we have done with our guidelines, Web Content Accessibility Guidelines, is to come up with a comprehensive solution that is prioritized and proportional to the scale of the site and so forth.

With regard to Ms. Conway's concern about the navigation difficulties on the Web, actually I might refer you to some of the parts of our guidelines which have some very good guidance on how businesses could make their sites more navigable by everybody, including people with disabilities.

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I am going to just briefly show a site that is not accessible. My apologies to people in the room who can't see this right now. I actually want to give just a visual presentation for a moment and then I am going to voice it. You are seeing a Web site that has got—and I said I wasn't going to describe it first. Let me do one thing first. Take a look at that site and then let's go back for a moment and take a look at this site.

Mr. **WATT**. That is a different site?

Ms. **BREWER**. That is a different site. The difference actually is that the first one is not usable by a lot of people and the second one is but it conveys the same information, has the same content and substance on it and so forth. The first one—this screen is actually very small so let me just mention a few things on it. It has a title up at the top that is called Your Health, which happens to be a picture of those words. Then it has a bunch of articles listed which all say "click here" at the end of them. Then it has on the left what we call a frame. It actually is something that helps navigation. You can go in and click some of these buttons.

If somebody were coming at this site with a mobile phone or a screen reader that somebody with a visual disability would use, they would either see the text or hear the following words, frame1.htm, frame2.htm. That is it. It doesn't really help you understand what is there. If you were to just say, I'm on a road, I'm trying to get off to an exit but I'm going to guess what this exit is because the sign isn't telling me, and you picked frame1, it would tell you, usemapnav.gif, A12d.gif. It is not really very helpful. You follow that more, you just get some URLs.

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If you were instead to look at the accessible site, you would now have the title of the site which tells you Your Health. It doesn't take up—it actually takes up less space than that image did and you could use a style sheet to still have the image look just as nice. The first frame would now say "frame, table of contents" that tells me where to go, or "frame home page." If you follow the table of contents frame link, it then tells us, Link, Navigation Bar, Advertising Information, Partner Links and Be Good, Donate Blood. You go back, just to look at that accessible site again, you see there is now a list of articles under where it says Latest News, Coping With Asthma's Relentless Attacks, that is now the link name instead of just "click here." So if somebody is navigating in a way that they could just pick up the links, which is a very fast way to navigate, they will actually know what the article is. It takes no more space on the site, it takes no more time to code the site that way.

This is actually a site we took off the Web. It is an okay design. I don't think it looks particularly bad at all in terms of design. You can have regular looking sites that are fully accessible that take no more time to build than others.

With the chairman's permission, I also wanted to just offer what we call quick tips cards to the members of the subcommittee. These are really the essence of how to start thinking about accessibility. Two sides of a business card, about eight or nine different points, they say things like, put a title on frames, put some alt text on images. This is I think not going to create major problems for industry. For a small site they can start with something like this.

Thank you.

Mr. **WATT**. Mr. Chairman, I think my time is up. I have some other questions but I will yield back.

Mr. **CANADY**. Without objection, the gentleman will have 3 additional minutes.

Mr. **WATT**. Let me just pursue. Ms. Conway and Mr. Hayes, I guess, and Mr. Lucas, also, to some extent were suggesting that we should simply allow the economic forces to solve this problem without using the benefit of law. Without assessing or trying to evaluate whether I favor that argument or not, what progress are economic forces having or what progress is economic forces resulting in based on your experience to date?

Ms. **BREWER**. Congressman Watt, I would say that we are seeing very good interest and appreciation from industry for this work. What I think is needed to change the accessibility level of the Web right now is more involvement and implementation. The economic arguments I think get us part way there. I would note that in the past with other information technologies, such as operating system accessibility, or applications or software other software accessibility, it really I think took some regulatory processes happening in some settings to stimulate enough of the involvement and implementation that would make a critical difference.

The Web, as many of the presenters today have said, is moving very rapidly. We have to, I think in order to keep this an accessible medium need to keep moving rapidly. It is a hard question to answer but I am not convinced that we can get there all the way without some kind of regulatory process.

Mr. **WATT**. Mr. Lucas, I hope I didn't misstate your bottom line, that the economics will drive us there. But if in fact there is a national public policy basis, how do you justify waiting on economics to get us there as opposed to at least having some standards in place that define what that public policy objective is and the steps by which you get to it?

Mr. **CANADY**. The gentleman's additional time has expired. The gentleman will have 2 additional-additional minutes.

Mr. **WATT**. If you would just allow him to answer that one question.

Mr. **LUCAS**. I think you are absolutely right, that there needs to be, and in my formal written comments I did talk about what I think is needed in terms of some baseline legislation. Having said that, what I think the economic issues are, if I can make an analogy between this situation and, say, the Department of Consumer Protection. The Department of Consumer Protection does a lot of work in going out and educating individuals and companies about safety issues with their products. And I think the same thing has to happen here, is we need a focused effort on educating companies about the economic benefit of making their Web sites accessible. As a quick example, we all know about how everybody says that the fabric of the Web is based on advertising, the economic fabric of the Web.

Mr. **WATT**. That still leaves it to that individual whether they comply with the public policy objective or don't comply with it, which leaves you with people of good will deciding that they are going to do it, people who have more money may be deciding they are going to do it, but it gives you a hodgepodge of actual compliance, doesn't it? Mr. Hayes wants to get involved in this, I think.

Mr. **HAYES**. I would like to just mention that when something is this simple as I think——

Mr. **WATT**. I am trying to get an answer to my question first. I am going to give you an opportunity to address the card.

Mr. **HAYES**. I am heading there. I am trying to. The education of the companies that he is talking about is one aspect. But also in the schools as people are attending vocational schools and colleges and even high school are learning how to do things on the Web, how to set up Web sites and things like that, if those classes included just this basic kind of information, awareness that these type of standards exist and just the basic facts of what they are, being part of the classes would go a long way over a very few years at probably a lot less cost and effort than the court battles would be to get the change going and get it going quickly. I think that is much more preferred as an approach.

Mr. **WATT**. Thank you, Mr. Chairman. My time has expired. I appreciate your indulgence.

Mr. **CANADY**. Mr. Jenkins.

Mr. **JENKINS**. Mr. Chairman, I don't have any questions at this time.

Mr. **CANADY**. Mr. Jenkins, if you wouldn't mind, I think the gentleman from Virginia probably would like to have you yield your time to him. He is not a member of this subcommittee but——

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Mr. **JENKINS**. I would be happy to yield to the gentleman from Virginia, Mr. Scott.

Mr. **CANADY**. I don't want to speak for the gentleman from Virginia.

Mr. **SCOTT**. I would like to thank the chairman and the gentleman from Tennessee. I appreciate the time. I did have a couple of questions. Based on the economics of it, if a Web site were accessible, say a Web site involving a banking Web site or a stock brokerage firm Web site were accessible, how much revenue could they—how much business could they generate as a result of being accessible whereas the competition may not be?

Mr. **LUCAS**. If you even take very small percentages of the total number of people that may be affected, and statistics range anywhere from one in five, use a figure of 50 million citizens with disabilities, and I would argue how you count people that can't get access to the Web because there are probably a whole bunch of people out there that can't even—that aren't even being counted. Even a small percentage of those would make a significant difference in terms of economics.

Mr. **SCOTT**. The online trading, for example, are they accessible?

Mr. **LUCAS**. The ones that I have seen are not. The banking applications that I have seen are not accessible. For example, the travel sites that I have looked at are not accessible. It seems that the sites that are—that have the most benefit from e-commerce are not stepping up because I don't think they realize the potential that these citizens have to feed that economic model. I think there is a perception, I am being very blunt here——

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Mr. **SCOTT**. How much would it cost to get one of the travel sites or one of the brokerage sites accessible?

Mr. **LUCAS**. In my experience in working with sites, the cost, as Judy said, is negligible. It is simply a matter of spending a few hours, depending on the size of the site, going through the code. It is really not an issue, and anybody that would come and say that it is an issue of resources or time that it would take to do this, I don't think they are being truthful. Because it really is as simple as that card says it is. It is just a question of priorities. Because commercial sites don't recognize the economic potential, they are not putting the effort into it. There are other priorities that they feel are more important.

If we take a look not just around the United States but the economics worldwide between now and the year 2003, the e-commerce between the United States and Europe alone is \$550 billion. So, as I say, take any percentage you want of that amount of money and there is a significant economic benefit for doing it.

The issue that I was trying to raise before is I don't think that a lot of Web sites understand the economic benefit. I really don't think that it is—I think that they feel——

Mr. **SCOTT**. If you had a brokerage firm that was in fact accessible, you would expect those that need that access to use that firm rather than others, and what you are saying is the additional cost in making it accessible would be negligible compared to the extra business that you would get?

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Mr. **LUCAS**. Absolutely.

Mr. **SCOTT**. Let's assume that we wanted to be absolutely draconian in our regulation. If we wanted to have an ADA that was very regulatory, we could, for example, say a building physically situated within the boundaries of the United States had to comply with the draconian regulations. The Web is not geographically located anywhere. If we decided to regulate it, how would we enforce the regulations?

Mr. **LUCAS**. In terms of enforcing it within our borders is one thing. In terms of enforcing it, if you are talking about Europe and places outside the United States, to be quite honest with you, we are falling way behind the rest of the world in terms of enacting legislation to address accessibility. We are falling way behind. If you take a look at some of the other countries, they are using what some might be considering draconian legislation and they are enforcing it based on the fact that in Europe many of the laws say that if the telecommunication equipment that is being used by the individual resides in that country, it doesn't matter where the transaction occurs, they will enforce the laws. Is it practical to put a policeman on an airplane and come over and enforce a law? Probably not. But as I said, if you think about the global economy, just in Europe, as I mentioned those figures alone, there are 550 billion reasons for countries to work together to harmonize their laws, especially in terms of e-commerce.

Mr. **SCOTT**. Thank you, Mr. Chairman. I thank the gentleman from Tennessee.

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Mr. **CANADY**. Thank you. I have been looking at this little card and wonder if any of you have had an opportunity to review it and have any comments about whether you think that following this—if we assume, which we don't necessarily, that the ADA applies to private Internet Web sites, would this complying with this be sufficient to bring a Web site into compliance with the ADA?

Ms. **BREWER**. Mr. Chairman, let me just provide a little background on the card. What we have done with the card is to try to capture some of the key concepts for the essence of what would be needed. If the subcommittee were to contemplate some regulatory process, or an agency would, I would say you wouldn't want to use what is on this card but rather some things that were spelled out carefully in terms of types of guidelines, types of requirements under those guidelines and so forth and that had more information attached. So, for instance, that there would be priorities so that a site—there are specific things which were clearly required, other things that were not required and so forth. I think that with the concept of—

Mr. **CANADY**. You are saying it would be more specific and more complicated than this?

Ms. **BREWER**. It would be more specific and depending on the site potentially less complicated. Because some sites are very simple and maybe only one or two things on this would apply, and a properly spelled out regulation—were the subcommittee to contemplate that—would point to what does and doesn't apply. I guess if I could just offer one other thought, obviously being from a consortium that is made up primarily of industry, we do think about issues of industry burden a fair amount. One issue that I would not—that I am sure the W3C would not be encouraging would be a very different set of requirements, because then business cannot rely on the same kinds of tools that are already being—

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Mr. **CANADY**. Very different from what?

Ms. **BREWER**. What I am saying is that the guidelines that several hundred primarily industry members have already put together I think do comprehensively and very reasonably address some of the issues of Web sites, and were the committee to look at a different type of regulation that says do it a very different way, then it would lose the advantage of software that is being developed to help implement these kinds of things. So, in other words, this card is kind of a conceptual prompt for what is in an actual guideline set that is spelled out.

Mr. **CANADY**. Are you concerned about courts perhaps ordering that things be done in a way different from your guidelines? Do you think there is a potential for that?

Ms. **BREWER**. We are in a situation where there has been the presumption that the ADA does apply to Internet and the Web for the past 3 years because of—

Mr. **CANADY**. You are talking about just based on what the Department of Justice has said?

Ms. **BREWER**. Right. So in that setting, my understanding is that there have been a few smaller cases that were filed before the recent one that has got the public attention, and that I believe in some cases they pointed to our guidelines and said here is a way to solve it, do some of this. And I think that that is one approach.

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Mr. **CANADY**. Let me ask, Ms. Conway, if you have anything to say in response or if you have any comments about this or the guidelines.

Ms. **CONWAY**. I would have to confess that when I work with people to design sites, I am more concerned with the content and navigation. I am the lowest common denominator they can use to test their site on. I myself do not follow all the technology issues. What I do is plan a site, plan the content, plan some navigation of how I think it should work and then I turn it over to a producer to use any tools he deems

necessary to do it. I am not an expert on these particular comments.

Mr. **CANADY**. Mr. Lucas? Mr. Hayes? Mr. Wunder? Any additional comments before we thank you and move to the next panel?

Mr. **HAYES**. I think one important aspect is to keep in mind that it is a global community on the Internet and to the extent that global standards can be worked out that are supported by the United States, that would be a benefit to our businesses that are doing business all over the world now.

Mr. **CANADY**. Mr. Wunder?

Mr. **WUNDER**. I just have one other thing. I think that we need to be careful when we talk about the law and regulation versus business and education that we don't set those up to be opposed to one another. There are many times when all of those efforts work together toward a common goal, so it is not an either/or.

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Mr. **CANADY**. Mr. Lucas.

Mr. **LUCAS**. One last comment. As I said, I work with many sites on this issue. As I said before, once it is explained in terms of the technology and then in addition to the economic benefits, I have never had a company come back and say, "I'm not going to do it. There is no reason for me to do it."

What I meant by educating, I don't mean necessarily grassroots education, I mean educating the boardroom, because when it gets to the board room in my experience is that is where it stops. Because there are other priorities. Because the boardrooms of companies don't understand again the economic benefits. I have had people tell me, how can there be an economic incentive for me? How much discretionary income do people with disabilities necessarily have? Even making comments like that.

What they don't realize is that people with disabilities have a fair amount of discretionary income and they don't spend it necessarily on the same things that we do. So they are from an economic perspective and from my background in the business world now, there is a good benefit to companies from a business perspective to, and I will use the term, "target" individuals with disabilities.

Mr. **CANADY**. Thank you very much. I appreciate the testimony that all of you have provided. It has been very interesting and enlightening. We appreciate your participation in the hearing today. Thank you.

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We will now move to the second panel.

I want to thank the members of the second panel for being with us today. The first witness on this panel is Elizabeth K. Dorminey. Ms. Dorminey practices labor and employment law with the Atlanta firm of Wimberly, Lawson, Steckel, Nelson & Schneider specializing in discrimination cases, including those brought under the ADA. Previously she has served in the General Counsel's Office of the U.S. Department of Commerce and at the Office of Legal Policy at the U.S. Department of Justice.

The next witness will be Peter Blanck. Mr. Blanck is a professor of law, Occupational Medicine and Psychology and Director of the Law Health Policy and Disability Center at the University of Iowa College of Law.

The third witness will be Walter Olson. Mr. Olson is a fellow at the Manhattan Institute and author of *The Litigation Explosion: What Happened When America Unleashed the Lawsuit*, and *The Excuse Factor: How Employment Law Is Paralyzing the American Workplace*. He is also a frequent contributor to the *Wall Street Journal* and *Reason Magazine*, writing frequently on the innovation-stifling effects of government regulation.

Our last witness on this panel and for this hearing will be Charles Cooper. Mr. Cooper is a partner at the law firm of Cooper, Carvin & Rosenthal. Prior to entering private practice Mr. Cooper served as Assistant Attorney General in the Office of Legal Counsel of the Department of Justice from 1985 to 1988 and was a law clerk to Justice William H. Rehnquist.

I thank you for being with us this afternoon. I would ask that you do your best to summarize your testimony in 5 minutes or less. Without objection, your written statements will be made a part of the permanent record of the hearing. As you have observed the hearing thus far, you have seen we have not insisted on strict compliance with the 5-minute rule. But to the extent that you can meet that, that would be beneficial.

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Ms. Dorminey.

STATEMENT OF ELIZABETH K. DORMINEY, WIMBERLY, LAWSON, STECKEL, NELSON & SCHNEIDER, P.C.

Ms. **DORMINEY**. Mr. Chairman, thank you for inviting me to be here today. The Internet is the most powerful engine of change the world has known since the invention of the printed word and every step we take regarding it deserves careful consideration. As a lawyer, I will offer my legal analysis of whether the Americans with Disabilities Act, or ADA, applies to private Internet sites. Then as a citizen I will offer some thoughts on the question as a matter of policy.

The ADA forbids discrimination against persons with disabilities and in many circumstances requires accommodations, so persons with disabilities can participate in economic life. Title III of the ADA applies to private entities that provide public accommodations.

As the statute and regulations define this term, in my opinion it does not include the Internet, Internet service providers or private Web sites. First, the ADA doesn't impose an absolute prohibition on different treatment for people with disabilities. There is a standard of reasonableness as well as a notion of cost-benefit analysis. In other words, there are some common sense limitations on the duty to provide access or accommodations.

For example, a full contact karate studio where blood is spilled on a daily basis doesn't have to let a student with HIV take classes. Nor does a place of public accommodation have to spend whatever is necessary to make itself accessible. The statute says that if changes are too expensive or would require significant alterations in what is offered, you don't have to make them.

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Second, the ADA contains a long list of places that are considered to be public accommodations and subject to the act. These include motels, restaurants, shops, schools, auditoriums, museums; in other words, physical places but not necessarily what is contained in those places. For example, a disabled person must be able to enter an art gallery or concert hall but the paintings and music don't have to be translated into a format that a nonseeing or nonhearing person can use.

Cyberspace isn't a physical place. It is more akin to other communications media such as telephone systems, television, cable and radio, none of which are included in the statute's list. For this reason, I disagree with what the U.S. Department of Justice says, that the ADA requires universal access to the Internet by persons with disabilities. I just don't think it meets the test for a public accommodation.

Third, regulation of the content of private Web sites raises some very serious first amendment questions. In *Reno v. ACLU*, the Supreme Court struck down the Communications Decency Act, which was an attempt to prohibit the communication of indecent materials to minors over the Internet. The Court ruled that society's interest in protecting children had to defer to the first amendment's right of free speech. Internet regulations that would prescribe content, for example, that would mandate text based content instead of pictures and graphics also would fail the first amendment's strict scrutiny test.

Now, as a policy matter, regulation of the Internet to mandate universal access would, I believe, be counterproductive. Tremendous steps toward voluntary access are being made daily by groups like Ms. Brewer's W3C, who disseminate tools for accessible Web site design. Technology is evolving so quickly that any standards written into regulations almost certainly would be obsolete by the time they worked their way through notice and comment. Regulation would be more likely to delay than hasten broader access. There also would be serious enforcement problems because it would be a simple matter for site owners to move offshore to avoid the reach of regulations which would ultimately hurt the United States' competitive position in this field.

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Computers and the Internet afford tremendous opportunities to everyone but for individuals with disabilities, they are a Godsend. My father, who had polio as a young man and has been in a wheelchair for 50 years, is as nimble as any athlete on the Web. While a trip to the public library would be a daunting trip to him, in a few mouse clicks, he has ready access to information, more and better of it, than any brick and mortar library possesses, without leaving home. Regulations would inhibit workplace flexibility as well. On January 28, 2000, the House Workforce Subcommittee, chaired by Congressman Pete Hoekstra, heard testimony from a number of witnesses on the recent letter ruling from the Occupational Safety and Health Administration regarding that agency's jurisdiction to inspect home offices for workplace safety violations. In January, OSHA had published a letter ruling that home offices were subject to inspections but after it ignited a fire storm of criticism, the letter was officially withdrawn.

The sense of the testimony before that subcommittee was that regulation of home offices by OSHA would discourage flexibility that permits individuals to work in nontraditional ways. I am living proof of what the Internet can do for individuals with impairments. I have macular degeneration, which affects the retina and causes a loss of central vision. Macular degeneration makes holes in what I see, sort of like a photograph with the center burned out. With only partial vision, I can't drive and I have difficulty recognizing people and reading. But with a big monitor and the Internet, not to mention help from family and friends, I can pursue an active employment litigation practice with a law firm in Atlanta, 70 miles away from my home. The Internet gives me the flexibility to live in a community where I can manage without driving, along with the professional opportunities of a big city law practice. From my home office, it gives me access to legal research materials in a font size I can read, superior to any available in the largest law firm's library. The Internet gives me the opportunity to do good work, earn a living, enjoy a high quality of life and participate in the economy more fully than I ever could if I were constrained by traditional law firm ways.

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Universal access to the Internet is a worthy goal but to insist upon it through regulation would be a

mistake. Braille was invented centuries after print was well established but would print have had equal impact on the world if its development had been constrained by accessibility requirements? The pace of change is much swifter today but we should not let our impatience to reach the goal of universal access impede the tremendous progress already being made in that direction.

Thank you, Mr. Chairman.

[The prepared statement of Ms. Dorminey follows:]

PREPARED STATEMENT OF ELIZABETH K. DORMINEY, WIMBERLY, LAWSON, STECKEL, NELSON & SCHNEIDER, P.C.

SUMMARY

The Americans with Disabilities Act (ADA), 42 U.S.C. 12101 *et seq.*, forbids discrimination against persons with disabilities. Its purpose is twofold: to prohibit discrimination and require "accommodation" of persons with disabilities so that they may participate in the economic life of the nation. Title III of the ADA applies to private entities that provide "public accommodations." As defined by statute and regulation, this term does not include the Internet, Internet service providers, or private websites. Nonetheless, the U.S. Department of Justice and some advocacy groups contend that the ADA should be applied to require universal access to the Internet by persons with disabilities, and propose that regulations be issued to achieve that goal. Such regulations would violate the First Amendment's guarantee of the right of free expression.

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Tremendous advances in accessibility technology already are making many sites and services accessible to individuals with a range of disabilities, not just vision impairments, and regulation is more likely to retard than speed these innovations. Countless sites and service providers voluntarily follow accessibility guidelines, much as television providers voluntarily include closed captioning and telephones provide TDD service for the hearing-impaired. Regulation is neither necessary nor desirable to advance the goal of universal accessibility of the Internet.

LEGAL ANALYSIS

The ADA Requires Only "Reasonable" Accommodation

Unlike other civil rights laws such as Title VII of the Civil Rights Act of 1964, 42 U.S.C. 2000e, that punish discrimination on the basis of national origin, race, age, and sex, the ADA recognizes practical limits on the duty to treat people equally regardless of disability, and to make accommodations. The ADA enshrines a rule of "reasonableness" and cost-benefit analysis: no employer, public entity, or private entity subject to the Act is required to ensure accessibility of its goods or services unless it can be achieved without undue difficulty or expense, or without exposing a disabled individual or others to injury. *See* 42 U.S.C. 12113; 12181(9); 12183; *Borkowski v. Valley Central School Dist.*, 63 F.3d 1131 (2d Cir. 1995) (cost-benefit analysis applied to duty of reasonable accommodation); *Bronk v. Ineichen*, 54 F.3d 425 (7th Cir. 1995) (deaf tenants not entitled to dog not necessary as "hearing dog" where landlord banned pets; distinction between ADA and Title VII discussed); *see also Caruso v. Blockbuster-Sony Entertainment Centre*, 193 F.3d 730 (3d Cir. 1999) (discussing structural impracticability of wheelchair access). Title III of the Act, which covers private sector providers of goods or services, also recognizes that health and safety reasons may permit an individual with a disability to be excluded from a public accommodation if no reasonable modification could sufficiently reduce the risk of that individual's participation. 42 U.S.C. 12182(b)(3); *School Bd. of Nassau Co. v. Arline*, 480 U.S. 273, 107 S. Ct. 1123 (1987) (interpreting Section 504 of Rehabilitation Act);

Montalvo v. Radcliffe, 167 F.3d 873 (4th Cir. 1999) (applying Title III of ADA to permit exclusion of child with HIV from full-contact karate classes). In light of decisions such as these, it is unlikely that any private litigant would be able to compel a website owner to provide universal access if doing so would be technically difficult or expensive, or would dramatically alter the contents of the site. On the other hand, given the broad interpretive possibilities intrinsic to the concept of "reasonableness," such a case probably would require expensive litigation.

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Title III of the ADA Applies Only To "Public Accommodations"

Title III of the ADA applies to public accommodations, which are defined as only those private, non-governmental entities that provide goods and services to the general public and that affect commerce between the states or between the U.S. and a foreign country. Recent U.S. Supreme Court decisions demonstrate that the requirement in 42 U.S.C. 12181(1) and (2)(B) that the activity touch and concern interstate commerce is taken seriously. See, e.g., *U.S. v. Lopez*, 514 U.S. 549, 115 S. Ct. 1624 (1995) (striking down the Gun Free School Zones Act as unconstitutional because congress lacks power to regulate activity that does not affect interstate commerce).

The Internet is Not a "Public Accommodation"

Listed in the statute as examples of "public accommodations" are

- (A) an inn, hotel, motel; or other place of lodging, . . .
- (B) a restaurant, bar or other establishment serving food or drink;
- (C) a motion picture house, theater, concert hall, stadium or other place of exhibition or entertainment;
- (D) an auditorium, convention center, lecture hall or other place of public gathering;

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- (E) a bakery, grocery store, clothing store, hardware store, shopping center or other sales or rental establishment;
- (F) a laundromat, dry cleaner, bank, barber shop, beauty shop, travel service, shoe repair service, funeral parlor, gas station, office of an accountant or lawyer, pharmacy, insurance office, professional office of a health care provider, hospital, or other service establishment;
- (G) a terminal, depots or other station used for specified public transportation;
- (H) a museum, library, gallery or other place of public display or collection;
- (I) a park, zoo, amusement park or other place of recreation;
- (J) a nursery, elementary, secondary, undergraduate or postgraduate private school, or other place of education;
- (K) a day care center, senior citizen center, homeless shelter, food bank, adoption agency or other social service center establishment; and

(L) a gymnasium, health spa, bowling alley, golf course or other place of exercise or recreation. 42 U.S.C. §12181(7); 28 C.F.R. 36.104. Regulations adopted by the U.S. Department of Justice specify that to be a place of public accommodation, "a facility *must* be operated by a private entity, its operations *must* affect commerce, and it *must* fall within one of [the categories enumerated in the statute]." 28 C.F.R. 36.104 (emphasis added)

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The examples of "public accommodations" listed in the statute are all physical places: schools, museums, offices, et cetera. It is the "brick-and-mortar" place that the statute is designed to make accessible. Limits on the areas to which access must be provided also are recognized. *See, e.g., Louie v. Ideal Cleaners*, 1999 WL 1269191 (N.D. Cal. 1999) (restroom for employees only not a public accommodation); *Jankey v. 20th Century Fox Film Corp.*, 14 F. Supp. 2d 1174 (C.D. Cal. 1998) (film lot not a public accommodation because not available to members of general public indiscriminately). Libraries and bookstores are included, but not the books, magazines, newspapers, or catalogs they offer. Museums and concert halls are included, but the paintings they house or music they play do not have to be made accessible to those who cannot see or hear.

Neither the Internet nor any other public communications system such as telephone, television, cable or radio is included in the list of "public accommodations" set forth in 42 U.S.C. 12181(7), nor do there appear to be any reported decisions in which a private litigant or public prosecutor successfully argued that they were. The principle of "inclusio unius est exclusio alterius"—the inclusion of some assumes the intentional exclusion of others—supports excluding the Internet from the definition of "public accommodation." All the places listed in the statute have a physical presence, suggesting that the drafters intended to require access only to physical places. For this reason I disagree with the statement by the U.S. Department of Justice that the ADA's accessibility requirements apply to private Internet websites and services. (see footnote 3) That position is inconsistent with both the plain language of the statute and the Justice Department's own regulations.

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Compared with the large volume of employment-related ADA cases brought pursuant to Title I of the Act, few cases under Title III have been litigated, probably because the "brass ring" of punitive damages is not available: damages are limited mainly to injunctive relief. 42 U.S.C. 12188(a), 12188(b)(4). Although no government agencies have attempted to prosecute any Internet service or website provider for failure to accommodate under Title III, such lawsuits are a very real possibility. On November 2, 1999 a class action lawsuit was filed against America Online by the National Federation of the Blind, and the plaintiffs in that action will be sure to invoke the Department's letter as the interpretive gloss on the statute. Defending this lawsuit will be expensive, and could produce a judicial decision or even a settlement that will have a chilling effect on other service and site providers. A ruling, resolution or amendment to the effect that the Internet is not a "public accommodation" within the meaning of the ADA certainly would clarify the issue, and provide a safe harbor for businesses that might be subject to public or private lawsuits.

Private Websites are Not "Public Accommodations"

A private web page, such as one posted by an individual for self-expression or a family history or genealogy site, that has no commercial impact cannot properly be considered a "public accommodation" subject to the Act because it fails the "affecting commerce" test. 42 U.S.C. 12181(1), (7); 28 C.F.R. 36.104. A private website that does affect commerce, such as a website that Internet users can access to order merchandise or services, also should not be considered a "public accommodation" as that term is defined in the ADA. Neither the Internet nor any other public communications system such as television, cable or radio

is included in the list of "public accommodations" set forth in 42 U.S.C. 12181(7) or 28 C.F.R. 36.104. Private sites that offer merchandise are comparable to the magazines and catalogs that most of us receive by the bushel through the mail; indeed, many print catalogs urge shoppers to place orders over the web. No one has successfully argued that catalogs or magazines are "public accommodations" and should be made available in Braille or audio recordings, or not at all. Catalogs and magazines are a better analogy to commercial Internet sites than so-called "brick and mortar" stores, and should not be considered to fall within the definition of "public accommodation" in the ADA.

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Regulating the Content of Speech Violates the First Amendment

The First Amendment to the U.S. Constitution states that "Congress shall make no law . . . abridging the freedom of speech." U.S. Const., Amend. I. The freedom of speech is one of our most cherished liberties, and any Federal regulations that attempted to prescribe the manner in which web sites were constructed in order to assure accessibility would violate it. For example, current technology makes the translation of text-based sites into forms that a blind or visually impaired user can access relatively easy, but graphics-based systems pose technological problems. If all web sites were required by regulation to be written only in a text-based form, the freedom of expression of those who wished to present pictures or other non-text information would be impermissibly abridged. Pictures and graphics would be prohibited, and most games would be banned—a state of affairs that surely would cause a general uprising, at least among the under-12 set. Such regulations would be unconstitutional: the ADA's accessibility requirements must defer to the Constitutional guarantee. *See Reno v. American Civil Liberties Union*, 521 U.S. 844, 117 S. Ct. 2329 (1997) (Communications Decency Act ban on transmission of "indecent" material to minors invalid because overbroad content—based suppression of free speech guaranteed by First Amendment; Internet held a "public forum").

POLICY ANALYSIS

Innovation is rapidly expanding access to the Internet, and there are numerous incentives for businesses of all types to make their goods and services accessible to individuals with disabilities. As a result of advances in rehabilitative medicine, Title I of the ADA, which covers employment, and cultural change, individuals who once would have had little opportunity to participate in the economy as either producers or consumers now do both. An individual with a mobility impairment, for example, has convenient access to a wide range of goods and services on the Internet. He or she can surf and shop the world without having to leave home.

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A number of private organizations and advocacy groups for the disabled are sponsoring concrete steps toward improving accessibility of the Internet. For example, a group called W3C has published technical guidelines for web content accessibility.([see footnote 4](#)) These guidelines are designed for web content developers, authors of pages and sites, and developers of authoring tools to make Web content available to more users. Another organization called Equal Access to Software and Information (EASI)([see footnote 5](#)) serves as a resource to the education community by providing information and guidance in the area of access to information technologies designed for users with disabilities. The Center for Rehabilitative Technology (CRT)([see footnote 6](#)) at the Georgia Institute of Technology brings that institution's engineering prowess to bear on adaptive technologies designed to help a broad range individuals with disabilities work and learn. I am affiliated with none of these groups, but offer their websites as valuable resources for anyone seeking more information about the work underway in adaptive technologies.

The significance of these groups, and others like them, is that they are using new technologies to facilitate and increase access to the Internet through voluntary means. Much as telephone companies voluntarily

provide service for the hearing impaired, and many television shows voluntarily provide captions for their broadcasts, Internet service and site providers voluntarily are adopting and adapting technologies to make their goods and services available to individuals with disabilities. These advocacy groups, and others like them, use neither the bludgeon of litigation nor the blunt instrument of regulation. Rather, they direct their energies toward devising and disseminating new ways to make information available to those who build websites so that the sites are constructed to permit access by individuals with disabilities. They recognize that current and emerging technologies make access to information on the world wide web more effective than it has ever been in traditional formats like print. You can't hit a toggle on a book to make it readable in Braille, but websites can be—and increasing numbers are—constructed so that they can be read with software that translates text and graphics into usable form for a blind person.

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Regulation Will Not Advance the Goal of Universal Access

Government regulation is not necessary, or even desirable, to keep technology marching on. In fact, history demonstrates that regulation slows, rather than speeds, innovation. Although usually intended to create a floor or minimum standard, regulations more often tend to act as ceilings on compliance. One particularly vivid example of this phenomenon is the Family and Medical Leave Act, 29 U.S.C. 2601 et seq. Adopted in 1993, this law requires large employers to give individuals up to 12 weeks' unpaid leave for the birth or placement of adoption of a child, or for the employee's or a family member's serious health condition. While job-protected leave is socially desirable, by mandating a period of unpaid leave this law has caused many employers to abandon voluntary programs which offered paid leave, or longer periods of unpaid leave. Entities subject to regulation quickly learn to do no more than the rules force them to do, avoiding changes that could improve their products or services, or make them more attractive as employers, but are never undertaken for fear of liability for noncompliance with the government's rules.

Regulations Would be Archaic Before Published and Impossible to Enforce

Innovation in information technology seems to occur at the speed of light, but notice and comment rulemaking moves at a snail's pace. Consider the computer recently launched in the Space Shuttle to replace a malfunctioning unit on the Hubble Space Telescope: it was the equivalent of a 486, a veritable dinosaur compared to the Pentium processors available for home use today. The delay between the time the procurement order was issued and the unit was finally approved accounts for the selection of this obsolete machine. Regulations to mandate technical standards for web sites or services likewise would surely be obsolete by the time they had worked through the notice and comment period.

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Cyberspace raises all sorts of jurisdictional questions as well. Regulations that prescribe burdensome formats for U.S.-based websites could easily—and at little cost—drive site owners offshore, beyond the reach of these regulations, making the U.S. less competitive in this dynamic sector of the economy.

Regulation Fails the Cost-Benefit Analysis

It is a time-honored adage that the best is often the enemy of the good. In a scant 20 years computers have gone from obscurity to ubiquity, from the back rooms of banks and utilities to children's toys and household appliances. The BBC reported recently that the number of web pages has topped 1 billion.(see footnote 7) The Internet is a quantum leap for communication on a global scale, an affordable tool that empowers individuals to surf the planet from homes, offices and libraries, selecting from a range of information limited only by human imagination. From our position in the midst of this explosion we can only guess at its ultimate

ramifications. I believe it is the most powerful tool for good, for freedom and understanding, since the development of written language.

Computers and the Internet afford tremendous opportunities to everyone, but for countless individuals with disabilities they are a godsend. My father, who had polio as a young man and has been in a wheelchair for 50 years, is as nimble as any athlete on the "web." While a trip to the public library would be a daunting chore for him, in a few mouse-clicks he has ready access to infinitely more and better information than any brick-and-mortar library possesses—without leaving his home. So instead of continuing to wonder about whatever piques his interest and wishing he could find out more, he goes to his computer, finds answers, and continues the quest for knowledge.

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Regulation is the enemy of workplace flexibility as well. On January 28, 2000, the House Workforce Subcommittee, chaired by Congressman Pete Hoekstra, heard testimony from a number of governmental and other witnesses on the recent letter ruling from the Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor regarding that agency's jurisdiction to inspect home offices for possible workplace safety violations. In January OSHA had published a letter ruling that home offices were subject to inspections, but after it ignited a firestorm of criticism the letter was officially withdrawn. Notwithstanding the public withdrawal, e-mail discovered by the Subcommittee cast doubt on OSHA's willingness to give up the idea that its compliance officers could inspect a home office and issue a citation and fine the employer if conditions violated OSHA standards—the example used was a shaky stairway banister leading to a basement office.

The sense of the testimony before that Subcommittee was that regulation of home offices by OSHA would discourage flexibility that permits individuals to work in non-traditional ways. I am living proof of what the Internet can do for individuals with impairments. I have macular degeneration, a condition that affects the retina and causes a loss of central vision. Macular degeneration makes holes in what I see, sort of like a photograph with the center burned out, and it is inconvenient to say the least. With only partial vision, I can't drive, and I have difficulty recognizing people and reading. But with a big monitor and the Internet (not to mention help from family and friends) I can pursue an active employment litigation practice with a law firm in Atlanta, 70 miles away from my home. The Internet gives me the flexibility to live in a community where I can manage without driving, along with the professional opportunities of a big-city law practice. From my home office it gives me access to legal research materials (in a font size I can read) superior to any available in the largest law firm's library. The Internet gives me the opportunity to do good work, earn a living, enjoy a high quality of life, and participate in the economy more fully than I ever could if I were constrained by traditional law firm ways.

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CONCLUSION

Universal access to the Internet is a worthy goal, but to insist upon it through regulation would be a mistake. Braille was invented centuries after print was well established, but would print have had equal impact on the world if its development had been constrained by accessibility requirements? The pace of change is swifter today, but we should not let our impatience to reach the goal of universal access impede the tremendous progress already being made in that direction.

Mr. **CANADY**. Thank you. Mr. Blanck.

STATEMENT OF PETER D. BLANCK, PROFESSOR OF LAW, THE UNIVERSITY OF IOWA

COLLEGE OF LAW

Mr. **BLANCK**. Thank you, Mr. Chairman, and members of the committee. The first part of my testimony will focus on the application of the ADA to the accessibility requirements for public accommodations and in particular to the limited category of private Internet Web sites. The second part will highlight some research about accessibility to private Internet Web sites that may have yet untapped benefits to society. As you well know, Mr. Chairman, and members of the committee, the ADA is a comprehensive law designed to promote the equal participation in society of people with disabilities and a major goal of the law is to remove barriers in the architectural and communication area. The Congress was careful in drafting a law to balance the needs of people with disabilities with the legitimate and evolving concerns of businesses.

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As you have mentioned, Mr. Chairman, title III of the ADA applies to a limited category of entities called public accommodations. In contrast to Ms. Dorminey's interpretation, a public accommodation under title III generally is any private entity which offers goods and services to the public. As a matter of fact, a place as defined by Webster's dictionary, one of the terms is a particular passage or a page in a book, a magazine or other source. Simply put, public accommodations must provide people with disabilities opportunities to enjoy their goods and services that are equal to, no better than, no less than, compared to the opportunities provided to others without disabilities.

The way title III requires this is by requiring covered entities to provide effective communication sources, not in any way mandating a set of accessibility or technological guidelines whatsoever but to mandate that alternative formats would be available, such as signing, as we see here in the room today, or assisted listening devices. It also requires covered entities to make only reasonable modifications to their policies and procedures unless doing so would result in what is called an undue burden, a fundamental change, for example, in the way business is done or an administrative burden or a financial burden, as we have heard about today.

My view is that Web-based activities of public accommodations that have an online presence, such as a bookstore, a travel agency that both has a store and an online presence, would be subject to title III provisions. And in response to Congressman Scott's question earlier, I would similarly believe that exclusively Web based-service industries such as e-commerce retail sites would be considered title III entities simply offering goods and services to the public.

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As I have said, as an alternative to providing accessibility through the Internet, title III plainly states that covered entities can provide these services in alternative formats, and this is clearly warranted doing so unless again it would result in a fundamental alteration to the program that would fundamentally change the content of the Web site or result in an undue burden. Moreover, title III applies to conduct only affecting commerce that is directed at the public. You might hear from Mr. Olson later on that there are amateur Web sites and private Web sites and other sorts of non-for-profit Web sites but clearly title III affects those entities interfacing with commerce. And of course it is true that the Internet provides many opportunities for people to communicate with each other that are simply not intended for the public. But I would add that this distinction cannot be made solely on whether there is a profit motive because, as you well know, there are many title III covered entities that are public accommodations that work without a profit motive, such as some libraries and museums.

Finally and most critically, and perhaps we can talk about this in the questions as well and Mr. Cooper might speak to this, because title III as we have heard technologically and the law itself does not require any

changes to the subject matter or the content of Web sites and services but only to the manner in which information is presented, I believe first amendment considerations do not apply here. Now, my colleagues and I and many others have attempted to identify issues related to ADA accessibility and implementation.

I would like to highlight just a couple of things for you and then close. First, the research suggests that fair and effective implementation of the ADA itself is furthered by providing information in accessible formats to people with disabilities. Secondly, based on my review and my colleagues' and others' research on the economic activity in the assistive technology market, a question which was asked earlier, preliminary findings suggest but do not yet prove, of course, that the ADA in the past 10 years may have fostered new technologies and economic activity in the private Internet service industry in many ways unanticipated at the time the law was passed. As was mentioned in the first panel, e-commerce markets for goods and services are expanding and inventors, retailers, employers and others are meeting the demands to meet this emerging marketplace.

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I would highlight a couple of other vital illustrations for you that I think are relevant to this discussion. Number one, as was mentioned, Web-based accessibility is effectively being integrated into workplaces. Web-based accessibility is beginning to make education, school to work transitional programs and gifted and talented educational programs more inclusive through individualized curricula. Web-based accessibility in medicine is bringing doctors and counselors and trainers to people in geographically isolated areas, and Web-based distance learning programs are helping to reduce chronic unemployment and isolation among people with disabilities.

This is particularly relevant in light of this body's important law, which was passed just last year, the Ticket to Work and Workforce Improvement Incentives Act of 1999.

In closing, I would agree with what has been said so far that clearly more dialogue and research are needed on the issues regarding the reasonable application of the ADA to private Internet sites but not only for people with disabilities, for all underrepresented individuals in society, the poor, the isolated and the vulnerable and a profound question underlies these issues facing this body and, that is, will the Internet help people with disabilities and other underrepresented people in society to participate equally or will it further isolate them from the mainstream?

Thank you very much for the opportunity to appear.

[The prepared statement of Mr. Blanck follows:]

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PREPARED STATEMENT OF PETER D. BLANCK, PROFESSOR OF LAW, THE UNIVERSITY OF IOWA COLLEGE OF LAW

I. INTRODUCTION

Mr. Chairman, members of the Committee, my name is Peter Blanck. I am a professor of law, of occupational medicine, and of psychology at the University of Iowa, and the director of the Law, Health Policy, and Disability Center at the University of Iowa College of Law. (see footnote 8) I have written articles and books on the Americans with Disabilities Act (ADA) and have studied and taught courses on the law's implementation. (see footnote 9) I have an immediate family member with dyslexia who is challenged every day to read web-based and printed information.

The first part of my testimony is on the application of the ADA's accessibility requirements to public accommodations—a limited category of private Internet web sites and services. The second part highlights ongoing research suggesting that accessibility to private Internet web sites and services may have yet untapped and far-reaching benefits to society.

II. ADA TITLE III

The ADA is a comprehensive law designed to promote the equal participation in society of persons with disabilities. A major goal of the ADA is to remove architectural and communication barriers encountered by people with disabilities. Congress was careful in drafting the ADA to balance the needs of people with disabilities and the legitimate concerns of businesses.

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Among its areas of coverage, ADA title III applies to a limited category of entities called "public accommodations." A "public accommodation" under title III generally is any private (non-governmental) entity, regardless of size, which offers goods and services to the public.[\(see footnote 10\)](#) Print and broadcast media, manufacturers, wholesalers, and utility companies generally are not considered to be public accommodations.

Public accommodations must provide people with disabilities opportunities to enjoy their goods and services that are equal compared to the opportunities provided to others without disabilities. Title III requires that covered entities provide effective communication to individuals with sensory impairments through auxiliary or assistive aids (e.g., sign-language interpreters, assistive listening devices, Braille or audiocassette) and to make reasonable modifications to their policies and procedures, unless doing so would result in an undue burden.[\(see footnote 11\)](#)

Web-based activities of public accommodations that have an online presence (e.g., certain travel agents and retail stores) may be subject to title III provisions.[\(see footnote 12\)](#) Similarly, exclusively web-based service industries (e.g., e-commerce retail companies) may be considered title III covered entities offering goods and services to the public.[\(see footnote 13\)](#)

As an alternative to providing full accessibility through the Internet, title III covered entities may offer their services in other effective accessible formats. This is warranted unless doing so would result in a fundamental alteration to the program or service (e.g., fundamentally change the content of the web site[\(see footnote 14\)](#)) or result in an undue burden.[\(see footnote 15\)](#)

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In addition, title III covers only conduct affecting commerce that is directed at the public. Although the Internet provides opportunities for people to communicate with each other, not all are intended for the public. This distinction cannot be made solely upon whether there is a profit motive because included among title III public accommodations are entities that affect commerce without a profit motive, such as some libraries and museums.

Finally, and most critically, because Title III would not require changes to the subject matter or content of web sites and services but only to the manner by which information is presented, First Amendment concerns do not apply.

III. EXPLORATORY RESEARCH ABOUT ACCESSIBLE TECHNOLOGIES AND THE ADA

My colleagues and I have attempted to identify emerging issues related to accessibility and ADA implementation. First, research suggests that cost-effective, economically beneficial, and fair implementation of the ADA itself is furthered by providing information in accessible formats to persons with disabilities.(see footnote 16)

Second, my colleagues and I have conducted a review of economic activity in the assistive technology market (e.g., using data derived from the United States Patent and Trademark Office).(see footnote 17) The preliminary findings illustrate, but do not yet prove, that the ADA fosters future technological innovation and economic activity in the private Internet-based service industry, in many ways unanticipated at the time that the law was passed. As e-commerce markets and initiatives for goods and services expand, inventors, manufacturers, retailers, and employers are responding to meet the needs of consumers with disabilities, those who may become disabled in the future, and the elderly. The untapped accessible web-based "e-commerce" marketplace holds vast profit-making opportunities.(see footnote 18)

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Other vital precepts include that: (1) web-based accessibility effectively may be integrated, and not added on, into workplaces;(see footnote 19) (2) web-based accessibility is beginning to make education, school-to-work transitional programs, and gifted and talented educational programs more inclusive through individualized curricula and training innovations; (3) web-based accessibility in medicine is bringing doctors to geographically isolated people; and (4) web-based distance learning and counseling programs are helping to reduce chronic unemployment and isolation among people with disabilities.(see footnote 20)

IV. CONCLUSION

Additional dialogue and research are needed on issues regarding the fair and reasonable application of the ADA to private Internet services and sites, not only for people with disabilities, but for all underrepresented individuals in society—the poor and isolated, and the vulnerable. A profound question requiring study underlies these precepts: Will the Internet help people with disabilities and other underrepresented people to participate equally in our society? Or will it further isolate them from the mainstream?

Thank you for the opportunity to appear before this Committee.

Mr. **CANADY**. Mr. Olson.

STATEMENT OF WALTER OLSON, WILTON, CT

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Mr. **OLSON**. Thank you, Mr. Chairman. My name is Walter Olson. The application of the ADA to Web site publishing is of peculiar interest to me for at least two reasons. First, I have been writing about the Americans with Disabilities Act for many years, including some of its surprising and unanticipated consequences. Second, since last summer, I have been spending much of my time as the Web master of a site that I launched which—with due respect to the lawyers in the room—is called www.overlawyered.com. I handle all of the technical site myself, unlike many writers who turn to Web publishing, which means that I encounter every day the sorts of issues of design and content that we have been talking about this afternoon and which could raise legal liability.

I think we have a difference of opinion within this very panel on whether a small opinion oriented Web site like mine might or might not count as a public accommodation. I don't think of it as a public

accommodation but I do have an Amazon bookstore and the bookstore is meant from my point of view to spread ideas and yet there it is, a bit of commerce possibly pulling me into the same category as a bricks and mortar bookstore.

When I hear, as on the earlier panel, about guidelines that are helpful but not required, that are hortatory, that sites ought to try to incorporate if they can, I think great from the standpoint of a Web master who is trying to do the best job I can myself. I like such lists, and I try to make my own site more accessible. I have not brought it up to 100 percent, as I will say in a minute, but I think of that as very bad law because the law in fact does not well handle the intermediate category of Nice to Have But Not Legally Required. It tends to be either yes, you have liability or no, the person has to go home and lose their lawsuit. To the extent that it tries to simulate the intermediate position, it simply creates uncertainty. "Well, maybe if I do that, I will be more likely to win a lawsuit." That equals legal vagueness. I hope that is not what we are trying to get with guidelines on ADA publishing.

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It was said very truly on the first panel that the ADA has not yet had much of an effect in slowing down the Internet. That is a very fair observation. The reason is that everyone has agreed to behave as if the ADA does not apply to the Internet. The Justice Department told us several years ago now that it does, but it really is as if we are all at the airline check-in counter and we are being asked whether our luggage has been under our control for the last 8 hours and we are all swearing of course that it has been under our control. We all quietly agree to behave as if the law isn't there and as a result, sure, very low cost so far but also virtually every site of any size is out of compliance to some extent. You don't even have to turn to the commercial sector.

I had fun this Monday visiting www.whitehouse.gov and finding that it was still out of compliance with the ADA. Bobby flunked it once again. Bobby also flunked the Leadership Conference on Civil Rights. I don't mean to single these groups out. I could find dozens of others. And indeed handicapped Web sites aimed at the handicapped community are often out of compliance. What would happen tomorrow if we all took our legal responsibilities seriously would be like circa 1985 all agreeing to drive 55 miles an hour on the interstates or something.

I have to disagree with Ms. Brewer's comments on the earlier panel. I do believe that tens of millions of Web pages would be torn down because even if in practice the Web masters could send them to her and she could say, look, you only have to change these two little things, this is not the approach that most people, especially small enterprises running Web sites, would in fact be able to take, stopping everything, sending them off to experts. For the average small motel, funeral home, you name it, which is probably covered in its small Web operation, its brochure, by this, they are much more likely to be using 2-year-old free software.

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The only person who understood it technically did their job and left and now they are trying to keep it going with as little change as possible. It is indeed very frightening to them to think about having to learn new Web authoring software even if it is objectively superior to the old. That in itself is reason enough for people to tear down sites. I would like to close with this idea. We have smuggled in, as it were, the idea that the W3 consortium can be recommending new types of Web authoring software which will become government-approved ones and it will become dangerous to post pages using the old public domain lingua franca freeware types of Web authoring software, which as we know create inaccessible pages. I find that almost as disturbing as a publisher as the idea of the government getting to issue us all typewriters, cameras, tape recorders and other publishing tools of the old style publishing. We ought to treasure as part of its universality and part of its accessibility on the publisher side the fact that the Web allows pretty much

everyone, however amateurish and even if their business is very small, to get onto the Web without having to go to the government to find out what they are allowed to say and how. Let's not lose that.

[The prepared statement of Mr. Olson follows:]

PREPARED STATEMENT OF WALTER OLSON, WILTON, CT

Thank you, Mr. Chairman and committee members, for the chance to address this panel. The exposure of website publishers to potential liability under the Americans with Disabilities Act is a subject of peculiar interest to me, for two reasons. First, I've written regularly over the years about the often surprising and unanticipated consequences of the ADA, in several chapters of my 1997 book *The Excuse Factory*, as well as in articles published in numerous newspapers and magazines. Second, I have myself been devoting much of my effort for more than half a year to web publishing, in the form of a website whose name is—with all due apologies to the attorneys with which this room is filled—www.overlawyered.com. Unlike many writers who start up websites, I handle all of the technical side myself, which means that I encounter every day issues of design and content of the sort that could raise issues of legal liability under widely accepted interpretations of the ADA.

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Today I will briefly explain why I view the ADA's application as a serious threat to the freedom, spontaneity and continued growth of the Web. Indeed, it would be hard to find a better way to curb the currently explosive upsurge of this new publishing and commercial medium than to menace private actors with liability if they publish pages that fail to live up to some expert body's idea of accessibility in site design. Equally disturbing is the idea that private publishers may someday feel pressure to use only web authoring tools approved by official bodies, perceiving a risk of liability if they continue to use the earlier programs and homemade HTML fixes that are the current *lingua franca* of the web self-publishing world. We would rightly recoil at the idea of letting government certify and approve the typewriters, tape recorders and cameras that news reporters use in their work. We should be equally skeptical about official moves to certify as obligatory some authoring tools for HTML content.

You will undoubtedly hear today about how some publicized initiatives on web accessibility carry legal force only for sites constructed under federal sponsorship, as opposed to private sites. However that may be, it is beyond dispute that the ADA applies to a very wide range of private and nonprofit entities, and that, as the U.S. Justice Department has pointed out, the online publishing efforts of these entities are already subject to the law. That's not a proposed expansion of the ADA in the future—that's right now. Although we know that the ADA does apply to a wide variety of private websites, no one has a very clear idea of what compliance may entail. It will be natural for litigants and courts, however, to look to what accessibility standards have been published with official support in deciding whether private sites are in compliance. However much we might wish to maintain a distinction between hortatory and mandatory standards, such a distinction is not easily maintained in practice.

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We have not yet seen many private legal actions against websites for inaccessibility, but they are coming. Last November's lawsuit by the National Federation of the Blind against America Online, charging that it has not moved with sufficient vigor to make its services fully available to sightless users, is likely to be only the first of many (see "Lawsuit: AOL Ignores Blind", Reuters/Wired.com, Nov. 5). And although AOL is a very big business, the principles at stake here will filter all the way down to many "mom- and-pop" Internet Service Providers (ISPs), applications providers, online magazines and journals, e-commerce operations of local businesses, and so forth. A wide assortment of these entities are already arguably open to damage suits

on the grounds that their offerings are not sufficiently accessible to disabled users. So this committee is in no way being premature or alarmist by visiting this area.

I. WHAT IS CONSIDERED "INACCESSIBLE" IN WEB DESIGN?

Per the W3 consortium, inaccessible content includes: "images without alternative text; lack of alternative text for imagemap hot-spots; misleading use of structural elements on pages; uncaptioned audio or undescribed video; lack of alternative information for users who cannot access frames or scripts; tables that are difficult to decipher when linearized; or sites with poor color contrast." See <http://www.w3.org/1999/05/WCAG-REC-fact#barriers>.

Many ways of structuring information visually are frowned on in the accessibility literature, such as the use of color to signify information—for example, indicating losses on a balance sheet in red and profits in black. Also suspect are many directional graphics such as arrows or pointing hands; many common uses of tables to organize material; and content that displays only in response to mouseovers or other mouse commands. Among the most significant guidelines is that "equivalent alternative information" should be furnished—for example, text translation or captioning for an audio clip, or descriptive text for a video clip.

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Although we are often told that it is easy to design these features into a website, it is worth remarking that even many of the websites that you might visit in the course of educating yourself about disability rights are themselves out of compliance. For example, as was widely publicized last summer, the White House (www.whitehouse.gov) site is out of compliance with "Bobby" (<http://www.cast.org/bobby/>), and a check this Monday morning confirms that it is still out of compliance. The same is true of the website of the Leadership Conference on Civil Rights (www.civil-rights.org). Some weeks ago the largest and most ambitious site ever was launched targeting the disabled community: www.WeMedia.com. Even this site was out of compliance when it launched, although it now displays a Bobby approval button. This is not to single out these organizations—I could easily have offered dozens of other examples.

II. WHAT IF EVERYONE WERE TO TAKE THEIR LEGAL OBLIGATIONS SERIOUSLY TOMORROW?

ADA website accessibility is considered to be the law of the land right now, not at some future point after a period of phasing in. What would happen if every technically literate American woke up tomorrow determined to publish on the Web in compliance with expert accessibility guidelines, or not at all?

Hundreds of millions of existing pages would be torn down. Some of these would eventually be put back up after being made compliant. Countless others never would.

The posting of new pages, by the tens of millions, would screech to a near-halt. A relatively few, mostly larger organizations that have made it up the accessibility learning curve would continue to publish, but everyone else (except for entities exempt from the ADA) would put publishing plans on hold while they trooped off to remedial tutorials, or at least sent their techies there.

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Amateur publishing, as by the owner of a small business or a community group that relied on volunteers, would become more of a legal hazard. The tendency would be for more entities to turn their web publishing function over to paid professionals.

Within the ranks of paid professionals, there would be a tendency to winnow out the inexpensive freelancers who can currently post rough-and-ready pages at low charge in favor of those who can certify that they have taken the requisite training to "unlearn" the common (and now to be disfavored) page-construction techniques that have been standard form for years.

Many widely used and highly useful features on websites would be compromised in functionality or simply dispensed with for reasons of cost, delay or cumbersomeness. To take but one example, a small town newspaper or civic organization might feel itself at legal risk if it put audio or video clips of the city council meeting online without providing text translation and description. Such text translation and description are expensive and time-consuming to provide. The alternative of not running the audio and video clips at all remains feasible, however, and that is the alternative some will adopt.

Parties subject to the ADA will feel pressure to use government-approved authoring tools rather than the free-form toolkit of HTML authoring methods available thus far. These government-approved authoring tools are unlikely to escape the need for compromises in cost, functionality or flexibility.

III. WILL ENFORCEMENT BE "REASONABLE"?

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Many disabled-rights advocates see their own legal efforts as pressing only reasonable applications of the law, and not as taking a "mechanical" or extreme approach to enforcement. With all due respect, however, they can at best speak only for themselves: *their* enforcement strategy may emphasize working cooperatively with regulated entities and suing only as a last resort, but they cannot prevent others from taking a different approach, and the ADA allows—encourages, really—self-generated and entrepreneurial filing of complaints.

For example, in a developing situation that Rep. Mark Foley (R-Fla.) has recently helped call to the attention of the ADA-watching community, an entrepreneurial culture of filing ADA complaints has lately sprung up in South Florida, centered on the activities of a few nonprofits and law firms which have filed more than 600 complaints against businesses large and small including funeral home and motel operators and retailers. No less than 323 of the cases name as the plaintiff the same 72-year-old plaintiff who happens to be the uncle of one of the lawyers, and that lawyer expects his \$275/hour fees to be paid by defendants each time he settles a charge. See Dan Christiansen, "Besieged by Suits," Miami Daily Business Review, Dec. 21, 1999, <http://www.lawnewsnetwork.com/stories/A11964-1999Dec20.html>, and "Florida ADA complaint binge," <http://www.overlawyered.com/archives/00jan2.html#000126a>. Other mass filing operations have been reported in Texas as well.

If it is easy pickings to walk down a town's main shopping street and find stores that you can hit with an ADA suit over their physical facilities, then it is even easier to browse the web and find websites that are arguably out of ADA compliance. In fact you could undoubtedly set up a robot to visit the sites for you and report back on their noncompliant status. Assuming you could find a court with proper jurisdiction over them, you could then proceed to file web-accessibility complaints by the bushel basket. I am not trying to give law firms any ideas on this, merely pointing out that it is an obvious temptation for someone to start doing this kind of thing once the idea of lawsuits over web accessibility becomes a little more familiar.

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IV. REGULATION OF SPEECH AND CONTENT.

I will close by urging us to keep in mind that what we are regulating here is speech and expression. No one can guarantee that the club of ADA complaints will not be applied as selective leverage by pressure groups or

even some day by the government to discipline media sites or other organizations for unfavorable or controversial coverage or opinion pieces. When we chill the spontaneous publishing of web pages, we chill not only commerce but also the way in which ordinary citizens increasingly broadcast their views to the world. When we tell people that one particular set of web authoring tools should satisfy their creative needs and that they are wrong to want to retain a full diverse grammar of graphic and design features, we are telling them that an officially approved manner of expression has come to displace the older ideal of free expression.

Finally, a word on "universality." Proponents of web accessibility guidelines invariably assert that their systems help advance the web toward this presumably virtuous state of affairs, in which everyone has access to the same content as everyone else. But the actual effect of their guidelines is to move away from universality on the publishing side, by discouraging and in some cases actually banning users from selecting the verbal, audio and visual syntax and grammar in which they wish to speak. We would never (I hope) wish the government to address the problem of "language inaccessibility" by requiring that all domestic websites include a full English translation of everything they publish in a foreign language, even though this would be certain to add to their accessibility to American readers. We rightly sense that such a rule would be an unacceptable infringement on those sites' freedom of expression. Why is it so hard to see the same point when it comes to handicap translation?

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Thank you for your time and attention.

Mr. **CANADY**. Thank you.

Mr. Cooper.

STATEMENT OF CHARLES J. COOPER, CARVIN & ROSENTHAL

Mr. **COOPER**. Good afternoon, Mr. Canady, Mr. Watt, and Mr. Scott. It is always a pleasure to appear before this subcommittee and it is my special pleasure to appear before you today on behalf of the National Federation of the Blind to address the question whether application of the ADA to Internet service providers and other private Internet sites would infringe on the first amendment right of free speech.

This question has poked to the surface recently in a prominent way in light of a lawsuit brought by the Federation against America Online under the ADA. I am not involved in the Federation's action against America Online and so I will not address the merits of the Federation's claim under the ADA or any question concerning the proper interpretation or application of that statute. Nor will I presume to provide the subcommittee with advice on the policy issues that are implicated by the question whether ISPs should be required under the ADA to provide their services in a format compatible with screen access software. My testimony is limited to the question whether such an application of the ADA would violate the first amendment rights of ISPs.

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Based upon my examination of the Supreme Court's precedents in this area, I do not believe that it would. Now, central to my thinking on this issue is the fact that requiring ISPs to provide their services in a format compatible with screen access software would not restrict the speech of these providers in any way. Such a requirement would not alter the content of their speech, it would not restrict their editorial discretion over the material that they transmit or display, and it would not require them to display or otherwise engage in any speech that is not their own. Simply put, the values that are at the core of the first amendment are not implicated by a statute that in no way restricts and in fact expands the dissemination of the speaker's freely

chosen message.

The first step in assessing whether a statute violates the first amendment is determining whether any heightened first amendment scrutiny is necessary at all. It is common ground that ISPs are commercial organizations that both transmit and engage in speech. But the fact that an organization engages in some constitutionally protected first amendment activity does not exempt it from generally applicable business regulations, such as taxes, building codes, antitrust laws, civil rights laws, and the rest. As the Supreme Court put it in a case called *Arcara*, "neither the press nor booksellers may claim special protection from governmental regulations of general applicability simply by virtue of their first amendment activities." Thus, where a generally applicable statute merely regulates some aspect of a business' commercial activity and does not impact its speech, no first amendment defense is available.

The ADA is a law of general applicability aimed at regulating commercial activity, not speech. It does not single out speech or speakers for special treatment but rather applies equally to all public accommodations, whether they engage in speech or not. The operation of the ADA does not vary between speakers and nonspeakers, nor does it reward or punish any point of view. Thus on its face application of the ADA to ISPs would not even trigger heightened first amendment scrutiny.

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Now, it has been suggested that although the ADA is a generally applicable statute not aimed at the regulation of speech, its application to ISPs in this context would impose a financial burden that could limit the amount of speech that ISPs can produce. But the mere fact that the cost of compliance with a statute would divert some of an organization's funds away from its speech activities does not implicate the first amendment. If it did, nearly every statute would be unconstitutional as applied to commercial enterprises that transmit or engage in protected first amendment activities. Therefore, under the Supreme Court's cases, I simply do not believe that heightened first amendment scrutiny would be applied to an application of the ADA requiring ISPs to provide their services in a format accessible to the blind.

Now, if contrary to that view a court concluded that application of the ADA to ISPs warranted heightened scrutiny under the first amendment, I believe it would apply one of the two intermediate scrutiny tests designed by the Supreme Court for content neutral statutes. The first such test set out by the Court in *United States v. O'Brien*, that was the draft card burning case, is applied to content neutral statutes that regulate conduct having an expressive element in a particular case, thereby placing an incidental burden on speech. The Court held in *O'Brien* that when speech and nonspeech elements are combined in the same course of conduct, a sufficiently important governmental interest in regulating the nonspeech element can justify incidental limitations on the speech component.

The second test developed by the Court, in a case called *Ward v. Rock Against Racism*, applies to laws that directly regulate speech but that regulate them only on the basis of time, place, or manner restrictions and not on content. I think that applying either of these tests, and they are explained in greater detail in the testimony that I have submitted in writing, but that applying either test, no first amendment violation would result from application of the ADA in this context. The requirement of both tests that the ADA further an important or substantial governmental interest would be satisfied, as I think few would dispute that enabling the disabled to participate more fully in the activities in the Internet and otherwise is a substantial and important governmental interest. And the application of the statute would satisfy the analogous requirements that the regulation serve an interest unrelated to the suppression of free expression and that it be justified without reference to the content of the regulated speech. An application of the ADA requiring that Internet services be made accessible to the blind would be unrelated to the ISP's message and would serve an important governmental goal unrelated to speech.

Now, I should address two other cases. First, it has been suggested that application of the ADA to ISPs is analogous to the right of reply statutes held unconstitutional by the Supreme Court in a case called *Miami Herald v. Tornillo*. That statute required newspapers to set aside space on their editorial pages for replies to opinions expressed by the editors of the newspaper. But *Tornillo* involved a regulation forcing a newspaper to publish content with which it disagreed. In the Court's own words, "government may not intrude into the function of the editors by compelling a newspaper to print that which it would not otherwise print." As previously noted, requiring an ISP to make its services accessible to the blind would have no impact whatever on the content that ISPs choose to publish, nor would application of the ADA in the Internet context require an ISP to devote limited space to content not of its own choosing.

Another case it seems to me to be quite important in your consideration of this issue, members of the committee, is *Turner Broadcasting v. the FCC*, which addressed the constitutionality of so-called must-carry provisions. I am sure you all remember that legislation and those requirements. It required cable television operators to include local broadcast stations in the bundle of stations offered to their customers. The Court specifically held that the *Tornillo* analysis was inapplicable because the must-carry provisions were content neutral, in that they were not activated by any particular message spoken by cable operators and thus exacted no content-based penalty.

Now, if the must-carry provisions addressed in *Turner* which required cable operators to carry entire stations that they otherwise would not have carried, were found to be content neutral because their operation was unrelated to the content of the speech of either the cable operator or the station, surely application of the ADA to ISPs, which would affect only the manner in which ISPs must distribute whatever content they freely choose to publish, is also content neutral and therefore outside the scope of the *Tornillo* case.

The short of it, Mr. Chairman and members of the committee, is that I believe that applying the ADA to ISPs to provide their services in a format compatible with screen access software would not violate the first amendment.

Again, thank you very much for inviting me to be here today. It is my pleasure.

[The prepared statement of Mr. Cooper follows:]

PREPARED STATEMENT OF CHARLES J. COOPER, CARVIN & ROSENTHAL

Good afternoon, Chairman Canady and Members of the Subcommittee. My name is Charles Cooper, and I am a partner at the law firm of Cooper, Carvin & Rosenthal, PLLC. You have a summary of my biographical information. The short of it is that the bulk of my career, both in government and in private law practice, has focused on a broad range of constitutional issues, including First Amendment questions.

I appear before you today on behalf of the National Federation of the Blind ("the Federation") to address the question whether application of the Americans with Disabilities Act ("ADA") to Internet Service Providers (ISPs) would infringe on their First Amendment right of free speech. (see footnote 21) This question has arisen in light of a lawsuit brought by the Federation against AmericaOnline under the ADA. The Federation represents approximately fifty thousand members situated in every State and the District of Columbia, and advocates for the interests of the approximately 750,000 blind Americans. The Federation's primary mission is enabling the blind to participate and compete fully in every aspect of life. In this

information age, full participation requires access to the vast resources provided by the Internet. The Supreme Court has described the Internet as "comparable, from the readers' viewpoint, to both a vast library including millions of readily available and indexed publications and a sprawling mall offering goods and services. From the publishers' point of view, it constitutes a vast platform from which to address and hear from a world-wide audience of millions of readers, viewers, researchers, and buyers."(see footnote 22) Without access to this vast library of information and this sprawling mall of electronic commerce, the blind will be left behind in our Internet revolution.

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Internet access for the blind has become possible due to the availability of screen access software, which is capable of converting visual information on websites into synthesized speech and Braille. Some ISP websites, however, contain programming rendering some of the site's contents unreadable by the screen access software, and making some of the ISP's content and services unavailable to the blind.

As the Subcommittee knows, the Americans with Disabilities Act requires enterprises defined as "public accommodations" to make "reasonable modifications" to their practices or policies if the modifications are necessary to afford disabled individuals access to the goods or services they provide.(see footnote 23) The Federation believes that this provision requires ISPs to make their services available in a format accessible to the blind, specifically by providing their services in a form compatible with screen access software.(see footnote 24)

I am not involved in the Federation's action against AmericaOnline, and so I will not address the merits of the Federation's claim under the ADA, or any question concerning the proper interpretation or application of the statute. Nor will I presume to provide the Subcommittee with advice on the policy issues that are implicated by the question whether ISPs should be required under the ADA to provide their content and services in a format compatible with screen access software. My testimony is limited to the question whether such an application of the ADA would violate the First Amendment rights of ISPs. Based upon my examination of the Supreme Court's precedents in this area, I do not believe that it would.

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The overriding purpose of the First Amendment is to permit private parties to engage freely in expressive activities without governmental interference in the content of that speech. This core constitutional value simply would not be implicated by application of the ADA to ISPs. Requiring ISPs to provide their services in a format compatible with screen access software would not restrict the speech of these providers in any way: such a requirement would not alter the content of their speech; it would not restrict their editorial discretion over the material that they transmit or display; and it would not require them to display or otherwise engage in any speech that is not their own. Put simply, the values that are central to the First Amendment are not implicated by a statute that in no way restricts—and in fact expands—the dissemination of a speaker's freely chosen message.

A contrary conclusion would raise significant constitutional questions about a variety of regulations that serve similar purposes. For example, if application of the ADA to ISPs violated the First Amendment, then a requirement of closed captioning for television programming would also be unconstitutional. Yet, such an incidental burden on speakers that merely expands the reach of their own freely chosen message has never been found to violate the Constitution.(see footnote 25)

My analysis proceeds in two parts. First, because the ADA is a generally applicable economic regulation not specifically targeting speech itself or any group of speakers, no heightened scrutiny under the First Amendment is required. Second, even if a court were to decide that application of the ADA to ISPs required

some form of heightened First Amendment scrutiny, it would survive the intermediate First Amendment scrutiny applicable to content-neutral laws that incidentally burden speech.

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I. Supreme Court Precedent Does Not Require Heightened First Amendment Scrutiny In This Context.

The first step in assessing whether a statute violates the First Amendment is determining whether any heightened First Amendment analysis is necessary at all. It is common ground that ISPs are commercial organizations that both transmit and engage in speech, occupying a position roughly analogous to a bookseller that also publishes some of its own books. But the fact that an organization engages in some constitutionally protected First Amendment activity does not exempt it from generally applicable business regulations, such as taxes, building codes, and civil rights laws. As the Supreme Court said in *Arcara v. Cloud Books, Inc.*, (see footnote 26) "neither the press nor booksellers may claim special protection from governmental regulations of general applicability simply by virtue of their First Amendment activities." In *Associated Press v. United States*, (see footnote 27) which upheld application of antitrust laws to the press, the Supreme Court elaborated on this principle, observing that publishers "are engaged in business for profit exactly as are other business men who sell food, steel, aluminum, or anything else people need or want. . . . The fact that the publisher handles news while others handle food does not . . . afford the publisher a peculiar constitutional sanctuary in which he can with impunity violate laws regulating his business practices." (see footnote 28) Thus, the courts have upheld the application of a variety of economic regulations, including antitrust (see footnote 29) and unfair trade practices statutes, (see footnote 30) sales taxes, (see footnote 31) National Labor Relations Act, (see footnote 32) and the Fair Labor Standards Act, (see footnote 33) to the press no less than to other industries. Similarly, the Court has ruled that members of the press, no less than other citizens, can be required to testify before the Grand Jury, (see footnote 34) and that they are subject to civil suit for breach of a promise made in the process of gathering news. (see footnote 35)

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When a law of general applicability is challenged on First Amendment grounds, the first inquiry is whether the statute is truly indifferent to protected activity, or whether it singles out speakers for special treatment or imposes financial burdens for the purpose of stifling speech or influencing its content. Thus, for example, the Supreme Court has struck down tax provisions that apply only to the press (see footnote 36) or that apply only to those press organizations reporting on certain topics. (see footnote 37) But where a generally applicable statute merely regulates some aspect of a business's commercial activity and does not impact its speech, no First Amendment defense is available.

The ADA is a law of general applicability aimed at regulating commercial activity—not speech. It does not single out speech or speakers for special treatment, but rather applies equally to all public accommodations whether they engage in speech or not. The operation of the ADA does not vary between speakers and nonspeakers, nor does it reward or punish any point of view. Thus, on its face, application of the ADA to ISPs would not even trigger any heightened First Amendment scrutiny.

It has been suggested that although the ADA is a generally applicable statute not aimed at the regulation of speech, its application to ISPs in this context would impose a financial burden that could limit the amount of speech that ISPs can produce. But the mere fact that the cost of compliance with a statute will divert some of an organization's funds away from its speech activities does not implicate the First Amendment. If it did, nearly every statute would be unconstitutional as applied to commercial enterprises who transmit or engage in speech activities. In *Grosjean v. American Press Co., Inc.*, (see footnote 38) which struck down a statute that singled out certain newspapers for a greater tax burden, the Court was careful to point out that "[t]he tax involved here is bad not because it takes money from the pockets of [the newspapers]," but because it singled

out certain organizations based on the content of their speech.(see footnote 39) Therefore, under clear Supreme Court precedents, I do not believe that heightened First Amendment scrutiny would be applied to an application of the ADA requiring ISPs to provide their services in a format accessible to the blind.

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II. Application Of The ADA To ISPs Satisfies Intermediate First Amendment Scrutiny.

If, contrary to the foregoing analysis, a court decided that the ADA, if applied to ISPs in this context, constituted a direct regulation of speech, the court would apply heightened scrutiny under the First Amendment. Again, once it is apparent that the First Amendment is implicated by a statute, the primary inquiry is whether the statute is aimed at influencing the *content* of speech,(see footnote 40) on the basis of subject matter, of viewpoint, or of the speaker's identity. Restrictions that discriminate on the basis of content are subjected to the strictest form of constitutional scrutiny and almost always are found to violate the First Amendment.(see footnote 41) A statute that is content- neutral, however, is analyzed more leniently, under one of two intermediate scrutiny standards. As previously discussed, the ADA clearly does not discriminate on the basis of content or speaker. It applies generally to all public accommodations, and requires them to take reasonable steps to provide access for disabled Americans. With respect to the blind, such an accommodation might require the use of alternative media of communication (Braille or voice readers, for example), but any such requirement would have a speaker-neutral and content- neutral basis. Thus, strict scrutiny would not be appropriate, and one of the two intermediate scrutiny tests enunciated by the Supreme Court would apply.

The first such test, set out by the Supreme Court in *United States v. O'Brien*, (see footnote 42) is applied to content-neutral statutes that are not directed at speech, but that regulate conduct having an expressive element in a particular case, thereby placing an incidental burden on speech. The Court held in *O'Brien* that when "speech and "non-speech" elements are combined in the same course of conduct, a sufficiently important governmental interest in regulating the nonspeech element can justify incidental limitations' on the speech component.(see footnote 43) Such a regulation is constitutionally sound so long as it "is within the constitutional power of the Government, . . . furthers an important or substantial governmental interest that is unrelated to the suppression of free expression," and creates a restriction on speech that is "no greater than is essential to the furtherance" of that government interest.(see footnote 44)

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The second test, set out by the Supreme Court in *Ward v. Rock Against Racism*(see footnote 45) and other cases,(see footnote 46) applies to laws that directly regulate speech, but that regulate only the time, place, or manner of speech and not its content. Congress may restrict or regulate the manner in which an individual speaks so long as the regulation is "justified without reference to the content of the regulated speech," is "narrowly tailored to serve a significant governmental interest," and leaves open "ample alternative channels for communication" of the speech.(see footnote 47) In *Ward*, the Supreme Court examined a New York City regulation requiring musical groups performing concerts in Central Park to use the City's amplification equipment and sound technicians in order to control the level of sound and resulting nuisance to nearby residential areas. The Court recognized that the ordinance restricted the manner in which a group engaged in protected speech, but nonetheless held that the ordinance was constitutionally permissible because the City had not adopted the regulation due to "disagreement with the message"(see footnote 48) conveyed by the speech, but to further its interest in minimizing public nuisances. The regulation was found to be narrowly tailored to serve this interest because the governmental goal would "be achieved less effectively absent the regulation."(see footnote 49) Although the regulation prohibited a protected performance through the use of certain equipment, the Court held that it left open sufficient alternative channels of communication, including performance in the park using the City's equipment.

Although the *O'Brien* test and the time, place, and manner test may be applied in somewhat different contexts, the Supreme Court has indicated that they are nearly identical in operation and, in some cases, the Court has applied both tests to a single application of a statute.(see footnote 50) Therefore, in the interests of brevity, I will discuss the application of both tests simultaneously rather than analyzing each test in turn.

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Applying either test, I believe that no First Amendment violation would result from application of the ADA to ISPs in the present context. The first prong of the *O'Brien* test would be met because ISPs are obviously engaged in interstate commerce so as to subject them to Congress's regulation under the Commerce Clause. Second, the requirement of both tests that the ADA further an "important or substantial governmental interest" would be satisfied, as few would dispute that enabling the disabled to participate more fully in the activities that the rest of us take for granted is a substantial and important governmental interest. Indeed, "assuring that the public has access to a multiplicity of information sources is a governmental purpose of the highest order, for it promotes values central to the First Amendment."(see footnote 51) Further, this application of the statute would satisfy the analogous requirements that the regulation serve an interest "unrelated to the suppression of free expression"(see footnote 52) and that it be "justified without reference to the content of the regulated speech."(see footnote 53) Like the restrictions in *Ward*, an application of the ADA requiring that Internet services be made accessible to the blind would be unrelated to the ISP's message and would serve an important governmental goal unrelated to speech.

Next, with respect to the requirement that the regulation be narrowly tailored to serve the government's interest, requiring ISPs to make their services available in a format compatible with screen access software would not be more restrictive than necessary to further the ADA's important goal of affording the blind access to the Internet. In any event, the Supreme Court has held that Congress need not pass the least restrictive regulation possible, and that a statute is narrowly tailored if it serves the government's interest in a "direct and effective way."(see footnote 54) Application of the ADA to ISPs in this context would surely meet this standard. Finally, the last requirement of the time, place, and manner test—that the statute leave open "alternative channels of communication"—would clearly be satisfied because the ADA does not foreclose any means of communication. Indeed, the Federation here has a much stronger case even than the City in *Ward*, where regulations were upheld despite their restrictions on the dissemination of speech—here, the statute encourages it.

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It has been suggested that application of the ADA to ISPs in the present context is analogous to the "right of reply" statute, held unconstitutional in *Miami Herald v. Tornillo*,(see footnote 55) that required newspapers to set aside space on their editorial pages for replies written by those with opinions contrary to those expressed by the editors. But *Tornillo* involved a regulation forcing a newspaper to publish *content* with which it disagreed.(see footnote 56) In the Court's words, government may not "intru[de] into the function of editors" by compelling a newspaper "to print that which it would not otherwise print."(see footnote 57) Such a content-based requirement is easily distinguishable from the ADA, which has no bearing whatever on the content that ISPs may or must publish.(see footnote 58) Nor would application of the ADA in the Internet context require an ISP to devote limited space to content not of its own choosing.(see footnote 59)

Turner Broadcasting System, Inc. v. Federal Communications Commission (see footnote 60) addressed the constitutionality of so-called "must-carry provisions" requiring cable television operators to include local broadcast stations in the bundle of stations offered to consumers. The Court specifically held that the *Tornillo* analysis was inapplicable because the must-carry provisions were "content-neutral" in that they were not "activated by any particular message spoken by cable operators and thus exact[ed] no content-based penalty."(see footnote 61) If the must-carry provisions addressed in *Turner*, which required cable operators to

carry entire stations they otherwise would not have carried, were found to be content-neutral because they were unrelated to the content of any other speech by the operator, surely application of the ADA to ISPs, which would affect only the *manner* in which ISPs must distribute whatever content they freely choose to publish, is also content-neutral and therefore outside the scope of *Tornillo*.(see footnote 62)

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In sum, I believe that applying the ADA to require ISPs to provide their services in a format compatible with screen access software would not violate the First Amendment. I believe that a federal court would likely conclude that heightened First Amendment scrutiny is not warranted in such a case because the ADA is a content neutral statute of general applicability. But even if heightened scrutiny were applied, the ADA would pass muster under either the "incidental burden" test of *O'Brien* or the time, place, and manner test of *Ward*.

Again, thank you for this opportunity to address the Subcommittee on this important subject.

Mr. **CANADY**. Thank you, Mr. Cooper. Mr. Watt.

Mr. **WATT**. Thank you, Mr. Chairman. I want to deal with two issues. I think the first one can be dealt with fairly quickly, and that is the one that Mr. Cooper has addressed. I am having trouble, Ms. Dorminey, understanding your argument that this somehow violates the first amendment. I have tried to read your presentation, and I guess if you assume what you are assuming, it probably would violate the first amendment that pictures and graphics would be prohibited. I haven't heard anybody here today suggest that we are trying to get to that kind of result. How do you perceive that this is content based?

Ms. **DORMINEY**. Well, Congressman Watt, any regulations that prescribe form on the Internet this way are necessarily going to affect content. It may not set out to prohibit the use of pictures and graphics but it does tell the people who are building the sites that they have got a problem if that is what they do and that they have got to work around it somehow. Now, we have been thinking in terms of very serious Web site applications, but I have got a 9-year-old at home, and so a lot of what I see coming over the Internet is——

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Mr. **WATT**. There is nobody here who has testified about limiting anything that is going to your 9-year-old. Maybe I am missing something here.

Ms. **DORMINEY**. Perhaps if I could finish you would see, sir, with all respect.

There is Commander Keene and there is Pokemon and there is Chips Challenge and all manner of games which are going to have some serious problems if they are going to be translated, if mandatory rules are going to be set up that are going to prohibit that form. A friend of mine who is a painter and has very carefully catalogued and posted his paintings on the Web, hoping to attract a larger audience for his artistic works, he is going to have a serious problem, because when you set out to say that you can do anything you want as long as it's in text, this is like freedom of thought in China. You can think anything you want but it is just saying it that is going to get you in a little bit of hot water from time to time. If you are going to take the approach of prescribing content——

Mr. **WATT**. I guess this is not going to be as quick as I thought it was. I thought this was the easy one.

Mr. **OLSON**. Might I jump in?

Mr. **WATT**. All right, Mr. Olson, go ahead and jump in.

Mr. **OLSON**. With an example. I do think this is well worth our time. It is an important issue. One of the standard pieces of accessibility advice is to not use color to signal content and not use table layout to signal content because it is not fully accessible to the colorblind or others. But in fact if you think of us, we who design pages, as part artists as well as graphically having to figure out what we think will make the biggest impact in driving home ideas through layout, then often color is the big, obvious way to do it. And taking that out of our grammar, it is as if you told people who exhibited at the Brooklyn Museum that they could no longer use certain colors.

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Mr. **WATT**. I don't think I'm talking about taking anything out of your grammar, I really don't. I haven't heard anybody suggest anything about taking anything out to the extent—I have heard some reasonable accommodation to try to make something accessible to other people. But I for the life of me haven't heard anybody talk about taking anything out. That I don't think is what this debate is about.

Mr. **BLANCK**. May I respond, Mr. Watt?

Mr. **WATT**. Yes, sir.

Mr. **BLANCK**. All of this sounds, as this old professor would say, as a very interesting law school hypothetical most of which has nothing to do with a reading of the Americans with Disabilities Act.

Mr. **WATT**. I had a lot of those hypotheticals when I was in law school. You are absolutely right. Most of them didn't have anything to do with real life.

Mr. **BLANCK**. What we are talking about here are entities that offer goods and services to the public to make money. That is the definition under the law of a public accommodation. I believe it is incorrect that it is a physical place. Some Federal courts of appeals happen to agree with my opinion. Not all courts agree with that opinion.

What we are talking about is not in any way, to use your words, mandatory rules or prescription for technology or speech. There is nothing in the ADA about it. It is about alternative, effective ways to communicate, which may include accessible Web sites. It may also include Mr. Olson picking up the phone if there is a query and saying this is what it is. It may also include sending out a Braille format.

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Now, do I believe from a technological and economic point of view that, of course, it is better to make Web sites accessible? I am convinced of that argument. But that has nothing to do with the substance of the hearing today with regard to the applicability of the ADA to the Internet.

Lastly, if I might just finish the last point, the last point would say there is an undue burden provision, and if it fundamentally alters what is going on or is economically unfeasible or administratively unfeasible, you don't have to do it under the Americans with Disabilities Act.

Mr. **CANADY**. Your time has expired.

Mr. **WATT**. I would say that is the most dramatic way that anybody—any chairman has ever told me that my time was up, Mr. Chairman.

Mr. **CANADY**. Well, without objection, it will be extended.

Mr. **WATT**. Would the gentleman please cut the lights back on?

Mr. **CANADY**. Your time is extended by an additional 3 minutes.

Mr. **WATT**. I don't know if I can do the second one justice in 3 minutes if I thought——

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Mr. **CANADY**. Make it 5.

Mr. **WATT**. [continuing]. If I thought the first one was going to be the simple one and it took over 5 minutes. This was a more complicated one and maybe this one will be simpler.

Under the ADA, is the definition of what is public and what is private any different than the regular legal definition of what is public and what is private?

Mr. **BLANCK**. I will address that, but the microphone was pulled.

Mr. **WATT**. Let's hear from Ms. Dorminey and Professor Blanck and Mr. Cooper on this. I just am trying to figure out. The chairman started this by talking about private Web sites, and my first reaction was, well, if somebody has a Web site that they invite people to, is there any such thing as a private Web site?

Mr. **CANADY**. If I could explain, I meant as opposed to governmental. Private versus governmental is the distinction I was trying to draw.

Mr. **OLSON**. Other than password-protected sites, all sites are general invitations for the public to visit.

Mr. **BLANCK**. I would disagree with that.

Mr. **WATT**. I did not hear what Ms. Dorminey said. Let her go, then I will shut up and let you go, and then Mr. Blanck and Cooper. And, Mr. Olson, I am not trying to keep you out of the conversation.

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Ms. **DORMINEY**. After all of that, I am not completely sure where the question came from.

Mr. **WATT**. The question is whether there is a distinction between private and public insofar as the Internet is concerned that is different than the distinction between private and public outside the Internet.

Ms. **DORMINEY**. Well, for one thing, the statute does set forth a list of things that are considered public accommodations.

Mr. **WATT**. Those are just examples.

Ms. **DORMINEY**. That is correct, but if I may continue, it also says at the beginning of that list, at the head of that list, that it has to be something that affects commerce. I would maintain that there are many Web sites that do not affect commerce. Somebody who is posting their prose, at least not the way the Supreme

Court has been taking that recently in cases like the Lopez decision where they said, you know, the Gun-Free Schools Zones Act was unconstitutional because there was no impact on commerce in that legislation.

So I would say, yes, there is a distinction between some private sector, private individuals or organizations, Web sites that are merely there because this person wants to express themselves in a particular way; and those, I think, don't have any impact on commerce.

But——

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Mr. **WATT**. What about the rest of them? You concede that the ADA applies to the commercial ones?

Ms. **DORMINEY**. No, I don't, sir.

Mr. **WATT**. Okay.

Mr. Blanck?

Mr. **BLANCK**. I thought I was going to agree with Ms. Dorminey, but I met her halfway. The confusing thing is, the section title is Public Accommodations, and we are talking about both public and private activity. In my view, to the extent that a site affects commerce, offers goods and services to the public, then it would be covered.

Ms. Dorminey is quite right that private sites that have genealogy charts or something which in no way affects commerce likely would not be covered as Title III.

Mr. **WATT**. Unless somebody is selling genealogy charts.

Mr. **BLANCK**. That could be. I would agree with her in part and disagree with her in part.

Ms. **DORMINEY**. If I could continue one more round on this, I would say that, to go back to law school again for a minute, you know how we love the Latin phrases: "Inclusio unius est exclusio alterius."

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Mr. **WATT**. I couldn't even understand the American phrases. I can't go there with you, Ms. Dorminey. I'm sorry.

Ms. **DORMINEY**. This means, sir, that if we have a list of things and there are some things left off the list, then you meant to do it basically. If the list of things contains physical places, it doesn't contain intangible places, then the logical argument that would follow there, using normal statutory interpretation methods, is to say that Congress didn't intend to cover intangible things like the Internet.

Mr. **WATT**. That is absolutely contrary to what my mama taught me. She would give me a list of places I couldn't go, but I guarantee you that didn't exclude a bunch of other places. You know, what you say is good law school, but it is just not—I mean, it is just contrary to common sense, to my mama's common sense. I'm not questioning your common sense.

Mr. Cooper?

Mr. **COOPER**. Mr. Watt, as I mentioned at the outset, I have not studied this question of statutory construction. I don't have an opinion to offer you on that.

Mr. **WATT**. You were on the First Amendment.

Mr. Olson, that will give you a shot at it.

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Mr. **OLSON**. I think the difficulty in our giving you any consensus reflects, as Professor Blanck mentioned, is the courts themselves are in flux as they say about a chaotic situation that is out of control. The courts themselves are having trouble figuring out how far to extend public accommodation. The Casey Martin case was a big surprise for many who thought that professional sports were not, and it turns out they were. It is up in the air. It is not our fault.

Mr. **WATT**. They have been struggling with this concept, I agree.

Mr. Chairman, I thank you for the time and I yield back. Not that I have any time to yield back. You haven't cut off the lights on me, though.

Mr. **CANADY**. Thank you.

Just looking at the statute here in the definition of public accommodation, it says the following private entities are considered public accommodations for purposes of this subchapter if operations of such entities affect commerce; and then there is an extensive list that covers a lot of things. I think a key element in that is where it refers to bakery, grocery store, clothing store, hardware store, shopping center or other sales or rental establishment; and I think the hook here is "sales establishment."

Is that your understanding, Mr. Blanck?

Mr. **BLANCK**. I would agree with that. In fact, that is what I had underlined in my version of the statute right in front of me, among other things as well.

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Mr. **CANADY**. Let me ask you this, Professor Blanck. Is a catalog, a published, printed catalog, a place of public accommodation?

Mr. **BLANCK**. Well——

Mr. **CANADY**. To your understanding?

Mr. **BLANCK**. Yes, of course, and I read that critique in Ms. Dorminey's statement as well. I don't agree with that, but I know that Ms. Dorminey had raised that argument as well in her written statement.

I believe that a catalog—and I am assuming that maybe it is just a catalog service without any——

Mr. **CANADY**. Assume I have a small catalog sales operation and I don't have any walk-in sales, just send a simple catalog out. Maybe I sell books and I send out my simple catalog and distribute it as widely as I can. Is that subject to the ADA?

Mr. **BLANCK**. I would suggest that a catalog is an entity which offers goods and services to the public affecting commerce, and it must be effectively communicated to a range of people with and without disabilities. So I would say for the following reasons—and I am going to get to them—that yes, a catalog would be covered and it must be effectively communicated.

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What might that mean? That might mean that they put a phone number in the back saying, get somebody to call this number for you if you need help, and we will read it to you over the phone or will send a Braille version. That is all that might mean, but yes, that certainly might be consistent with the definition of a public accommodation.

Mr. **CANADY**. Has the Court ever dealt with that situation?

Mr. **BLANCK**. I am not aware of a case that dealt with that.

By the way, the cases that I referred to earlier and Mr. Olson alluded to out of the first circuit and another circuit have not dealt with exclusively Web-based sites. They have dealt with mixed sites like Barnes & Noble, which might have a book store and an on-line service as well. There is no case law that I am aware of on that topic.

Mr. **CANADY**. Let me ask you, Mr. Olson's Web site, where he bashes lawyers and tries to sell a few books, is that covered by the ADA in your understanding?

Mr. **BLANCK**. In that case, I don't believe Mr. Olson's books are affecting commerce in any way.

Mr. **WATT**. If they are, they are probably adversely affecting commerce, I think is what he is saying.

Mr. **CANADY**. Mr. Olson is trying to help commerce. Mr. Olson is saying he is trying to facilitate commerce. But let's take Mr. Olson out of it.

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Assume an advocacy organization of one form or another that does have at its Web site a place where books can be purchased; is that covered?

Mr. **BLANCK**. If the hypothetical American Association of All People With Disabilities has a Web site of information and also was selling their books to make money for whatever reason, profit or not profit, and it was affecting commerce, I believe that aspect of the Web site would be covered by Title III of the ADA.

Mr. **CANADY**. Well, now, a newspaper that has a Web site is not covered? Or is it?

Mr. **BLANCK**. Well, I think, again you are getting into—for example, a major newspaper which has both a hard print and a Web site version as well, I think the argument could be made to the extent that service is sold on the Web, that that newspaper on-line service is affecting commerce and could potentially be covered by Title III.

Now, having said that——

Mr. **CANADY**. Where do they fall? They come under the sales establishment?

Mr. **BLANCK**. There are specific exclusions under Title III for hard newspapers and for radio and television broadcasters and so forth. But you are asking a very difficult question which really has not evolved yet and that is the interplay between a site which has both the on-line presence and the hard presence.

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Mr. **CANADY**. You are saying they are exempt?

Mr. **BLANCK**. I am saying that a reasonable person might say, if the same information is in hard copy as is on the Web site, why not have the newspaper paper say, if you want an accessible format, we will send you a Braille copy? And then maybe they don't have to make the same information accessible on the Web site page.

Mr. **CANADY**. You are saying that the exemption for newspapers in the ADA, in your view, doesn't apply to media outlets on the Internet?

Mr. **BLANCK**. I am saying that in circumstances where that information could not be made effectively available to people with disabilities, then they might have to comply with the Title III accommodations.

Mr. **CANADY**. Well, let me ask Mr. Cooper about that, whether he thinks that would raise any first amendment issues if this is actually applied to the news media.

Mr. **COOPER**. If it is applied to the news media, ADA, being a generally applicable statute that is not in any way content based, I don't think there is a first amendment impediment to applying it to newspapers anymore than there is an impediment to applying taxes, civil rights laws, and the rest of it.

In fact, in the *Turner* case, it only applied to media outlets. It was very specific. It wasn't even a statute—the "must carry" rules were not even a statute of general applicability. They were quite specific to entities whose only real function was to engage in protected activities, cable operators and cable programmers. And though the statute itself was specific, it nonetheless was upheld largely because the Court determined that it was content neutral. It did not attempt to place the thumb of the government on the scales one way or another in terms of what the content was that was displayed through the forced access. So I don't think there would be a first amendment question.

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That doesn't mean there are not obviously very weighty policy issues that must be considered, but I don't think the First Amendment would restrict the legislative options available on that issue.

Mr. **CANADY**. Without objection, I will give myself an additional 5 minutes.

Let me——

Mr. **OLSON**. If I could jump in, because it does speak to that point. If one is trying to come up with a list of types of Web sites that might be affecting commerce and be accommodation, I have one more nominee, which is the nonprofit or opinion-oriented site which doesn't charge for content, doesn't operate a book store, but does get revenue from banners that are placed on its page.

I would think that a talented lawyer could certainly construct an argument for why such sites are selling a

service, even if not to the visitors—are in interstate commerce. This is the model on which network TV made its fortunes for a long time, and the idea that it was not in interstate commerce would be surprising.

Ms. **DORMINEY**. Mr. Chairman, I think that what this reflects is the difficulty that we have grabbing hold of what the Internet is. I don't think that it is yet cemented in our minds exactly what this is. We are trying to draw analogies to brick and mortar stores or something that affects commerce.

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The reason I disagree with the Department of Justice's position here is that I think they have drawn the analogy the wrong way. I don't think it is the right analogy to say that the Internet Web site is like a store. I think it is better to say it is more a public forum, more like broadcasting or radio or television, which we don't require to be transmitted in a content or in a form that is accessible to people with a variety of different disabilities.

Mr. **CANADY**. I think this is related to the line we have been pursuing here. In the proposed rule that has been promulgated, there is a provision that would require the Federal Government Web sites, "to provide at least one mode that minimizes the cognitive and memory ability required of the user." Some say that these standards that are going to apply to the Federal Government ought to serve as a model for standards that would apply to private Web sites.

It seems to me if you apply a standard such as that, that is going to affect the content, I think. If it is not going to affect the content, I would be interested in hearing how you can provide a mode that minimizes the cognitive and memory ability required of the user without affecting the content.

Do you have any comments on that Professor Blanck?

Mr. **BLANCK**. I do have some comments on that, and I would profess not to be a technological expert, but I have done some work in this area a while back with the Annenberg Foundation on this issue in the area of learning disabilities for example. And these modes that we are talking about, for example, voice-activated speech, can be combined in very effective ways with highlighting words and blowing up text for the elderly or shrinking it down that will enhance people with certain cognitive abilities to retain and input that information. So I would say, yes, that is possible.

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With regard to the other aspect of your question, again, with all due respect, my understanding of this hearing is about the applicability of the ADA to the Internet and so forth, and I am not sure that any regulations promulgated in the context you would talk about would have any bearing necessarily on the interpretation of the ADA.

Mr. **CANADY**. Okay. Well, I will yield back the balance of my time. We may do a second round of questions if members wish.

Mr. Goodlatte.

Mr. **GOODLATTE**. Has everybody else had their questions already?

Mr. **CANADY**. Yes. Other than Mr. Scott, who is hoping that somebody will yield him some time.

Mr. **GOODLATTE**. I will yield some time to Mr. Scott.

Mr. **CANADY**. Your colleague from Virginia is going to accommodate you.

Mr. **SCOTT**. Thank you. I thank the gentleman from Virginia.

I had a couple of questions. First, just in terms of whether or not the Internet is a public accommodation or not, is there any question in anybody's mind whether or not the other civil rights laws ought to be effective on the Internet? Can a vendor have a sign saying that we don't sell to certain ethnic groups, or a travel service say, we will not provide the service for certain ethnic groups?

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Ms. **DORMINEY**. I will take a stab at that one because I already staked out so many unpopular positions here.

I think to the extent that they are engaging in an activity that affects commerce, there are other ways to get at those people if they are trying to sell something. On the other hand, I think that you are going to have a problem and there are already out there plenty of Web sites that are expressing opinions that are not popular and that are going to be expressing any number of discriminatory——

Mr. **SCOTT**. I am not talking about the message. I am saying, if they decided to sell goods on the Internet, whether or not they could discriminate in who they sell to.

Ms. **DORMINEY**. Then they are engaging in commerce and it is not the ADA at that point.

Mr. **SCOTT**. I am not talking about title VII. Can they say on the Internet, a travel agency, we do not provide services to African Americans?

Ms. **DORMINEY**. I think that would violate section 1981.

Mr. **SCOTT**. And you would want it to violate title VII?

Ms. **DORMINEY**. It has to.

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Mr. **OLSON**. We have an interesting, unresolved double standard, if you want to call it that, on this in that clearly there is some sort of general recognition of the right of Web sites to put up obnoxious and insulting speech. And I don't think the question has ever come before a court or regulatory panel of whether, if such a site also has a commercial aspect to it, is it implicitly insulting and driving away some people by having whatever hate speech it is. I am not aware of that issue having reached a legal body, but it is a real one. Presumably a bricks-and-mortar bookstore, if it puts up obnoxious racial insults, would come under some sort of liability.

Ms. **DORMINEY**. Mr. Scott, if I may follow up, there is a fundamental difference, and it is a false parity between the Americans with Disabilities Act and title VII. Title VII doesn't have this reasonableness idea built into it. It doesn't have this cost-benefit analysis. It doesn't have in the statute that well, you know, we can't discriminate against African Americans unless it is going to cost too much to change the way our store is configured. That is not permitted under title VII.

But the Americans with Disabilities Act, although it also prohibits certain forms of discrimination, is fundamentally different in that it has this notion of reasonableness built into it which changes the calculation. It is not an absolute prohibition. It is a requirement that reasonable accommodation be made.

Mr. **SCOTT**. Let me try to get at a result then. If we assume that we want Web sites to be more accessible, that people with disabilities do have a right to participate in the new forms of commerce, what is the most effective way to achieve that result? Would it be tax credits for accessible sites? Would it be ADA enforcement? And if so, how?

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Would it be technical assistance to Web sites? Cash awards for Web sites? Developing and giving away software that would make Web sites more accessible, doing that at government expense and giving away the software?

What would be the most effective way of increasing the accessibility of the Web to those with disabilities?

Mr. **BLANCK**. Changing attitudes. Changing attitudes about the myths that Ms. Brewer was talking about, that it is costly, that somehow the lawyers are going to have a feeding frenzy. There are no monetary awards allowed under ADA title III. It is not meant to punish people; it is meant to enable people to effectively participate in society. No more, no less.

There are tax credits under the ADA for small businesses, potentially to make their Web sites accessible.

Mr. **CANADY**. Mr. Scott, would you yield?

Is it not true that there are fines that are applicable if the government brings suit?

Mr. **BLANCK**. If the Justice Department brings suit, it can seek fines in punitive-type cases, of course.

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Mr. **OLSON**. And is it also not true that the provision for generously calculating attorneys' fees in public accommodations claims has led to the springing up of very active claims-filing enterprises in south Florida and elsewhere in which a single plaintiff was used for several hundred cases because he was the uncle of the lawyer who was doing the——

Mr. **BLANCK**. I would not agree with that. With all due respect, it is all hype and anecdote and you are picking up the outlier cases. The fact of the matter is that under the ADA there have been no more proportional number of filings, lawsuits than under any other title VII litigation in the area. If you gentlemen respectfully want to throw out title VII and the Civil Rights Act because there has been a lot of litigation under that, that is your prerogative.

Mr. **SCOTT**. Don't give them any ideas.

Mr. **WATT**. We might have a 2-to-2 tie on that. No, I am joking, I am joking. That is unfair.

Mr. **CANADY**. Not withstanding the comment——

Mr. **SCOTT**. I thank my colleague for yielding.

Mr. **CANADY**. I am happy to yield, I don't know why, but I would be happy to yield to the gentleman from North Carolina for another series of questions.

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Mr. **WATT**. I think I have got some general appreciation of what some of the issues are. And so unless Mr. Scott has another question, in which case I will yield to him——

Mr. **SCOTT**. Thank you. I just want to make a point.

We went through a Virginia version of the ADA about the same time the ADA was being considered in Washington. And one of the things that impressed me was the fact that we found that in terms of employment accommodations, the statistic we were given was 80 percent of the accommodations needed would cost the business less than \$500. And we put in the law that any employment accommodations, any accommodation that costs less than \$500 was presumed to be reasonable and it didn't make any presumption after that.

So I mean, I am convinced that a lot of things that need to be done can be done for a very small amount of money and those that cost a lot would be unreasonable and, therefore, not required under the ADA.

And so I just wanted to make that point. I think there is a lot that we can do. And I don't know how we would actually do it, which of the techniques, carrot or stick, would be appropriate.

Mr. Blanck.

Mr. **BLANCK**. I would agree with that, and I would make one other point we have done some research at our center out in Iowa studying large corporations; and I will not name the company, although we have published about it. This company is a large insurance company—owned a large insurance company, and they had a good number of individuals with visual impairments inputting actuarial data.

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The company, to its credit, spent a good bit of money coming up with a way to make that easier by integrating a Braille display and a voice-activated system, and they got their work done very effectively and efficiently. Slowly, day-by-day, people without visual impairments started crowding around behind them saying how come they are getting out of here faster and making less errors than we are?

The moral of the story is that today that whole unit for people with and without visual impairments has evolved around the new technology, and the whole unit is more effective as a result of what was an initial attempt at an accommodation.

So there are many side benefits we will see from this technology which far transcend the law, which have nothing to do with minimum compliance with the law.

Mr. **WATT**. I yield back.

Mr. **CANADY**. Mr. Goodlatte.

Mr. **GOODLATTE**. Thank you, Mr. Chairman. I apologize for not being able to get here sooner, and some of my questions may transgress on where you have already been, but I do thank the panel for their participation and I thank my friend, Chuck Cooper, who has testified before us a number of times.

I am very actively involved in issues related to the Internet, and I view the Internet as something that is one of the greatest technological developments to empower the individual and to create more freedom that we have ever seen. And that freedom should extend to everybody, no matter what personal obstacles they have to fully utilizing it.

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Some of the things that have been complained about are actually things that are considered to be user friendly by the creators of the technology and some of the users of the technology. Some of the icons and so on that are hard to translate and give voice text to are very helpful to other people. Some people who may have disabilities of their own, people who have problems reading, for example, may benefit from some of those things.

But nonetheless that doesn't change the fact that we want to make sure that those are not obstacles for people who have impairments to utilize this. And I know there has been some discussion on this, but perhaps the panel could enlighten me about what they know about technological advances that could take care of some of the problems that we have now and whether the capacity to identify some of these marks that are not currently identifiable and give a voice message to them is very feasible to do.

Mr. **OLSON**. Technology is changing and advancing at such a rate that it would be hard to predict what the best fix is that is going to come along. Many good fixes are likely to come from many quarters. One that I would put bets on, if I were a betting person, is third-party or third-site translation or accommodation.

We know, for example that one of the great inaccessibility problems of the Web site is to the people who do not speak the major language, English, the lingua franca. And the demand for translation of English into other languages and vice versa leads to a steady improvement on the curve of machine translation, which will almost certainly not be accomplished by making every Web master build a machine translation program into his or her own Web site, but there will be third-party Web sites that specialize in having the best software, and you will be able to read someone's site through that intermediate site. It will not require any particular change in routine for the large or small site that you are trying to read.

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Mr. **GOODLATTE**. And the third-party sites would overlay the existing site and be on your system contemporaneously?

Mr. **OLSON**. People are experimenting with ways of reading it that way.

There are also probably ways of doing it so that there would be resident things on your computer or resident things cached at intermediate locations so that you would not necessarily have to call the translation server every time. Frequently asked for pages could be held on caches.

Much better minds than me have thought much more about this than I am now able to cover. But in the same way that every few months seems to see another major advance for people who are so unfortunate as to not be reading in English, we are going to see talent applied to accessibility problems of the sort that we have talked about, and also of the more surprising and smaller frequency accessibility problems that affect less visible disabilities.

Mr. **GOODLATTE**. Does anybody else want to add anything to that?

Mr. **BLANCK**. I will leave that alone.

Mr. **GOODLATTE**. Professor Blanck, let me ask you, is there time to wait to see how that develops?

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Mr. **BLANCK**. Well, again, I don't profess to have the technological expertise that we heard of this morning. And so I don't know how to answer that other than to say, unlike a language accessibility Federal law, we have an ADA on the books which I believe is reasonable. We have a huge marketplace of consumers whose money is as green as anybody else's, who are ready to participate in that e-commerce marketplace. And I would think, aside from the legal point of view, it would be a shame to our national economy and the growth of our global economy to not allow that participation to occur.

Mr. **GOODLATTE**. Do you think that because the money of people who are impaired in their ability to use some of these sites now is as green as the next person's money that that is going to be a driving force to take care of this problem with or without enforcement under the ADA?

Mr. **BLANCK**. Well, now you are going back to kind of basic views on whether we need these laws at all to enforce or the market can carry the day or not. I happen to believe that as of today there has been a history of exclusion of millions of people with disabilities from the marketplace, from inclusion in everyday society; and that is to me what the ADA reflects. It may be the case in the future that that is not the case, but I don't see that happening in the absence of a law on the books.

Mr. **GOODLATTE**. Do you think that that is intentional on the part of these Web site operators?

Mr. **BLANCK**. No. I think that many forward-looking Web site operators see the new market. And I would disagree with some of the remarks that were made earlier. In our own research, many forward-looking companies transcend these laws. These laws are just the floor, and they are not meant to inhibit productivity and inventive activity. Many companies we look at see the new marketplace as a great opportunity.

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We are working, for example, with a small business lending company now, just exploring ways that they can make their Web site more accessible to people with disabilities, because they see the marketplace of people with visual impairments as a huge marketplace for entrepreneurs with disabilities.

Mr. **GOODLATTE**. Thank you, Mr. Chairman.

Mr. **CANADY**. Thank you. I will now recognize myself for some final questions.

Ms. Dorminey, would you like to comment further on the constitutional issue? I know you take issue with Mr. Cooper's interpretation of the constitutional issue, and in some ways that is obviously one of our primary concerns in holding this hearing. Is there anything further you want to say about why you think there are serious concerns in applying the ADA to the Internet?

Ms. **DORMINEY**. Thank you, Mr. Chairman.

I think that there will be unanticipated problems. We have spoken or we have heard comments in terms here about how it is only prescribing the form and things like that. I am not convinced that prescribing certain forms is going to have no effect on content.

I don't profess to be a first amendment specialist. I try to stay within the realm of the employment

discrimination laws. But I have to believe that the first amendment comes ahead of other considerations, much as the Supreme Court held in *Reno v. ACLU*, when it said protecting children from indecent material on the Internet is certainly a valuable social goal, but the first amendment comes first.

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And you have got serious problems if you say, well, you can't use color, you can't use pictures, or rather actually to be fair, if you use these, you must translate them into certain forms that are going to be accessible.

One of the points that Walter makes, which is very well taken, is that there is such a tremendous explosion of accessibility to all kinds of people with all kinds of different economic levels right now because it is so cheap and easy to do whatever you want on the Internet and that, to the extent that we begin to burden this with requirements, we will begin to weigh it down and we will begin to close off a lot of people who would have access.

The good is going to be the enemy of the best, I think here.

And also to return to a point that this gentleman made, I cannot read the name tag from here.

Mr. **CANADY**. Mr. Goodlatte.

Ms. **DORMINEY**. Mr. Goodlatte. NASA recently sent up a 486 computer to replace one that was on the Hubble telescope because it took—from the time the 486s were new, the approval process was so protracted that by the time the machinery had made it up to the space telescope, where it needed to be used, the machinery that had been able to survive the approval process and the testing was what would be obsolete in a home computer today.

And I fear very much that the same kind of regulatory drag would be even more deleterious in the Internet area, because it just takes so long that by the time you got through devising some standard and setting some regulations, because they would inevitably follow, people would need specificity rather than the great hortatory, "Thou shalt make it accessible" language, you will end up immortalizing something that is going to preclude the creation of better and more effective things if we could have the patience to wait.

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Mr. **COOPER**. Mr. Canady, I think that Ms. Dorminey and I proceed from the same premise, which is essentially that if there is no interference in any way with the content of the Internet service provider, the Internet site with his selection of content, then the First Amendment issues either fade away substantially or completely.

But—and I think what I hear Ms. Dorminey saying is that she is not convinced that the insistence by the ADA that accessibility be provided will not affect content. I can't really engage in that debate. I have been assured by people who know about this stuff that it would not be necessary to eliminate colors to eliminate the visual effects of an Internet site. If that were wrong, I think that it is ADA itself that would probably contain the limits on its own application, because as we have heard from the experts here on the ADA, it does not require that an Internet user or service engage in something that is an undue burden or a fundamental alteration of their operation. And to tell one of these providers that they cannot use color or they cannot use pictures or they cannot use videographics would raise a very serious first amendment issue.

You mentioned earlier, Mr. Chairman, a regulatory provision that I am not familiar with, but it sounded to me like you were concerned about it; it was quite plausible that it could have indeed an impact on content. If

it did, the first amendment issue becomes much different and much graver than it is, at least if my premises are correct.

Mr. **CANADY**. Even over and above the impact on—specific impact on content, is there not at least the potential for a first amendment issue if the regulatory scheme has an impact on the allocation of resources? And I go back to the *Tornillo* case and what the Supreme Court said about that in *Pacific Gas & Electric Company*. There the Supreme Court characterized the decision in *Tornillo* and the specific statement in *Tornillo* as an independent ground for invalidating the statute. In the last paragraph of the opinion, the Court concluded that an independent ground for invalidating the statute was its effect on an editor's allocation of scarce newspaper space.

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Now, it wasn't just the newspaper was having to publish something that the editors didn't write, but they were saying that the editors were having to place this in there and forgo the opportunity to publish something else or to put out other information they wanted to put out. And everybody has scarce resources.

It seems to me that it may be within the act that there are provisions that would prevent any problem from rising to the level of a constitutional violation. But it seems to me that there is at least the potential, when you tell people they have got to use their resources to put information in a particular format and that takes up so much space, then that has an impact on their ability to put out other information that they may wish to disseminate. And I don't think we can say that the first amendment has no potential application here.

Mr. **COOPER**. If I could just briefly respond, I think there are two levels of consideration that you have got to examine. One is the technological one, and I cannot advise on that. But, again, what I am told is that a few lines of text making this text-reading software usable is simply negligible next to the amount of space that is used by graphics, and that it does not contribute in any appreciable way to whatever the finite limits on Internet providers are in terms of computer space.

But the constitutional issue, and I think you make a very fair point about the reference in *Pacific Gas to Tornillo* and the fact that they did make—the Court did make the specific point that the right-to-reply statute operated regardless of what content was in that reply.

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I think, though, that the *Turner Broadcasting II* case drains that reference in *Tornillo* of much of its significance because it seems to me that that point would have required that *Turner II* come out the other way. Because you are dealing in *Turner Broadcasting* with cable service providers with obviously more severe limitations on the number of channels that they can put into the cable box than a newspaper is faced with in terms of its newsprint; and certainly more, at least as I understand it, than an Internet service provider is faced with when it goes to write lines of text behind graphic images.

And yet the majority, and it was a 5–4 decision—and I have lost enough cases in the Supreme Court to tell you that I don't think they are always right—but at least in that 5–4 decision, the——

Mr. **CANADY**. On that, I think all of us would agree.

Mr. **COOPER**. [continuing]. The majority at least ended up saying that forcing the cable operator to devote some of his precious space and commodity to channels the content of which it had no control whatsoever, did not render that an impermissible legislative effort. And they focused specifically on the fact that it was content neutral.

No matter what those local channels were putting on, the cable operator had to let them into the cable line. So it was content neutrality that seemed to be the key there, rather than the simple use of the space.

And I am concerned about the point you raise, Mr. Canady, but I can't think of an answer to *Turner II* on that.

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Mr. CANADY. Well, let me just suggest that I am not sure that cable systems are comparable to Internet service providers. I think we have got a different realm there, where you have cable companies who can be dominant, and I think there are different considerations that would be applicable there than in the context of the open system on the Internet where we have all sorts of small players and all sorts of other places to go than is the case with cable.

Now, that is changing too over time, but that is a point that maybe one day will be authoritatively determined down the street.

I want to thank all of you for taking the time to be with us today. This has been very interesting and informative, and I appreciate your participation. The subcommittee stands adjourned.

[Whereupon, at 3:40 p.m., the subcommittee was adjourned.]

[\(Footnote 1 return\)](#)

Judy Brewer is Director of the Web Accessibility Initiative International Program Office, of the World Wide Web Consortium. Biographical information is available at <http://www.w3.org/People/Brewer>. Required disclosure statement: "I coordinate a project on behalf of the W3C, an international consortium of industry, academe and user organizations which develops Web standards. The W3C is in part hosted by MIT, primarily funded by member organizations, and among its other activities it receives funding from multiple sources to develop and promote solutions to accessibility issues on the Web. That funding for work on Web accessibility includes approximately \$350,000 per year in funds from the US National Science Foundation and the US Department of Education, National Institute on Disability and Rehabilitation Research. My statements for the purposes of this hearing do not represent the opinion of those agencies, nor of the host institution, MIT."

[\(Footnote 2 return\)](#)

Information on W3C's Web Accessibility Initiative is available at <http://www.w3.org/WAI>, including links to the Web Content Accessibility Guidelines <http://www.w3.org/TR/WCAG>, the Authoring Tool Accessibility Guidelines <http://www.w3.org/TR/ATAG> and the User Agent Accessibility Guidelines <http://www.w3.org/TR/UAAG>.

(Footnote 3 return)

Letter from Deval L. Patrick, Assistant Attorney General, Civil Rights Division, to Rep. Tom Harkin, dated September 9, 1996.

(Footnote 4 return)

<http://www.w3c.org/TR/WCAG10/>.

(Footnote 5 return)

<http://www.rit.edu/~easi/easi/alleasi.htm>.

(Footnote 6 return)

<http://ww.arch.gatech.edu/crt/crthome.htm>.

(Footnote 7 return)

Web passes one billion documents, http://news.bbc.co.uk/1/hi/english/sci/tech/newsid_562000/562809.stm (January 19, 2000).

(Footnote 8 return)

Ph.D. in psychology from Harvard University, J.D. from Stanford Law School; member of the President's Committee on the Employment of People with Disabilities; former senior fellow of the Annenberg Washington Program; former Commissioner on the American Bar Association Commission on Mental and Physical Disability Law.

(Footnote 9 return)

See, e.g., Peter David Blanck, *The Americans with Disabilities Act and the Emerging Workforce* (American Association on Mental Retardation, 1998); Peter David Blanck (editor), *Employment, Disability, and the Americans with Disabilities Act* (Northwestern University Press, forthcoming 2000).

(Footnote 10 return)

"Places of public accommodation" include service establishments and places of exhibition or entertainment. 42 U.S.C. §12181(7); 28 C.F.R. §36.104. Religious entities and certain private clubs are exempt from title III.

(Footnote 11 return)

28 C.F.R. §36.303.

(Footnote 12 return)

For instance, a traditional bookstore is covered as a public accommodation under title III, while newspapers, magazines, and television and radio broadcasters are not.

[\(Footnote 13 return\)](#)

Compare Carparts Distribution Center, Inc. v. Automotive Wholesaler's Association of New England, Inc., 37 F.3d 12 (1st Cir. 1994) with *Parker v. Metropolitan Life Insurance Co.*, 121 F.3d 1006 (6th Cir., 1997) (but cases not involving exclusive web-based services).

[\(Footnote 14 return\)](#)

The ADA accessibility requirements do not require content-based alterations to covered private Internet sites and services.

[\(Footnote 15 return\)](#)

28 C.F.R. §36.303 (several factors are considered in determining an undue burden, including the nature and cost of the proposed action and the extent to which the action would fundamentally alter the nature of the goods or services provided).

[\(Footnote 16 return\)](#)

See, e.g., Peter David Blanck, *The Americans with Disabilities Act and the Emerging Workforce* (American Association on Mental Retardation, 1998); Peter David Blanck (editor), *Employment, Disability, and the Americans with Disabilities Act* (Northwestern University Press, forthcoming 2000).

[\(Footnote 17 return\)](#)

Heidi M. Berven & Peter David Blanck, The Economics of the Americans with Disabilities Act: Part II: Patents, Innovations and Assistive Technology, *Notre Dame Journal of Law, Ethics & Public Policy*, 12 (1), 9–120 (1998); Heidi M. Berven and Peter David Blanck, Assistive Technology Patenting Trends and the Americans with Disabilities Act, *Behavioral Sciences & the Law*, 17(1), 47–71 (1999).

[\(Footnote 18 return\)](#)

A tax credit is available to small businesses to offset expenses incurred in complying with the ADA and may be available for web site accessibility improvements.

[\(Footnote 19 return\)](#)

Peter David Blanck, *Communications Technology for Everyone: Implications for the Classroom and Beyond*, The Annenberg Washington Program, Washington, D.C. (1994) [Accessible CD Rom Version, 1995].

[\(Footnote 20 return\)](#)

This last point is relevant in light of recent laws such as the Ticket to Work and Work Incentives Improvement Act of 1999.

[\(Footnote 21 return\)](#)

An Internet Service Provider or ISP provides consumers with the means to connect and interact with the public Internet. Many ISPs also provide consumers with proprietary content, including news, entertainment, and advertising. Most ISPs also provide consumers with electronic mail capabilities.

[\(Footnote 22 return\)](#)

Reno v. American Civil Liberties Union, 521 U.S. 844, 853 (1997).

[\(Footnote 23 return\)](#)

42 U.S.C. §12182(b)(2)(A)(ii).

[\(Footnote 24 return\)](#)

In addition to the provision of the ADA requiring "reasonable modifications," the Federation alleges violations of 42 U.S.C. §12182(b)(2)(A)(iv) (requiring removal of existing barriers); 42 U.S.C. § 12182(b)(2)(A)(iii) (requiring auxiliary aids and services); 42 U.S.C. §12182(a), 12182(b)(1)(A)(i),(ii) (prohibiting discrimination in the full and equal enjoyment of goods and services by disabled individuals; prohibiting denial of participation in or benefits of those goods and services).

[\(Footnote 25 return\)](#)

See *Gottfried v. Federal Communications Comm'n*, 655 F.2d 297, 312 n.54 (D.C. Cir. 1981), *rev'd in part on other grounds by Community Television of Southern California v. Gottfried*, 459 U.S. 498 (1983).

[\(Footnote 26 return\)](#)

478 U.S. 697, 705 (1986).

[\(Footnote 27 return\)](#)

326 U.S. 1 (1945).

[\(Footnote 28 return\)](#)

Id. at 7. The Supreme Court reaffirmed this principle as recently as 1997 in *Glickman v. Wileman Bros. & Elliot, Inc.*, 521 U.S. 457 (1997).

[\(Footnote 29 return\)](#)

Citizen Pub. Co. v. United States, 394 U.S. 131 (1969) (applying the Sherman Act to the press); *Associated Press v. United States*, 326 U.S. 1 (1945) (same).

[\(Footnote 30 return\)](#)

See *International News Serv. v. Associated Press*, 248 U.S. 215 (1918) (applying unfair trade practices regulations to the press).

[\(Footnote 31 return\)](#)

See, e.g., *Leathers v. Medlock*, 499 U.S. 439 (1991) ("the government need not exempt speech from a generally applicable tax").

[\(Footnote 32 return\)](#)

See *Associated Press v. National Labor Relations Bd.*, 301 U.S. 103 (1937).

(Footnote 33 return)

See *Mabee v. White Plains Pub. Co.*, 327 U.S. 178 (1946) ("As the press has business aspects, it has no special immunity from laws applicable to business in general."); *Oklahoma Press Pub. Co v. Walling*, 327 U.S. 186 (1946).

(Footnote 34 return)

See *Branzburg v. Hayes*, 408 U.S. 665 (1972).

(Footnote 35 return)

See *Cohen v. Cowles Media Co.*, 501 U.S. 663 (1991) (concluding that "the First Amendment does not confer on the press a constitutional right to disregard promises that would otherwise be enforced under state law").

(Footnote 36 return)

Minneapolis Star & Tribune Co. v. Commissioner of Revenue, 460 U.S. 575 (1983); *Grosjean v. American Press Co., Inc.*, 297 U.S. 233 (1936).

(Footnote 37 return)

Arkansas Writers' Project, Inc. v. Ragland, 481 U.S. 221 (1987).

(Footnote 38 return)

297 U.S. 233, 250 (1936).

(Footnote 39 return)

See also *Arcara v. Cloud Books, Inc.*, 478 U.S. 697, 706 (1986) (observing that "[E]very civil and criminal remedy imposes some conceivable burden on First Amendment protected activities. One liable for a civil damages award has less money to spend on paid political announcements or to contribute to political causes, yet no one would suggest that such liability gives rise to a valid First Amendment claim.").

(Footnote 40 return)

See *Frisby v. Schultz*, 487 U.S. 474, 481 (1988) ("[T]he appropriate level of scrutiny is initially tied to whether the statute distinguishes between prohibited and permitted speech on the basis of content.")

(Footnote 41 return)

See *R.A.V. v. St. Paul*, 505 U.S. 377, 382 (1992) ("Content-based regulations are presumptively invalid").

(Footnote 42 return)

391 U.S. 367 (1968) (addressing whether a statute prohibiting the destruction of draft cards violated the First Amendment when applied to an individual who had burned his draft card as a political statement). This test has been applied in numerous cases. See, e.g., *Barnes v. Glen Theatre, Inc.*, 501 U.S. 560 (1991); *Clark v.*

Community for Creative Non-Violence, 468 U.S. 288, 293 (1984).

(Footnote 43 return)

Id. at 376.

(Footnote 44 return)

Id. at 377.

(Footnote 45 return)

491 U.S. 781 (1989).

(Footnote 46 return)

See, e.g., *Frisby v. Schultz*, 487 U.S. 474 (1988); *Clark v. Community for Creative Non-Violence*, 468 U.S. 288, 293 (1984).

(Footnote 47 return)

Ward, 491 U.S. at 791 (quoting *Clark*, 468 U.S. at 293).

(Footnote 48 return)

Id.

(Footnote 49 return)

Id. at 798 (quoting *United States v. Albertini*, 472 U.S. 675, 689 (1985)).

(Footnote 50 return)

See, e.g., *Clark v. Community for Creative Non-Violence*, 468 U.S. 288 (1984).

(Footnote 51 return)

Turner Broadcasting Sys., Inc. v. Federal Communications Comm'n, 512 U.S. 622, 663 (1994).

(Footnote 52 return)

O'Brien, 391 U.S. at 377.

(Footnote 53 return)

Ward, 491 U.S. at 791.

(Footnote 54 return)

Id. at 800.

[\(Footnote 55 return\)](#)

418 U.S. 241 (1974).

[\(Footnote 56 return\)](#)

See also *Wooley v. Maynard*, 430 U.S. 705 (1977) (holding that the State of New Hampshire could not require its citizens to use motor vehicle license plates bearing the slogan "Live Free or Die"); *Pacific Gas & Elec. Co. v. Public Utils. Comm'n*, 475 U.S. 1 (1986) (holding that the State of California could not require public utilities to include in their billing envelopes pamphlets published by an outside organization).

[\(Footnote 57 return\)](#)

Id. at 258, 256.

[\(Footnote 58 return\)](#)

As the Supreme Court outlined in *Turner Broadcasting System, Inc. v. Federal Communications Comm'n*, 512 U.S. 622, 642 (1994), whereas laws "compel[ling] speakers to utter or distribute speech bearing a particular message" are subject to strict scrutiny, "regulations that are unrelated to the content of speech are subject to an intermediate level of scrutiny" because they "pose a less substantial risk of excising certain ideas or viewpoints from the public dialogue."

[\(Footnote 59 return\)](#)

See *Miami Herald*, 418 U.S. at 257.

[\(Footnote 60 return\)](#)

512 U.S. 622, 642 (1994).

[\(Footnote 61 return\)](#)

Id. at 655.

[\(Footnote 62 return\)](#)

In *Turner Broadcasting Sys., Inc. v. Federal Communications Comm'n*, 520 U.S. 180 (1997) (*Turner II*), the Supreme Court applied the intermediate scrutiny test to uphold the must carry provisions.