



## ISOC MEMBER BRIEFING #2

# Universal Design for the Internet

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### DEFINITION

Universal Design for the Internet is making sure that the presentation of content on the Internet and the design of Internet technology is flexible enough to accommodate the needs of the broadest range of users possible, regardless of age, language, or disability.

### BACKGROUND

On a worldwide basis WHO estimates there are 750 million people with disabilities or special needs. According to the U.S. Census, 54 million live in the United States. It is estimated that this population in the U.S. controls a discretionary income in excess of \$175 billion annually. As a result, people with disabilities or special needs can have a powerful economic impact on any segment of the economy. Laws and regulations have been enacted in the U. S., the United Kingdom, Portugal, Australia, and other countries to ensure accessible design of web based government and business resources.

Because the Internet is the first truly global community, it is imperative that Universal Design be addressed wherever appropriate. Although Universal Design originated through challenges associated with removing barriers to Internet participation for people with disabilities and special needs, the benefits of Universal Design extend far beyond this community due to the functionality provided for low bandwidth, cell phones and alternate Internet access devices. For the Internet to reach its full potential, Universal Design must be a key component.

### TECHNICAL ISSUES

As early as 1995 the technical issues have centered around access to content on the World Wide Web and web based technology. Accessibility barriers were being created by the shift from a text-based environment to a robust, multi-media environment. In order to address these barriers, Cynthia Waddell authored the first accessible web design standard for local government in the U.S. for the City of San Jose, California. This standard quickly led to recognition as a best practice by the U.S. government and adoption by governments in the U.S. and abroad.

In 1997, the Web Accessibility Initiative (WAI) was launched by the W3C, enjoying support from the major players in the emerging Internet marketplace as well as the U.S. Government. In 1999 WAI published the first stable, internationally recognized standard for accessible web design. This standard, the Web Content Accessibility Guidelines, is under constant review and forms the basis for many of the standards and legal efforts currently underway around the globe.

### Expanded Coverage from ISOC

In-depth articles, papers, links and other resources related to this topic are available from the ISOC web-site at: <http://www.isoc.org/briefings/002/>

### Examples in the News

*US Government Adopts Access Requirements*

As a result of recent legislation, as of 21 June 2001 all federal agencies must comply with new rules for providing disabled persons with access to Web sites and other technology. The law mandates a number of changes concerning web design to ensure access to the web for broad categories of users. More information: <http://www.icdri.org/digsigy.htm>.

*Landmark U.S. Digital Signature Legislation Falls Short with Regard to Persons with Disabilities*

The Electronic Signatures in Global and National Commerce Act (S761) passed by the U. S. Congress in July 2000, marked a significant step forward in many areas. However, ISOC expressed concern at that time that the legislation did not adequately take into account the needs of persons with disabilities. More information at <http://www.isoc.org/isoc/media/releases/000703pr.shtml>.

### Relevant IETF RFCs

As the issue of accessibility takes many forms, so it is that the IETF is actively involved with this issue. Not surprisingly, there are a number of relevant RFCs, far more than can be listed here. For more information please visit the RFC editor page at <http://www.rfc-editor.org/>.

### From OnTheInternet

*Access to the Web: The Cost of Connecting*

<http://www.isoc.org/oti/articles/1000/maher2.html>

*On the Web—and Blind*

<http://www.isoc.org/oti/articles/0198/jellinek.html>

*Creating an Accessible Internet*

<http://www.isoc.org/oti/articles/0200/barros.html>

### About the Background Paper Series

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## IMPLICATIONS

Accessible web design is a requirement under U.S. civil rights law. As early as 1995, ADA and Rehabilitation Act complaints have been filed against U.S. entities for failing to design accessible web sites. In 1996 the U.S. Department of Justice ruled that the ADA applied to the Internet under the "effective communication" rationale. ADA compliance meant that both government and the commercial sector must ensure access to the content of the web.

The U.S. Telecommunications Act of 1996 and the 1998 Amendments to the Rehabilitation Act (Section 508) added significant accessibility requirements for the design of electronic and information technology, including accessible web design. For the first time in U.S. history, Section 508 seeks to create a marketplace incentive for accessible technologies and utilizes the power of the federal government purse to require accessible web design. A ripple effect is currently underway throughout U.S. State and local government. Vendors seeking to market web design services, products and electronic and information technology in the U.S. must be aware of Section 508 procurement requirements for accessible design.

In 1999 the first national U.S. conference on the impact of the digital economy was convened in response to the need for additional data, tools and research on the digital economy. A commissioned paper, "The Growing Digital Divide," was later published by the World Economic Development Congress for the World Bank/IMF Summit and in 2000 as part of the official business briefings of the United Nations Economic Forum in Geneva.

## ISOC POSITION

The Internet Society has a long history of supporting equal access for everyone to the Internet. In fact this is embodied in the motto "The Internet is for Everyone." At every Internet Society INET Conference since 1996, there have been programs addressing Universal Design. While originally centered on access for people with disabilities and special needs, recent programs have begun to integrate these issues with low bandwidth and multilingual issues, as well as problems facing those using alternate access devices such as cell phones.

ISOC has placed emphasis on raising the awareness of these issues in the Internet Community. Last year when the Digital Signature Law was passed by the U. S. Congress, the Internet Society was among the first to issue a statement about the law's accessibility barriers.

In addition, last year at the New Europeans Conference in Paris, members of the Internet Society made presentations addressing both universal design and disability issues. The Internet Society also developed a paper for UNESCO concerning universal Internet access. The Internet Society raised these issues again in March of this year at the Internet Fiesta in Sofia, Bulgaria. ISOC has made a large commitment to addressing accessibility on a global and ongoing basis. The Internet truly is for everyone and only through education and outreach can Universal Design be ensured. ☺

## For More Information

- ☺ ISOC Presentation to UNESCO  
<http://www.isoc.org/isoc/unesco-paper.shtml>
- ☺ US Govt Standards for Accessible Design  
<http://www.access-board.gov/508.htm>
- ☺ Web Accessibility Initiative of W3C Consortium  
<http://www.w3.org/WAI/>
- ☺ Usability.gov  
<http://www.usability.gov/>
- ☺ The Microsoft Accessibility Home Page  
<http://www.microsoft.com/enable>
- ☺ "Applying the ADA to the Internet"  
[http://www.icdri.org/applying\\_the\\_ada\\_to\\_the\\_internet.htm](http://www.icdri.org/applying_the_ada_to_the_internet.htm)
- ☺ "The Growing Digital Divide"  
[http://www.icdri.org/the\\_digital\\_divide.htm](http://www.icdri.org/the_digital_divide.htm)

## From the ISTF

The Internet Societal Task Force (ISTF) has established a **ISTF** number of mechanisms to evaluate accessibility issues. For more information visit <http://www.istf.org/>.

## Related Organizations

- ☺ International Center for Disability Resources on the Internet (ICDRI)  
<http://www.icdri.org/>
- ☺ National Center for Accessible Media  
<http://www.wgbh.org/ncam>
- ☺ CAST  
<http://www.cast.org>

## About the Authors

Michael Burks currently serves as AT&T Network Product Manager and Expert on Accessibility of AT&T Web Based Products and electronic and information technology. Among other activities, he holds positions on the Advisory Board for ICDRI and is Chairman of the ISTF Work Group on Accessibility. Email: [mburks952@worldnet.att.net](mailto:mburks952@worldnet.att.net).



Cynthia Waddell, JD, is an international expert on accessibility and holds federal, state and county appointments addressing governmental policy, legislation and compliance with disability rights law. A frequent speaker at high-level events both in the U.S. and abroad, Cynthia is widely published on the subject of accessible technologies. Her activities include service on the ISTF ISSG, the the National Committee for Information Technology Standards (NCITS) V2 Access Interfaces Technical Committee and the National Task Force on Disability and Technology. Email: [Cynthia.Waddell@PSINetCS.com](mailto:Cynthia.Waddell@PSINetCS.com). More Information: [http://www.icdri.org/cynthia\\_d.htm](http://www.icdri.org/cynthia_d.htm).