

Introduction

When the World Wide Web was invented it was not envisioned that it would evolve into what it is today. While some may decry this evolution, it surely has helped to increase the availability of knowledge and has surely improved communication on a global scale. Because of this evolution and progress in improving communications, it is all the more important that this technology should reach the largest audience possible, regardless of disability, language barriers, devices being used, or bandwidth issues, to name just a few factors that affect the use of the Web and its technology.

The idea of accessibility of web-based technology is based on far more than the implementation of standards and technological solutions. It embodies the idea that everyone has the right to information and that everyone has the right to be included in society, regardless of disability, geographical location, language barriers, or any other factor. Accessibility of web pages is one part; one step in the inclusion of all in the benefits of the Information Society in particular and in society as a whole.

The people who have written and contributed to this volume are some of the leading experts in accessible web design – as such they are helping to make great strides in including many more people in the "Information Age."

What is in the Book

This book not only contains a detailed discussion of technical issues surrounding web accessibility, but also covers legal and policy issues, as well as the practicalities of implementing web accessibility, and integrating this technology into an organization. We will cover these areas in a thorough and comprehensive way, using plenty of practical and real-world examples, so that you can make your site fully accessible to people with disabilities.

Let's have a more detailed look into the fundamental areas of web accessibility:

What is an Accessible Web Site?

In Chapter 1, the basic ideas and concepts behind the current state of accessibility are presented for those who still need to be persuaded of the advantages, or want to know the history behind accessible web technology. This chapter clearly defines accessibility in the context of usability and how this applies to web design. A site that is accessible will, by definition, also be usable, increasing its overall effectiveness. It is important to realize that making your web site accessible not only benefits people who are disabled, but also users who have situational limitations such as those accessing your web site on a mobile device with no mouse, or in constraining circumstances such as while driving.

Legal Issues

The legal issues are no longer confined to the US, although to some degree the US is still used as a model. We cover legal issues in the US in some detail and also address accessibility laws and policies on a global scale.

The legal chapters (2 and 13) are presented in language that is clear and easy to understand by both legal experts and laymen. These chapters are invaluable both for those who need to understand the legal and policy issues in general and those who will have to deal with them in more depth.

The implementation in the US in June of 2001 of the Section 508 Guidelines, requiring all electronic and information technology (including web sites) to be accessible to people with disabilities, has most definitely served as an impetus increasing awareness of the need for accessible web-based technology. We have included both legal and technical sections in this book that deal with this subject specifically.

Cynthia Waddell, who wrote the legal and policy chapters, also wrote what were some of the first web accessibility guidelines, in fact, they were *the* first guidelines ever produced.

"As early as 1995, technical accessibility issues 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 US, for the City of San José, California. This standard quickly led to recognition as a best practice by the US government and adoption by governments in the US and abroad."

(Taken from the Membership Briefing document for The Internet Society:
<http://www.isoc.org/briefings/002/>)

How Do You Make a Web Site Accessible?

In Chapters 3 to 7 of this book, we attempt to demonstrate exactly how to create an accessible web site. The way in which your content is designed can make it completely inaccessible to a user who is visually impaired with a screen reader, yet a few simple changes to the HTML code can make all the difference. Not only does the content itself need to be accessible, but also the navigation, both within individual pages and around the site as a whole. Consider how confusing a poorly structured web site with badly designed navigation can be for a sighted person; this problem is further compounded for a person who is visually impaired.

In addition to offering solutions to these problems, we will also illustrate how to make forms completely accessible to users who are disabled and how to test your web site for accessibility.

This section of the book thoroughly documents how the popular screen readers and voice browsers, such as JAWS for Windows (JFW), Window-Eyes, and IBM's Home Page Reader, handle web pages.

Integrating Accessible Solutions into an Organization

One of the biggest problems today is implementing accessible web technology in organizations. This book gives you not only the tools to implement the technology, but also deals directly with building a model to address implementing accessibility within your organization in an efficient and cost-effective manner. This is explained in Chapter 11.

This chapter provides a model of how to implement accessible web technology across your organization in a consistent manner. In this chapter, we also introduce the tools available to help spur on implementation of accessible sites, and discuss some of their advantages and disadvantages.

Quick Tips

A set of quick tips that are tied directly to the content of the book has been provided. It will allow all involved to get a good, quick look at the issues that must be addressed without going into massive detail.

Who Is This Book for?

This book is essential for a variety of people involved in web-based business/services. It can, of course, be used by those who simply need to raise their awareness of what issues are involved in producing accessible web-based products and services.

- ☐ This book is a thorough technical reference for any web developer implementing specific accessibility techniques. Clear and practical examples cover the major issues, as well as more subtle accessibility problems. It is suitable in and of itself as a technical reference for both beginners and experienced web professionals.
- ☐ Top management must have a good overview of the issues and the obligations that their organizations face in order to set the policy and direction the origination must take.
- ☐ Managers at all levels must be aware of the issues so they can choose the proper way to manage these concerns to the benefit of their customers and the organization. They must know what they are expected to do, and what resources must be applied to accomplish the end result. They must understand the issues involved, so they can assess the progress being made in the implementation of accessible web-based technology in the production of their goods and services.
- ☐ Marketing personnel are critical in ensuring that goods and services meet the needs of customers. If they do not understand the issues, and if they do not understand that a market exists for these products and services, then a critical part is being left out of the picture.
- ☐ The legal section will be vital to legal personnel and policy makers, who must base decisions on existing laws and policies.

Using the book as an overall planning guide will assist in the efficient integration of accessible web design into an organization and will keep the cost to a minimum while maximizing human and technical resources – which are always scarce.

Why Do You Need This Book?

With the advent of Section 508 in the US and several other accessibility laws and policies around the world (as detailed in *Chapters 2 and 13*) accessibility has become a more prominent issue both for those who are building government sites and those who are not. E-commerce is growing and people with disabilities are expecting to be able to use all the web facilities that everyone else is using. In some respects, the ability to use e-commerce is even more critical for those who are faced with transportation difficulties. The Web and e-commerce offer many people with and without disabilities a wider range of goods and services than has ever been available to them before.

Because of the economics of this situation and the fact that more and more people with disabilities are going online, the market is growing. No one should be excluded and those with disabilities are no exception.

No matter what phase your organization is at in its implementation of web-based technology, this book will provide the answers you need to make it accessible to the widest audience possible – disabled or not. This expanding audience will include not only people with disabilities, but those using alternative access devices such as cell phones and PDAs, as well as others in circumstances best served by accessible design, such as those using ATMs, information kiosks and other products and services that will utilize web-based technologies.

This book will help in the initial planning phase of individual projects and overall policy. By planning for accessibility from both the individual project standpoint and from the overall organizational standpoint, you will not only address the technical issues and maximize the utilization of technical resources, but you will be able to implement this technology in legacy areas in an ordered and cost effective manner.

It will also be useful in building organizational models to help support the accessibility effort in a way that will maximize the utilization of your organizations' resources at a minimum of cost.

It is cheaper to build sites in an accessible manner from the beginning; it is cheaper to build the technology to implement features on the sites so that it can be used in an accessible manner; it is the right thing to do, and in many cases it is going to become a question of law.

One last thought: obviously no book will be completely relevant forever, but because this book is not just a book on technology but deals with legal, policy, technical, and organizational issues, it will have relevance for a long time to come. To a large degree it is about making information, products, services and anything based on an emerging technology available to as many people as possible. It is about inclusion of the largest number possible of people in the expanding world of information technology.

To put it in Cynthia Waddell's words – "Technology Changes, But Civil Rights Do Not".

Support/Feedback

We aim to make our books as helpful and informative as possible. However, no matter how many edits we subject our chapters to, a few errors are bound to slip through. We would like to apologize in advance for any errors that reach the published version. To check out the errata page for this book, go to <http://www.glasshaus.com> .

Also, at [glasshaus.com](http://www.glasshaus.com), you will find a wealth of useful resources including the example code for this book.