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## **Chapter I**

# **Web Accessibility and the Needs of Users with Disabilities**

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## **Abstract**

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*This chapter discusses Web accessibility, and focuses on the challenge of meeting the needs of a diverse audience with different types of disabilities, as well as outlining best practices. It presents the nature and need for Web accessibility, focusing on the UK legislation, and argues that e-accessibility goes beyond legal obligations offering life-enhancing opportunities and services, and promoting inclusion. The dynamics between the Web and its diverse audience are emphasized by giving an overview of the multiple facets of Web accessibility. It has been observed that accessibility is often discussed as affecting blind people only, and discussions frequently isolate a few aspects of it. The author hopes that, by demonstrating and offering ways of understanding Web accessibility and its multilayered nature, the ground will be laid for a more effective and inclusive approach towards Web accessibility as a process in Web design and development.*

## Introduction

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Web accessibility is about being able to reach and use information and services regardless of the disability, and of the technology used. The primary focus is on people with disabilities with the secondary focus on people who use different browsers and technologies to access the Web.

Nowadays, not all people can afford broadband Internet connection, and not all people use Internet Explorer. There is a notable increase in the uptake of broadband Internet, but still, the market has not reached maturity levels: “At current rates of broadband adoption, there are on average a good eighteen months to two years of strong penetration increases across Western Europe before markets begin to mature” (Gower, 2005).

Although, the majority of Internet users seem to use Internet Explorer 6, Mozilla Firefox has become quite popular: “As of September 2005, estimates suggest that Firefox’s usage share is around 7.6% of overall browser usage. Since its release, Firefox has slightly reduced Internet Explorer’s dominant usage share” (Wikipedia, October, 2005). In addition, Firefox has become quite popular, especially among developers, for its advanced accessibility features, and it can be used as an aid for testing Web pages for accessibility, according to Lauke (2002). Also, the Opera browser comes with accessibility features such as page magnification, enhanced keyboard navigation, and style and colour customization by offering a set of style sheets that can be applied on a Web page (Opera.com, 2005). Web accessibility features are developed for different Web technologies recognizing the need to offer a good browsing experience to users with a range of abilities (Gunderson, 1997). This imposes the requirement for cross-browser as well as cross-platform compatibility. The latter will be presented.

Users can also access a Web site under constraining circumstances through a mobile phone or a public Internet terminal. A mouse may not be available, and the colours on the Web site may not be fully supported or properly displayed. The W3C WCAG 1.0 guidelines emphasize the variety of contexts in which people use the Web that need to be considered when designing and developing Web applications. More specifically, users:

- May not be able to see, hear, move, or may not be able to process some types of information easily or at all
- May have difficulty reading or comprehending text
- May not be able to use a keyboard or mouse
- May have a text-only screen, a small screen, or a slow Internet connection
- May not speak or understand fluently the language in which the document is written

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