
Chapter XX

Ensuring Optimal Accessibility of Online Learning Resources

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ABSTRACT

Online educational resources have the potential of providing enhanced access to education for everyone. To achieve this, these resources must be accessible both to the increasingly diverse range of potential users and via the diverse browsing environments now available. Legal and moral obligations also exist to ensure that disabled people are not unjustifiably denied access to education. Established accessible design guidelines and techniques exist which, if followed, help to ensure a more usable, portable and effective learning resource for all

users. However, due to a lack of awareness of these amongst educational resource providers and shortcomings in courseware authoring tools, many current online learning resources may contain significant accessibility barriers.

This chapter outlines arguments for accessible design and provides a brief overview of accessible design techniques. Also discussed are strategies for ensuring accessibility of e-learning, which should include provision of appropriate support to resource providers in terms of training and guidance in accessible courseware design, as well as provision of technologies which promote creation of and access to accessible online learning resources.

INTRODUCTION

There is an increasing need for those involved in creating online education resources to ensure that such resources are accessible to the widest possible audience. There has always been a moral obligation to ensure that educational resources are accessible by people with disabilities, and there are now increasing legal responsibilities placed upon educational institutions to avoid unjustified discrimination.

Accessibility problems are not only encountered by disabled users—browsing technologies can effectively disable many users. Developments in the mobile Internet field have led to a diversification of browsing environments, and as Internet use spreads across the world, the number of users with limited bandwidth connections increases—users for whom complex or cutting-edge Web content may not be accessible.

The Web presents an unprecedented platform for innovation in teaching and learning and also offers the opportunity to widen access to education, reaching out to individuals who have previously been prevented from gaining quality and prolonged education. Unfortunately there remains a great deal of communication and information technology (C&IT) which presents many user groups with significant accessibility barriers. This “digital divide” (Waddell, 1999) frequently prevents access to Web content by the people who would benefit most from this content—ease of communication plus access to online shopping, banking and education. Sadly, the poor level of accessibility of the majority of Web content appears to be due to a lack of awareness of accessible design issues—not only in terms of the needs and requirements of disabled and other Web users, but also through misconceptions as to what accessible design does and does not require.

This chapter briefly outlines the arguments for taking accessibility into account during design and discusses strategies for ensuring that accessibility plays a core part in the design, development and maintenance of online educational material. Common accessibility problems and solutions are discussed, as is the vital issue concerning possible conflicts between pedagogical value and accessibility of Web-based teaching and learning resources.

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