Chapter 17
A 15 Factor and 157 Item Checklist for Assessing Website Usability and Accessibility

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ABSTRACT
Website assessment is still a very much ill-defined practice, conducted by some and largely ignored by most. Instruments to help assess and measure the usability of websites are vital in ensuring that websites not only meet their intended purpose but are also usable and accessible. This chapter presents a checklist comprised of 15 factors and 157 items matured over years that are rooted in cognitive psychology, instructional design, computer science, but most importantly, human-computer interface study, which can be used to guide researchers and practitioners in assessing the usability and accessibility of website design.

INTRODUCTION
Although academic researchers have long advocated the importance of assessing the effectiveness of websites (Law, Qi, & Buhalis, 2010), with numerous approaches published (Law & Bai, 2006; Tullis & Stetson, 2004; e.g., Evans & King, 1999; Lu & Yeung, 1998; Stern, 2002; Stout, 1997), and efforts made to help improve the overall quality of websites (Law & Bai, 2006), website assessment is still a very much ill-defined practice, conducted by some and largely ignored by most. Even defining terms, such as “website usability” (Corry, Frick, & Hansen, 1997) and “website evaluation” (Law, Qi, & Buhalis, 2010), have shown to be troublesome, with no globally accepted definition for either. In spite of this, website assessment continues to be
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A topic of interest to academic researchers and industry practitioners (Law, Qi, & Buhalis, 2010).

According to Chiew and Salim (2003), usability is one of the major factors that can be used to measure website success. The development of instruments to help assess and measure the usability of websites is, therefore, vital (Chiew & Salim, 2003) in that such instruments could be used to help researchers and practitioners design and develop websites that not only meet their intended purpose, but are also usable and accessible. This is an important distinction. Websites must not only be easy to use, but they must also be accessible by visitors, some of which may have special needs. Take for instance amendments, such as Section 508 of the Rehabilitation Act of 1973, which mandates that those with disabilities are afforded the same access to information as those without disabilities (The Rehabilitation Act Amendments, 2013).

This chapter presents a checklist comprised of items matured over a number of years rooted in cognitive psychology, instructional design, computer science, but most importantly, human-computer interface study, which can be used to guide software and web developers, instructional designers, and human factors professionals in assessing the usability and accessibility of website design. While many of us, who may have already internalized the material presented in this chapter based on years of Internet usage, feel that we know good website design when we see it; or feel good design when we interact with it, website assessment is still a very much ill-defined practice. Although the checklist provided in this chapter should in no way be considered exhaustive, it should be viewed as a practical starting point which can be augmented to meet the specific needs of companies, organizations, and individuals in their website assessment efforts.

WEB USABILITY AND ACCESSIBILITY CHECKLIST

The checklist presented in this chapter is comprised of 15 factors and 157 items deemed important in website design and development that should be assessed in terms of usability and accessibility. Specifically, these factors include:

1. Browser support, add-ons, plug-ins, and extensions (Table 1);
2. Domain and URLs (Table 2);
3. Website performance (Table 3);
4. Trademarks, logos, and associated information (Table 4);
5. Advertisements and pop-ups (Table 5);
6. Navigation (Table 6);
7. Searching (Table 7);
8. Online help (Table 8);
9. Web page layout and content organization (Table 9);
10. Language use (Table 10);
11. Graphics, figures, and tables (Table 11);
12. Text formatting (Table 12);
13. Video and audio (Table 13);
14. User interface and behavior (Table 14); and
15. Authentication and error handling (Table 15).

The checklist design is functional. Each item is individually assessed. A “pass,” “NA,” or “fail” mark can be given and comments can be added that may, for instance, include the rationale for the mark or provide specific instruction as to what should be done to the website to address the item in question. Finally, each item contains a brief explanation, providing further detail and clarification.
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