

NIELSEN, J.; PERNICE, K. *Eyetracking Web Usability*. New Riders Press, 2009. 437 p. ISBN 0321498364

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Eyetracking
Web Usability

Research that's relevant: insight into Web content display

As a professor of multimedia design, I am always striving to find books that offer insight into and reasons for making clear and solid Web design choices. Texts on usability testing offer information about a process that can provide good anecdotal information while books on eyetracking research (a technology that can follow a person's gaze) offer a perspective that focuses on where users look and their attention is placed.

This is why Nielsen and Pernice's book "Eyetracking Web Usability" is so intriguing. It combines these two research methodologies and gives user interface designers some excellent guidance in understanding how to draw users' attention to Web page elements.

The authors do an admirable job of portraying the strengths and weaknesses of data gathering using eyetracking. They go into an appropriate amount of detail about the equipment used, the Mind-Eye Hypothesis (a theory that indicates that people are thinking about what they are looking at) and their research design. They even give readers an indication of the cost of using this form of data collection themselves. This background gives the content of the book added credibility.

The chapters about their findings provide excellent guidance for making design decisions about Web page layouts, navigation choices, design elements, use of images, use of advertisements and overall viewing behaviour. There are some gems of knowledge in these pages. For example, readers can understand how most users tend to read Web pages in a pattern shaped like the letter "F". Or they can get confirmation about how rewriting and reformatting a Web story to include more white space, bulleted lists and meaningful icons can increase users' recall of story information. In addition they can see that "people ignore more images than they look at on the Web, and they look at images for just a fraction of a second" (p. 196). In particular *Chapter 6: Images* is full of excellent advice about the types of images that get attention (high contrast images that feature real people) and those that do not (images that

look like advertisements that are not related to content on the page).

Each results chapter outlines basic findings and presents visual screenshots of eyetracking data superimposed onto Web pages. These visual representations help to provide a clear, concrete understanding of the concepts and allow the reader to clearly see the reasons for the conclusions drawn by the authors. Moreover, the sites tested were not prototypes created for this study but rather popular, heavily used sites such as Skype, Sony, *New York Magazine* online, Neiman Marcus and J.C. Penney. The authors mention that they paid special attention to breadth and variety when choosing the sites to test. As they assert: "Only after you see the same pattern of behaviors repeated on multiple sites can you start feeling confident that you have discovered a usability guideline that is likely to apply to a site that you have not tested" (p. 38).

Each chapter starts out with an overview that summarizes the content. Within the text margins of each chapter are quick tips or results of particular interest. Therefore this book is not only for those who may want to read it cover-to-cover but also for those seeking a reference to consult when making design decisions. It has a complete, comprehensive index and a glossary of design elements that impact eye movements. It also contains an interesting appendix of how much (what percentage of their viewing time) users look at basic Web interface elements such as navigation, images and advertisements.

The book's limitations are outlined in the preface. The authors are clear that the sites they chose to test are those with a business goal that aim to support users getting something done. Therefore, their conclusions will not be all that helpful to those putting together purely artistic sites or sites where users go only to be entertained. In addition their test subjects were all adult users. The authors note that their other usability work has shown that children's online behaviour is markedly different from adults, resulting in different guidelines. This book does not discuss these differences. They also do not provide any insight into the online behaviour of older users or users with disabilities.

What the book does deliver, however, are some valuable design guidelines for those creating a site for an adult, mainstream audience. The breadth and depth of their work (more than 300 users asked to perform 85 tasks) allows for some solid observations. Although much of the authors' study methodology involves asking users to execute test tasks that are similar to those requested during a basic usability test, the marriage of this information with eyetracking data provides solid insight and clear guidelines.