Web Usability

A USER-CENTERED DESIGN APPROACH
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Preface

Web sites are most effective when they meet both the content and usability needs of their users. The best way to ensure that a Web site meets the users’ needs is to involve the users throughout the design (or redesign) process. The question is “How do you involve the users?” This book answers that question by presenting a process-oriented approach to designing user-centered Web sites.

In Web site design, it’s not sufficient to present design guidelines to interface designers and tell them to design sites based on those guidelines. Nor is it appropriate for interface designers to substitute their own design likes and dislikes in place of the needs and desires of the users. Designing a Web site is a process. Just as you don’t start erecting a building by pouring concrete (first you must plan the building design based on topography and the needs of the companies and people who will inhabit the building), when building a Web site, you must create a plan that is informed by understanding the needs of those who will use the site.

How is a Web site designed? Web site design is a challenge because it bridges two fields, graphic design and usability engineering, which have different points of view about what makes a good user interface. An interface should not be designed solely on visual appeal or the number of people who will visit the site. At the same time, a text-only Web site will have no appeal. The appropriate balance is a Web site that is functional, easy to use, appropriate, visually appealing, and suitable for users who have disabilities. This type of design is possible if you truly understand who the site’s users are, and what they want and need. The most important theme of this book is—know thy users!

The design suggestions in this book are not based on my personal opinion. They are based on the research about how users interact with Web sites. In many places, actual design guidelines from research are included in the text.
Real-World Approach

Keep in mind that there is never a perfect design that will work for every site and user population. The key is to understand the design that is appropriate for each specific site and its users. Understanding the context of the users, tasks, and environment is the key to choosing an appropriate design. That’s why this book takes a real-world approach to Web site design. There are many hands-on examples throughout the book. These examples are, in many cases, short case studies showing how a specific user involvement or interface concept was applied in a real-world project. In some cases, these hands-on examples include specifics about how to implement a concept in a real-world project, such as a sample form or task list. Either way, these hands-on examples help link the theory with the practice. Another way that this book provides a real-world approach is through four major Case Studies that appear at the end of the book.

Each chapter ends with a series of discussion questions to stimulate in-class conversation. A Design Exercise in each chapter challenges students to apply these concepts in a real-world example. A Suggested Reading list provides a list of books, journal articles, and conference papers for additional information on the topics presented in each chapter.

Who Should Read This Book

This book is geared toward undergraduate and graduate courses in which students study the process of Web site development, Web interface design, or a combination of both. The text provides information about Web usability and the user-centered design process for creating Web sites.

In a Web Design course: A course in site design might focus on interface design, the development process, or both. This book covers the development process (Chapters 1–4 and 9–11) and Web interface design (Chapters 5–8). In these courses, it is also expected that some basic amount of Web programming will be taught, either using HTML and JavaScript or a Web development application such as FrontPage or Dreamweaver. It is expected that many of these courses will be project-based, and so the Addison Wesley instructor resource center (http://www.aw.com/irc) provides a number of resources related to Web projects in a classroom setting. The general public also can access the Web-Star survey and project deliverables at http://www.aw.com/cssupport.
In a Systems Analysis and Design course: Chapters 1–4, which focus on cost-justification, site mission, target user population, and requirements gathering will be very useful. Chapters 9–11, which focus on usability testing, implementation, marketing, and evaluation, are also appropriate for use in this course.

In a Human–Computer Interaction course: Readers will be most interested in Chapter 1, which presents user-centered design concepts for the Web; Chapters 5–8, which focus on conceptual and physical design of the Web interface design; Chapter 9, which focuses on usability testing; and Chapter 11, which focuses on evaluation.

In a Web Programming course: The material in Chapters 5–8 (conceptual and physical design of the Web interface) and the information about automated usability testing tools in Chapter 9 will be most useful.

In addition, this book can be useful for those in the Web development industry who want to include users in the development process but are unfamiliar with the standard processes, tools, and techniques of systems analysis and design or user-centered design.

**Case Studies**

User-centered design is a development process. It’s nice to understand the steps in the process, but it’s necessary to see how these concepts are applied in real-world settings. Unfortunately, many companies do not publicize their design processes or methods for fear of providing valuable information to their competitors. It can be hard to find public information about how user-centered design is actually used in organizations. For that reason, this book includes Case Studies about real organizational Web sites. They are excellent learning tools, which show how theory is applied in the real world. They help students understand the challenges, trade-offs, and adjustments that do not usually occur in theory, but are an everyday part of the working world.

This book includes four Case Studies of actual Web sites that were designed or redesigned with user-centered design methods. They represent four very different organizations: a large for-profit corporation (Kodak), a non-profit professional organization (ASHA), a governmental organization (Cancernet), and a sports league (NFL). Each case highlights the needs of different types of organizations and different types of users as it relates to user-centered Web design.
Three of the sites were redesigns and one site was an entirely new design (NFL). Two of the Case Studies were written by information technology professionals within a client organization (Kodak and Cancernet) and two were written by outside consultants (ASHA and NFL).

**Supplemental Materials**

The following materials are available to all instructors using this book at http://www.aw.com/cssupport:

- Project templates for use in classes
- Web-Star survey
- Research papers on web usability topics

In addition, qualified instructors can access the following secure supplements at Addison Wesley’s Instructor’s Resource Center (http://www.aw.com/irc):

- Powerpoint lecture slides
- Responses to discussion questions
- Responses to design exercises
- Sample syllabi

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