



BOOK REVIEW

User Interface Design and Evaluation

Debbie Stone, Caroline Jarrett, Mark Woodroffe, and Shailey Minocha

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Reviewed by: David Sturtz

914 South Ave., Apt. B-39, Secane,
PA 19018, U.S.A.

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Creating usable interfaces is an essential part of software development. *User Interface Design and Evaluation* presents the complete process, from requirements gathering through gaining support for the proposed design. This well-organized book explains the process with the help of numerous illustrations, exercises, and case studies. Its broad coverage of design methods provides a good introduction to the subject and seems particularly suited for classroom use in teaching interface design, interaction design, or as part of a human–computer interaction course.

A significant portion of the success of any software depends upon its user interface. The screens, controls, widgets, menus, and dialog boxes must allow the user to easily achieve her goals. The less these devices get in the way, the more the user is able to concentrate on her goal. This is no less true in information visualization than in other software development arenas. While this book focuses on more conventional applications, the essential guidelines, techniques, and structured process are valuable tools that can enhance any interactive software.

User Interface Design and Evaluation is divided into an introduction and four main sections: requirements, design, evaluation, and persuasion. This structure leads the reader in a logical progression through all aspects of the design process, with the understanding that the design process is a fluid, responsive mix of learning, alteration, and improvement. Each section of the text builds upon the previous ones, with concepts and procedures carrying through the entire process. It presents the practice of interface design as information gathering and analysis balanced against design skills and mastery of underlying principles.

The book's introduction gives an overview of what it means to design software with usability in mind. It argues for the importance of good design and summarizes the key principles of user-centered design. This chapter also introduces the concept of the star life cycle, with all stages of the design process connected centrally to evaluation. Rather than a linear or cyclical progression, the authors promote this model, which involves constant evaluation.

The discussion of actual design work begins with the requirements section (Chapters 2–7), which leads the reader through the steps of gathering information about the users, domain, and tasks. It covers the use of methods such as ethnographic research, cognitive walkthrough, scenarios, and use cases. The important threads that connect theory and design principles to the requirements gathering process are explored. Finally, the text describes how to write the requirements specification and create prototypes or storyboards to lead the development.

A case study is provided to allow a glimpse into how the requirements gathering process works in a real-world setting. The ability to see the concepts in action is helpful in connecting the separate activities covered by the text into a continuous process. The case study continues in the



second section, where the resulting design and the decisions made by designers are explained.

The actual interface design process occupies the largest section of the book (Chapters 8–19). It begins with an important introduction to design guidelines, standards, accessibility and style guides. A discussion of interaction styles leads into detailed descriptions of the design choices to be made. This includes getting down to the building blocks of the interface including color, sound, and selecting from a variety of input and output methods and devices. The authors suggest important points to consider for each selection and design decision. Examples throughout this section, such as a digital library or a hotel-booking interface, help to provide a context for applying the principles.

Separate chapters are devoted to the unique needs and principles governing the design of graphical user interfaces, Web sites, and embedded systems. Each of these three common interface types has unique design concerns to be introduced and explored. This individual attention paid here helps to provide the reader with a broad knowledge encompassing a variety of systems.

The section on evaluation (Chapters 20–27) devotes a great deal of time to the process of planning and preparing for the evaluation. It makes sense for an introductory text such as this to focus on the planning aspect, ensuring that the budding interface designer get the answer he seeks from the time and effort expended in the evaluation process. These chapters cover strategy, planning, and data collection. They also touch on methods for working with the results of user observation, and making use of heuristic evaluation methods.

Although user-centered design is gaining greater recognition as an essential part of successful development, designers are always likely to encounter resistance. The final brief section on persuasion (Chapters 28–30) provides excellent advice on this essential aspect of the design and evaluation process. The issues addressed here are faced continuously in working as a part of a

development team. The text suggests helpful strategies for interface designers to use in presenting a design, as well as overcoming common arguments or points of resistance on design decisions and methods. Instituting organizational change and advocating for the necessity of a complete user-centered design process is also covered.

The book's full-color layout with a multitude of photographs, cartoons, screenshots, illustrations, and real-world examples works well to capture the reader's attention and aid in understanding the subject. The text is well structured and features exercises sprinkled throughout, providing ample opportunities to pause and consider the topic at hand. Details such as a glossary, appendices of design guidelines, and color-coded chapter tabs add to the volume's utility. An important, relevant reference is highlighted at the beginning of most chapters, and the reference list as a whole is a great resource for further, focused reading.

User Interface Design and Evaluation has its roots in the classroom, having grown out of an Open University course, and seems ideally suited for use in an undergraduate course focused on the process of user interface design. It presents the subject in such a way that it requires little previous technical or research knowledge. With supplemental materials to add necessary depth to subjects such as underlying theories, specific analysis techniques, cognitive psychology, and testing methods, the text could also be used as part of a course in human-computer interaction or to provide a sound structure for a more advanced course in interaction design.

This book would also make a good introductory text for an individual looking to understand and apply a full variety of methods and principles involved in the design and testing of user interfaces. Where other books tend to be more specific and narrowly focused on a particular aspect of designing or testing interfaces, *User Interface Design and Evaluation* provides an excellent overview of the entire process.