

## User Interface Design Guidelines

Cognetics and the locus of attention - Meanings, modes, monotony, and myths - Quantification - Unification - Navigation and other aspects of humane interfaces - Interface issues outside the user interface.

An understanding of psychology—specifically the psychology behind how users behave and interact with digital interfaces—is perhaps the single most valuable nondesign skill a designer can have. The most elegant design can fail if it forces users to conform to the design rather than working within the "blueprint" of how humans perceive and process the world around them. This practical guide explains how you can apply key principles in psychology to build products and experiences that are more intuitive and human-centered. Author Jon Yablonski deconstructs familiar apps and experiences to provide clear examples of how UX designers can build experiences that adapt to how users perceive and process digital interfaces. You'll learn: How aesthetically pleasing design creates positive responses The principles from psychology most useful for designers How these psychology principles relate to UX heuristics Predictive models including Fitts's law, Jakob's law, and Hick's law Ethical implications of using psychology in design A framework for applying these principles

The truly world-wide reach of the Web has brought with it a new realisation of the enormous importance of usability and user interface design. In the last ten years, much has become understood about what works in search interfaces from a usability perspective, and what does not. Researchers and practitioners have developed a wide range of innovative interface ideas, but only the most broadly acceptable make their way into major web search engines. This book summarizes these developments, presenting the state of the art of search interface design, both in academic research and in deployment in commercial systems. Many books describe the algorithms behind search engines and information retrieval systems, but the unique focus of this book is specifically on the user interface. It will be welcomed by industry professionals who design systems that use search interfaces as well as graduate students and academic researchers who investigate information systems.

Describes ways to incorporate domain modeling into software development.

This book is a comprehensive and authoritative guide to voice user interface (VUI) design. The VUI is perhaps the most critical factor in the success of any automated speech recognition (ASR) system, determining whether the user experience will be satisfying or frustrating, or even whether the customer will remain one. This book describes a practical methodology for creating an effective VUI design. The methodology is scientifically based on principles in linguistics, psychology, and language technology, and is illustrated here by examples drawn from the authors' work at Nuance Communications, the market leader in ASR development and deployment. The book begins with an overview of VUI design issues and a description of the technology. The authors then introduce the major phases of their methodology. They first show how to specify requirements and make high-level design decisions during the definition phase. They next cover, in great detail, the design phase, with clear explanations and demonstrations of each design principle and its real-world applications. Finally, they examine problems unique to VUI design in system development, testing, and tuning. Key principles are illustrated with a running sample application. A companion Web site provides audio clips for each example: [www.VUIDesign.org](http://www.VUIDesign.org) The cover photograph depicts the first ASR system, Radio Rex: a toy dog who sits in his house until the sound of his name calls him out. Produced in 1911, Rex was among the few commercial successes in earlier days of speech recognition. Voice User Interface Design reveals the design principles and practices that produce commercial success in an era when effective ASRs are not toys but competitive necessities. User interface (UI) design rules and guidelines, developed by early HCI gurus and recognized throughout the field, were based on cognitive psychology (study of mental processes such as

problem solving, memory, and language), and early practitioners were well informed of its tenets. But today practitioners with backgrounds in cognitive psychology are a minority, as user interface designers and developers enter the field from a wide array of disciplines. HCI practitioners today have enough experience in UI design that they have been exposed to UI design rules, but it is essential that they understand the psychological basis behind the rules in order to effectively apply them. In *Designing with the Mind in Mind*, best-selling author Jeff Johnson provides designers with just enough background in perceptual and cognitive psychology that UI design guidelines make intuitive sense rather than being just a list of rules to follow. Provides an essential source for user interface design rules and how, when, and why to apply them Arms designers with the science behind each design rule, allowing them to make informed decisions in projects, and to explain those decisions to others Equips readers with the knowledge to make educated tradeoffs between competing rules, project deadlines, and budget pressures Completely updated and revised, including additional coverage in such areas as persuasion, cognitive economics and decision making, emotions, trust, habit formation, and speech UIs

Tog on Software Design discusses the evolution computers will undergo in the coming decade and the impact these changes will have on society as a whole. You'll find essays on topics from quality management to the meaning of standards, to corporate structure and cooperation, interspersed with responses to queries supplied by designers and developers. These essays will furnish industry managers, programmers, and designers with a blueprint for success in the coming decade. Discussion of issues surrounding home, school, and business will give computer enthusiasts a fascinating view of how their lives will soon be transformed.

Brand-new techniques for building more effective Java "TM" user interfaces. -- Reveals the latest user research by Sun Microsystems! -- Goes beyond the basics with menus, windows, wizards, events, alarms, and much more. -- High-quality 4-color interior! This book brings together advanced guidelines and techniques for building exceptionally effective user interfaces with Java technology. Building on the insights presented in *Java "TM" Look and Feel Design Guidelines, Second Edition*, this book focuses on several key opportunities to enhance Java user interfaces, and draws upon brand-new user analyses by Sun Microsystems' Java "TM" Look and Feel Design Group. The authors begin with in-depth coverage of Java "TM" windows, including techniques for choosing the right window type, designing window elements, setting state, and handling multiple windows. In a detailed chapter on menus, they show how to design menu elements, common, and contextual menus; and assign mnemonics and keyboard shortcuts. The book demonstrates how to control key aspects of application behavior, including addressing modes, filtering, searching, and tool tips. A chapter on idioms shows how to use sets of JFC components to standardize appearance and behavior. Readers will find practical techniques for improving responsiveness and providing more useful operational feedback. For every Java "TM" developer, software engineer, usability specialist, and manager responsible for developing or commissioning Java software.

The official guidelines and standards for designing a Windows 3 user interface. This book discusses the principles of design that are fundamental to creating a well-designed, visually and functionally consistent user interface. An essential reference for all Windows programmers.

User Interface Design for Mere Mortals takes the mystery out of designing effective interfaces for both desktop and web applications. It is recommended reading for anyone who wants to provide users of their software with interfaces that are intuitive and easy-to-use. The key to any successful application lies in providing an interface users not only enjoy interacting with but which also saves time, eliminates frustration, and gets the job done with a minimum of effort. Readers will discover the secrets of good interface design by learning how users behave and the expectations that users have of different types of interfaces. Anyone who reads User Interface Design for Mere Mortals will benefit from • Gaining an appreciation of the differences in the “look and feel” of interfaces for a variety of systems and platforms • Learning how to go about designing and creating the most appropriate interface for the application or website being developed • Becoming familiar with all the different components that make up an interface and the important role that each of those components plays in communicating with users • Understanding the business benefits that flow from good interface design such as significantly reduced support costs • Gaining invaluable insights into how users behave, including the seven stages of human interaction with computers • Working through case study based, in-depth analysis of each of the stages involved in designing a user interface • Acquiring practical knowledge about the similarities and differences between designing websites and traditional desktop applications • Learning how to define, conduct, and analyze usability testing Through the use of the proven For Mere Mortals format, User Interface Design for Mere Mortals succeeds in parting the veil of mystery surrounding effective user interface design. Whatever your background, the For Mere Mortals format makes the information easily accessible and usable. Contents Preface Introduction CHAPTER 1 Brief Histories CHAPTER 2 Concepts and Issues CHAPTER 3 Making the Business Case CHAPTER 4 Good Design CHAPTER 5 How User Behave CHAPTER 6 Analyzing Your Users CHAPTER 7 Designing a User Interface CHAPTER 8 Designing a Web Site CHAPTER 9 Usability APPENDIX A Answers to Review Questions APPENDIX B Recommended Reading Glossary References Index

User experience design teams often suffer from a decentralized, blank canvas approach to creating and documenting a design solution for each new project. As teams repeatedly reinvent screen designs, inconsistency results, and IT teams scramble to pick up the pieces. Pattern libraries only go so far, suggesting general solutions to common problems instead of offering concrete, specific design treatments. At times, documented solutions turn into a costly mess of unclear expectations, unrealistic goals, and abandoned work. Enter components, each of which represents a chunk of a Web page. Designers can produce wireframes, mockups, or markup far more efficiently reusing components based on an established design system. Rather than limit innovation, components enable designers to render solved design frameworks quickly and to focus on the problem at hand, drastically improving the quality and rate of production. In

addition, teams develop a deeper baseline for collaboration, a platform for governance, and a structure for useful and predictable documentation. This book defines the role of components and why they matter, maps out how to organize and build a component library, discusses how to use components in practice, and teaches a process for documenting and maintaining components.

This book provides authoritative information on the theory behind the Macintosh 'look and feel' and the practice of using individual interface components. It includes many examples of good design and explains why one implementation is superior to another. Anyone designing or creating a product for Macintosh computers needs to understand the information in this book.

Well-designed graphical user interfaces (GUIs) for business systems can greatly increase user productivity, but designing them can be difficult and time consuming. This book walks developers through the basics of good interface design, using real-world examples from systems that are proven successes.

Galitz is an internationally recognized consultant, author, and instructor with many years of experience with information systems and user interface design.

Written especially for developers who may be designing user interfaces for the first time, but also extremely useful for any developer involved in GUI or Web site design. Revised to reflect the profound enhancements in interface design, specifically how Web page design has revolutionized interface design. New information covers a variety of platforms, both traditional and Web-based.

Although numerous sources document aspects of user-centered design, there are few references that consider how a designer transforms the information gathered about users and their work into an effective user interface design. This book explains just how designers bridge that gap. A group of leading experts in GUI design describe their methods in the context of specific design projects, and while the projects, processes, and methods vary considerably, the common theme is building a bridge between user requirements and user interface design.

In the years since Jakob Nielsen's classic collection on interface consistency first appeared, much has changed, and much has stayed the same. On the one hand, there's been exponential growth in the opportunities for following or disregarding the principles of interface consistency—more computers, more applications, more users, and of course the vast expanse of the Web. On the other, there are the principles themselves, as persistent and as valuable as ever. In these contributed chapters, you'll find details on many methods for seeking and enforcing consistency, along with bottom-line analyses of its benefits and some warnings about its possible dangers. Most of what you'll learn applies equally to hardware and software development, and all of it holds real benefits for both your organization and your users. Begins with a new preface by the collection's distinguished editor Details a variety of methods for attaining interface consistency, including central control, user definitions, exemplary applications, shared code, and model analysis Presents a cost-benefits analysis of organizational efforts to promote and achieve consistency Examines and appraises the dimensions of consistency—consistency within an application, across a family of applications, and beyond Makes the case for some unexpected benefits of interface consistency while helping you avoid the risks it can sometimes entail Considers the consistency of interface elements other than screen design Includes case studies of major corporations that have

instituted programs to ensure the consistency of their products

Provides straightforward and effective methods you can apply right now to create more usable-user-driven-software. Softcover. CD-ROM included. DLC: User interfaces (Computer systems) This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. The much-anticipated fifth edition of *Designing the User Interface* provides a comprehensive, authoritative introduction to the dynamic field of human-computer interaction (HCI). Students and professionals learn practical principles and guidelines needed to develop high quality interface designs—ones that users can understand, predict, and control. It covers theoretical foundations, and design processes such as expert reviews and usability testing. Numerous examples of direct manipulation, menu selection, and form fill-in give readers an understanding of excellence in design The new edition provides updates on current HCI topics with balanced emphasis on mobile devices, Web, and desktop platforms. It addresses the profound changes brought by user-generated content of text, photo, music, and video and the raised expectations for compelling user experiences. Provides a broad survey of designing, implementing, managing, maintaining, training, and refining the user interface of interactive systems. Describes practical techniques and research-supported design guidelines for effective interface designs Covers both professional applications (e.g. CAD/CAM, air traffic control) and consumer examples (e.g. web services, e-government, mobile devices, cell phones, digital cameras, games, MP3 players) Delivers informative introductions to development methodologies, evaluation techniques, and user-interface building tools. Supported by an extensive array of current examples and figures illustrating good design principles and practices. Includes dynamic, full-color presentation throughout. Guides students who might be starting their first HCI design project Accompanied by a Companion Website with additional practice opportunities and informational resources for both students and professors.

This report provides simulation network (SIMNET) designers with a set of guidelines and functional specifications for developing a simulated interface to the Battlefield Management System (BMS) which exemplifies the vehicle-based automated command, control, and communication (C3) systems anticipated for lower echelons of the Maneuver Force. The interface includes the system's display of both text and graphic battlefield information and the display features and control functions available to the user for inputting and receiving additional C3 data. The design guidelines and functional specification presented in this report are based on 1 formally established guidelines for interface design taken from the human factors literature and 2 the users' current estimate of their interface requirements for automated C3 systems. The objective is to initiate the development of a simulated BMS interface that can be rigorously evaluated and modified with respect to soldier performance and training issues in the task-loaded environment provided by SIMNET. Keywords: Army research, Prototypes.

*User Interfaces for All* is the first book dedicated to the issues of Universal Design and Universal Access in the field of Human-Computer Interaction (HCI). Universal Design (or Design for All) is an inclusive and proactive approach seeking to accommodate diversity in the users and usage contexts of interactive products, applications, and se

Voice user interfaces (VUIs) are becoming all the rage today. But how do you build one that people can actually converse with? Whether you're designing a mobile app, a toy, or a device such as a home assistant, this practical book guides you through basic VUI design principles, helps you choose the right speech recognition engine, and shows you how to measure your VUI's performance and improve upon it. Author Cathy Pearl also takes product managers, UX designers, and VUI designers into advanced design topics that will help make your VUI not just functional, but great. Understand key VUI design concepts, including command-and-control and conversational systems Decide if you should use an avatar or other visual representation with your VUI Explore speech recognition technology and its impact on your design Take your

VUI above and beyond the basic exchange of information Learn practical ways to test your VUI application with users Monitor your app and learn how to quickly improve performance Get real-world examples of VUIs for home assistants, smartwatches, and car systems

Microsoft Power Apps Cookbook is a complete resource filled with meticulously crafted recipes to help you build customized business apps that meet ever-changing enterprise demands. You will learn how to design modern apps with the low-code approach in a rapid application development environment by achieving enterprise-wide business agility.

Although recent findings show the public increasingly interacting with government Web sites, a common problem is that people can't find what they're looking for. In other words, the sites lack usability. The Research-Based Web Design and Usability Guidelines aid in correcting this problem by providing the latest Web design guidance from the research and other forms of evidence. This unique publication has been updated from its earlier version to include over 40 new or updated research guidelines, bringing the total to 209. Primary audiences for the book are: Web managers, designers, and all staff involved in the creation of Web sites. Topics in the book include: home page design, page and site navigation, graphics and images, effective Web content writing, and search. A new section on usability testing guidance has been added. Experts from across government, industry, and academia have reviewed and contributed to the development of the Guidelines. And, since their introduction in 2003, the Guidelines have been widely used by government, private, and academic institutions to improve Web design.

This book provides detailed guidelines for developers of J2ME MIDP (Java 2 Mobile Edition, Mobile Information Device Profile) mobile phone applications. Suggestions range from application-wide to item-specific, with an entire chapter devoted to games. This volume complements existing books, giving more detailed recommendations and removing much of the nonessential information contained in other documents. Covers both MIDP 1 and 2.

User Interface Design and Evaluation provides an overview of the user-centered design field. It illustrates the benefits of a user-centered approach to the design of software, computer systems, and websites. The book provides clear and practical discussions of requirements gathering, developing interaction design from user requirements, and user interface evaluation. The book's coverage includes established HCI topics—for example, visibility, affordance, feedback, metaphors, mental models, and the like—combined with practical guidelines for contemporary designs and current trends, which makes for a winning combination. It provides a clear presentation of ideas, illustrations of concepts, using real-world applications. This book will help readers develop all the skills necessary for iterative user-centered design, and provides a firm foundation for user interface design and evaluation on which to build. It is ideal for seasoned professionals in user interface design and usability engineering (looking for new tools with which to expand their knowledge); new people who enter the HCI field with no prior educational experience; and software developers, web application developers, and information appliance designers who need to know more about

interaction design and evaluation. Co-published by the Open University, UK. Covers the design of graphical user interfaces, web sites, and interfaces for embedded systems. Full color production, with activities, projects, hundreds of illustrations, and industrial applications.

It also includes information about supporting international users and users with disabilities."--BOOK JACKET.

Five years and more than 100,000 copies after it was first published, it's hard to imagine anyone working in Web design who hasn't read Steve Krug's "instant classic" on Web usability, but people are still discovering it every day. In this second edition, Steve adds three new chapters in the same style as the original: wry and entertaining, yet loaded with insights and practical advice for novice and veteran alike. Don't be surprised if it completely changes the way you think about Web design. Three New Chapters! Usability as common courtesy -- Why people really leave Web sites Web Accessibility, CSS, and you -- Making sites usable and accessible Help! My boss wants me to \_\_\_\_\_. -- Surviving executive design whims "I thought usability was the enemy of design until I read the first edition of this book. Don't Make Me Think! showed me how to put myself in the position of the person who uses my site. After reading it over a couple of hours and putting its ideas to work for the past five years, I can say it has done more to improve my abilities as a Web designer than any other book. In this second edition, Steve Krug adds essential ammunition for those whose bosses, clients, stakeholders, and marketing managers insist on doing the wrong thing. If you design, write, program, own, or manage Web sites, you must read this book." -- Jeffrey Zeldman, author of Designing with Web Standards

Bringing together the results of more than 300 new design studies, an understanding of people, knowledge of hardware and software capabilities, and the author's practical experience gained from 45 years of work with display-based systems, this book addresses interface and screen design from the user's perspective. You will learn how to create an effective design methodology, design and organize screens and Web pages that encourage efficient comprehension and execution, and create screen icons and graphics that make displays easier and more comfortable to use.

This book is a practical guide for individuals responsible for creating products that are safe, effective, usable, and satisfying in the hands of the intended users. The contents are intended to reduce the number of use errors involving medical devices that have led to injuries and deaths. The book presents the strong connection between user interface requirements and risk management for medical devices and instructs readers how to develop specific requirements that are sufficiently comprehensive and detailed to produce good results – a user-friendly product that is likely to be used correctly. The book's tutorial content is complemented by many real-world examples of user interface requirements, including ones pertaining to an inhaler, automated external defibrillator, medical robot, and mobile app that a patient might use to manage her diabetes. The book

is intended for people representing a variety of product development disciplines who have responsibility for producing safe, effective, usable, and satisfying medical devices, including those who are studying or working in human factors engineering, psychology, mechanical engineering, biomedical engineering, systems engineering, software programming, technical writing, industrial design, graphic design, and regulatory affairs.

Providing guidelines for designing visually and functionally consistent user interfaces for Windows programs, a well-organized book offers a program specification for Windows application developers who want to save training time, boost productivity, and promote user confidence. Original. (Intermediate).

Contains guidelines to aid software designers in developing user oriented human-computer interfaces. Presents specific, implementable suggestions drawn from diverse sources and based on human performance research, human factors engineering principles, and experience.

In this completely updated and revised edition of *Designing with the Mind in Mind*, Jeff Johnson provides you with just enough background in perceptual and cognitive psychology that user interface (UI) design guidelines make intuitive sense rather than being just a list of rules to follow. Early UI practitioners were trained in cognitive psychology, and developed UI design rules based on it. But as the field has evolved since the first edition of this book, designers enter the field from many disciplines. Practitioners today have enough experience in UI design that they have been exposed to design rules, but it is essential that they understand the psychology behind the rules in order to effectively apply them. In this new edition, you'll find new chapters on human choice and decision making, hand-eye coordination and attention, as well as new examples, figures, and explanations throughout. Provides an essential source for user interface design rules and how, when, and why to apply them. Arms designers with the science behind each design rule, allowing them to make informed decisions in projects, and to explain those decisions to others. Equips readers with the knowledge to make educated tradeoffs between competing rules, project deadlines, and budget pressures. Completely updated and revised, including additional coverage on human choice and decision making, hand-eye coordination and attention, and new mobile and touch-screen examples throughout. Developing software interfaces and company-wide GUI standards can be difficult, but it is nothing like having to continually redesign software that end users can't work with. This powerful book/CD-ROM package takes the uncertainty out of GUI design by providing you with everything you need to know to quickly design interfaces and your own GUI standards.

Drawing upon their experience as leading interface designers, educators, and consultants, the authors teach you the art and science of user centered design. They show you how to bring end users into the design process in order to dramatically enhance the usability of your designs, while making efficient use of your design time. They tell you the right questions to ask and how to translate user feedback into practical design solutions. First, they describe the entire design process in detail, breaking it down into a series of steps accompanied by useful forms and checklists. Then they provide practical, step-by-step guidelines on how to design Windows 95, Windows 3.1, and the Web. On the CD-ROM you will find: Design guidelines as an online document; design guidelines in Microsoft Word 7.0 for you to use and customize; and, forms and checklists in Microsoft Word 7.0 for you to use and customize.

A comprehensive sourcebook of practical guidelines for developing clear software user interfaces.

Here's what three pioneers in computer graphics and human-computer interaction have to say about this book: "What a tour de force—everything one would want—comprehensive, encyclopedic, and authoritative." —Jim Foley "At last, a book on this important, emerging area.

