

# S t a n d a r d s   f o r

## ONLINE COMMUNICATION



### **Publishing information on:**

- The Internet and World Wide Web
- Corporate intranets
- Help systems

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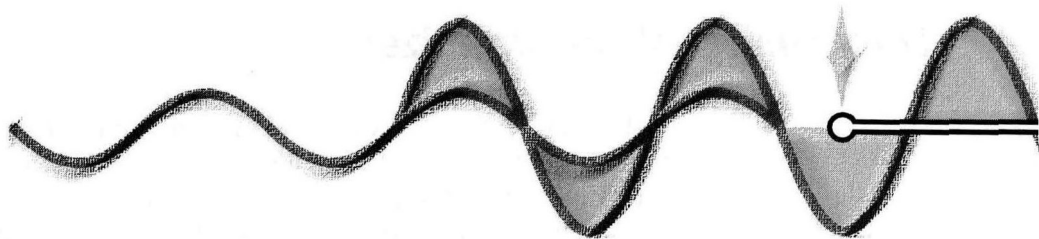
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# **Standards for Online Communication:**

Publishing Information for The Internet/World Wide  
Web/Help Systems/Corporate Intranets



## Preface

The field of information design and development is not the same today as it was yesterday or as it will be tomorrow. Technological advances demand that information designers constantly examine new ways to disseminate information other than traditional hardcopy books or even online help systems. As they struggle to learn the tools to create new information systems, however, those learning the new tools often overlook a very important part of the process—sound design. Far too often, given the demands of fast-paced corporate life, information is being thrown into an online tool for use on the Web, a company intranet, or in online help without regard for the basics of good information design—is the information accessible and usable?

This book reintroduces the design principles overlooked in the rush to be the first. We remind information designers of the importance of planning thoroughly and making design decisions based on audience needs. We list guidelines to consider when creating your plans and the systems themselves—guidelines that you may ultimately decide to follow or ignore, but that should nevertheless always be part of your conscious decision making.

In this book, we do not provide information about the mechanics of implementing the design features discussed. Nor do we explore every aspect of an issue. Rather we intend the guidelines to serve simply as a springboard into the world of online communication, to get you thinking about the issues that affect the usability of your information. We hope that we peak your interest and encourage further exploration into this rapidly changing arena.

## How this book is organized

This book begins with an overview of online communication, including definitions of what is included under its umbrella and a global look at the process to follow when designing and implementing an online system. The book is then divided into three parts, representing the major milestones in an online project:

- Part 1, *Analyzing Your Information Needs*, guides you through the creation of an information plan. The chapters in this part explain how to conduct and interpret front-end analysis of audience and task, so that you thoroughly understand the goals of the system you are creating.
- Part 2, *Designing Your Online System*, guides you through the creation of an information content specification. In these chapters, you learn how to structure your online system, both at a high-level and at the detailed topic level.
- Part 3, *Implementing Your Design*, provides a series of chapters containing guidelines to follow while implementing your online system. The chapters take the form of checklists with brief explanations and examples. They are not intended to be a comprehensive discussion of any single recommendation. Rather, they are intended cumulatively to provide a detailed but high-level description of good implementation strategies for online documents of any type.

Each chapter includes recommendations for further reading on the topics discussed. The guidelines and recommended reading presented in each chapter are summarized in the appendices.

## Using the CD

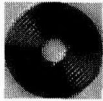
The information in this book is also presented on an accompanying CD. Appendix C describes how to install and use the CD. It also discusses the design decisions we made in creating the CD, so that the entire CD serves as a case study of the principles in this book.

## Conventions

Although this book is designed to apply to all forms of online communication, occasionally we provide information specific to a certain form. This information is set apart by the following icons:



**Computer-based training.** Information following this icon applies to tutorials and training presented online.



**CD-ROM.** Information following this icon applies to libraries, catalogs, and so on that are delivered on a CD-ROM.



**Help.** Information following this icon applies to online help systems.



**Web.** Information following this icon applies to the Worldwide Web and corporate intranets.

## About the Authors

Dr. JoAnn T. Hackos and Dawn Stevens lead the designers and developers at Comtech Services, Inc. of Denver, Colorado, and San Jose, California. Comtech designs, produces, and helps others produce technical information in support of products and processes. The company develops user interfaces, online information, paper documentation, and training systems and conducts usability testing of products and documentation. Dr. Hackos founded the company in 1978 to provide project-oriented information design services to the business community. Comtech's clients include Hewlett-Packard, Federal Express, Dupont, Cadence, Octel Communications, IBM, Storage Technology, Ungermann-Bass, Oracle, Compaq, Northern Telecom, Wells Fargo, the Veterans Administration, and many others.

Dr. Hackos is president of Comtech Services, Inc. She consults with companies worldwide on benchmarking, strategic planning and customer

needs analyses, performance support systems, and developing training and documentation using a minimalist philosophy. She also conducts research into the information customers need to learn and use products and into the processes used by organizations to produce products and documentation. Using the research studies as a base, she helps organizations develop strategic plans to design more usable products and better technical information to accompany those products, as well as better information to train and inform employees of company procedures and policies through the internet and corporate Intranets. JoAnn presents courses in project management and the design of usable products and information to public and inhouse groups all over the world.

JoAnn has published articles on management and technical information appearing in technical journals such as *Technical Communication*, *IEEE Transactions on Professional Communications*, the *Proceedings of the International Technical Communication Conference*, the *Proceedings of the STC Annual Conference*, *Franchise Update Magazine*, and many others. Her books and monographs include an article on total quality management in *The Franchise Handbook*, published by the American Management Association; a book on typography called *About Type: IBM'S Guide for Type Users*; and NBI's *Designing High-Impact Documents* (Legend 2.0). Her book, *Managing Your Documentation Projects*, was published by John Wiley & Sons in 1994.

JoAnn holds a PhD from Indiana University. She is a fellow of the international Society for Technical Communication (STC) and a Past President (1992–3). She is also the editor of the Usability Professional Association's national newsletter. She enjoys birdwatching and traveling the world with her husband, Bill.

Dawn Stevens is Comtech's vice-president. She has performed at all levels in online information projects—as writer, designer, programmer, editor/quality assurance, and manager—and she brings the experience of all these projects and perspectives to this book. Currently, she oversees the day-to-day management of all projects performed by Comtech and has had a key role in designing and delivering new information technologies to clients.

Dawn has served as a judge at both local and national levels in online competitions of the Society for Technical Communication, and has spoken at many conferences nationwide about the design of online systems. *Standards for Online Communication* is her first book for John Wiley & Sons.

Dawn has a BS in engineering physics from the Colorado School of Mines and an MS in technical communication from the University of Colorado, Denver.

She is patiently waiting for her husband to complete his master's degree before pursuing a doctorate. Dawn is a senior member of the Society for Technical Communication. She admits that she is obsessed with Disney, Hallmark Christmas ornaments, and preserving her family's lives through photographs. Dawn is married to John and her children are Andrea and Brianna.

## Acknowledgments

Many people and many diverse ideas have contributed to the design and development of this book. We cannot begin to list here the nearly 20 years of accumulated experience with the design of electronic information. However, we must thank many members of the Society for Technical Communication for their contributions to the development of online communication. Especially, we want to thank Bill Horton for his seminal work in online documentation—he has clearly influenced the entire field to think about good design. We also want to thank major contributors to the field of online help design like John Brockmann, Mary Deaton, Joe Welinske, Dave Farkas, Cheryl Zuback, and others. We acknowledge the contributions of the consortium of designers who are attempting to define minimalism as a school of information design, especially John Carroll, Hans van der Meij, Ginny Redish, Stephanie Rosenbaum, Barbara Mirel, as well as Patricia Wright of Cambridge University, whose research on information users has influenced our thinking about the field. We also greatly appreciate the participation in the development of the chapters on graphics and multimedia design of JoAnn's sister, Marilyn Whitesell, a consummate visual artist, graphic designer, and creative director of multimedia projects.

In addition to contributors to these standards and guidelines worldwide, we have many to thank who are closer to home. The staff at Comtech Services, Inc. were instrumental in seeking out many of the wonderful examples of online communication that you see in the more than 200 illustrations presented here. They often found the right examples and spent many hours taking the screen captures. We especially want to acknowledge the assistance of Robin Bellerson, Tim Keirnan, and Jeni Halingstad. A key contributor to the final assembly of all the pieces that make up a major text has been Lori Maberry, Comtech's intrepid production manager.

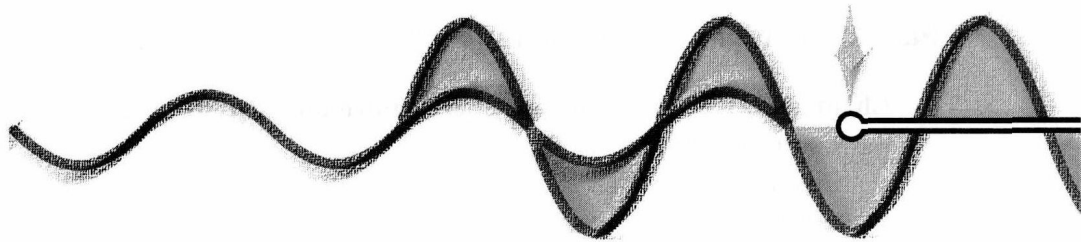
We must also acknowledge the design talent of Rodney Sauer of RDD Consultants, who designed the book and handled the final production of camera-ready copy. Rodney always manages to shake up our thinking about



typography, a field that he loves and in which he offers an innovative eye for the details of design. We are also pleased with the interesting graphic elements that Rodney has contributed to the design. We hope you like them too.

The CD could not have been completed were it not for the expertise of Connie Kiernan, Comtech's newest staff member. Her experience with RoboHelp and quickness in learning HDK helped complete the system within our final deadlines.

Finally, we cannot forget the people who provided support throughout the long hours of planning, writing, rewriting, and more rewriting. Bill Hackos and John Stevens are happily skilled chefs who assumed the tasks of keeping the troops fed. We also want to thank Andrea and Brianna Stevens for tolerating their mother's long hours at the computer. These contributors help to keep us focused on what is really important in the world.



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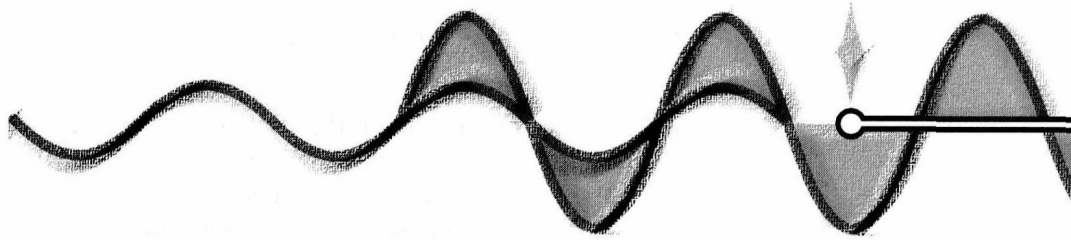
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# 1



## Defining the Process

Electronic information, information databases, corporate knowledge bases—they're the wave of the future and becoming more commonplace every day. The pressure is on to move our organizations into the 21st century while we're still in the 1990s. Managers hope that delivering information electronically will save costs. Employees want information that is up-to-date and immediately and easily accessible. Customers want to know everything we know about the products they have purchased. Business partners want access to information. From every side, we are pressured to do something—install a document management system, get up on the Web, develop an intranet, find ways of disseminating information more quickly and comprehensively than ever before. But the reality is that we don't know how to respond to all these wants. Questions rather than solutions dominate:

- What exactly do users mean when they say they want information online? Does that mean dumping existing manuals onto a CD-ROM? Establishing information Web pages or disseminating information through corporate intranets? Creating an online help system? Designing a multimedia whizbang information database? Supporting user goals through wizards, coaches, and other performance-centered tools?
- What information should an electronic system include and how should it be organized? What information is appropriate for electronic distribution? What information is not? What information is most important? What should go online first?
- How should the information look? What graphic design features do users need? What about video and sound—where do they fit in?

- Will users want to read information on their computer screens or print it out?
- What capabilities should the electronic information system have? How will users access information? Can they find their way around? Will they need a library-like catalog? Will individual documents or document sets have single or multiple tables of contents? What about indexes? Keyword searches? Full-text searches?
- What is the best way to proceed?
- Where do we begin?!

In this book, we provide a comprehensive approach to answering such questions and getting started in the process of creating an effective electronic information design. But before we can do that, we need to establish exactly what *we* mean by “electronic information.” This chapter provides our definition and outlines a development process that will be expanded on in the rest of this book.

## What is electronic information?

Electronic information includes any form of communication that depends on a computer for its distribution and maintenance, including such diverse systems as these:

- A kiosk that provides immediate information or demonstrates the key features of a product
- An interactive demonstration that teaches general techniques for using the features and capabilities of a software product
- A context-sensitive online help system that answers specific questions about an application screen currently displayed
- A CD-ROM containing all regulations governing a particular industry
- A wizard that walks a user through a difficult and rarely used task within an application program
- A Web page providing shortcuts and expert-level hints for improving system performance



- A virtual world in which users can explore the parts of a complex machine without taking their own machines apart

Although each type of electronic information differs in purpose and presentation, the design processes for each is frequently similar. The process may be likened to creating an ice-cream sundae: the end products are similar, but the ingredients (chocolate or vanilla ice cream? hot fudge or caramel?) and presentation (whipped cream? cherry? nuts?) may be quite different. Yet all the employees at the local Dairy Queen can create any sundae. They know the implications of their customers' requests and can translate customer needs into a set of specifications to use when creating the final product. We hope to give you the skills you need to translate the demands of your customers, staff members, and management into a set of specifications. We provide guidelines for the implementation of those specifications into a usable, effective presentation of information.

## When is electronic information the right choice?

The key to your decision-making process about moving from paper to electronic distribution must be focused on the needs of the users. If you make the right decision, the outcome will be clear. When we look at a well-supported learning environment, we encounter the following:

- Fewer user errors
- More rapid correction of mistakes
- More rapid and effective problem solving
- Lower training requirements
- More effective learning
- A more global understanding of the work environment

In short, users who are well supported by information are more productive in their work environments. They are perceived as having greater expertise and therefore earn more respect. As a result, they are usually more satisfied with their jobs.

A user who has access to the right information at the right time has a tremendous opportunity to learn and perform effectively. The better the