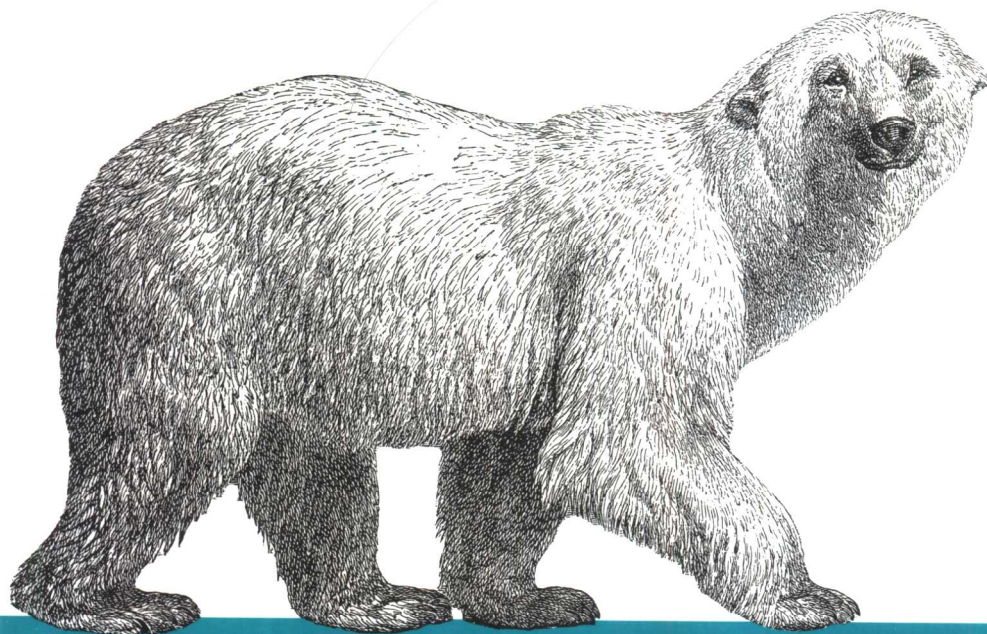WWW信息体系结构（影印版）

2nd Edition

Information Architecture

for the World Wide Web

Louis Rosenfeld & Peter Morville 著

O'REILLY®

清华大学出版社

第二版

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Praise for Information Architecture for the World Wide Web

"It's been well worth the wait! This much expanded second version provides a holistic perspective on information architecture—something that wasn't possible earlier on when the concept was just beginning to be raised in the web space. It will be the starting place and the core reference resource for practicing and future information architects, as well as their managers. I highly recommend it to anyone who wants to make their ideas become real, and most importantly, of value to their end-user community."

> — Mary Lee Kennedy, Microsoft

"In the first edition, Lou and Peter examined the emergence of a new species of technical professional—the IA. In this second edition, they expose the complex electronic ecosystem in which IA now exist. With wit, wisdom, and a pinch of whimsy, they give you what you need to be or work with an architect of the wired world."

> — Bob Boiko, Lecturer, University of Washington iSchool & President, Metatorial Services Inc.

"What's big and throbbing? Your headache. It's caused by the uncontrollable flood of web pages that you have to deal with, day after day. The pain you feel is the result of a web site that lacks structure and is getting more and more out of control. You want relief? The 2nd Edition of Information Architecture for the World Wide Web is the cure."

> — John S. Rhodes, WebWord.com—Industrial Strength Usability

"The world will be a better place when web designers read this book. It's smart, funny, and artfully distills years of the authors' hard-won experience. Information Architecture is unlike any other book on web design I know in that it tackles political/organizational challenges as well as content, structure and user interface. This is not design-lite, but a deep treatment of fundamental issues of information presentation that advances the state of the art. Light years ahead of the competition."

> — Bonnie Nardi, Co-author of *Information Ecologies: Using Technology with Heart*, MIT Press, 1999.

"If you are developing large-scale Web sites with a complex information architecture, this book will explain everything you need. Rosenfeld and Morville define the art and science of information architecture. This book is beneficial for both the novice or the experienced

professional. Once again, Rosenfeld and Morville have written the Bible of information architecture. This book should be on every Web developer's bookshelf."

— Cameron Barrett, Design Technologist, camworld.com

"Clearly written, a powerful use of simple metaphors to make complex points. Restores information management to its rightful place in management thinking."

— Dave Snowden, Director of the Cynefin Centre for Organisational Complexity, IBM Global Services

"Perhaps the only good thing about the dot.com bust is that it finally gave Lou [Rosenfeld] and Peter [Morville] time to finish their long awaited second edition of THE best book on Web design. As a reward for our patience, they've added tons of things they've learned in the intervening years, expanding it into the definitive book on Information Architecture. If you build Web sites, you need a copy on your bookshelf."

— Steve Krug, Author of *Don't Make Me Think: A Common Sense Approach to Web Usability*

"In this definitive text for the emerging profession of information architecture, Rosenfeld and Morville provide a wealth of experience-based examples and guidance for practitioners and students alike."

— Gary Marchionini, University of North Carolina at Chapel Hill

Foreword

On the Web, if a site is difficult to use, most people will leave. On an intranet, if employees perform their tasks more slowly due to difficult design, the company bears the cost of the reduced productivity. In fact, I estimate that low intranet usability costs the world economy $100 billion per year in lost employee productivity. This may not be the most important problem facing the planet, but it's not a trifling issue either.

Usability is an important, though not the only, determinant for the success of a web site or an intranet. Information architecture is an important, though not the only, determinant for the usability of a design. There are other issues, but you ignore information architecture at your peril.

Critics may say that users don't care about information architecture. They don't want to learn how a web site is structured; they just want to get in, get their task done, and get out. Users focus on tasks, not on structure. But it's because users don't care about the structure of a web site that it is so important to get the information architecture right in the design. If users did bother to study our web sites, they could surely learn how an obscure or illogical structure works and utilize that knowledge to improve their task performance. Humans are flexible creatures and can adapt to hostile environments if they choose to do so.

But since we know that users won't spend time learning our information architecture, we have to spend resources to design the best information architecture we can. Allow users to focus on their tasks, and let information architects be the ones to spend time worrying about the structure of the web site or intranet. This is a good division of labor, and the pay-off from good information architecture is immense. The more that answers are located in the places you look for them, the easier the design will feel to users, and the more successful the project. There will be more sales (for e-commerce sites), better reputation for good service (for marketing sites), and less loss of productivity (for intranets).

I am a great believer in having professional information architects design the structure of professional information projects such as corporate web sites and intranets. But I also think there will be an increasing role for personal information architecture in the future. It will soon be time to teach a simplified version of the discipline to high school students, and possibly even to bring it into elementary schools as well.

The modern world is one of information overload; we are constantly bombarded by an inflow of messages, and we ought to read much more information than we have time for. Keeping yourself from drowning in this morass of information will require personal information architecture skills for problems like structuring email folders and computer files as well as the ability to manage advanced search features.

In the long run, personal information architecture may turn out to be even more important than corporate information architecture. For now, though, read this second edition of *Information Architecture for the World Wide Web* and get your web site and intranet in shape to support your customers and employees. Good information architecture makes users less alienated and suppressed by technology. It simultaneously increases human satisfaction and your company's profits. Very few jobs allow you to do both at the same time, so enjoy.

—Jakob Nielsen
www.useit.com

Dr. Jakob Nielsen is the author of *Designing Web Usability: The Practice of Simplicity* and *Homepage Usability: 50 Websites Deconstructed.*

Preface

Those things that hurt, instruct.
—Ben Franklin

In late 1999, when this book had been out for a year and a half, our editor told us to get cracking on the second edition. The folks at O'Reilly are fully aware that it takes eighteen months for authors to forget the pain of writing, not to mention our vows to never do it again. Suitably forgetful, we agreed. Now it's summer of 2002, and we're just finishing. Why did it take us two and a half years?

Well, a lot happened in that intervening period. Remember, we were all running on Internet time. Investors were throwing money at all things Web. Companies were building web sites at a frenetic pace. "Information architect" suddenly became a hot job title, and demand for information architecture expertise soared.

New people brought fresh perspectives to the field. Information architects began to connect with one another. A host of web sites, discussion lists, professional conferences, local cocktail hours, and other trappings of a healthy new community emerged.

In those heady times, we were actively growing our information architecture consulting company, Argus Associates. When we wrote the first edition, there were five Argonauts, all librarians by training. By late 2000, Argus was a professionally managed firm with a staff of forty. We had built an interdisciplinary information architecture practice, hiring specialists with expertise in usability engineering, thesaurus design, ethnography, information retrieval, and technology evaluation. But we weren't about to slow down. We had ambitious plans, one of which was to write the second edition.

But as many Greek and Roman tragedies forewarn, mortals plan and the gods laugh. In other words, the Web bubble burst, corporate spending took a dive, and it became difficult to justify investments in consulting, especially in new and intangible services like information architecture. Suddenly Argus was out of business. And

for many new entrants to the field, getting a job as an information architect became nearly impossible. Things were bad all over.

Life rarely works according to plan, but often there's a silver lining. For us, the demise of Argus granted the time, perspective, and motivation to finally write the second edition. After all, failure can be a better teacher than success. We've had our share of both, and we've tempered our enthusiasm for information architecture with an appreciation for the realities of the marketplace.

We've tried to address these realities in this book by explaining how to make the case for information architecture in unsupportive environments, and how to deal with political and cultural issues while trying to get your work done. We also describe a richer, more mature methodology that draws from many disciplines.

We are tremendously excited by the diversity, creativity, compassion, and resilience of the information architecture community. In the grand scheme of things, we are small in number. But as architects, designers, and teachers in these formative years of cyberspace, we have the opportunity to make a big impact. Let's get cracking!

What's New in the Second Edition

As you can tell by this book's length—more than double that of the first edition—much has changed. In fact, we've almost written an entirely new book.

We've updated the chapters on organization, labeling, navigation, and searching, and illustrated the interconnectedness of these systems in a new chapter on thesauri, controlled vocabularies, and metadata. And we've expanded the methodology chapters to include a more interdisciplinary collection of tools and techniques. We've complemented the top-down strategies of the first edition with bottom-up approaches that enable distributed, emergent solutions.

A whole new section addresses the opportunities and challenges of practicing information architecture, while another section discusses how that work impacts and is influenced by the broader organizational context. New case studies provide models for creating enterprise intranet portals and online communities. Finally, we've referenced a wealth of essential information architecture resources, many of which did not exist a few years ago.

Organization of This Book

This book is divided into six sections and twenty-one chapters, progressing from fundamentals to advanced topics. It breaks down as follows.

Part I, *Introducing Information Architecture*, provides an overview of information architecture for those new to the field and experienced practitioners alike, and comprises the following chapters:

Chapter 1, *Defining Information Architecture*
This chapter offers definitions and analogies, shows how information architecture relates to other fields, and explains why it matters at all.

Chapter 2, *Practicing Information Architecture*
This chapter discusses the qualities and skills essential to the professional information architect, and explains where and when the work should happen.

Chapter 3, *User Needs and Behaviors*
This chapter sets the stage for information architecture design by helping us better understand how people interact with information.

Part II, *Basic Principles of Information Architecture*, includes chapters on the fundamental components of an architecture, illustrating the interconnected nature of these systems. It comprises the following chapters:

Chapter 4, *The Anatomy of an Information Architecture*
This chapter helps you visualize the nuts and bolts of an architecture, and introduces the systems covered in subsequent chapters.

Chapter 5, *Organization Systems*
This chapter describes ways to structure and organize sites to meet business goals and user needs.

Chapter 6, *Labeling Systems*
This chapter presents approaches for creating consistent, effective, and descriptive labels for a site.

Chapter 7, *Navigation Systems*
This chapter explores the design of browsing systems that help users understand where they are and where they can go within a site.

Chapter 8, *Search Systems*
This chapter covers the nuts and bolts of searching systems, and describes approaches to indexing and the design of search result interfaces that can improve overall performance.

Chapter 9, *Thesauri, Controlled Vocabularies, and Metadata*
This chapter shows how vocabulary control can connect these systems and improve the user experience.

Part III, *Process and Methodology*, covers the tools, techniques, and methods to take you from research to strategy and design to implementation of an information architecture. It comprises the following chapters:

Chapter 10, *Research*
This chapter explains the discovery process necessary to create a foundation of understanding.

Chapter 11, *Strategy*

> This chapter presents a framework and methodology for defining the direction and scope of your information architecture.

Chapter 12, *Design and Documentation*

> This chapter introduces the deliverables and processes required to bring your information architecture to life.

Part IV, *Information Architecture in Practice*, is a series of short essays that provide practical tips and philosophical advice for those doing the work of information architecture, and comprises the following chapters:

Chapter 13, *Education*

> This chapter explains how to enter the field and how to keep learning, drawing from traditional and novel educational forums.

Chapter 14, *Ethics*

> This chapter exposes the moral dilemmas inherent in information architecture practice.

Chapter 15, *Building an Information Architecture Team*

> This chapter introduces the specialist roles beginning to emerge within the field, and addresses the transition from performing short-term projects to building sustainable programs.

Chapter 16, *Tools and Software*

> This chapter covers a diverse set of software applications and technologies that can assist information architects and power information architectures.

Part V, *Information Architecture in the Organization*, addresses the business context of practicing and promoting information architecture, and comprises the following chapters:

Chapter 17, *Making the Case for Information Architecture*

> This chapter provides guidance for those who must sell the value of information architecture to clients and colleagues.

Chapter 18, *Business Strategy*

> This chapter notes similarities and dependencies between the fields of information architecture and business strategy, explaining how we can work toward competitive advantage.

Chapter 19, *Information Architecture for the Enterprise*

> This chapter lays out a broad entrepreneurial framework for supporting the creation of information architecture services to serve the organization over a long period of time.

Part VI, *Case Studies*, describes the evolution of two large and very different information architectures, illustrating best practices along the way. It comprises the following two chapters:

Chapter 20, *MSWeb: An Enterprise Intranet*
> This chapter presents the story of how a small team at one of the world's most powerful corporations has been able to create a successful and sustainable intranet information architecture.

Chapter 21, *evolt.org: An Online Community*
> This chapter shows how a well-designed participation economy can produce an emergent information architecture that can be used and maintained by a distributed community of volunteers.

The Appendix, *Essential Resources*, is a selective list of pointers to the most useful information architecture resources available today.

Audience for This Book

Who do we hope to reach with this new edition? In short, anyone who's interested in information architecture, and maybe a few who aren't. We're information architecture evangelists at heart.

This second edition is necessary because *you*, the readers and practitioners of information architecture, have changed dramatically over the past few years. Many of you are completely new to the field, while some of you now have years of experience under your belts. For better or for worse, we've tried to meet the needs of both groups. While we intend this edition to serve as a useful introduction, we hope many battle-scarred practitioners will find the new material helpful as they make their way through today's information technology and business environments.

Finally, this is *our* take on information architecture. Many of our colleagues are also now writing about the subject, and we are grateful that so many smart people are sharing their experiences and insights. We look forward to continuing to learn from them. You should too. Buy their books, read their articles, and find ways to share what you know. The more perspectives, the better. Only by sharing as individuals can we learn as a community.
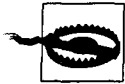
Conventions for This Book

Italic
> Is used for URLs, email addresses, and for emphasis.

`Constant width`
> Is used for code examples.

> Indicates a tip, suggestion, or general note.

Indicates a warning or caution.

Contacting the Authors

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Acknowledgments

It's not easy to write about such a new and dynamic area. Fortunately, we've had a lot of help from many smart, generous people. While we can't begin to thank all of the teachers, colleagues, friends, and family members who helped, permit us to acknowledge those most influential in shaping this second edition.

We're grateful to our technical reviewers whose words of criticism and encouragement made this a much better book. They include: Michael Angeles, Samantha Bailey, Sarah Bidigare, Tina Bissell, Bob Boiko, Michael Crandall, Michele de la Iglesia, Bram Dijkshoorn, Jennifer Enzer, Chris Farnum, Chiara Fox, Bob Halstead, Kat

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We truly appreciate the generous assistance we received from Vivian Bliss and Alex Wade of Microsoft, and from Javier Velasco and other members of the evolt.org community. Our case studies only hint at the exciting and important work going on in their respective organizations.

It's always a privilege to work with the great team at O'Reilly & Associates. Years ago, Lorrie LeJeune helped bring information architecture to the attention of O'Reilly. Little did she know she would wind up editing the second edition! Lorrie has patiently prodded, encouraged, and threatened us as any good editor must do. Endless thanks to Lorrie, her colleagues, and the entire production crew at O'Reilly.

We'd also like to thank Myra Messing Klarman and Jess McMullin. When words weren't enough, they helped us express ourselves visually. Speaking of the inadequacy of words, we can never fully express our appreciation and admiration for our wives, Susan Joanne Morville and Mary Jean Babic, who patiently supported our labors, and reminded us that there would indeed be light at the end of the tunnel.

Finally, we are particularly indebted to you, the information architecture community. We're glad to be here with you at the start of something big.

—Peter Morville and Louis Rosenfeld
Ann Arbor, MI, USA
August 2002

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