

# design matters

Winter 1998

## Ouchless Online

Taking the Hype Out of Hyperspace

by Henry Korman

Have you ever launched your browser into the Web, trolling for information you need rather than surfing for the fun of it and—like the Flying Dutchman—felt you might cruise forever? Then, if fortune rewarded you, having caught your fish, did you return to your desktop with a sigh of relief, rubbing your eyes and feeling a frisson of tension in the chest? From every such foray into the Web we can garner valuable lessons in how *not* to offer information online.

Entering the Web, our goal is to find what we need by searching a vast ocean of information, sifting the relevant from the irrelevant. If our experience

proceeds in synch with our goal, as we narrow the search in incremental steps and gradually zero in on an increasingly well-defined target, we experience satisfaction. But built into the experience are otherwise avoidable psychological and physiological frustrations. When we get sideswiped by links which tempt but prove irrelevant, or we find the information horizon widening rather than narrowing, we experience an increase in stress. Each screenful of information we look at, evaluate, and discard exacts its toll in depleting the store of energy and attention we have available for our task. The expenditure of effort is compounded by gimmicky design epitomized by eye-catching animation that pulls attention away from content and overburdens a nervous system whose

limits do not expand infinitely, but remain constant. To honor human capacities, we must reject the lure of techno-glitz and maintain our focus on the core relationships among content, structure, and user goals.

In dozens of talks and design workshops, I've shown two "front pages" from onscreen editions of USA Today: one from the first edition (1986), and an-



other from an issue ten years later in 1996. *Top, USA Today 1986; Bottom, USA Today 1996. More similar—or more different?*

When asked if the screens are more alike or more different, about 80% thought they were more different. They were struck by improvements in the later edition such as neater layout, higher resolution images, nicer typefaces, and better-designed buttons.

...continued on page 4

The newsletter of the STC Information Design SIG

- 6 Developing and Testing an Intranet
- 8 Helping Users Find What They Want on Your Site
- 10 Information Redesign: Online Help Contents
- 11 Tooling Up for Web Management
- 12 Jakob Nielsen: Intranet vs Internet Design
- 14 ID SIG Advisory Panel

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# On Online Design . . .

by *Mary Ann Eiler, PhD, Guest Editor*

Like characters in search of an author, online design as a coherent discipline continues to struggle for definition, focus, and direction. From the GUI to the Web, designing for electronic media embraces a variety of information design issues, theories, and practices as it rushes towards an as yet elusive maturity. When I took on the task of developing the first document design course for the Illinois Institute of Technology, I came to the drawing board with an eclectic approach and a grounding in document design empirical research. When two years later, we expanded the program to include a course on online design, I again built its foundation on document design concepts and principles. When my classes deviated from these principles, they did so judiciously with strict criteria. Yet we continued to recognize that beyond any design choreography was that elusive domain—a designer's intuition—that is not easily analyzed or classified.

As document designers in the largest sense, we must develop design models for our applications based on detailed user and function analysis. We must answer critical questions like: What is the purpose of the product? Who are the users? How and where will they use the product? What prior knowledge and functions, if any, are involved in the use of the product? and What key results are the users expected to achieve through the use of the product? Also, the process of designing a document should be approached from a variety of disciplines: linguistics, rhetoric, discourse analysis, typography, human factors, research in reading theory—and international perspectives where applicable. In short, as designers (and teachers) we must consider the entire social and physical context of a situation that includes variables like the limitations of media, budget, and deadlines before a design model is crafted.

As designers we must also take into account that reading is a selective process, that typography is an access structure, and finally, that in an online environment readability and legibility are even more critical because of monitor constraints. Designers can help their readers anticipate an active reading strategy. As "aestheticians" we can also promote readability issues by heeding Robin Williams' advice (see *The Non-Designer's Design Book*) to: use contrast for it is often "the most important visual attraction on a page"; repeat visual elements for organization and to strengthen unity; align elements and avoid arbitrary placement—"Every element should have some visual connection"; and group related items together. Proximity creates visual unity and avoids clutter.

In the final analysis, we must recognize that good design—whether that of a door knob, a book, a toy, a web site or other GUI—always must first and foremost serve the human side. The contributors in this issue were selected because they address the complexity of our discipline, reminding us we must approach all online applications with a critical eye if we are ever to develop an inclusive theoretical model of our own.

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# Striking a Chord

by Cheri Taylor and Beth Mazur

Surprise! This issue of *Design Matters* will be the first for over 600 new SIG members! We are extremely pleased that our SIG has grown so quickly. In one year, we've gone from being the rookie SIG to the 3rd largest of STC's 16 special interest groups.

Now our mission is to ensure that we provide sufficient services to all our members so that they'll have no qualms about checking off the ID SIG box when next year's membership invoice comes due! We hope that you'll help us by letting us know what you'd like us to provide, and more importantly, by getting involved in whatever ways suit you.

## Anaheim

ID SIG members are anticipating a valuable and fun conference in Anaheim this year. Many ID-related sessions are available, as well as the ID SIG business meeting, several tables at the SIG Networking Luncheon, and a couple of informal dinner gatherings! We'll have cool t-shirts, stickers, posters, and literature promoting the ID SIG. Make plans now to join your fellow ID SIG members in Anaheim this May!

## Listserv

Join the listserv if you haven't already. The list is still low enough in traffic not to be an inbox bother! To subscribe, send mail to [majordomo@stc.org](mailto:majordomo@stc.org) with **subscribe stcidsig-1** *your\_email\_address* in the body. We now have a separate listserv to handle SIG admin trivia (thanks Mike Albers!).

## Website

Lisa Pere ([llp@riverside.com](mailto:llp@riverside.com)) is heading up our website redesign. We have high expectations for our web site. It's a way of gaining credibility in the international ID community and to recruit members to the SIG and to STC, as well as providing a valuable resource to our current members. As the web site matures, we will probably be looking for volunteers who are interested in overseeing the content of some of the sections. And, of course, we want to enter web

competitions and bask in the accolades of our peers!

## Important! About *Design Matters*

Popularity has its price! When we budgeted for the '97-'98 SIG year, our expectations were for about 400 members at this time. Needless to say, our budget is being strained by the printing and postage costs for 600 more members! Because of this, we have decided to experiment with an **online** issue of *Design Matters*.

The spring issue will focus exclusively on matters related to the Anaheim conference: sessions of interest, meeting times, and so on. We anticipate posting it to our website by May 1st. We will be posting a notice about the newsletter availability on our listserv (see subscription info in this article). If you don't want to subscribe to the listserv, check our website in early May. We'll also have all the pertinent info at the conference.

Speaking of the newsletter, the fall and winter issues of *Design Matters* show that the guest editor program has exceeded the expectations of the SIG leadership; it brings credible, interesting viewpoints to our members and helps divvy up the workload! We owe many thanks to Mike Sharp and Mary Ann Eiler for all of their efforts.

We're pleased to announce that Bonnie Davis has volunteered to guest edit the fall '98 issue; her topic will be to discuss ID as it relates to tools that aid in organizing and delivering information in ways that enhance understanding. Please send Bonnie mail at [bdavis@communicationnetwork.com](mailto:bdavis@communicationnetwork.com) for more info.

## Volunteers and volunteering

We have some new volunteers! Please welcome Lisa Pere, our new webmaster; Chris Prell, our assistant webmaster; Norman Stahlberg, our assistant newsletter editor; and Brenda Petrizzi, our conference coordinator.

Needless to say, with 1000+ members, we can certainly use all the volunteer help we can get. If the idea of signing up for a "official" position sounds too intimidating, consider signing on to our administrative listserv, where we often discuss onetime jobs and/or ideas that may lead to volunteer opportunities. For more information about this, please contact either Cheri or Beth (see below).

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*Beth Mazur is lead electronic publishing specialist at AARP and the assistant manager of the ID SIG. She can be reached at [mazur@pobox.com](mailto:mazur@pobox.com).*

## Help Wanted—Anaheim!

*We need hosts for the ID SIG tables at the SIG networking luncheon on Tuesday, May 19th from 12-2PM. Please email Brenda Petrizzi at [ByDesign15@aol.com](mailto:ByDesign15@aol.com) or call 203-459-0893. The only requirement: a gift of gab!!*

As of March, the STC ID SIG has 1082 members!

Our SIG business meeting will be from 12-2PM on Wednesday in the Balboa A room in the Hilton. See you there!

## Ouchless Online

...continued from page 1

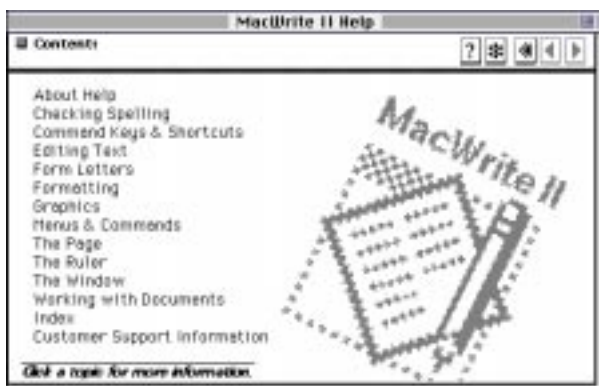
The few participants who saw the pages as more similar noted that for the most part stylistic surface features had changed while underlying components had remained constant. Both pages were constructed on design grids although the later grid is better defined. Both pages use images although the later page has more of them and better quality. Both have prominent logos. Both make use of a range of type-faces although the later page is more sophisticated. Both have buttons although the later page makes them more evident. In both pages, the content is divided into headline news, feature stories, and regularly-appearing departments.

All the participants have been surprised to learn that the delivery vehicles for each page were entirely different. The earlier page had been delivered to my computer on a 128K floppy disk, the later via the mechanism of the Internet, the World Wide Web, and a modem. Whereas the delivery technology and authoring systems were worlds apart, the underlying structure and types of content had remained remarkably constant over time.

### Design for Screen Constancy

One of the key elements in contributing to a calm, relatively stress-free user experience is what I call *screen constancy*. For an online display that's intended primarily to inform, the idea is to have as much of the display as possible remain visually stable, apparently unchanging. The more that remains constant, the less there is to distract our attention needlessly. Unfortunately, opposition to this idea is embedded in the language of hypertext discussion. The 'jump' metaphor, used by all of us as shorthand for the action which invokes a link, continually leads us astray. We click an item and 'jump' somewhere, and with each click most of the onscreen elements change, often drastically. So the talk about "jumping" here and "going" there, tends to obscure some of the stress-causing possibilities in hypertext linking.

Let's explore some of the fundamentals involved



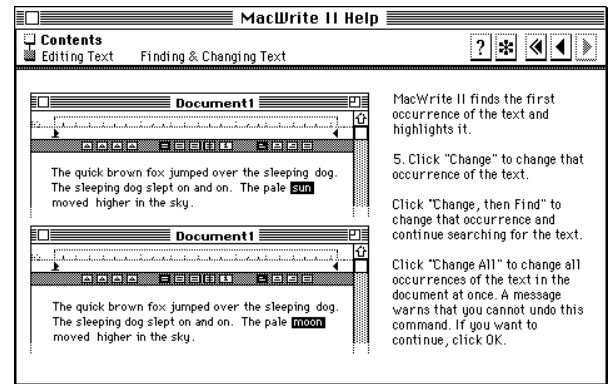
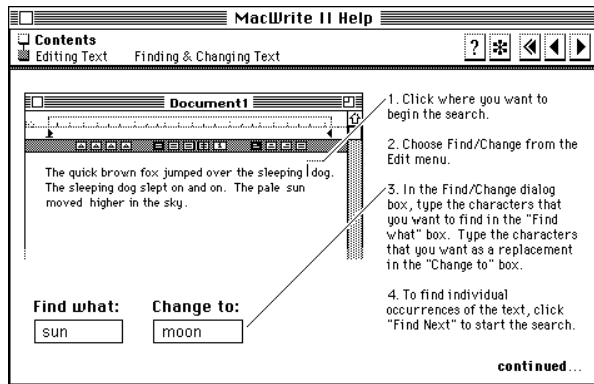
in maintaining screen constancy as they were implemented more than ten years ago in a hypertext help system for a word-processor. The help file is a Hypercard stack linked to the program. Each click in the help window displays a completely separate card. Great care was taken to create a calm user experience.

The help opens in a non-resizable window which

For an online display that's intended primarily to inform, the idea is to have as much of the display as possible remain visually stable, apparently unchanging. The more that remains constant, the less there is to distract our attention needlessly.

offers a list of topics (see below). Clicking a main topic (Checking Spelling) on the left replaces the logo on the right with a list of subtopics, displaying two levels side by side. The main topic remains highlighted, keeping the relationship between levels transparent. Important features of the display remain constant: the size of the navigation bar, the items in the main topic list, and the window size. Instead of having to go somewhere to see subtopics, the experience of users is that of having the subtopics brought to them.





In the first two screens of a procedure for finding and changing text (see above), notice the elements which remain constant. Although the first screen has one illustration of a part of a document and the second has two, in both the widths of the illustrations remain constant and their upper left corners are placed in exactly the same relationship to the help window. Also, the text occupies a column of constant width, always placed on the right, and has its first line in a constant location. These precautions minimize distractions in going from one screen to the next.

The same precautions that were taken in the previous example were implemented regarding the placement of images and text in these two screens (see right) from a reference section of the help illustrating the use of the Find/Change dialog. The layout of the content portion of the help window was rearranged to fit a topic addressing the user situation of getting facts about functionality instead of information about how to do a task. All the screens for this subject have the same layout.

## Aim for Simplicity

Focusing design efforts on screen constancy and the eternal verities of clear structure and relevant content aims at keeping the user experience uncomplicated. Unceasingly, complication intrudes into all our lives—from the arcane rules of filling in an income tax form to adjusting the settings of a VCR. Complication always reveals itself as shallow and empty because it wastes effort that could better be used. We should bear in mind that *complication* differs from *complexity*. Complexity involves the appropriate matching of details and functions to a situation. It is rich and deep and, ultimately, has at its core, simplicity. Such simplicity is what users lack most.

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*If there is one thing that computers have taught us, it is that heads are not good places for keeping information in.*

— Dale Spender, *Nattering on the Net*

# Developing and Testing an intranet

by Susan Feinberg, Ph.D.

With companies needing to provide information and technical resources to employees who work in a variety of departments from Human Resources to Research & Development, many companies are developing their own intranets.

Technical communicators, especially those with an expertise in usability testing, will find this task challenging and exciting. To accomplish the goal, they will need to exercise their project management skills and establish a methodology for developing and testing the intranet.

## Why Companies are Moving to an Intranet

At Apex, a large, multinational company in the Midwest, key divisional personnel are meeting in groups to define the company's intranet. This group is undertaking the project because divisions within the company are already on the move to establish their own online information system. The project planners feel that a move to an intranet will provide the company and the divisions with several benefits such as the following:

- Improve the accuracy, consistency, and timeliness of information
- Increase knowledge sharing among divisions
- Provide a single desktop to the employees
- Provide economic efficiencies by reducing duplication of effort and sharing resources
- Reduce paper documents through electronic distribution of data

In other words, an intranet will provide employees with timely information, accurate data, and increased resources by delivering a template that is organized, reusable, customizable, and robust with a component architecture that can evolve with changes in the technology or the business organization.

## How Companies are Moving

The project planners are aware that this project requires cross-skill teamwork and input from various divisions. To manage this project, Apex hired a consultant with expertise in usability testing. As part of managing the project, the consultant established the following methodology for developing and testing the template for the intranet. The time frame for this project was two months.

## Developing templates

Cross-skill teamwork. Designing an intranet template begins with knowing the content and conceptualizing the framework for delivering the content. At Apex, the first two cross-skill teams that the consultant convened were (1) two focus groups of six people each who supplied content knowledge and (2) a design team of four people with conceptualizing and screen design skills. These two groups met together initially and the focus groups were asked to generate content for the intranet by answering such questions as: What information/aids do you keep in your office and access frequently to answer questions? To do your job, what information do you get from other resources? Where does your resource information come from?

Focus Groups. While the design team observed, the focus groups generated 81 items as possible content items for the Apex intranet. Such items included benefits, training/testing opportunities, Federal Register announcements, FDA approvals, legal advice, and purchasing orders.

Heuristic evaluation. To further help the design team conceptualize a template for the Apex intranet, the focus groups participated in a "site walk through." In the "walk through," the focus groups viewed nested screens within six intranets. The groups were asked to discuss and rate each site on the basis of the "look and feel" of the site as appropriate for Apex. A heuristic was developed for gathering the data.

In addition, the groups expressed their opinions about the sites and liked such things as consistency of pages, easy navigation and seeing the entire screen at once, but disliked such things as print that is too small, over-designed screens and screens with too many layers.

Cluster Routine. From this information and data, the design team could begin to design the "look and feel" of the Apex templates, while the focus groups were given instructions on how to cluster the 81 content items into "best fit" categories and label the clusters.

A statistician ran a cluster routine on the items clustered by the focus groups and determined the frequency with which the items were matched to establish the final "best fit." The routine determined that the items would cluster under 8 categories. At the final focus group meeting, the participants verified the "fit" by placing each of 81 note cards under one of the most appropriate of the 8 possible categories. For example: the content was clustered under such categories as About Apex, Legal Services, Employee Resources, R & D.

Design Team. The design team then used the category names in their templates and designed the

architecture and navigation for the intranet. Their templates were a working prototype that users could click and move to one level of horizontal screens and six levels of vertical screens.

## Testing the Architecture and Navigation

**Methodology.** The first usability session tested the architecture for the proposed intranet. Six Apex employees from several divisions and with varying levels of computer experience performed a set of tasks designed to test the navigation and information on the intranet. These people completed a user profile form before beginning the intranet tasks. Each user was introduced to the procedures involved in usability testing, including performing tasks, talking-aloud while performing these tasks, video taping, and logging comments. Before beginning the tasks, the user was encouraged to browse through the available intranet screens. Then the user was asked to perform tasks such as the following:

- Find clinical information on pace maker research and return to the home page
- Locate the division and email address of an Apex employee
- Find the email address of a R&D employee and return to the R&D home page
- Request a visitor's badge and return to the Company's home page

The tasks were designed to test cluster titles in the menu bar, the navigation structure, the tool bar, drop down menus, and the return Icon. After the tasks were completed, the user responded to post-test questions.

**Analysis.** Testers, observers, and clients analyzed the users' comments and performance. Analysis focused on user problems with navigation of the intranet. These problems fell into two categories: conceptual problems and layout problems. For example, all six users failed to recognize the difference between the Company Home Page and the Divisional Home Page. Our suggestion was to remove the Company Home Page from the Main Menu bar and just use an opening Splash page.

We also identified problems that users were having with layout and terminology. For example, none of the six users used the tool bar at the bottom of the page or correctly used the term Gateway to move to another Division in the Apex business structure. Our solution was to move the Search Box near the top on the Splash page and to use the term Apex Division instead of Gateway, with all Apex Divisions listed and clickable. The results of this usability test provided the design team with findings they could use to redesign the architecture and navigation of the intranet templates.

**Second Usability Test.** The second usability session

tested the "Look and Feel" of the proposed intranet and followed the methodology for the first test. Eight employees performed a set of tasks and responded to questions designed to probe users' response to the design and navigation of the intranet. Again, the site was not live, but the prototype allowed users to click and move around several screens.

During the performance of the tasks, the user was also asked to respond to various probes about the look and feel of the page the user was exploring. For example, at the Splash page the user was asked about type size, the background color, and the *search* feature. At the R&D Home Page, the user was asked about the size and use of the photograph, the color and typeface of the headline, information behind menu bar buttons, and the user's page location.

**Results.** In a wrap-up session following the day's testing, testers, note-takers, and company project planners analyzed the users' performance and comments. The findings fell into two categories: (1) findings associated with the individual pages such as the Splash page and (2) overall findings. Overall findings included such statements as, "The look of the intranet fit in with my concept of the Apex culture: business-oriented, clean, and professional." But the users still had trouble finding a phone number because the term Directory was not on the Splash screen. The wrap-up session participants suggested changing the term Employee Resources to Employee Resources/Directories on the Main Menu bar. The results of this usability test provided the design team with findings they could use to redesign their story boards and submit them to the project planners for final approval.

## Conclusion

Within two months, project planners, a technical communicator consultant with usability expertise, and cross-skill teams worked together to plan, design, and test a prototype for the Apex intranet. Based on cooperation, a tight schedule, and project management that included an empirical methodology incorporating focus groups, a design team, heuristics, clustering, and usability testing, the participants in the project delivered the intranet prototype to the programmers who could now write the code.

Editor's note: For space reasons, the bibliography for this article is not included here; it can be retrieved at <http://stc.org/pics/idsig/>.

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# Helping Users Find What They Want on Your Web Site

by Kathy Little

Getting people to your web site is half the battle. Once you get them there, you need to help them find what they want. And there are three ways you can help them.

The first, most important, and the most obvious way to help people is to make sure the site is designed in a manner appropriate for the topic and purpose of the site. Think of your site as a group of “interacting rhetorical clusters” that, when put together, “orchestrate a web of converging meanings” (Schrivier, pg. 344). Design the different areas of your site to work together not against each other.

The second method is also obvious, but often difficult to accomplish. Make sure there is logical, useable navigation throughout the site. Good navigation is important because it allows users to browse or *drill down* through your site to find what they need. Both browsing and drill down are common and acceptable methods of search and discovery on the web. Site design and navigation while of great importance are beyond the scope of this article. (Darrell Sano’s *Designing Large-Scale Web Sites* (1996, John Wiley & Sons, Inc.) is one of the many excellent books available if you want to explore these topics in depth.)

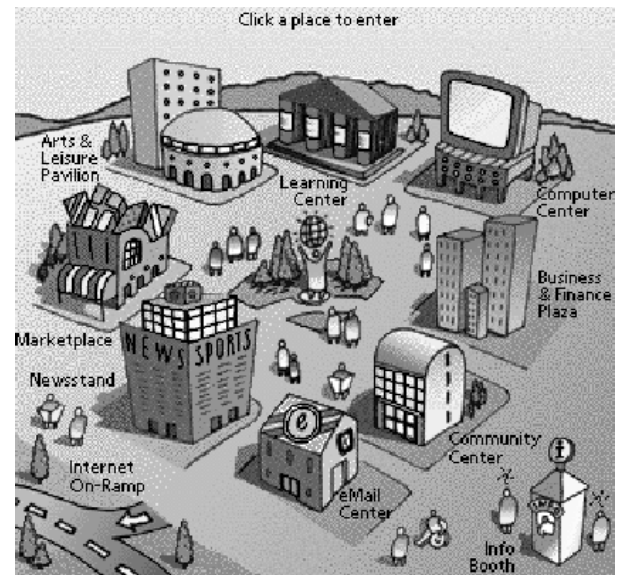
This article will concentrate on the third — one less often explored: the importance and use of advanced organizer devices in online design. Advanced organizer devices provide an alternative to browse and drill down navigation methods and, when they carry forward a print metaphor, they provide familiar guideposts for those with a print-based mind set. Among the most useful of these are site maps, indexes, and search engines.

## Site Maps

On a web site, a site *map* is most often used in place of a table of contents. You can occasionally find a site where this advanced organizer is actually called “contents” or “table of contents,” but it is most often identified as “site map” or just “map.”

Site maps can be as simple as hierarchical listings of the high-level contents of a site or as complex as 3-D renderings of the entire depth and breadth of a site. The word “map” implies something visual — more than just a textual listing. If you can do it well, the ideal would be to offer a site map that provides

both a visual map and a textual listing of the contents of your site like the one shown in screen 1.



Screen 1. Both pictures and words are clickable. (A screen shot from Apple’s (sadly) deceased eWorld. ©Apple Computer, Inc.)

If design considerations or lack of resources prohibit you from creating a visual map, a paper metaphor table of contents with hypertext links is usually the best option — like the one shown in screen 2.

Find	Search	Index	Map	Download
<b>News</b>		<b>Products</b>		
<ul style="list-style-type: none"><li>• <a href="#">Conferences and events</a></li><li>• <a href="#">Current news</a></li><li>• <a href="#">News archive</a></li><li>• <a href="#">Publications</a></li><li>• <a href="#">Stock quote</a></li></ul>		<ul style="list-style-type: none"><li>• <a href="#">Microelectronics</a></li><li>• <a href="#">Computers</a></li><li>• <a href="#">Networking</a></li><li>• <a href="#">Printing systems</a></li><li>• <a href="#">Software</a></li><li>• <a href="#">Storage</a></li></ul>		
<b>Support</b>		<b>Business solutions</b>		
<ul style="list-style-type: none"><li>• <a href="#">Support home page</a></li></ul>		<ul style="list-style-type: none"><li>• <a href="#">Business intelligence</a></li><li>• <a href="#">Customer financing solutions</a></li><li>• <a href="#">IBM Global Services</a></li><li>• <a href="#">Industry solutions</a></li><li>• <a href="#">Web solutions</a></li><li>• <a href="#">Year 2000 solutions</a></li><li>• <a href="#">Original equipment manufacturing</a></li></ul>		

Screen 2. An example of a simple text based site map. (From www.ibm.com, ©IBM Corp.)

A mistake often made is planning beyond your ability to design and execute. Poor design can cause users to get “lost” no matter what the media. In paper, users can easily flip pages to find themselves again. But on the web, that’s not always easy. Because the web is an unfamiliar medium to many, usability should always be the designer’s primary concern — and primary responsibility.

## Indexes

The word “index” comes from the world of print and implies something both alphabetical and comprehensive. Web-based search engines can take the place of comprehensive indexes because they allow users to search for any word or phrase appearing anywhere on a site. Information designers have the option of using one or more of these search engines in any design.

Within the product-specific area of the PLATINUM *technology, inc.* web site, there are four product-specific indexes. The first is an alphabetical index by product name. When a product name is changed or one product is bundled with another, *now* and *see* entries are used in much the same way as similar entries are used in print indexes. Screen 3 shows a portion of that product name index with both *now* and *see* entries.

Screen 3.

↑ **I** [Image Analyzer for Sybase and Microsoft SQL Server](#)  
[InfoAdvisor \(now Perspectives for Market Analysis\)](#)  
[InfoBeacon](#)  
[InfoPump](#)  
[InfoRefiner](#)  
[InfoReports](#)  
[InfoSession](#)  
[InfoTransport](#)

↑ **L** [Life Cycle Manager \(see CCC/Life Cycle Manager\)](#)  
[Log Analyzer for DB2 for MVS](#)  
[Log Analyzer for Sybase and Microsoft SQL Server](#)

↑ **M** [Merge](#)  
[Merge/Modify](#)

↑ **N** [NetArchive](#)

↑ **O** [Object Administrator](#)  
[Object Tracker](#)

This shows an alphabetical index by product name showing a *now* entry for a product whose name has been changed and a *see* entry for a product that has been bundled with another. Rather than require users to scroll to a different section of the index to execute their selection, the target items in both entries are clickable. (From [www.platinum.com](http://www.platinum.com), ©PLATINUM *technology, inc.*)

When creating category-specific indexes for web-based information, the inherent non-linear nature of the media somewhat blurs the line between table of

contents and index. One rule of thumb to follow is that if the information is hierarchical in nature (without regard to the order in which the information is actually accessed) then it should be represented by a table of contents or map — even if it only covers a portion of the whole site. If the information is alphabetical, then it should be represented by an index — even if it only covers a portion of the whole site.

## Site-Specific Search Engines

A search engine gives users the equivalent of a detailed index in a book. All but the smallest of sites need at least one search engine that will search the entire site. The key to making the search engine a useful tool is designing your information to take advantage of how the search engine works. Knowing what a search engine is looking for on a page is the key to designing the page so that the information you want found is where the search engine is going to look. You must know your tools. And knowing how your users are going to be looking for information is the key to deciding what information you want found. So you must know your users.

If your site is divided into specific areas like products, press releases, articles, or classes then consider using additional search engines that search only within those specified areas of the site. The value to your users can be enormous. But the name you give each of these area-specific search engines and the text you use to describe the parameters of the search that will be conducted are critical to the success of this design technique. A user looking for a press release in the products section of your site will quickly become frustrated.

## Other Useful Advanced Organizer Devices

Following are brief discussions of two other important advanced organizers:

**Comprehensive “Find” Pages.** Offer users one area in which they can access the alpha index, the function index, and all other indexes you have put on your site in addition to the search engine for the products section, the search engine for the articles section, the search engine for the whole site, and any other search tools that you’ve created and strategically placed around the site. Yes, these items are already available on your site map but creating one area with all of these items will give different-thinking users an alternative to the site map. It also lets users know that there is more than one way to search or navigate the site, so if users have trouble with one method they can try another.

...continued on page 14

# Information Redesign: Online Help Contents

by Cheri Taylor

A user needing help with a software product can open the product's help file and view the top-level topic, usually called the Contents or Overview. How can information designers recast a troublesome Contents topic to make help information easier for the user to find? This article presents a brief case study of redesigning one help file's Contents. Page references are to William Horton's *Designing and Writing Online Documentation* (Second Edition).

While working with one of my clients on the latest revision to one of their Windows 3.1 products, I suggested that they redesign the information in the product's online help Contents topic. I was having trouble finding the help topics I needed, and I was much more familiar with the information than a user would be! The original Contents topic is shown on the top left with product and company names changed for confidentiality.

The [Selected Topics](#) link led to a topic that listed several more links alphabetically, covering a wide range of brief to lengthy topics, some duplicated under synonyms. The topic was so long as to cause the user to scroll through several pages to view the entire list or find a particular item.

The redesigned Contents topic I proposed and the client accepted is shown on the bottom left.

Why is the redesigned information easier to use? More links are immediately available to the user, yet the material is easier to scan.

Here's what I did to achieve these benefits:

1. I changed the sentences in the original topic to a grouped list of short links, using fewer words or more task-based phrasing, such as [How to Navigate](#) instead of [Workspace](#). Eliminating the descriptive sentences meant I could fit more links onto the same size topic, and the user no longer had to spend time reading unnecessary words in whole sentences. Grouping the links by subject also made them easier to find for a user scanning quickly.

2. I moved the most important links from the [Selected Topics](#) subtopic to the Contents topic itself. I sacrificed the synonymous and less important links, knowing that such information was readily available to the user through the Index feature. The user no longer had to click to the subtopic and then scroll the lengthy list to find further information.

3. I moved the scattered information about using Help to the single link [How to Use Help](#). This change shifted the emphasis in the Contents topic from the help file itself to the technical content of the help file (much more to the user's interest).

## BEFORE

### Product Help

The Product Help provides context-sensitive help. To view context-sensitive help for a window, select Help on the window.

You can also view Help information in the following ways:

[Product Applications](#) describes the Product menu options.

[Workspace](#) describes the Product workspace and how to navigate within it.

[Selected Topics](#) is an alphabetically organized list of general help topics.

[What's New in this Release?](#) is an overview of changes.

[Documents](#) lists Company and other reference documents.

Select Search from the Help pull-down menu to search an alphabetic listing of keywords associated with each application window and help topic.

Select How to Use Help from the Help pull-down menu for help on using Help.

## AFTER

### Product Help Contents

Click on the following for more information:

Introduction to the Product:    Using the Product:

[Introduction](#)

[Product Menu](#)

[New for this Release](#)

[Procedures](#)

[About Previous Releases](#)

[How to Navigate](#)

[Notices](#)

Product References:

More Help:

[Alarms](#)

[How to Use Help](#)

[Defaults](#)

[Customer Documentation](#)

[Equipment Types](#)

[Customer Assistance](#)

[Error Codes](#)

...continued on page 15

# Tooling Up for Web Management

by Michael V. Sharp

At a recent chapter meeting one of my favorite people was telling how she had just learned that she would be responsible for maintaining her firm's web-site. There ensued, both in her firm and at our dinner table, lively discussion of what her title should be. Obviously the title of "web-master" was wrongly gendered. She was most definitely not interested in being called the web-mistress! So our table helpfully began to supply the potential titles of web-queen, web-Madonna, web-maven, web-guru (is there a guress?), and web-diva. My friend left with the issue unresolved. I'm happy that she is doing it, whatever she is called, because I think it is valuable and timely experience.

It strikes me that there are two main routes of entry to the position of **webm**. (I'll let you complete the title to your own satisfaction.) One route seems to be from the rather broad area of technical communication, whether writing or graphics design. The other approach I have seen is from networking technology.

Thus it was with interest that I read an article on training and certification for webm.s in a recent issue of the *Delaware Valley ComputerUser*, a monthly newspaper distributed in our area. (*ComputerUser* is published regionally in major information technology markets.)

In it, Joe Rudich states that people with strong Internet and intranet skills are now and will continue to be among the most highly sought resources in today's job market. Developers with just a year or two of work experience can command salaries between \$50,000 and \$75,000 if they have set up a Web site or are fluent in HTML. Web veterans familiar with interactive databases, communications technology, or firewalls can earn into the low six figures.

However, Joe observes that as Web sites grow in complexity, their management becomes a full-time job that demands a wider range of talent that many webm.s bring to the job. On the technical side, webm.s will need working familiarity with security, database integration, and programming, in addition to networking and telecommunications skills. My observation is that on the communications side, webm.s will need strong backgrounds in information design with particular stress on graphic design and visual communication.

Most webm.s today are self-taught. Presently there is no one source of education and training where an aspiring webm. could get a complete course of training. Web technology continues to evolve so rapidly that both training programs and webm.s are challenged to keep up. However, a number of programs and courses are being created to address the technical needs of today's webm.s. Some are The Learning Tree, [www.learningtree.com](http://www.learningtree.com), NetGuru Technologies, [www.ngt.com](http://www.ngt.com), Network Professional Association, [www.cnp.org](http://www.cnp.org), and Novell, [www.netboss.com](http://www.netboss.com) and [education.novell.com](http://education.novell.com).

To expand on a point made earlier, certification can only be a starting point and guarantees nothing but the possibility of an interview. Web technology is expanding so fast that training curricula have difficulty keeping up. The programs at the above resources are notable for the absence of any kind of design or communications content. If you already bring those skills to the table, and you can pick up some technical skills from these or other resources, you could position yourself as one of those highly attractive webm.s that are on the fast track into the 21<sup>st</sup> century. *Good luck and bon voyage!*

The author would like to thank Joe Rudich for permission to quote from his article. Joe is a Network Administrator for the St. Paul Companies in St. Paul, Minnesota. His email address is [jrudich@interserv.com](mailto:jrudich@interserv.com).

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*Mike Sharp is vice-president of the Philadelphia Metro chapter. His email address is [msharp@snip.net](mailto:msharp@snip.net).*

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*Data smog is not just the pile of unsolicited catalogs and spam arriving daily in our home and electronic mailboxes. It is also the information that we pay handsomely for, that we crave—the seductive, mesmerizing quick-cut television ads and the twenty-four-hour up-to-the-minute news flashes. ... Mostly because we have asked for it, media is everywhere.*

—David Shenk, *Data Smog*

# The Difference Between Intranet and Internet Design

by Jakob Nielsen, Ph.D.

Note: This article appeared as one of a series of biweekly columns on web usability, hosted on Nielsen's website [www.useit.com](http://www.useit.com) (**highly** recommended!). It is reprinted here with permission.

Your intranet and your public website on the open Internet are two different information spaces and should have two different user interface designs. It is tempting to try to save design resources by reusing a single design, but it is a bad idea to do so because the two types of site differ along several dimensions:

- **Users differ.** Intranet users are your own employees who know a lot about the company, its organizational structure, and special terminology and circumstances. Your Internet site is used by customers who will know much less about your company and also care less about it.
- **The tasks differ.** The intranet is used for everyday work inside the company, including some quite complex applications; the Internet site is mainly used to find out information about your products.
- **The type of information differs.** The intranet will have many draft reports, project progress reports, human resource information, and other detailed information, whereas the Internet site will have marketing information and customer support information.
- **The amount of information differs.** Typically, an intranet has between ten and a hundred times as many pages as the same company's public website. The difference is due to the extensive amount of work-in-progress that is documented on the intranet and the fact that many projects and departments never publish anything publicly even though they have many internal documents.
- **Bandwidth and cross-platform needs differ.** Intranets often run between a hundred and a thousand times faster than most Internet users' Web access which is stuck at low-band or mid-band, so it is feasible to use rich graphics and even multimedia and other advanced content on intranet pages. Also, it is sometimes possible to control what computers and software versions are supported on an intranet, meaning that designs need to be less cross-platform compatible (again allowing for more advanced page content).

Most basically, your intranet and your website are two different information spaces. They should look

different in order to let employees know when they are on the internal net and when they have ventured out to the public site. Different looks will emphasize the sense of place and thus facilitate navigation. Also, making the two information spaces feel different will facilitate an understanding of when an employee is seeing information that can be freely shared with the outside and when the information is internal and confidential.

An intranet design should be much more task-oriented and less promotional than an Internet design. A company should only have a single intranet design, so users only have to learn it once. Therefore it is acceptable to use a much larger number of options and features on an intranet since users will not feel intimidated and overwhelmed as they would on the open Internet where people move rapidly between sites. (I know of a frighteningly large number of companies with multiple intranet homepages and multiple intranet styles: Step 1 is to get rid of that in favor of a unified intranet.)

An intranet will need a much stronger navigational system than an Internet site because it has to encompass a larger amount of information. In particular, the intranet will need a navigation system to facilitate movement between servers, whereas a public website only needs to support within-site navigation.

## Managing the Intranet

There are three ways of managing an intranet:

1. A single, tightly managed server: only approved documents get posted, and the site has a single, well-structured information architecture and navigation system under the control of a single designer. Even though this approach maximizes usability of the information that passes the hurdles and gets posted, this is not the best way to build a corporate information infrastructure because the central choke point delays the spread of new and useful information. A totalitarian intranet will cause you to miss too many opportunities.
2. A mini-Internet: multiple servers are online but are not coordinated, complete chaos reigns, you have to use "resource discovery" methods like spiders to find out what is on your own intranet, no consistent design (everybody does their own pages), no information architecture. This approach might seem to increase opportunities for communication across the company, but in reality does not do so since people will be incapable of finding most of the information in an anarchy.
3. Managed diversity: many servers are in use, but pages are designed according to a single set of templates and interface standards; the entire intranet follows a well-planned (and usability-tested) infor

mation infrastructure that facilitates navigation. This is my preferred approach.

Managed diversity will probably characterize many aspects of the coming network economy, but we have less experience with this approach than with more traditional top-down management.

Just one example of improved usability from taking advantage of managed diversity: an intranet search engine can take advantage of weighted keywords to increase precision. Weights are impossible on the open Internet, since every site about widgets will claim to have the highest possible relevance weight for the keyword "widget." On an intranet, even a light touch of information management should ensure that authors assign weights reasonably fairly and that they use, say, a controlled vocabulary correctly to classify their pages.

### **Extranets: Blended Design**

An extranet is a special set of pages that are made available to selected business partners such that they can directly access computational resources inside your company. Typical examples include allowing customers to check on the status of their orders (e.g., when will my urgent order ship? did you or did you not receive our payment?) and allowing approved vendors to look at requests for proposals.

The extranet is a blend of the public Internet and the closed intranet and needs to be designed as such. Fundamentally, an extranet is a part of the Internet since it is accessed by people in many different companies who will be using your public website but will not have access to the truly internal parts of your intranet. Therefore, the visual style and main navigation options of the extranet should be visibly similar to the design of your Internet site: your business

partners should feel that the two sites come from the same company. A subtle difference in the two styles (e.g., complementary color tones) will help emphasize the closed and confidential nature of the extranet.

It will often be reasonable to have links from extranet pages to pages on the public website, but you should not have links that point to your private intranet since your business partners will not be able to follow such links.

Actual use of the extranet shares many properties with intranet use: the users will be using the extranet as a major part of their everyday job, so it will be possible to use specialized language and relatively complex interactions. It may even be reasonable to assume some amount of training on the part of the users, since they will be motivated to improve the efficiency of their own business by making better use of your extranet. The training needs and the complexity of your extranet can not be too demanding, however, since you normally cannot assume that extranet users are dedicated to the use of your particular design and nothing else. A typical extranet user may be a corporate purchasing agent who may need to deal with your extranet as well as the extranets of, say, 50 other companies where he or she has placed orders. Your extranet must be fairly easy to use if this purchasing agent is to remember its features and options from one visit to the next.

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*Jakob Nielsen is a Sun Microsystems Distinguished Engineer and a renowned expert on web usability. His next book, Designing Excellent Websites: Secrets of an Information Architect, will be published in early 1998. He can be reached at jakob@useit.com.*

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### INFORMATION REVOLUTION

Canada will live and die by the information revolution, says a gloomy federal report that came to public light yesterday. The authors of "Growth, Human Development, Social Cohesion" say that Canada will solve long-standing economic and social problems if it manages a clean transition to the knowledge-based economy, but will come out divided if the transition falters. Their main fear is that a rise in societal inequality, stemming from the rise of computer, electronic, aerospace and other knowledge-based industries at the expense of technological illiterates, will prevent Canada from facing up to other challenges. The study paints a dark picture of Canada's present, and offers dim hope for the future. It predicts that knowledge-based industries will have a great impact on Canada's economic and social development, adding they could help reverse the trends that brought unemployment, debt, stagnating wages and a growing inability to afford a welfare system since the early 1970s. The authors of the report warn that the transition from a resource-based economy to a service economy will be painful.

-- Ottawa Citizen 29 Jan 98, as quoted in Edupage, <http://www.educom.edu>

## Helping Users ...

...continued from page 9

**Page Headers.** In Jonassen (1982), Waller (pg. 147), discusses the “organizing” and “orienting” functions of headers. While this discussion is about print design, the same principles apply to online design. Each page on your site should have a header that appears on your site map and navigation to the site map should be on every page in your site. This means that, if a user feels “lost,” a quick trip to the site map will reveal the relationship between the current page and the rest of the site. This is difficult to accomplish with sites that are very deep—but deep sites are the ones that need to adhere to this rule the most. This may mean that headers need to be layered on a page and layered headings are difficult to maintain. But a lost user cannot buy your product or service or support your cause.

And remember that what you name an item or area is important. Do usability testing on the names you are considering for the different areas of your site. If you can’t afford usability testing then at least walk down the hall and ask people what they think is behind a door with this label and what is behind a

door with that label. The headings “...must call out the name of the family of ideas in a clear and interesting way.” (Schriver, pg. 400).

In summary, “Treat your users with love. Seek to help them grow, thrive, and succeed, and you cannot fail.” — Bruce “TOG” Tognazzini (pg. 293).

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## 1998 STC ID SIG Advisory Panel

The ID SIG is **extremely** pleased to announce the members of its Advisory Panel. Karen Schriver has solicited a diverse, international panel who will help to direct the activities of our SIG in the future.

Note that the ID SIG Advisory Panel has not been convened for normal day-to-day SIG operations. Rather, their expertise has been solicited to help provide creative input into SIG operations and help us focus our energies on SIG-related activities.

### Panel Members

- **Karen Schriver, PhD**, *Chair of the STC ID SIG Advisory Panel*, President of KSA Document Design and Research (Pittsburgh, PA)
- **Stephen Bernhardt, PhD**, Professor of English at New Mexico State University (Las Cruces, NM)
- Deborah Bosley, PhD, Associate Professor of Technical Communication at the University of North Carolina (Charlotte, NC)
- **William Gribbons, PhD**, Associate Professor of Visual Communication and Director of the Certificate Program in Information Design at Bentley College (Waltham, MA)
- **Carel Jansen, PhD**, Professor of Technical Com-

munication, Eindhoven University of Technology; Associate Professor of Language and Communication, Utrecht University (Eindhoven and Utrecht, The Netherlands)

- **Susan Kleimann, PhD**, President of Kleimann Communication Group (Washington, DC)
- M. Diane Langston, PhD, Principal, American Management Systems (AMS), Inc. (Fairfax, VA)
- **Patrick Moore, PhD**, Associate Professor of English at the University of Arkansas (Little Rock, AK)
- **Jonathan Price, DFA**, Associate Professor of Technical Communication at the New Mexico Institute of Mining and Technology and President of The Communication Circle (Albuquerque, NM)
- **Ginny Redish, PhD**, STC Usability SIG Manager and President of Redish & Associates (Bethesda, MD)
- **Conrad Taylor**, Secretary & Deputy Chair of the Information Design Association (London, Great Britain)
- **Patricia Wright, PhD**, Distinguished Senior Research Fellow, Cardiff University (Cardiff, Great Britain)

We gratefully acknowledge their participation. For more information about the ID SIG Advisory Panel or its mission, please contact Karen Schriver at [ks0e+@andrew.cmu.edu](mailto:ks0e+@andrew.cmu.edu).

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## Information Redesign *...continued from page 10*

If you are designing or redesigning a Contents topic for online help, remember the following design highlights.

- Graphics and tables can be more effective than text in orienting the user. Horton says, "Show a roadmap of the document...such graphical organizers show interrelationships spatially and graphically." (p.214) He further suggests, "Maps are both orienting aids and menus of possible destinations. Users...can select a topic in the map to jump directly to that topic." (p.69)
- Design your Contents topic to reflect minimalist style. If users do not see the type of information they need in the first 3-5 lines of your topic, they


can assume they're in the wrong place and move on. As Horton says, "Users do not so much read an online document as search it." (p.273)

- Try to contain the Contents material within a single window, and minimize the number of jumps needed to get the information to the user. Horton says, "Let the user summon the document and identify a topic with a minimum of effort." (p.201)

The user's goal in opening a Contents topic is to locate needed information quickly. Your goal is to design the Contents topic to meet the user's goal.

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# Information Design

The field of information design applies traditional and evolving design principles to the process of translating complex, unorganized, or unstructured data into valuable, meaningful information.

The practice of information design requires an interdisciplinary approach which combines skills in graphic design, writing and editing, instructional design, human performance technology, and human factors.

Although its reach extends far beyond traditional boundaries of technical communication, the essentials of information design profoundly affect our work. The products of information design occur in any domain in which clear communication is essential, from those familiar to technical communicators, such as reference manuals and online help systems, to those outside the traditional realm of our work, such as public signage in public buildings, insurance and tax forms, and user interface design.

# Our Mission

The mission of our SIG is to meet the professional development needs of our members and to act as a vital conduit between STC and information designers at large. Our objectives include:

- advancing awareness of information design among STC members;
- assisting members interested in acquiring information design skills;
- encouraging information design research and making available information design resources;
- examining the roles and practices of the information designer;
- and providing a forum for the discussion of relevant topics.

*Please visit the ID SIG website at <http://stc.org/pics/idsig/>*



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