

Design and Navigation

Introduction

Have you ever entered a labyrinth or a maze? Personally, I don't think there is any fun in getting lost; in fact, most people leave the labyrinth with feelings like, frustration, tiredness, angry and even fear to come back. The nature of the labyrinth is so intricate that to escape from it without assistance would be impossible. To escape from the labyrinth, you will need a spool of thread. Similarly, some web sites seem to have the labyrinth as model. You are able to get there but you don't know where to go, or where you are. The only solution you have is to make use of your ball of thread to find your way out. Search for a better and clearer site. The importance of a clear and easy navigation is a common sense among designers. Unfortunately, qualified professionals don't design all pages on the web.

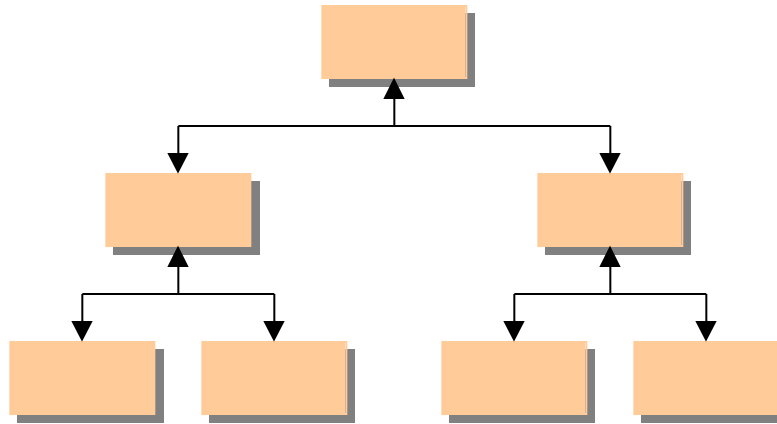
Discussion

Types of Navigation Systems

Rosenfeld and Morville, 1998, present four types of navigation systems: Hierarchical Navigation Systems, Global Navigation Systems, Local Navigation Systems and Ad Hoc Navigation.

- *Hierarchical Navigation Systems* is the primary navigation system. However, this type of navigation restricts the user to move within the site just by levels. And, the authors observed that it often requires additional navigation systems.

The figure below illustrates the *hierarchical navigation* system:



- *Global Navigation Systems*, this type of navigation complements the information hierarchy because it allows the user to move within the site laterally and vertically. The authors state, “*The simplest global navigation system might consist of a graphical navigation bar at the bottom of each page on the site. A slightly complex global navigation system may provide for area-specific links on third level pages and below.*” (page 54)

To illustrate the Global Navigation System, look at the image bellow, there is a clear path to go back to the main page, as well as a clear indication of what area of the site the user is visiting. The user can also move laterally to the other areas, such as what we do, our clients, etc.

Address http://argus-inc.com/about/index.shtml

File Edit View Favorites Tools Help

ARGUS ASSOCIATES **MAIN PAGE** WHO WE ARE WHAT WE DO OUR CLIENTS CONTACT US SITE INDEX

PRESENTATIONS
PUBLICATIONS

WHO WE ARE

Argus brings experience, expertise, and creativity to the challenge of information architecture design. Since 1994, we have provided strategy consulting and information architecture services to some of the world's largest corporations. As advocates for the importance of information architecture, we write and speak extensively on the topic.

FOUR REASONS TO CHOOSE ARGUS

- *Local Navigation Systems* is required when the web site is very complex. The site supports sub-sites internally. It is important, though, to provide a link to jump back to the main site. The authors present this example: a software company may provide an online product catalog as one area in their web site. This product catalog constitutes a sub-site within the larger web site of the software company.
- *Ad Hoc Navigation* is a type of navigation that consists of “*words or phrases within sentences or paragraphs as embedded hypertext links. The approach you use should be determined by the nature and importance of the ad hoc links. For non-critical links provided as a point of interest, embedded links can be an elegant, unobtrusive solution. However, used in excess, ad hoc links can add clutter and confusion.*”(pages 57-58)

Integrated Navigation Elements

The Global and the Local Navigation Systems supports and, sometimes, requires other elements of navigation. Most designers agree to combine different types of navigation. The first thing you should have in mind is the capability of the user to easily navigate through your site and to keep the desire to come back.

- *Navigation Bar* is just a collection of hypertext links grouped together on a page. It can be graphical, using icons and image maps, or made just with text. The use of text usually downloads faster, but graphics add life to the page. It is a trade off. Do you spend more time downloading bigger, but more attractive graphic files? Nijs offers some good reasons to use icons as navigation. They are as follows: “An icon can be a compact graphical representation of a link, or can complement text when text alone can't clearly

define the label. Keep icon numbers down (4-5 icons on a page to visualize the main sections of your site, for example) and use the few you have on a regular basis so users easily recognize them (in fact, they will come to expect them). An icon that loses its function can become an illustration -- or an irritation -- just like any other image or element on your site.

1. Avoid using icons without text. Otherwise you end up with cryptic icons and although it's clear to you and the client what they stand for, visitors to your site will be confused.”

- *Frames*, they are the most controversial type of navigation. Accordingly to Rosenfeld and Morville, “frames allow you to define one or more independently scrollable “panes” within a single browser window. However, frames present several serious problems, both from the consumer’s and producer’s perspective.” Muehlbauer also has “practical considerations to avoid the use of frames, he says, “the URL in the "Address" or "Location" window refers to the first level of the frameset, not the individual frame you come to after a few clicks. Frames break URLs, which means they also complicate bookmarks, baffle search engines, and incapacitate the "Back" button. Framesets also take forever to load and are highly inconvenient to print.”

- *Breadcrumbs* are also well known navigational aids. Their presence is signaled by the indicator *You Are Here*, and or by buttons which guide visitors through the website. It can be a text, graphics or a combination of both; this indicator gives an immediate reference to the where a user is on the website, and suggests where to go next. The illustration bellow shows a breadcrumb indicator.



- *Site Directories*, or site maps are a list of all pages of the entire website. They are presented in an order that shows the relationships of the pages to the site home page and to each other. It can be visualized as a tree or as a list.

- *Guided Tour*, according to Rosenfeld and Morville, “serve as a nice tool for introducing new users to the major content areas of a web site. A guided tour should feature a linear navigation, but a hypertextual navigation bar may be used to provide additional flexibility”. The site <http://www.killersites.com> offers a guided tour, and uses the image of a fish to guide the user.

- *Tabs* are a common type of image map. They are used very frequently nowadays. Tabs allow easy navigation between primary topic categories on a site. The key to having good tab navigation is to be sure that you have a very prominent tab to catch the user’s eye. Below is a sample of the use of tabs.



Next, Walker’s three types of navigation will be discussed. He asserts that fly-out menus come in three main shapes, pop-up menus, drop-down menus and cascading menus.

- *Pop-up menus* fly out from under your cursor is placed, often when you click your right mouse button.

- *Drop-down menus* display one option, while typically a small arrow to the right of the box invites you to click and bring more options into view.
- *Cascading menus*, also called hierarchical menus, show you a new second or even third menu when you click on the first menu item. The best-known cascading menu can be found underneath the Windows Start button.

The last, but not least, concept is controversial; some designers consider that the location of the navigation bar should be positioned at “the top and /or bottom of the page, rather than at the side. Placement at the top provides immediate access to the navigation system as well as an instant sense of context within the site ”(Rosenfeld and Morville). However, Nielsen has an interesting approach has to the side bar. Even though he is not completely in concordance with this design, he considers that the side bar is a situation when bad design elements become the standard. He states,

There are still so many sites that use a colored navigation rail that I view it as an interaction convention: users know what to do with a colored stripe down the side of the page. It may waste pixels, but it probably helps users. Two things that are absolutely clear is that the navigation rail has to have some kind of colored background to set it aside from the content and that it has to be on the left side of the page. There are a few usability reasons why it would have been better to have the navigation rail on the right side of the page: Fitts' Law dictates that shorter mouse movements are better: it is always faster to click a target if it is closer to your starting position. Thus, placing the navigation rail next to the scroll bar will usually save users time over placing these two frequently-accessed areas on opposite sides of the window.

With so many elements to navigate, it is important to keep some aspects in mind. In the next section you will find some advice from well-known designers. One goal is common to all of them-- Keep the user in your site, give orientation clues as to where

he/she is in your site, and, if necessary, mix different elements of navigation to make your site as clear and easy as possible to navigate.

Advice from the experts

Here I compiled some of the best suggestions that, I hope, will help you to design simple, clear and consistent navigation for your web site.

Ebert, K. from Bernard Design Studios suggests:

- “Divide your site into logical sections
- The meat of your site should only be one (or two) click(s) away
- Create a consistent page layout for the whole site, or for each major section
- Create a consistent navigation tool
- Always provide text links in addition to graphic navigation buttons
- Provide a single page with a roadmap of your site”

Shubin from Interaction Design and Meehan from Text Matters suggest these “guideline to keep from losing users and losing work: Do not let your users leave before they are done with your site or before you are done with them. If it is important to provide links out of the product, try one of these techniques:

- Have a special exit page showing external links and other useful information.
- Put links in safe places so users do not lose work if they click and leave. Remind them to bookmark the page and return.
- Use frames when users click an external link. One frame shows the target page, the other is a reminder to return.”

Morris, C. (1998) states:

“No matter how good a site looks, or how much useful information it offers, if it doesn't have a sensible navigation scheme, it will confuse visitors and chase them away. A simple, understandable navigation scheme can increase your number of page impressions, boost return visits, and improve your conversion rate. It's a critical aspect of site design that has a direct effect on the bottom line.

Good navigation varies somewhat for different types of sites, but there are certain basic principles that apply to most business sites:

- 1 - Tell people exactly what is available on your site.
- 2 - Help them get to the parts they want quickly.
- 3 - Make it easy to request additional information.

Rowan from Web Design Guide suggests:

- “Provide several different navigation methods. Make certain that links are well-defined and clearly indicated as links. Use sub-menus to help direct visitors quickly. Include a site search feature and a site map or directory listing of pages.
 - Navigation is a good area for the effective use of color or background to provide visual differentiation between sections of the website.
 - Do not leave navigation to chance. Test the website by watching others navigate.
- The navigation strategy may seem obvious to YOU, but others may not grasp your concept. A web site designer must plan for the various methods users prefer for navigating a web site. Many visitors look specifically for their favorite navigation strategy in every web site. Offering the method your visitors prefer

gives them the ability to quickly locate what they are looking for, and increases the perception of your website as fast and useful.”

Summary

Web designers have several ways to develop clear and easy navigation. As you can see, all the advice points in the same direction; never let the visitor leave your site thinking that he or she just entered into a labyrinth without any ball of thread to find the exit. Design is also a style that you establish in your site. It can be considered your watermark, but in the end, your design should be consistent and provide an easy and clear navigation.

References used

- Ebert, K. Web design, navigation, and structure. Retrieved online November 2, 2000 from WWW: <<http://www.webdesignhelp.com/Articles/sitesdesign1.html>>
- Nielsen, J. (1999) When Bad Design Elements Become the Standard. Retrieved online November 2, 2000 from WWW: <<http://www.useit.com/alertbox/991114.html>>
- Morris, C. (1998). Basic Principles of Web Site Navigation. Retrieved online November 2, 2000 from WWW: <<http://wdvl.com/Location/Navigation/101/>>
- Muehlbauer, J. (1998). *Do you need frames? Does anyone?* Retrieved online November 2, 2000 from WWW: <<http://webreview.com/pub/98/05/15/thing/navkit7.html>>
- Shubin, H., Meehan, M. Problems with Navigating in Web Applications. Retrieved online November 2, 2000 from WWW: <http://www.emdash.com/webapps_new/webapps.htm>

Rosenfeld, L., Morville, P. (1998). Information architecture for the World Wide Web. 1st Ed., O'Reilly & Associates, Sebastopol, CA.

Rowan, L. Navigation: the use of frames. Retrieved online November 2, 2000 from WWW. <<http://dreamink.com/nav1.shtml>>

Walker, D. (2000). A flying menu attack can wound your navigation. Retrieved online November 2, 2000 from WWW: <<http://www.shorewalker.com/design/design116.html>>

Related links on the Web for the topic

1. <http://www.webdesignhelp.com/Articles/sitesdesign1.html>

Web design, navigation, and structure, by Kevin B. Ebert, 1999. Bernard Design Studios. The author gives suggestion about navigation structure, contents and image files.

2. <http://webdesign.about.com/compute/webdesign/library/weekly/aa061099.htm>

Methods of Navigation – The article praises the use of a combination of navigation. Text, graphics and scripts are use to help the user to navigate the site.

3. <http://webreview.com/wr/pub/web98east/21/webnav1.html>

Crafting the User Experience. Excerpt from Chapter 1 of *Web Navigation: Designing the User Experience* by Jennifer Fleming, 1998. For the author to design a web site with a good navigation is very important to meet users' goals.

4. <http://www.webreference.com/dlab/9705/index.html>

Designing Site Navigation, article by Dmitry Kirsanov, 1997. The author examines I in depth the main navigation panels on the home pages of two hardware companies, Sun and Digital, he considers that both companies present “a very instructive contrast in their approaches”.

5. http://www.emdash.com/webapps_new/webapps.htm

Problems with Navigating in Web Applications, by Hal Shubin, Interaction Design and Margaret M. Meehan, Text Matters. The authors discuss in this paper several common navigational problems. They point some techniques for avoiding the navigational problems in designing Web applications.

6. <http://webdesign.about.com/compute/webdesign/library/weekly/aa052899.htm>

Designing Effective Navigation, This article focus in some aspects of navigation such as, clear and consistent navigation, use of flow char or storyboard, and the use of meaningful labels.

7. <http://www.wpdfd.com/wpdnav.htm>

Web page design for designers – Navigation. Provides information about different types of navigation with examples how to use create rollover as a navigation tool.

8. <http://dreamink.com/nav1.shtml>

Navigation: the use of frames by Laare Rowan. Provides information about the use of frames as an element of navigation, as well explores the concept of intuitive navigation, menus and interface design.

9. <http://www.webreview.com/wr/pub/98/02/20/arch/index.html>

Designing Navigation Systems by Peter Morville, Lou Rosenfeld, 1998. This is an excerpt of the book *Information Architecture for the World Wide Web*. In this chapter the authors focus their attention on the following topics: browser navigation features, building context, improving flexibility, types of navigation systems.

10. <http://webreview.com/wr/pub/98/05/15/thing/index.html>

The Navigation and Usability Guide by Jen Muehlbauer, 1998. The author explores in depth the following topics: use multimedia to save screen space, web accessibility, the importance of hierarchy, help people find themselves, global navigation systems, weigh your multimedia, do you need frames? does anyone?, make nav bars that work, navigation labels, supplemental navigation systems, sub-sites, use embedded links with caution.

11. <http://webreview.com/pub/98/05/15/thing/navkit7.html>

Do you need frames? Does anyone? by Jen Muehlbauer, 1998. Sub page of the page above that explore reasons to not use frames.

12. <http://www.shorewalker.com/design/design116.html>

A flying menu attack can wound your navigation, 2000 by David Walker. Explores three types of Fly-out menus, pop-up menus, drop-down menus and cascading menus.

13. <http://wdvl.com/Location/Navigation/101/>

Basic Principles of Web Site Navigation by Charlie Morris, 1998. Morris expresses his opinion about navigation in a clear and well-organized manner. The articles is divided into subtopics: the front porch, the foyer, pyramid scheme, navbars are nifty (and necessary), I've been framed!, a site map to success, contact us / don't contact us, off-site links - good, bad or ugly?

14. <http://wdvl.com/WebRef/Navigation/>

Website Navigation - Design in Info space. This page deals with how to design a website to optimize the user's experience and benefits from it. The page links to six articles, which discuss in depth web design and navigation.

15. <http://www.useit.com/alertbox/991114.html>

When Bad Design Elements Become the Standard by Jakob Nielsen's, 1999. Nielsen gives an overall of elements that were considered bad design and how they became standard design.

16. <http://www.webreview.com/wr/pub/98/03/06/studio/index.html>

How to Use Navigation Icons on a Web Site by Sven Nijs, 1998. The author makes a clear distinction when the to of use icons contributes for a better navigation.

17. <http://www.builder.com/Graphics/CTips2/ss12.html>

Designing pages and sites - navigation tips. This article is from C|Net a well-known company information center. The tips include articles on: offer multiple navigation approaches; write good text links and design navigation icons wisely

18. <http://webreview.com/pub/97/11/14/arch/index.html>

Navigating the Information Architecture Maze by Samantha Bailey, 1997. Bailey presents 5 shortcuts to navigating the information architecture maze. #1 identify mission and goals, #2 establish a consensus, #3 develop a wish list and #4 define the audience, #5 create a content inventory.

19. http://webmastersdirectory.com/articles/web_design/104.shtml

Keep Your Website Navigation Simple! by Merle Stinnett of Merle's World. The author's goal with this article is to help the designer to ensure that their visitors/users will find just what they need if the designer supplies easy to follow navigation

20. <http://webreview.com/pub/web98east/21/webnav3.html>

Designing for Users by Jennifer Fleming, 1998. In this excerpt from Chapter 2 of *Web Navigation: Designing the User Experience*, Fleming suggests to narrow your focus when you have to define your audience, as well to center your design on this group's behaviors and preferences.

21. <http://wdvl.com/WebRef/Navigation/Design.html>

Designing for navigation by David Walker. Walker focus his article on navigation bar, where to position it, and how famous web designers found solutions for the navigation bar.

22. <http://webreview.com/96/09/27/arch/index.html>

Mapping you site – a picture's worth a thousands words by Peter Morville. The author discusses the importance of site maps, tables of contents and site indexes; and creative navigation tools.

*This paper is written by Edmara Cavalcanti Bezerra for the course EDC385G Interactive Multimedia Design & Production at the University of Texas - Austin