Internet—What Is It?

IA Design & Usability

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Topic: Expertise and Professional Qualifications

For Doing User-Centered Design and User/Design Research

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Information Architecture, Navigational Systems, and Structure

1.1   Introduction

In this white paper, related information about the Internet is discussed as well as Websites on the World Wide Web, including Website and Web page design, information design, Information Architecture, Information Architects—what they do, other related information, and Navigational Systems.

1.2   Internet—What Is It?

The United States Department of Defense started the Internet in the 1960s as an experiment. It was a new way of communicating between the government, other institutions, and contractors. This benefited the infrastructure within the United States, making an underground of networks (cables) that would enable communication to continue in the event of any natural disaster or nuclear attack, according to DiNucci and Giudice in *Elements of Web Design* (5:1).

ARPA (**A**dvanced **R**esearch and **P**rojects **A**gency) developed a set of computer protocols called TCP/IP (**T**ransmission **C**ontrol **P**rotocol/**I**nternet **P**rotocol), as well as a military network called ARPANET. The TCP/IP could send data from one computer to another via several alternative networks, so if one site were destroyed the data would still arrive safely to its destination within the United States. According to the Romanos in *The GATF Encyclopedia of Graphic Communications* and Whitehorn in *Multimedia: The complete guide,* et al., (14:839-840; 17:162).

During the 1980s, the Internet was used by the military, commonly referred to as ARPANET was split off, leaving what was to become known as the Internet. The academic community utilized the Internet as a tool to exchange documents with each other. The main reason for its growth (in the 1980s) was due to the fact that the Internet was a quick-delivery system for documents from one University to another University.

Many Universities and Colleges built links between themselves (sites), so they could swap data using TCP/IP. NASA (**N**ational **A**eronautics and **S**pace **A**dministration) and the Department of Energy also linked their own networks into the Internet—other agencies joined them from within the United States, even international links were created.

In the 1990s, many businesses and private individuals were beginning to use the Internet to exchange e-mail and transfer computer files via the Internet (17:162). The Internet is a worldwide system of networks that link computers together via modems from any location within the world. Many of these lines stretch underground or across oceans. The end user may connect by modem through telephone lines to the Internet. Other Internet services offered are e-mail, FTP, newsgroups, Telnet, and the World Wide Web (5:2).

E-mail is electronic mail that the end user sends to another person anywhere in the world from his own computer, and receives e-mails from anywhere in the world. All individual end users have unique e-mail addresses.

FTP (**F**ile **T**ransfer **P**rotocol) is a method of transferring digital files that are text based and/or have graphical elements included in them. A Web designer has HTML documents and documents that contains graphical elements (such as digital photographs and/or digital illustrations). These documents are transferred using FTP. While online, the end user connects with the Internet to upload or to download digital data.

Newsgroups are electronic bulletin boards where the end user may post his personal thoughts or remarks. Other end users can respond by posting their responses on the bulletin board via the Internet. Newsgroups are available on almost any topic.

Telnet is a protocol that is used to allow the end user to run programs stored on another computer over the Internet via modem and computer, on the Internet.

The World Wide Web is a network made up of computers where graphical elements, hypertext, multimedia, and interactive media may be found in Websites or on individual Web pages (18). The Web is also where Websites are placed for viewing in cyberspace, and any end user may retrieve data by using a computer and modem from any location in the world. The two commonly used browsers to date are Firefox and Microsoft Internet Explorer (see Figure 1.1).
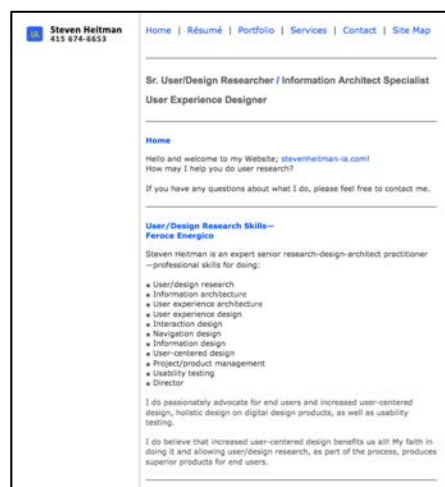

Figure 1.1 The World Wide Web; Steven Heitman's Home Page
Source: Primary

1.3 The World Wide Web—What Is It?

Tim Berners-Lee, at CERN, developed the World Wide Web in 1991. According to *Multimedia: The complete guide, et al.,* Whitehorn states:

> He developed a hypertext program that allowed him to link academic documents electronically. This program made it possible for CERN's researchers to tap into a "web" of information, jumping from one document to another at the touch of key. The program sparked a lot of interest. It soon became clear that a standard format for Web pages would be needed, and academics were asked to write browser programs that would make the system easy to use. The first came out in 1991, but the Web took off only when the National Center for Supercomputing Applications, in Illinois, produced the Mosaic browser in 1993 (17:163).

The World Wide Web is *a way of transmitting documents that contain text, as well as publishing text online—without printing hard copies—in which video, graphical elements, downloadable documents, and sound are incorporated into many Websites.* From any cross-platform computer system, the end user can access data (HTML documents) on the Web *only* by connecting with a modem to get online from anywhere in the world.

The HTML document(s) on the Web are viewed with browsers. They are software programs that the end user needs in order to communicate with Web servers while online. The two browsers commonly used are Netscape Navigator and/or Microsoft Internet Explorer. They both came out around 1994-1995—a few years after Mosaic—which was *the first browser that could display both graphical elements and text.* Since 1994, Netscape Navigator and Microsoft Internet Explorer are the *two dominantly used browsers that the end user views Websites while in cyberspace* (to date Firefox is one of the main dominate browsers used by end users).

1.4 Website and Web Page Design

Website and Web page design is how the Web page itself is laid out on the page and/or on the screen, either in the browser, or in the HTML editor. The construction of Web pages may be produced by doing HTML coding by hand, or the Web designer can alternatively use HTML editors such as Dreamweaver or AdobeGoLive (16:24-27). Many different software programs are available to the Web designer.

The Web designer must understand the importance of using intelligent Web design principles. It is not enough to use a Web page layout program to design a Web page that looks beautiful. Usually a Web designer works to design Web pages that look graphically dynamic—but also meet the parameters that work in Web page design. *The Web Design WOW! Book* has five Web page design principles:

- Communicate with clarity,
- Keep a visual, conceptual, and mechanical consistency,
- Take advantage of contrast,
- Strive to make it uncluttered [on the Web page], and
- Apply cinematic principles of storytelling (3:53-63).

Many different types of HTML editors (software programs) are available for the Web designer to use. Some alternative software programs used for Web page design are AdobeGoLive, Dreamweaver, Claris Home Page, BBEdit, Homesite, FrontPage, PageMill, and NetObjects Fusion. The most commonly used HTML editors among professional Web designers are AdobeGoLive, Dreamweaver, BBEdit, and NetObjects Fusion.

These three programs have many of the advanced software features such as: Roundtrip HTML ["developed by Macromedia's Dreamweaver product team and means that the HTML editor writes HTML without adding any of its own proprietary tags"— except AdobeGoLive and NetObjects Fusion] (16:25), DHTML (**D**ynamic **HTML**), CSS (**C**ascading **S**tyle **S**heets), JavaScript support, plug-in support, frames, fonts, alignment, tables, site management, database integration, button rollovers, browser, and conversion (16:24-25). An authority on Web design, Lynda Weinman, in *<Designing Web Graphics.3> How to Prepare Images and Media for the Web,* asserts:

> There are all types of HTML editors—from the type that would satisfy my father to the type that would satisfy the most persnickety programmer. As mentioned earlier, some types of HTML editors allow you to work in a WYSIWYG (**W**hat**Y**ou**S**ee**I**s**W**hat**Y**ou**G**et) mode. This means that you can type directly in the editor and instead of seeing HTML code; you'll see whatever you typed. These types of editors give you the freedom to change a font style, font size, or alignment, or drag and drop images into position. If you view the source code the WYSIWYG editor produced, it will show all the HTML elements that were hidden from your view (16:24).

The use of the HTML editors that allow the Web designer to design without writing HTML code by hand save production time. It is much easier to produce a Web page more quickly, utilizing HTML editors. They also give designers flexibility in how they may design layout of the Web pages. The newer software releases have many advanced features than earlier software versions.

Even though HTML editors are now more advanced, they are still considered to be crude page layout programs compared to QuarkXPress or PageMaker (software programs commonly used by graphic designers for page layout of printed collateral). The Web designer still has to know how to write pure HTML code since the HTML editors may not always write the HTML code correctly. It is important that Web designers know how to alter the HTML code to fix the problems that may arise during and after production.

1.5   Information Design

Information Design (another definition for Information Architecture) is defined as "the art and science of preparing information," the ability to organize and prepare information to make it more usable by human beings. This relates to the Internet and the World Wide Web because lengthy text documents are placed on the Web for retrieval by the end user. The information must be designed and organized in a congruent manner. Horn, in *Information Design: Emergence of a New Profession*, believes that these are the primary objectives of the Information Designer:

1. To develop documents that are comprehensible, rapidly and accurately retrievable, and easy to translate into effective action.

2. To design interactions with equipment that is easy, natural, and as pleasant as possible. This involves solving many problems in the design of the human-computer interface.

3. To enable people to find their way in three-dimensional space with comfort and ease—especially urban space, but also, given recent developments, virtual space [the Internet].

   The values that distinguish information design from other kinds of design are efficiency and effectiveness at accomplishing the communicative purpose (8:15-16).

The requirements of the end user are *difficult* to predict. No Information Designer or Information Architect has the ability to accurately guess what information the end user desires when they go online (that is why we do Usability Testing). Let us consider this. The concept of wayfinding means that the end user needs the information in order to "execute [their] decisions." An end user needs to be able to effectively wayfind through any given Website during their time online. Many different environments determine or provoke the perceptual or psychological stimulus that an end user has about getting from point A to point B.

The end user's reaction when navigating is unpredictable, but what determines the way they retrieve the information from online cannot always be known. In other words, if the wayfinding systems or Navigational Systems or Information Architecture structures are inadequately designed, this does not support the end user in getting the information. He may make poor decisions in terms of how they will navigate through the Website. The end user may not find his desired information online. This means that effective wayfinding and navigating has then been seriously thwarted within a Website, Web page, or subsite (12:89). In *Sign-Posting Information Design,* Passini asserts:

> These observations suggest that the key decisions are determined more by the setting and its architectural characteristics than by individual characteristics. It also indicates that information, if it is relevant and consistent with the wayfinding task [navigational systems task], will be used. The more efficient the support information, the more similar the wayfinding solutions of its various users. It is interesting to observe that settings with poor wayfinding information lead to more exploratory decisions, whose objective is usually to find relevant information.
>
> The issue is slightly complicated by the observation that some [end] users tend to rely more on information of a linear, sequential order that leads them from one point on a route to the next, whereas others are more likely to rely on information a spatial nature that provides them with an overall picture of the setting. These two wayfinding styles are only partly user-specific; they are also affected by the setting's architectural and spatial characteristics (12:89-90).
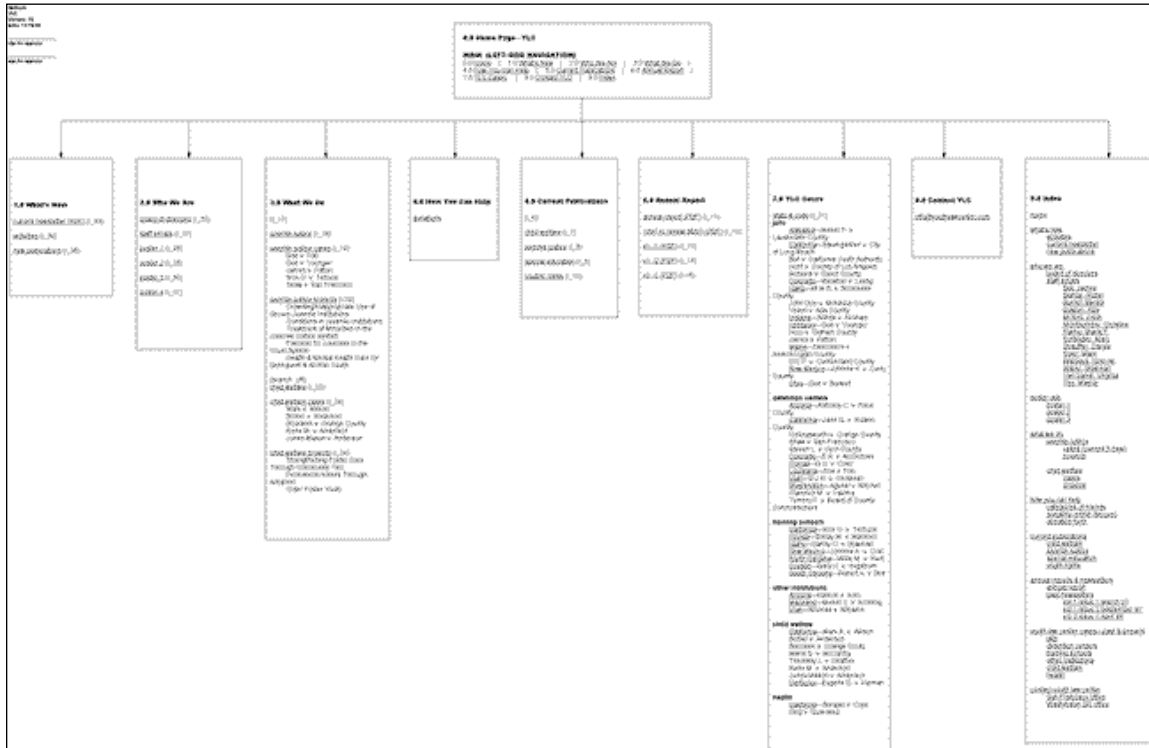
Flow Chart and/or Blueprint for a Website

Figure 1.2 Flow Chart and/or Blueprint for a Website (Youth Law Center Project)
Source: Primary

Navigational Features of a Browser

- **FORWARD** button—click on to move forward

- **BACK** button—click on to move back

- **BOOKMARKS**—the end user can mark the Website that was being visited

- **OPEN URL**—the end user can open any URL on the Internet

- **HISTORY**—the end user can see where they have been and on what Web page or pages

- These navigational features of a browser let the end user navigate only with the browser.

- Though these navigational systems by themselves, it would not be enough without the supplemental navigational systems. The reason navigational systems are commonly used in conjunction with a browser is to provide the end user quick access to the information that is online.
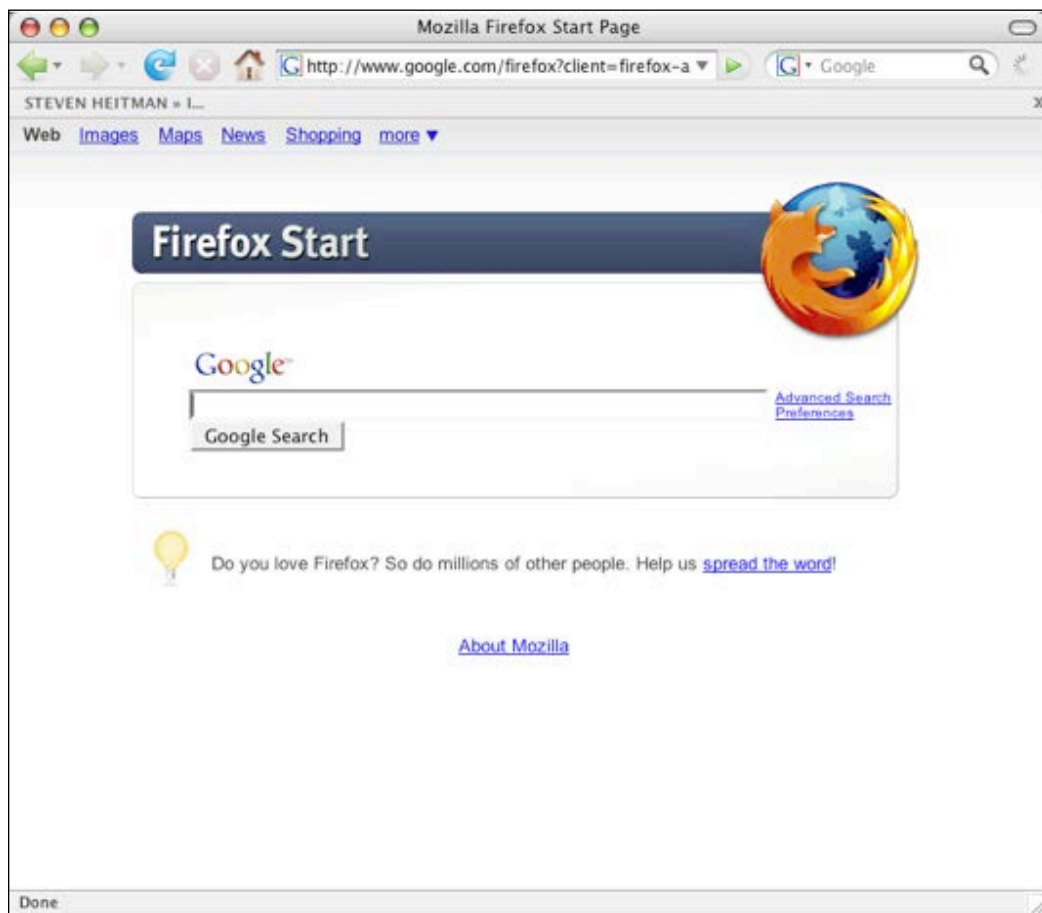

Figure 1.3 Navigational Systems of a Browser
Source: Primary

1.6   Information Architects—What They Do

The Information Architect is the individual responsible for the design, organization of the Website's information, and Web page layout within a Website. In other words, he provides clarity of vision for the Website, making sure that the Website is balanced in meeting the needs of the audience and also the Website's goal (follows The Information Architecture Model). The content development and functionality of the Website is predetermined, as well as how the end user finds the information on a Website. It is important that the Website is defined in terms of organization, Navigational Systems, Information Architecture, labeling, and searching systems. To map out the physical structure of the Website being produced, the Information Architect makes blueprints (also known as flow charts—see Figure 1.2). According to an infamous Information Architect, Richard Saul Wurman, this is what they do:

> 1) The individual who organizes the patterns inherent in data, making the complex clear; 2) A person who creates the structure or map of information which allows others to find their personal paths to knowledge; 3) The emerging 21st century professional occupation addressing the needs of the age focused upon clarity, human understanding and the science of the organization of information (10:10).

The Information Architect's job is to define context within all of the Web pages and the navigation systems that are used together or separately. Because this helps to avoid the problem of being lost within a Website, the importance of building context is especially true in designing large and complex Websites, but it is also important for Websites with fewer than five-to-fifteen pages. Providing contextual clues helps to anchor the end user's understanding of where he is located.

The design of Navigational Systems and Information Architecture should include consistent identification of the company's name on every Web page, and uniform use of section headers on every Web page. These types of clues provide the necessary contextual elements with a Website, Web page, and subsite (10:50). Peter Morville and Louis Rosenfeld in their book, *Information Architecture for the World Wide Web*, state that:

> In addition, if a user bypasses the front door and directly accesses a subsidiary page of the site, it should be clear which site he or she is on. Second, the navigation[al] system[s] should present the structure of the information hierarchy in a clear and consistent manner and indicate the location within that hierarchy (10:50-51).

In order to provide a "powerful way of organizing information," the common use of hierarchy is an option that usually enables an end user to navigate through Websites. If using *only* a hierarchical structure (without Navigational Systems such as global and local Navigational Systems in conjunction with a hierarchical structure), it is probable that this type of site architecture would be extremely limiting to the end user in terms of navigating effectively. The Web designer must allow for necessary flexibility by *designing Navigational Systems that may be used in conjunction with Web browsers, as well as in conjunction with hierarchical structures* (10:51-52).

An Information Architect organizes content on Websites—otherwise the end user might get lost. Certainly, trying to navigate from point A to point B while online without experiencing severe bouts of puzzlement is the reason for organizing the information. The commonly used browsers (Firefox and Microsoft Internet Explorer) do support navigating (in a limited manner)—Websites need to have Navigational Systems and Information Architecture structured within them that work in conjunction with the browsers.

1.7   Web Browsers—Built-In Navigational Features

Let us consider some of the built-in navigational features of Web browsers (see Figure 1.3). The *Open URL* gives the end user ability to open up any URL on any Web page. The *Back* and *Forward* button provide a "bidirectional backtracking capability." Then the *History* menu lets the end-user have "random access to pages visited during the current session, and *Bookmark* enables users to save the location of specific pages for future reference" (10:48-50). According to Peter Morville and Louis Rosenfeld, *Information Architecture for the World Wide Web*, they state that:

> Much research, analysis, and testing has been invested in the design of these browser-based navigation features. However, it is remarkable how frequently site designers unwittingly override or corrupt these navigation features. For example, designers often modify the unvisited and visited link colors with no consideration for the bread crumbs feature. They focus on aesthetics, attempting to match link colors with logo colors. It's common to see a complete reversal of the blue and purple standard. This is a classic sacrifice of usability for aesthetics and belies a lack of consideration for the user and the environment. It's like putting up a green stop sign at a road intersection because it matches the color of a nearby building.

A second common example of inadvertently disabling valuable browser navigation features involves prospective view. Image maps have become a ubiquitous navigation features on Websites. The graphic navigation bar allows the aesthetically pleasing presentation of navigation options. Unfortunately, server-side image maps completely disable the prospective view feature of web browsers. Instead of the destination URL preview, the XY coordinates of the image map are presented. This information is distracting, not useful (10:49-50).

It would be better for the Information Architect to use an aesthetically pleasing table of contents or an index of the Website, as well as the use of a client-side image map—to avoid problems that the end user may experience. The Information Architect must understand how the built-in features of the browser's work. The Information Architect should design the Navigational Systems to be used in conjunction with one another (10:50).

1.8   Navigational Systems Used for Websites—Relevant to Information Architecture

1.8.1   Hierarchical Navigational Systems (Narrow and Deep, Broad and Shallow)

Many different types of Navigational Systems are used for Website design in conjunction with browsers. Otherwise the information in the Website would not be accessible to the end user. For the most part, the hierarchical structure is one of the more common types of Navigational Systems used, and includes one home page or an index page with other subpages underneath (the home page or index page would have links that take one directly to the subpages).

Clay Andres in *Great Web Architecture* states: "Thus, it is no surprise that given a collection of Web pages, we naturally create hierarchies. Or to put it another way, most subjects can easily and naturally be broken down into subsets to create a hierarchy of information" (1:4). Two types of hierarchical structures used (narrow and deep, broad and shallow)—see Figure 1.4.

1.8.2 Global Navigational Systems

The global navigational system is the main navigational system used universally and consistently throughout the entire Website, which means that it must be on every Web page. To enable greater flexibility and movement throughout a Website, global Navigational Systems are used. This supplements the hierarchical Navigational Systems by allowing the end user greater movement—vertically and horizontally—throughout the Website.

Website Hierarchies

- Narrow and deep (6 clicks from *point* A to *point* B.

- Broad and shallow (10-main page options for 10-content items).

- Permission granted by **Mr. Rosenfeld, Information Architect**, and author of *Information Architecture for the World Wide Web* (see letter in Appendix A).
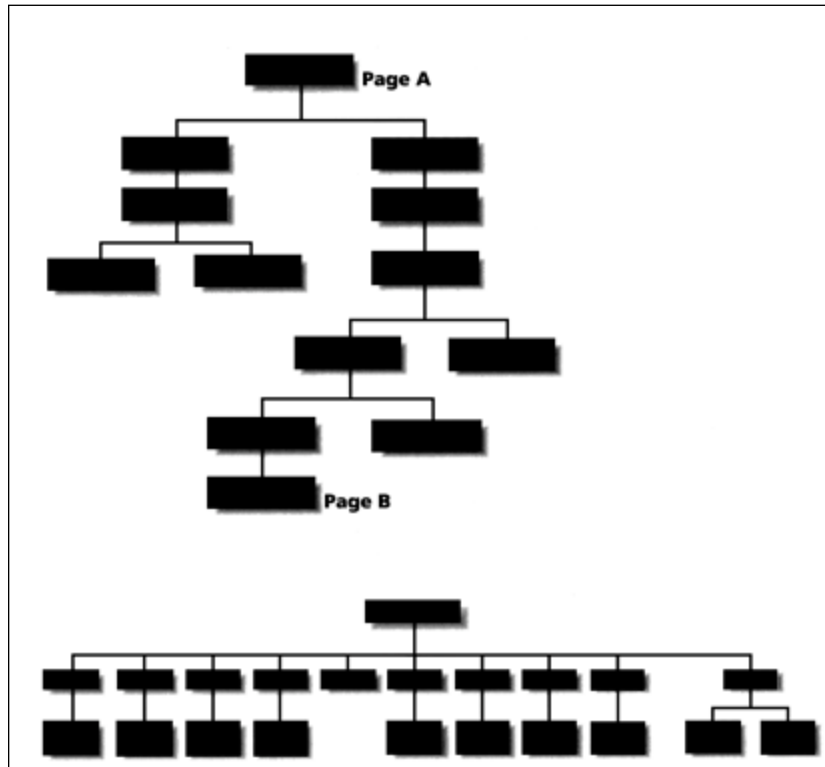

Figure 1.4 Website Hierarchies

Source: Information Architecture for the World Wide Web by
             Louis Rosenfeld, Peter Morville, (Information Architects), c. 1998 (14:39)

A simple navigational system would be a graphical or hypertext navigational bar or graphical icons placed at the top or bottom or side (in any juxtaposition or position within the Website or Web page or subsite). On the home page or index page, the same Navigational Systems are consistently repeated throughout the entire Website. The end user would navigate—using the navigational bar and/or graphical icons and/or hypertext links—to other Web pages or Websites or subsites (10:53-56). For an example of global navigation in *Information Architecture for the World Wide Web*, Morville and Rosenfeld state:

> [That a]…software company may provide an online product catalog as one area in their website. This product catalog constitutes a sub-site within the larger Website of the software company. Within this subsite, such as browsing products by name or format or market.

> However, it is also important to extend the global navigation system throughout the sub-site. Users should still be able to jump back to the main page or provide feedback (10:56).

1.8.3 Local Navigational Systems

Websites that are more complex have more than one set of Navigational Systems used in conjunction with global navigation systems—local Navigational Systems. In other words, one can have other buttons or hypertext links, but they are not part of the main global navigational system (10:56-57). The main function of a local navigational system is to compliment the global or main navigational system.

1.8.4 Integrated Navigational Systems

The integrated Navigational Systems are two or more Navigational Systems combined together on a Web page. They include global Navigational Systems, local Navigational Systems, ad hoc Navigational Systems, remote Navigational Systems, and search engines in Websites, as well as navigational bars (commonly referred to as basic or simple Navigational Systems), graphical icons, image maps, pull-down menus, and hypertext links.

1.8.5 Remote Navigational Systems

The remote Navigational System includes table of contents, indexes, and site map. These are only supplemental to any global or local Navigational Systems used in a Website (10:63-68).

1.8.6 Ad Hoc Navigational Systems

The ad hoc Navigational Systems are embedded hypertext links and/or graphical icons. They are used as part of a local Navigational System since the content of the Website does not always fit into the categories of hierarchical, global, or local Navigational Systems. For example, key words, phrases, and sentences within the paragraphs are made into embedded links that are underlined and made into hypertext links, as they do not fit into the global or local Navigational Systems (10:57).

1.8.7 Search Engines in Websites—Part of Navigational Systems

The search engine may be included as part of a Website (as part of a Navigational System) to enable the end user to find the information by entering pertinent keywords or phrases in a search field (11:238; 15:63; 18:34-39, 270-273).

1.9 Summary

This white paper has reviewed related information about the Internet, the World Wide Web, Website and Web page design, information design, Information Architecture, the Information Architect—what he does, and Navigational. Further, a discussion of what an Information Architect does in relation to designing Websites, the information designer and his approach to designing information for the Web, Website and Web page design (five basic rules), other related information (see Figure 1.5).

Bio for Steven Heitman, MAIA / MAEd—
Sr. Information Architect (IA) Specialist,
User/Design Researcher, User Experience Designer,
Project/Product Manager, Usability Tester, Director

My experiences and credentials—major/emphasis—are in:

- User/design research
- Information architecture
- User experience design
- Interaction design
- Interface design
- Graphic design
- Typography
- Project/product management
- Directing
- Usability testing

My expertise and knowledge base are in information architecture—coupled with experiences in technical writing, editing, corporate training, instructional design, and The ADDIE Model.

In addition, the author and inventor of The NS Model (copyright), The IA Model (copyright)—all about navigational systems, information architecture, user-centered design, usability testing, including why and how information architecture may be professionally practiced, accomplishing high-quality products.

Bibliography

Literature—Sources Consulted from MAIA—Cited

1. Andres, C. (1999). *Great Web Architecture.* Foster City, CA: IDG Books Worldwide.

2. Cooley, M. (1999). Human-centered design. In R. Jacobson (Ed.), *Information Design* (pp. 59-81). Boston, MA: Massachusetts Institute of Technology.

3. Davis, J. & Merritt, S. (1998). *The Web Design Wow! Book: Showcasing the Best of On-Screen Communication*. Berkeley, CA: Peachpit Press.

4. Dervin, B. (1999). Chaos, order, and sense-making: A proposed theory for information design. In R. Jacobson (Ed.), *Information Design* (pp. 35-57). Boston, MA: Massachusetts Institute of Technology.

5. DiNucci, D., Giudice, M. & Stiles, L. (1998). *Elements of Web Design.* Berkeley, CA: Peachpit Press.

6. Fleming, J. (1998). *Web Navigation: Designing the User Experience.* Sebastopol, CA: O'Reilly & Associates, Inc.

7. Horn, R. E. (1999). Information design: Emergence of a new profession information design. In R. Jacobson (Ed.), *Information Design* (pp. 15-33). Boston, MA: Massachusetts Institute of Technology.

8. Horton, W. (1994). *Designing and Writing Online Documentation: Hypermedia for Self-Supporting Products.* New York, NY: John Wiley & Sons, Inc.

9. Jacobson, R. (1999). Theoretical foundations of information design. In R. Jacobson (Ed.), *Information Design* (pp. 11-13). Boston, MA: Massachusetts Institute of Technology.

10. Morville, P. & Rosenfeld, L. (1998). *Information Architecture for the World Wide Web.* Sebastopol, CA: O'Reilly & Associates, Inc.

11. Nielsen, J. (2000). *Designing Web Usability*. Indianapolis, IN: New Riders.

12. Passini, R. (1999). Sign-posting information design. In R. Jacobson (Ed.), *Information Design* (pp. 83-98). Boston, MA: Massachusetts Institute of Technology.

13. Razek, R. (1999). *Internet Cool Guide*. New York, NY: Te Neues Publishing Company.

14. Romano, F. J. & Romano, R. M. (1999). *The GATF Encyclopedia of Graphic Communications.* Upper Saddle River, NJ: Prentice Hall PTR.

15. Sather, A. & Ibañez, A., DeChant, B. & Pascal. (1997). *Creating Killer Interactive Web Sites.* San Francisco, CA: Hayden Books.

16. Weinman, L. (1999). *<Designing Web Graphics.3> How to Prepare Images and Media for the Web*. Indianapolis, IN: New Riders Publishing.

17. Whitehorn, A. (1996). *Multimedia: The complete guide to CD-ROMs, the Internet, the World Wide Web, virtual reality, 3-D games, and the information superhighway.* New York, NY: DK Publishing.

18. Williams, R. & Tollett, J. (1998). *The Non-Designer's Web Book.* Berkeley, CA: Peachpit Press.

Internet —Sources Consulted from MAIA—Cited

Heitman, S. "*Steven Heitman > Information Architect > Home.*" (2009, May 1). Retrieved May 1, 2009, from http://stevenheitman-ia.com/index.html.

Heitman, S. "*Steven Heitman > Information Architect > MAIA (Information Architecture & Design).*" (2009, May 1). Retrieved May 1, 2009, from http://www.stevenheitman-ia.com/html/MAIA.html.

Heitman, S. "*Steven Heitman > Information Architect > Portfolio > Youth Law Center Project*." (2007, December 1). Retrieved December 1, 2007, from http://stevenheitman-ia.com/html/youth_law_center_project.html.

Other Electronic Sources from the Internet (Fifteen Websites Reviewed)

- http://www.guggenheim.org—[The Guggenheim Museum]

- http://www.moma.org—[The Museum of Modern Art—New York]

- http://www.fastcompany.com—[Fast Company]

- http://www.foreign-currency.com—[Direct FX]

- http://www.overseasjobs.com—[Overseas Jobs Express]

- http://www.careers.wsj.com—[The Wall Street Journal's Careers]

- http://www.condomania.com—[Condomania]

- http://www.atomfilms.com—[Atom Films]

- http://www.whitehouse.gov—[The White House]

- http://www.fbi.gov—[Federal Bureau of Investigation]

- http://www.loc.gov—[The Library of Congress Home Page]

- http://www.odci.gov/cia/publications/factbook/index.html—[CIA World Factbook]

- http://www.godweb.org—[The First Church of Cyberspace]

- http://www.salon.com/travel—[Salon Travel]

- http://www.razorfish.com—[Razorfish]

The screen shots are used only by permission—permission was given via emails and in oral communication. The emails are on file with the author.

The IA Model

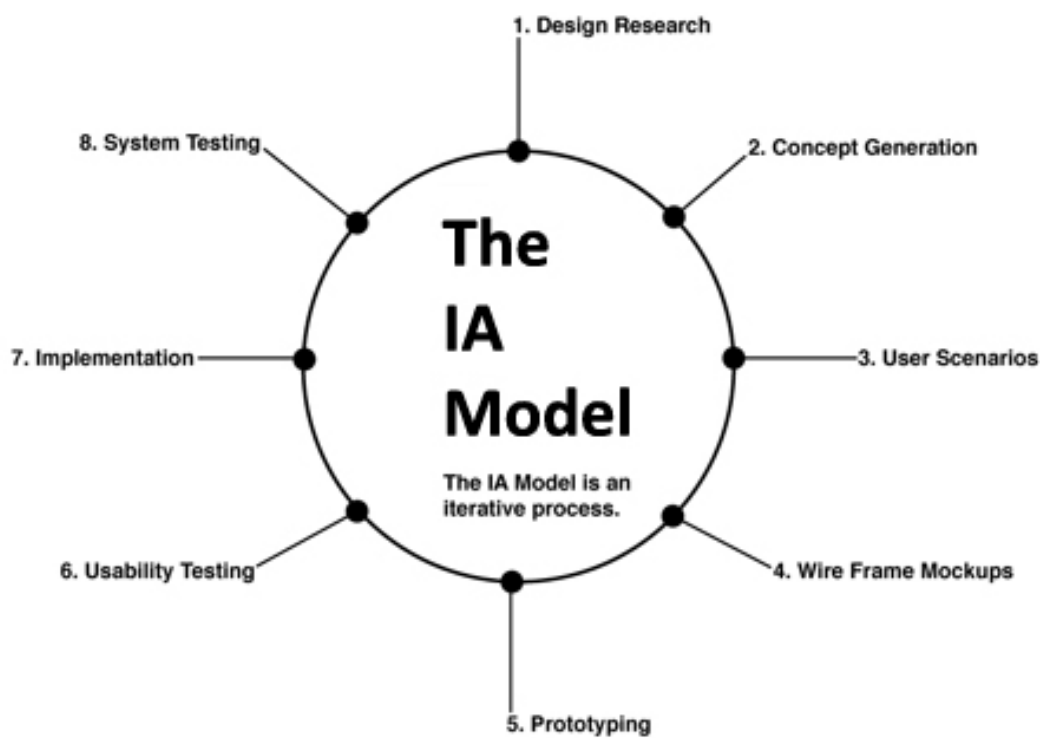The Creative Information Architecture Model
(The IA Model)

1. Design Research

8. System Testing

2. Concept Generation

The IA Model

The IA Model is an iterative process.

7. Implementation

3. User Scenarios

6. Usability Testing

4. Wire Frame Mockups

5. Prototyping

Figure 1.5: The IA Model