Information Architecture

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Rosenfeld & Morville: Design Sins

Can't find it:

- external link took you away
- no index, TOC, or site map
- no search
- unclear labels
- content repeatedly reorganized

Rosenfeld & Morville: Design Sins

Poor graphic design and layout:

- huge image files
- pages crowded with text, links, graphics
- no "white space"
- long, dull, seemingly endless text blocks
- high-octane graphics with loudly crashing colors
- minimalist designs and bizarre aesthetics
- lack of concern for usability

Rosenfeld & Morville: Design Sins

Gratuitous use of bells and whistles:

- trite counters
- moderately annoying revolving gifs
- frustrating frames
- useless, bloated Java applets

Rosenfeld & Morville: Design Sins

Inappropriate tone: speaking the wrong language (lack of focus on the user's terminology and jargon)

Designer-centeredness: blatant self-expression ("my favorite links")

Under construction: if it isn't ready, why show it?

Lack of attention to detail: typos, broken links, out-of-date content, factual errors, poor html (including poor cross-browser testing)

Rosenfeld & Morville: Likes

Aesthetically pleasing sites:

- cohesive and consistent look
- unique identity (visual branding)
- graphics and page layout integrated with useful features (navigation, applications, editorial style)
- atmosphere and experience in tune with site's objectives

Rosenfeld & Morville: Likes

Big ideas: thought-provoking content, in-depth articles, quality writing, overall communication effectiveness

Utility: effectively do the job they were intended for (news services, information search, investment trading, games, research, product information, retail purchases)

Findability: navigational systems and organizational schemes that lead people to the information they want

Personalization: information customized to individual audiences

The Job of the Information Architect

Determine the overall requirements of the system:

– the user's needs
– the organization's needs
– the content developer's needs
– the producer's needs

The Job of the Information Architect

Determine the look and feel of the system:

– colors, layout, visual imagery
– tone, jargon, text-to-image ratios
– site design (frames, tables, controls)
– technology (Java, JavaScript, ShockWave, etc.)

The Job of the Information Architect

Determine how the system will work and how it will continue to grow and evolve:

– organization, navigation, indexing, search
– controlled vocabulary, labels, metaphors
– growth, change, and overall maintenance

Information Architecture Process

Analyze your audience

– Determine who your audience is
– Establish audience profiles
– Analyze user needs
– Plan methods to solve user problems
– Determine how you will test for success
– Revisit your assumptions regularly

Information Architecture Process

Tag content with meta-content

– Select a standard set of meta-content attributes, based on corporate, authoring, and user needs
– Determine the level of granularity (chapter, topic, object) for the content
– Establish a controlled vocabulary

Information Architecture Process

Publish documents to the system

- Devise a means for assigning standardized meta-content to the content
- Manage security, workflow, and end-user or group profiling
- Batch process or dynamically update content into flat-files or a database

## Information Architecture Process

Conceptual Analysis

- Investigate the relationships and connections between concepts in the content base
- Establish a multidimensional topic/document hierarchy (optimized for specific use, users, or train of thought)
- Determine drilldowns and pivot points
- Make "hot topics" easy to get to

Information Architecture

Dynamically Organized Content

LATCH
Controlled Vocabulary
Meta-Content

Content
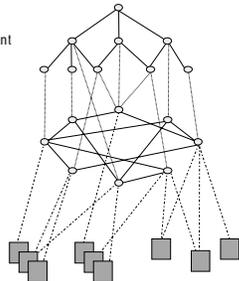
Navigation and Search

Personal paths to knowledge

- signposts
- hyperlinks
- Boolean, topic, or text search
- visual search

Signposts

There are many visual elements that point the user to information:

- title bar
- message bar
- filename or URL
- navigable TOC
- site map
- back, forward, and history controls
- visited hyperlink colors
- bubble (popup) help
- icons

Signposts: Common Mistakes

You can easily break some of these signposts:

- changing standard link colors
- overriding the message bar with JavaScript messages
- using image maps for hyperlinks
- omitting (or poor wording) for the popup text
- using frames to hide the actual web page names and make it hard to establish a browse sequence or bookmark desired pages

Signposts: You Are Here

Does your system show the user where they are, no matter where they came from or how they access the information?

- display the organization's name or identity (logo) on every page
- display the location in the hierarchy or organizational model
- show the path they traveled (if possible)
- give them access to a site map

Hyperlinks

Think before you link:

- Will users recognize your links? (Embedded links are less used than list links.)
- Is it clear why you are providing a link? Does the context or placement make it clear?
- Will they lose their context in the overall organizational scheme? How deep in the hierarchy are you taking them?
- Are you taking the user away from your site entirely? Will they know where they are going before they jump? Do you regularly check those links to make certain they are valid?

Hyperlinks

Link wisely:

- site navigation bars on every page
- location of navigation bars: top, bottom, or sides
- pulldown or popup menus
- clear labels or context for the link
- table of contents
- index

Search Systems

Traditional search systems emerged from database technology.

- text retrieval
- Boolean operations
- attribute-based search (search indices)

Search Systems

There are four basic models for searching:

- known-item searching: I know what I want and I know it exists; just help me find it.
- existence searching: I don't know exactly what I want, or what it's called, or even if it exists, but I want to find out all these things.
- exploratory searching: I want to know something about a topic; just give me a few good resources.
- comprehensive searching: I'm doing research on a subject; give me all you got.

Visual Navigation and Search

Visual search enables users to navigate image and conceptual information, following meta-paths through information bases.

Original research conducted at MIT Media Lab, Stanford Research Institute, and Xerox PARC.

Galaxy of News   Financial Viewpoints   Millennium Project

Visual Navigation and Search

Visual navigation imitates the natural process of moving toward what interests you.

It can make use of depth, color, size, proportion, and shifting visual planes to explain or imply relationships between objects.

It is the way we recognize objects and understand relationships in a complex web of shifting patterns.

It is the way we interact with the real world.

Visual Navigation and Search

Visual navigation software interfaces enable users to "see" information, in terms of both the organizational hierarchies and the depth of content.

Visual Navigation and Search

Inxight (Xerox PARC spinoff)

"The Hyperbolic Tree™ is visual component technology for navigating hierarchies of hundreds or thousands of objects. Hierarchical structures are fundamentally how humans structure information and knowledge. It's no coincidence that organizational charts, tables of contents, topic indexes, outlines, product catalogs, websites, decision trees, risk analyses, family trees, food chains, and taxonomies in general (e.g., the Dewey Decimal System, the taxonomy of the species, etc.), are arranged hierarchically."

 – Inxight web site

Visual Discourse

"...the purpose of many corporate web design firms appears not to be the actual production of useful or socially significant spaces, but instead creation of another "portfolio piece" with those emblematic qualities of image and style that are so very reproducible in industry trade magazines.

We, on the other hand, believe that by embracing the uniqueness of the 'viewer', it is possible to create a situational discourse whose content need not be static, finite or essentialized, but rather ultimately determined by the user. As information architects, perhaps the most effective thing we can do is to provide the template or setting for the dynamic situations in which people will play out their lives, rather than trying to script their actions in minute detail or trying to choreograph their interactions with mass culture."

 – Plumb Design Manifesto, Spring 1997