Information Architecture

Tasks & Tools for improving your web design

What is Information Architecture (IA)?

"Information architecture (IA) is the art of expressing a model or concept of information used in activities that require explicit details of complex systems." — Wikipedia

"Information architecture is the science of figuring out what you want your site to do and then constructing a blueprint before you dive in and put the thing together." — Webmonkey

Tonight, let's use this definition...

Tasks & exercises that balance the needs & goals of the business/organization, site and intended audience, to deliver a roadmap on how a website's information should be presented.

Information includes:

- Content
- Navigation
- Labeling

Who am I to talk?



You are all Information Architects!



As web designers, you may wear



Bookkeeper

IA consists of...

- Understanding what the business/site goals are
- Understanding who the intended audience is and how they will interact with the information on the site
- Organizing the information so it makes sense
- Create a structure for the site to support the information; the intended goals

IA consists of... (con't)

- Things an IA looks at/handles:
 - User behavior
 - Success factors
 - Politics (Client or organization)
 - Website organization & structure
 - Labeling & identifiers
 - Search
 - Navigation

User behavior

- Analysis to determine current behavior
 - Web analytics, User testing, Focus groups
 - What users look at
 - What users click on
 - Why they do the things they do
 - How to identify your users and their needs
- Determine preferred behavior
- Design to support desired behavior

Success factors

- What actions must take place to make your website successful?
 - Purchases
 - Downloads
 - Leads (phone calls, emails, brick & mortar visits)

Politics (Client or organization)

- A lot of IA is common sense
- What makes it difficult are politics, personal agendas
- An IA learns to listen, then effective counter politics & agendas with sound proof
- Remind them of ROI
 - Prioritize based on ROI

Website organization & structure

- Organization is not only important related to storage, but retrieval
- Structure supports how the information is retrieved

Web Site Structures

- Narrow and deep
 - Fewer links; more clicks
- Broad and shallow
 - More links; fewer clicks

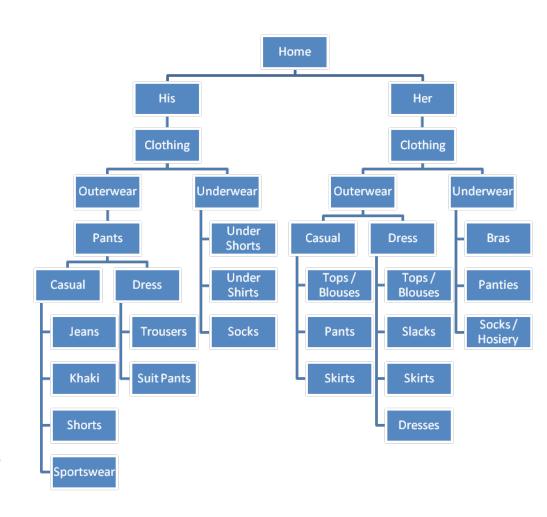
Narrow and deep

Fewer links

 Better for directing site visitors down a particular direction / channel.

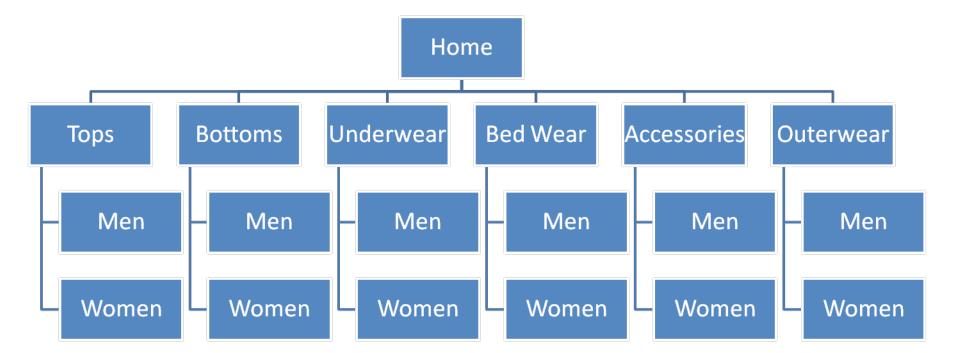
More clicks

 Bad if click-throughs become seemingly pointless; user gets lost; forgets what they were looking for



Broad and shallow

- More links
 - More difficult to scan; decipher which link is relevant
- Fewer clicks
 - Quicker to access



Which is best?

- Neither 100% of the time
- It depends on the situation; the information, the audience and the goals
- It's always a balance...
 - Directing site visitors to where you want them to go, with the fewest clicks, quicker access

Methods of organizing information

- Alphabetical
- Attributes/facets (e.g., price, color, shape, etc.)
- By format (e.g., forms, calculators, whitepapers)
- By topic
- By type of task (e.g., payments, registrations, applications)
- Chronological (timeline)
- Segmentation by target audience (e.g., small/medium/large businesses, or "For Parents," "For Educators," etc.)
- Spatial/relational/geographical
- Social/classified by users
 - Popularity (viewed, sent, bought, tagged)
 - Keyword tags

Alphabetical

Makes sense for people ...

...maybe not as much for restaurants

People

Aaron, Peter Belweather, Tom Cone, David Deacon, Dennis Earley, Robert Franks, Herman Guest, Sandy

Restaurants

Applebees
Big Bowl
Carson's
Di Piero's
El Famous Burrito
Famous Dave's

Attributes/facets

- Great for filtering information
- Fine tuning a record set
- Custom categories

Narrow Your Results by:

Customer Reviews

Top-Rated (36)

Price Range

Less than \$600 (18) \$600 - \$899 (54) \$900 - \$1199 (10) \$1200 - \$1799 (10) \$1800 and Up (13)

Brand

Sony (21)
Dell (20)
HP (18)
Toshiba (16)
Apple® (12)
Asus (6)
Gateway (6)
Compag (4)

Acer (1) Lenovo (1)

By format

- Same information available different formats
 - Video
 - Book/Audio Books
 - Music



By topic

- Most popular method of

organization				
 Best for browsing 				
Dest for bit	Jwailig			
			<i>"</i> "	
Arts	Business	Computers	<i>₽</i>	
Movies, Television, Music	Jobs, Real Estate, Investing	Internet, Software, Hardware	*	
Games	<u>Health</u>	Home	•	
Video Games, RPGs, Gambling	Fitness, Medicine, Alternative	Family, Consumers, Cooking	b	
Kids and Teens	News	Recreation	*	
Arts, School Time, Teen Life	Media, Newspapers, Weather	Travel Food Outdoors, Humor	Ô	
Reference	Regional	Science Distance Provide and Physics		
Maps, Education, Libraries	US, Canada, UK, Europe	Biology, Psychology, Physics	®	
Shopping	Society Residue Refiniere January	Sports Deschaft Seeses Bestethett		
Clothing, Food, Gifts	People, Religion, Issues	Baseball, Soccer, Basketball	N N	

Autos **Finance** Games Groups HotJobs. Maps Mobile Web Movies TV Music OMG **Personals** Real Estate Shine Shopping Sports Travel **Yellow Pages**

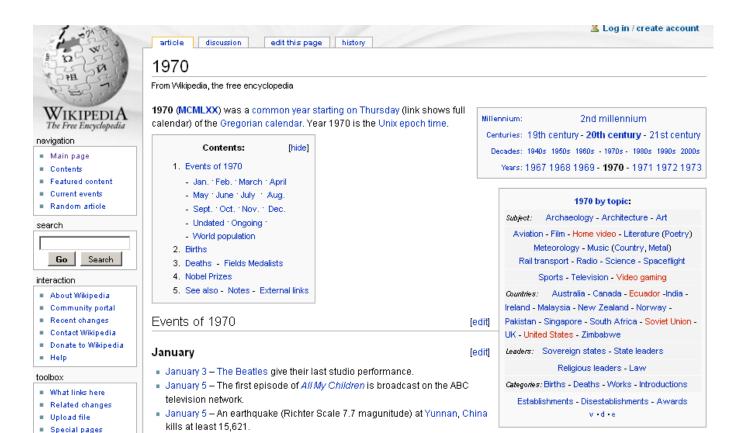
Answers

By type of task



Chronological

- Used for timelines, historical reference
- Note the topic sub-navigation/filter

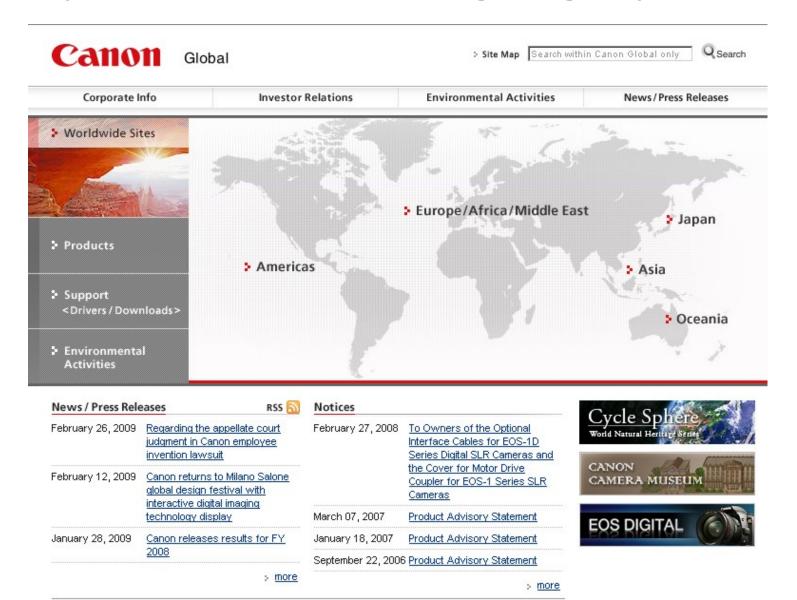


Segmentation by target audience

Different information for different audiences

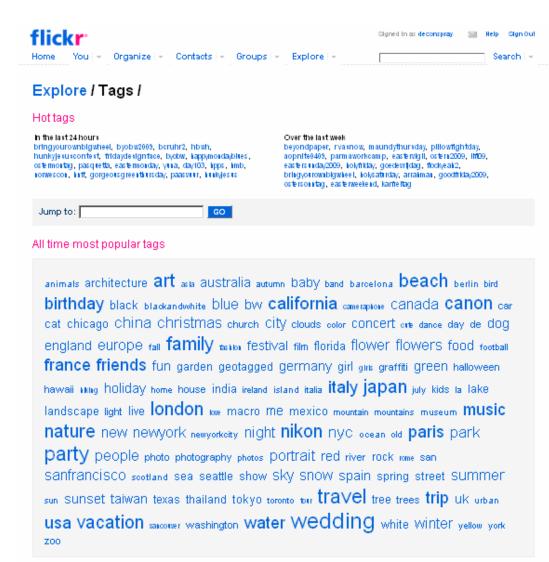
NASA	HOME	NEWS	MISSIONS	MULTIMEDIA	
	>Log In To MyNASA >Sign Up				
For Public For Educators For Students For Media For Policymakers For Employees MyNASA					

Spatial/relational/geographical



Social/classified by users

- Tag Clouds
 - Keywords/label by users
 - Size denotes popularity



Labeling & identifiers

- Concentration on
 - Headings/Groupings
 - Navigation/links
 - Action elements (buttons)
- Should be user centric
 - What terms, labels, elements that are intuitive, persuasive

"Card sorting is a great, reliable, inexpensive method for finding patterns in how users would expect to find content or functionality"

boxesandarrows.com

- Two Methods
 - Open Card Sorting: Individuals given content, no groups. Participants create the groupings, then place the content in the appropriate grouping.
 - Closed Card Sorting: Individual given content & groupings. Participants place the content in the pre-established groupings.

Pros

- Simple Card sorts are easy for the organizer and the participants.
- Cheap Typically the cost is a stack of 3×5 index cards, sticky notes, a pen or printing labels, and your time.
- Quick to execute You can perform several sorts in a short period of time, which provides you with a significant amount of data.
- Established The technique has been used for over 10 years, by many designers.
- Involves users Because the information structure suggested by a card sort is based on real user input, not the gut feeling or strong opinions of a designer, information architect, or key stakeholder, it should be easier to use.
- Provides a good foundation It's not a silver bullet, but it does provide
 a good foundation for the structure of a site or product.

Cons

- Does not consider users' tasks Card sorting is an inherently content-centric technique. If used without considering users' tasks, it may lead to an information structure that is not usable when users are attempting real tasks. An information needs analysis or task analysis is necessary to ensure that the content being sorted meets user needs and that the resulting information structure allows users to achieve tasks.
- Results may vary –The card sort may provide fairly consistent results between participants, or may vary widely.
- Analysis can be time consuming The sorting is quick, but the analysis of the data can be difficult and time consuming, particularly if there is little consistency between participants.
- May capture "surface" characteristics only Participants may not consider
 what the content is about or how they would use it to complete a task and may
 just sort it by surface characteristics such as document types.

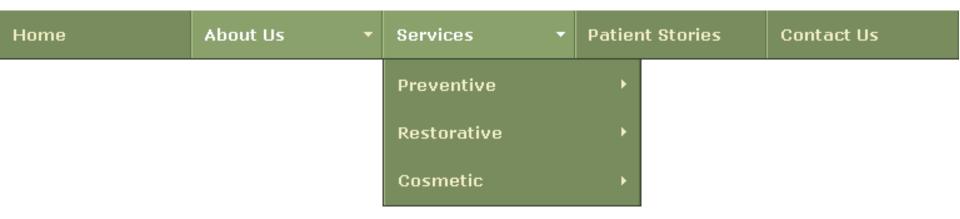
It's Your Turn, Your Record Store



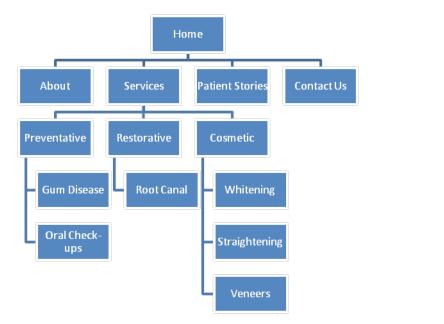
Navigation

- Global / Local
 - Horizontal/Vertical Global Navigation Bar
 - Site-wide Tabs
 - Breadcrumbs
 - Sub/Sectional Menus
- Provides
 - Context
 - Current State
 - Current Location

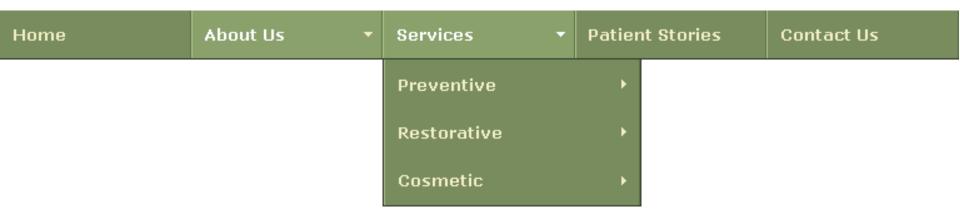
IA & Navigation should support the goals



- •70% prospects for general dentistry services
- •30% prospects for cosmetic dentistry services
- Little cross-over from general to cosmetic; fear of cross/up-selling



IA & Navigation should support the goals



Home
About Us
Our team, location, financials
Cosmetic Services
Whitening, Straightening, Veneers
Checkups, Gum Disease, Root Canal
Contact Us
Patient Stories
Before & After Photos, Testimonials
Contact Us
Testimonials

The good, bad & ugly of navigation







- Know what page/section your're on
- Accented by color & icon



Provides

- State where am I now? (bold)
- Further description of site section



Tab stand out, compared to other tabs



- Clear, concise, intuitive menu items
- Provides access key codes for accessibility

The Bad

Two groups, but what are they?



The Bad

•Alphabetical? Grouped by Type? tong list with product Baking Flour types, with other non-Broths - Soups -Chilles oduct types Condiments Cookies Contificates
Snacks Crackers - Chips Health and Post Ew Products Pasta Salad Des Gype cial Diets
Sauces - Gravy Mixes Special Diets Shop By Brands

The Bad

Who's Cooking









Chipotle (default)





Chipotle (when you mouse over the logo)





Poyneter.org (Where's the nav?)

Poynter.org

Color, Contrast & Dimension By Pegie Stark Adam in News Design

Welcome to the interactive color experience, an online guide that explains color theory and shows how to use it in design through examples and exercises.

The tour is split into eight sections highlighted below in the "navigate by section" area. Although we recommend that you travel through the sections in sequence, you can find a specific topic and go to it immediately by clicking on that topic button.

START

Johannes Itten photo credit: © E. A. Seemann Verlag, Leipzig (Germany) Publisher: "Verlagsgruppe Dornier"

Designed & Produced by Anne Conneen

NAVIGATE BY SECTION

Poyneter.org (Oh, there it is (if I'm lucky))

Poynter.org

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NAVIGATE BY SECTION





THE POWER OF COLOR

Links

- Links should hyperlink to resources that meet the site visitor's expectations.
- Link labels should be short, concise & intuitive
- Graphical links must use alt tags for usability when graphics not loaded/accessible
- Links should be presented differently than other text (i.e. color, underline, etc.)
- Long lists should be broken into groups or chunks for easier scanning

Links

Before

Apples

Canned Peas

Catfish

Chicken Legs

English Muffins

Garlic

Ground Beef

Milk

Oranges

Peaches

Potato Chips

Tea

After

Produce

Apples

Oranges

Garlic

Peaches

Meat

Catfish

Chicken Legs

Ground Beef

Grocery

Canned Peas

English Muffins

Potato Chips

Beverages

Milk

Tea

In-Line Links

- Links embedded in body text
- Was the rage in 1994.
- Great for research content.
- Bad for business
- Use wisely.

Citrus is a common term and genus of flowering plants in the family Rutaceae, originating in tropical and subtropical southeast regions of the world. The Latin word citrus was borrowed from ancient Greek kedros "cedar, juniper" probably through Etruscan. The Romans applied the word to several different trees with fragrant foliage or wood (compare the completely unrelated cedars)^[1]. The taxonomy and systematics of the genus are complex and the precise number of natural species is unclear, as many of the named species are clonally propagated hybrids, and there is genetic evidence that even some wild, true-breeding species are of hybrid origin^[2]. Cultivated Citrus may be derived from as few as four ancestral species. Natural and cultivated origin hybrids include commercially important fruit such as the oranges, grapefruit, lemons, some limes, and some tangerines.

Action elements

- Web page elements that do something.
 - Buttons
- Provide benefit to site visitor
- Make sure that
 - They stand out, constrasting, prominance compared to other content
 - They tell the site visitor what to do.
 - They tell the site visitor what will happen if they act.

Action Elements

- Task should be intuitive as well.
- What does the Go button do (below)?
 ...and where does it go?
- What does the Search button do (below)?



Action elements

Average/Poor/Bad





Effective/Great





Bright Teeth Whitening is my top choice. It's like a professional qualify derial whitening freatment without an expensive trip to the dentist. The system comes with a really easy to use whitening tray that I had to wear over my teeth for only 15 to 30 minutes per day until my teeth reached my desired level of whitening. Using this product I was able to whiten my teeth by 8 shades. I was also very impressed with how long the results lasted before I needed to start another treatment. They are currently offering a <u>risk-free trial</u> so you can test the product out for yourself and see how many shades whiter your teeth get before you decide to buy.

- * Whitening up to 8 Shades or More Guaranteed
- ★ Includes Custom-Fitted Mouth Trays
- ⊀ Same System Used by Dentists for \$600
- ★ Free 14 Day Trial \$6.99 S&H

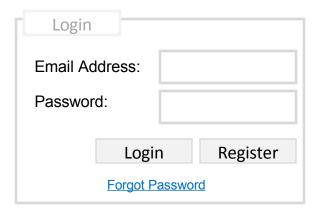
> Get Trial Offer <

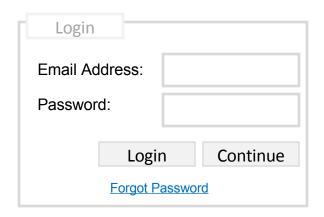




The ROI?

Before After





Return on investment: \$300,000,000

IA Review Checklist - Process

- Site organization tested with users
- Clients have reviewed the architecture for completeness and appropriateness
- The site organization has been finalized and documented.
- A site maintenance plan is documented.
- All content has been acquired or planned for.
- Site logs and search logs have been reviewed for possible refinements.

IA Review Checklist - Coverage

- No relevant content is missing.
- No unnecessary pages can be removed.
- The site has all necessary pieces, e.g.,
 - Home
 - About / Introduction / Overview
 - Contact / Feedback Forms
 - Site Map / Site Index / Table of Contents
 - Help/Frequently Asked Questions
 - Search
 - Error Pages
 - Privacy Policy / Copyright Policy

IA Review Checklist - Tasks

- All important tasks and user types are supported
- Common tasks flow along a natural and short sequence of pages
- Important tasks are achievable in one section of the site, or appropriately cross-linked

IA Review Checklist - Organization

- The site is relatively broad and shallow.
- Categories are placed at the right depth. Based on importance, no categories need to be promoted or demoted.
- Important options come first.
- Related options are grouped.
- The organization is flexible. Sections can be added and deleted without major reorganization.

IA Review Checklist - Categories

- Categories divide up the space sensibly
- Each category has comprehensive coverage
- All topics are in the correct category

IA Review Checklist - Orientation and Labeling

- Pages are clearly identified and explained, with clear page titles and good descriptions.
- Landmark pages are sufficiently distinct.
- Labels are clear, meaningful, and appropriate to their target content.
- Labels are consistent in specificity, tone, and usage.
- Link labels provide the scent of all subcategories.
- Scope notes are provided when useful.
- Users can gauge their progress through the information.

IA Review Checklist - Links

- The link to the home page is explicitly indicated.
- External links are chosen with restraint, appropriate, and regularly maintained.
- Page links are minimal and clearly labeled.
- There are no dead-end pages-those without any outgoing links.

IA Review Checklist - Navigation

- The navbar indicates where the user is currently located.
- The user can see how the current page is positioned within the whole site.
- The hierarchy is clear. The user can determine which options are at the top level versus a sublevel.
- Text navigation is provided for users who are not viewing images.
- Navigation is at the top and the bottom of long pages.
- The user can quickly review all options without scrolling or rolling over the options.

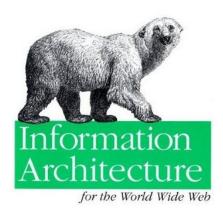
IA Review Checklist - Search

- Users can choose to either browse or search (though search may not be needed on small or very well structured sites).
- The scope of the search is clear.
- Search tips are provided, especially after too few or too many results are found.
- Search results indicate the number of matches and the total records or documents.
- Search results are comprehensive, precise, and relevant.
- Search results are ordered usefully.
- Search results provide the context and/or description of each match.
- Search results are categorized when there are a large number of matches.
- The search query is repeated in the results, and users can easily refine searches.
- Common queries produce good results.
- The search is robust with regard to misspellings, alternate spellings, synonyms, plurality, and prefixes and suffixes.

Resources

Books

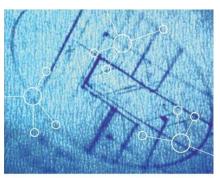
- Information
 Architecture for the
 World Wide Web –
 Rosenfeld & Morville
- Information
 Architecture –
 Blueprint for the Web
 Christina Wodtke



Designing Large-Scale Web Sites

O'REILLY"

Louis Rosenfeld & Peter Morville





Resources (cont.)

- Online
 - Information Architecture Defined http://www.sitepoint.com/article/architecture-defined/
 - BoxesandArrows.com
 - Card sorting: a definitive guide http://www.boxesandarrows.com/view/card_sorting_a_definitive_guide
 - The \$300 Million Button
 http://www.uie.com/articles/three_hund_million_button

Questions?

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