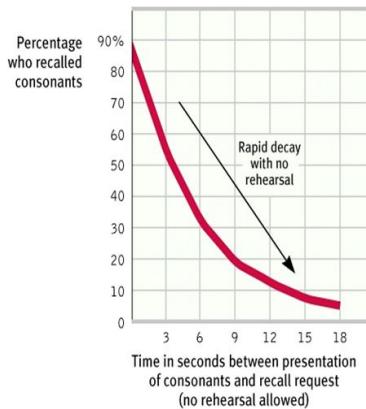


Randall Munroe, XKCD blog – Chart is a good example of reality!

Lots of research and analytics. How do you start organizing all the info? It's all about the information to answer users' priorities & business' priorities.

Short-Term Memory

- Lasts usually between 3-12 seconds
- Can store 7 (plus or minus 2) chunks of information
- We recall digits better than letters



Provide clues for users from one screen to another: page layout, labels, colors, positioning.

Recognition is easier than recall because it involves more cues: all those cues spread activation to related information in memory, raise the answer's activation, and make you more likely to pick it.

- The reason multiple-choice questions are (generally) easier than open questions, where the respondent has to come up with an answer. Scalable

Good Real-Life Example!

Welcome back!

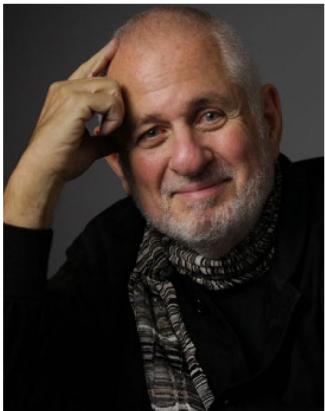
Email
anotheruseran
Hmmm, not sure that's a valid email address!

Password
I
Oops! Incorrect Email/Password combination

Remember me [Forgot your password?](#)

Log in

Use email
reminder
(not a user
ID)



“Information architects make the complex clear.”

Richard Saul Wurman

Richard Saul Wurman:

- “Father of IA” - coined the term, 1975
- One of the founders of the Ted talks
- Architect and graphic designer, author of travel guides
- Wrote about INFORMATION ANXIETY - flooded with info

First version: 1989!

Information Anxiety

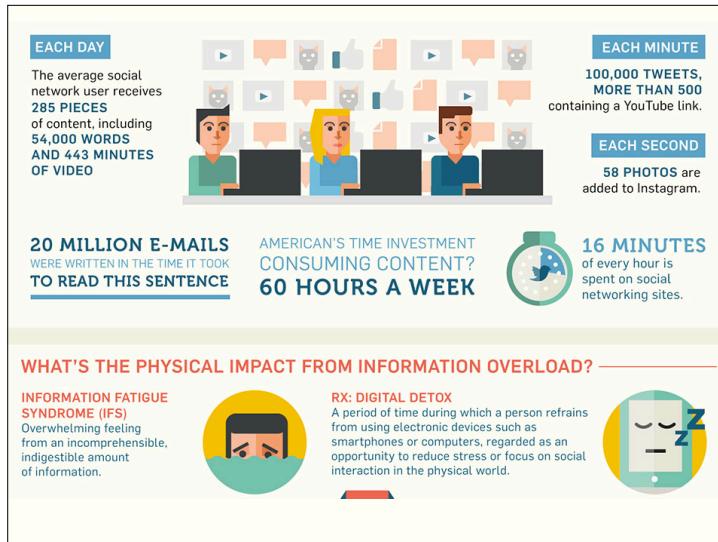
"Human cost of information overload produced by the ever-widening gap between what we understand and what we think we should understand. It is the black hole between data and knowledge, and what happens when information doesn't tell us what we want or need to know."

— Richard Saul Wurman, *Information Anxiety 2*

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Taken from an ad for a “mobile-interest discovery app”

(www.business2community.com/infographics/information-overload-users-burnt-social-media-infographic-0876828)



The brain receives over 11 million bits of information a second. BUT the conscious mind processes only 50 bits per second.

Our brains are busier than ever before but we have the same brains as our ancestors. The brain processes 400 Billion bits of information a second BUT the conscious mind processes only 50 bits per second.

Neural Addiction

Users Want To Be Right, To Be Successful.

- Sending texts (without autocorrect errors)
- Completing a form
- Winning games
- Analyzing weekly sales
- Tracking medical procedures
- Editing a video
-

"Each time we dispatch an email in one way or another, we feel a sense of accomplishment, and our brain gets a dollop of reward hormones telling us we accomplished something. Each time we check a Twitter feed or Facebook update, we encounter something novel and feel more connected socially (in a kind of weird, impersonal cyber way) and get another dollop of reward hormones. But remember, it is the dumb, novelty-seeking portion of the brain driving the limbic system that induces this feeling of pleasure, not the planning, scheduling, higher-level thought centers in the prefrontal cortex. Make no mistake: email-, Facebook- and Twitter-checking constitute a neural addiction."

- Daniel J. Levitin, *The Organized Mind: Thinking Straight in the Age of Information Overload*

Happy users are addicted users!

Yahoo - biggest search site, 1997



Brand new Google, 1997

HELP your users be right!!!!



INFORMATION

in·for·ma·tion

/ˌɪnfərˈmæʃ(ə)n/

noun

1. facts provided or learned about something or someone.
"a vital piece of information"
synonyms: details, particulars, facts, figures, [statistics](#), [data](#); [More](#)
2. what is conveyed or represented by a particular arrangement or sequence of things.
"genetically transmitted information"

ARCHITECTURE

ar·chi·tec·ture

/ˈärkəˌtek(t)SHər/

noun

1. the art or practice of designing and constructing buildings.
synonyms: building design, building style, [planning](#), [building](#), [construction](#); *formal* architectonics
"modern architecture"
2. the complex or carefully designed structure of something.
"the chemical architecture of the human brain"

INFORMATION ARCHITECTURE

creating a structure of information so people can find what they are looking for in your site or app

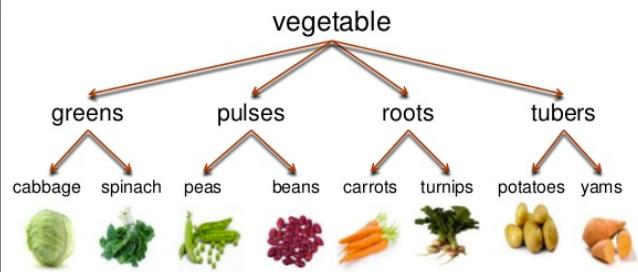
creating a structure of information so people can find what they are looking for in your site or app

Information Architecture

- The structural design of shared information environment
- An art and a science
- Organizing and labeling websites, intranets, online communities and software to support usability and findability
- Classification

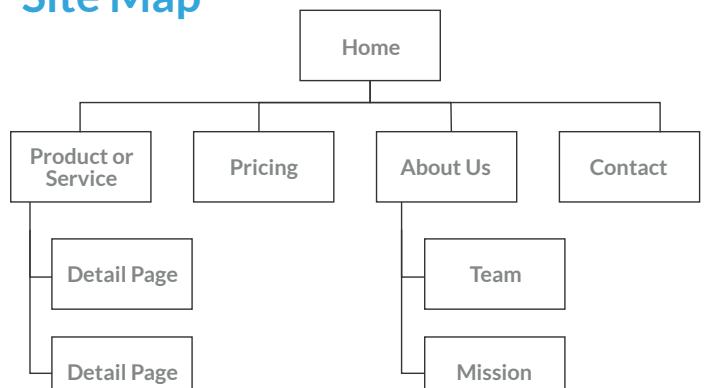
Resource: IA Institute definition

Example of Taxonomy:



Taxonomy: classification of something, common in science

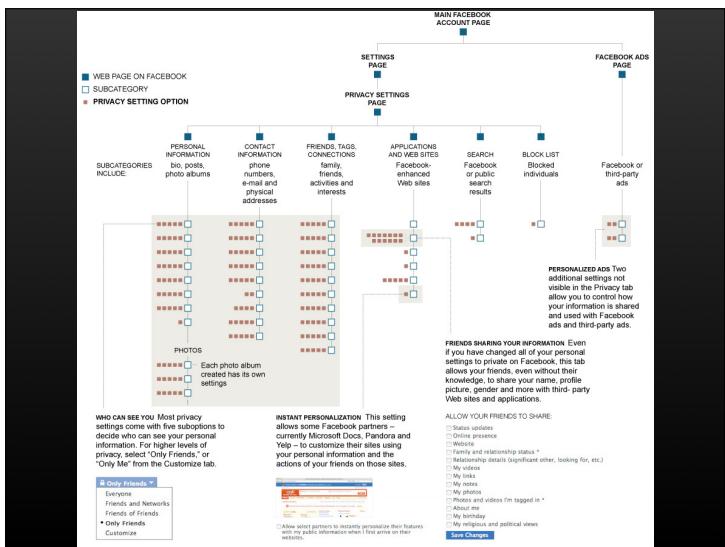
Site Map



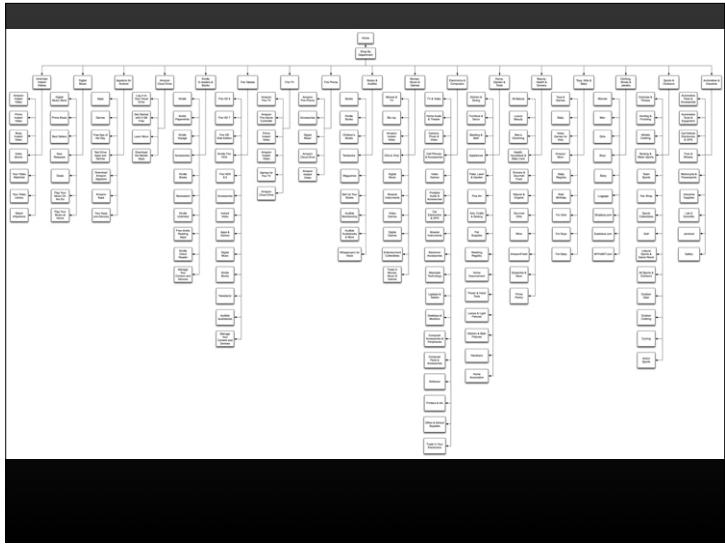
website example

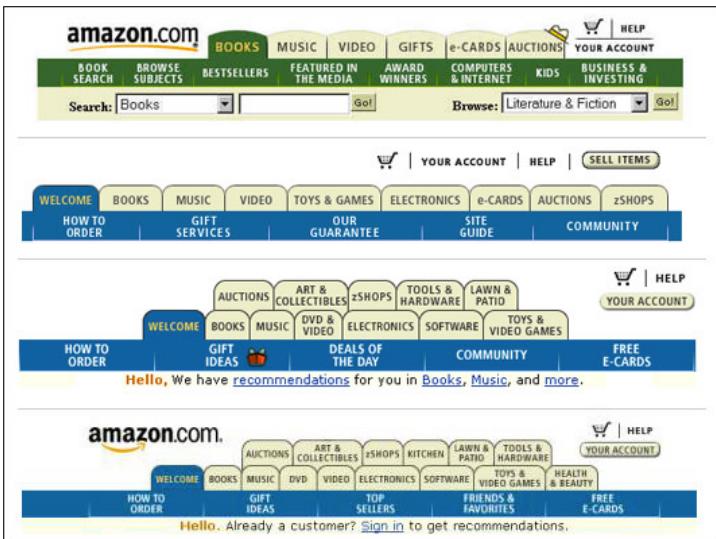
Site Map

Facebook



Amazon





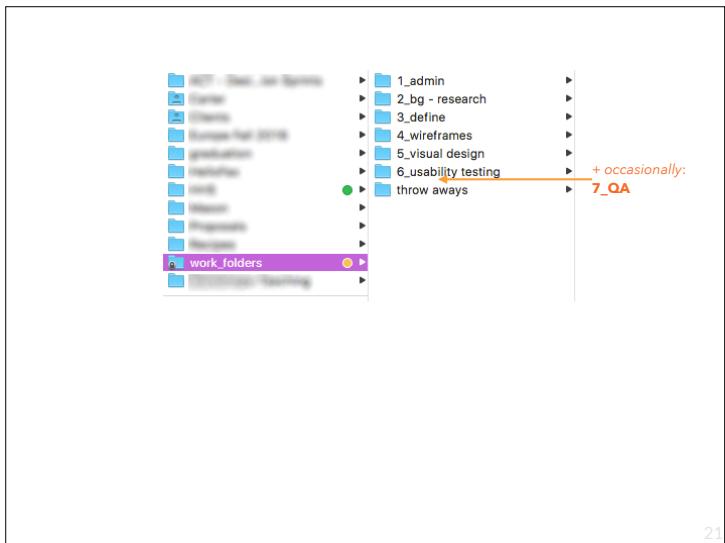
The History of Amazon's Tab Navigation: <http://www.lukew.com/ff/entry.asp?178>

Amazon users mainly navigate with search BUT the dropdown list and photo catalogued pages point to recognition and prompts via categorization. (Versus failed Froogle which as just a search box.)

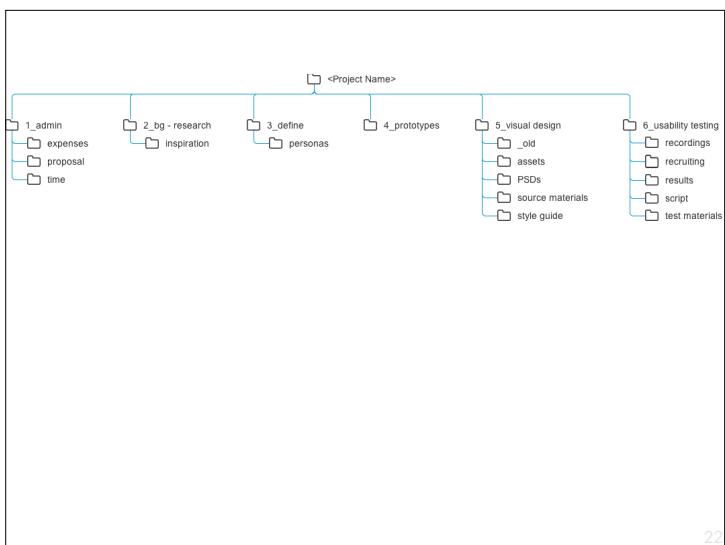
Williams Sonoma

<http://www.exo-skills.com/>

work on prototypes



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Navigating the Information

- How do I best structure the content?
- How much information is so important it needs to be accessed at the 'top'?
- Which type of navigation menu is best suited to accommodate the choices?
- How do I best design the navigation menu?

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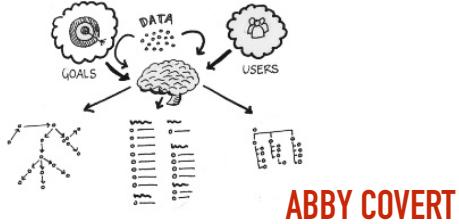
Structural Considerations

- How much are you organizing?
- How much choice can the user handle at each point in the process they are undertaking?
- What are the bounds of the medium you are working in?
- How does the mental model of your target user relate to the information you are dealing with?

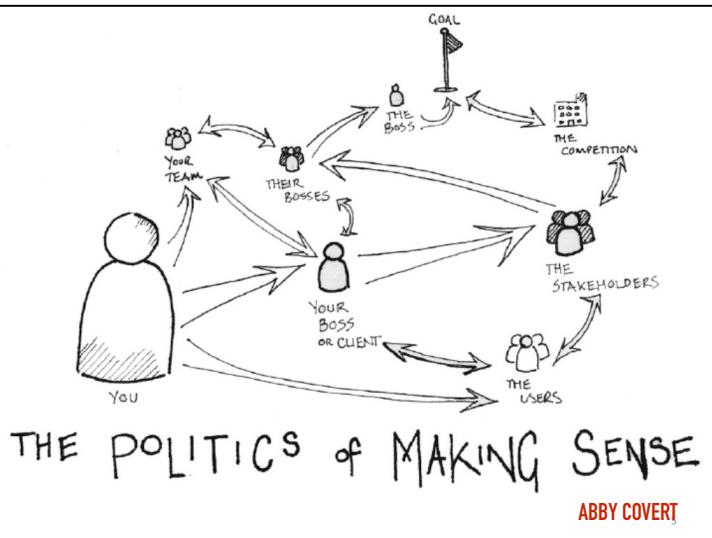
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good diagram

INFORMATION ARCHITECTURE (IA) IS A PRACTICE OF MAKING SENSE



Organizing information is not hard > building consensus is hard (different meanings, interpretations)



Card Sort

TYPES:

- **Open:** lots of cards and participants decide categories, re-label , and add cards
- **Closed:** participants group items under predefined categories
- **Hybrid:** Predefined categories but participants can add more

METHODS:

- Remote -or- Moderated
- Online -or- Stickies/Cards



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Card sorting is a method used to help design or evaluate the information architecture of a site. The goal is to improve the labelling, grouping and organization of the information. In a card sorting session, participants organize topics into categories that make sense to them and they may also help you label these groups.

This provides insight into how our users think about the topics – the concepts they use to group things and the language they use to describe things.

Hybrid sample for a newspaper website:
[another susan.optimalworkshop.com/
optimalsort/class_nav](http://another susan.optimalworkshop.com/optimalsort/class_nav) (One “Closed” category
(Local) and the rest are open)

Card Sort: Chunking

- Choose what to sort by grouping information into manageable chunks
 - In general usage, a ‘chunk’ means a piece or part of something larger.
 - In the field of cognitive psychology, a chunk is an **organizational unit in memory**.
- For large sites, such as news sites or large retailers, you may need to break it out into multiple sorts/tests

Use index cards if using paper

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Open Card Sorting

- Generative versus Evaluative
- Use when:
 - Starting to a new design
 - Learn how people understand and conceptualize your information
 - Find out where people expect to find information on your app/site
 - Generate ideas for how to structure and label your information
 - Measure how different user groups think about your information

Generating new ideas versus validating a design decision

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Closed Card Sorting

- Evaluates current framework
- Use to:
 - Learn if people agree on organization of your information in existing categories
 - Pinpoint unclear or misleading category labels based on mixed results
 - Reduce the number of categories you have based on which categories are ignored the most

Validating and correcting

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Hybrid Card Sorting

- Evaluates current framework
- Use to:
 - Generate ideas for grouping your information but want to steer participants in a direction
 - Find clarity on uncertain groupings from previous sorts
 - Give participants a chance to come up with better labels

Validating and correcting (versus generating)

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Card Sorts: Process

- Use a spreadsheet
- Find a balance for labels between simple and intuitive.
- 30-50 cards per sort
- Groups reach consensus faster; Individual sessions are easier to moderate.
- Find participants based on personas —use current and new users when possible (80% current, 20% new).
 - Current users will have a better understanding of the site and the content. New users will have a new perspective
- Shuffle the cards before each session to reduce bias.
- There is no right or wrong answer
- It's OK if participants can't group everything! That may be items that aren't needed or need to be re-labeled.
- Set a time limit

Use index cards if using paper

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Tree Testing

Modeling the site structure on cards, then giving participants a “find-it” task and asking them to navigate through the index cards until they found what they were looking for.



Tree testing is a usability technique for evaluating the findability of topics in a website. It is also known as reverse card sorting or card-based classification.

Modeling the site structure on index cards, then giving participants a “find-it” task and asking them to navigate through the index cards until they found what they were looking for.

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Uses

Card Sort

Design new

Fresh start

vs.

Tree Test

Evaluate existing
structure

Use to evaluate card
sort results!

!!LOOKING FOR PATTERNS!!

Tree testing is a usability technique for evaluating the findability of topics in a website. It is also known as reverse card sorting or card-based classification.

Modeling the site structure on index cards, then giving participants a “find-it” task and asking them to navigate through the index cards until they found what they were looking for.

Online Version Demo (Optimal Workshop):
<https://www.optimalworkshop.com/demos>

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