**Information Architecture as Communication**

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“It's not Rocket Science, it's Social Science”

Clement Mok
Designer, 
(Macintosh Interface)

**Design**

Design ≠ Accident

“Design is not the details. These make the design”
Charles Eames

**User Experience**

User Experience Design in Automotive Industry

Market Research
User Interviews
Engineering
Ergonomics
Interface
Visual Design
Testing
Grand Launch
Web as Software
Interface
Web as Hypertext
System

User-centered design

“The secret to making a site that people will dig is involving them throughout the design process”

Christina Wodtke, 2002

User-centered design

• Here are the basic steps:
  1. Figure out whom the site is for.
  2. Talk to those people.
  3. Design the site for them.
  4. Test a prototype of the site with them.
  5. Change the design based on what you learned.
  6. Test the final site with them.

Christina Wodtke, 2002

What to ask?

• Write a script, some good questions include the following:
  – What other sites do you visit?
  – How do you use this type of product?
  – Do you use competitors’ products?
  – Are you interested in potential features? For example, to probe if people would like a joke newsletter, ask them.
    • How do you find out when a web site has new content?
    • Do you ever sign up for newsletters from sites you enjoy?
  – Do you use a non-web version of the product?

Christina Wodtke, 2002

Design a Site for the People

• Now analyze the interviews, looking for recurring themes. Look especially for problems that crop up again and again, language that people use to describe content and actions, and hints about how they think of the subject matter.
• Then, test it.

Christina Wodtke, 2002

Information Architecture

Peter Morville 2000
Information Architecture

– Is invisible!

Organization Schemes

- Exact
  - Alphabetical
  - Chronological
  - Geographical
- Ambiguous
  - Subject
  - Task
  - Audience
  - Metaphor
- Hybrid

Organization Schemes

- Taxonomy
  - Hierarchical Organization of Concepts
    - Originally developed in Biology
- Poly-hierarchy
  - Non-rigorous taxonomy, adapted to reflect real world.
    - Art > Surrealism > Painting > Salvador Dalí
    - Art > Surrealism > Sculpture > Salvador Dalí
- Faceted Classification
  - Multiple pure taxonomies
    - One division principle at a time

Faceted Computer Finder at IBM

Why Control Vocabulary?

- So Your Users Don’t Have To!

Levels of Control

- Synonyms
- Authority
- Classification
- Thesauri

Equivalence
- Hierarchical
- Associative

(Vocabularies)

(Simple) (Complex)

Peter Morville 2000

Keith Instone, 2004

Louis Rosenfeld & Peter Morville (2002)
Thesauri in Context

Semantic Relationships

- Types
  1. Equivalence
  2. Hierarchical
  3. Associative

How do people organize things?

- There are four good ways to learn how people think about your content:
  - Observe others.
  - Study the enemy.
  - Visit your search logs.
  - Do a card sort.

Card Sorting Exercise

How would you sort these?

Labeling Systems

- A label is a term that represents a larger piece of information
- Textual / Iconic / Mixed
- Variety of Labels
  - Contextual Links
  - Headings
  - Navigation system options
  - Functionality buttons, triggers
  - Indexing terms
- Consistent Labeling Systems

Good Labels

- A good label is so obvious it’s dull as dirt. A good label doesn’t make you pause (and it never makes you think.)
- A good label is merely the thing you click to get to the good stuff.
- It may take you hours to come up with something that looks effortless—when it looks like you came up with the label in two seconds, you probably have the right one.

Types of Navigation Systems

- Browser embedded
- Main
  - Global
  - Local
  - Contextual
  - Pagination
- Supplementary
  - Sitemaps
  - Indexes
  - Guides
Navigation Systems

Global Navigation
- Contextual Navigation
  - Where am I?
    - What is near?
    - What's related to what is here?
  - Where can I go?
    - Where can I go?

Local Navigation

Louis Rosenfeld & Peter Morville (2002)

Navigation vs Search

Navigation
Search

Search is a System

- Query Language
- Query Builders
- MetaData
- Controlled Vocabulary
- Ranking & Clustering Algo.
- Interface Design
- Search Engine
- Content
- Results
- User’s Query
- Over Why Ask, Browse or Search Again
  Until They Succeed or Give Up

IA Heuristics for Search Systems

1. Locating search
   - Where is it?
2. Scoping search
   - What will be searched?
3. Query entry
   - How can I search it?
4. Retrieval results
   - What did I find?
5. Query refinement
   - How can I search some more?
6. Interaction with other IA components
   - Can I switch to browsing when search isn’t doing the trick?
7. Finishing search
   - What can I do now that I’ve done searching?

• http://semanticstudios.com/publications/semantics/search.html

Peter Morville 2002

Interaction Design

Computers
- Incredibly Fast
- Error Free
- Deterministic
- Apathetic
- Literal
- Secuential
- Predictable
- Amoral
- Stupid

Humans
- Incredibly Slow
- Error Prone
- Irrational
- Emotional
- Inferential
- Random
- Unpredictable
- Ethical
- Intelligent

Alan Cooper (1999)
Everyday Examples of crappy Interaction Design

Scenarios

“I’d love to do it all by myself, but I don’t know how to”

- **Persona:**
  - Donna writes media releases and organises for them to be distributed in paper form.
  - She has been doing this type of work for 4 years.
  - She also arranges for the media releases to go on the company website, but someone else does the work.
  - She would like to do it herself to save some time, but does not know how to prepare website content (she doesn’t know anything about html).

- **Scenario:**
  - Donna pastes some text from a word document, and types an additional paragraph.
  - She adds some headings and reads through it.
  - She wants to make sure it is accurate, so checks the spelling. When the document is ready, she sends it to her boss for approval.

Adapted from Donna Maurer (2002)
Interface Design

- The Tao of the Page
  - Principle #1: Simplicity & Elegance
  - Principle #2: Proximity & Relevance
  - Principle #3: Focus & Feedback
  - Principle #4: A Hierarchy of Importance, A Hierarchy of Tasks
  - Principle #5: The Right Tool for the Right Job

Information Design

- What?
  - The main subject or purpose of the page must be clear and explicit
- Who?
  - Claiming authorship on a page is basic
- Where?
  - Don’t forget the international nature of the medium
- When?
  - Remember to post publishing date, pages grow old very fast

Applied Information Design

- What?
  - The main subject or purpose of the page must be clear and explicit
- Who?
  - Claiming authorship on a page is basic
- Where?
  - Don’t forget the international nature of the medium
- When?
  - Remember to post publishing date, pages grow old very fast

Documentation: Wireframes

More: http://www.iawiki.net/WireFrames

IA & Usability: A Causal Model

Steve Krug

Don’t Make me Think

“If something is hard to use, I just don’t use it as much.”
Usability: Operational definition

Usability (of an application) refers to the effectiveness, efficiency, and satisfaction with which specified users can achieve specified goals in particular environments.

ISO Ergonomics requirements, ISO 9241 part 11: Guidance on usability specification and measures.

Andrew Dillon 2000

IA & Communication

- Home page as Communication
  
  "A home page is a communication device. This implies that home pages should/could/might be usefully analyzed from within communication theory..."

Denis Hlynka, April 1996
Professor, Department of Curriculum, Teaching and Learning Acting Director, Centre for Ukrainian Canadian Studies – University of Manitoba (http://www.umanitoba.ca/faculties/education/cmns/aect5.html)

Information Theory

- Claude Shannon, 1948

Interactional Model

- Paul Watzlawick & Palo Alto Group, 1960s

Biology of Knowledge

- Communication as Behavior Coordination

Maturana & Varela, 1970s
Resources & Further Reading

- Cooper, A. The inmates are running the asylum: why high tech products drive us crazy and how to restore the sanity. Sams, 1999.
  experience.org/uefiles/facetedbrowse/.

Thank you
And long live evolt.org!

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