Overview

- Information Architecture
- Design Activity
- Usability Research

Interaction Design
Wurman: I've chosen to call myself an Information Architect. I don't mean a bricks and mortar architect... I mean architect as in the creating of systemic, structural, and orderly principles to make something work—the thoughtful making of either artifact, or idea, or policy that informs because it is clear... I call things information only if they inform me, not if they are just collections of data, of stuff.
Defining Information Architecture:

Morville and Rosenfeld:
- Structure, Organization
- Determining levels of granularity
- Labels, taxonomies, vocabularies, metadatas, sitemaps, indexes
- Design to support usability
- ‘Creating’ useful, usable information systems within massively complex environments

Most people only notice information architecture when it is poor and stops them from finding the information they require. (Barker, 2005)
Information architecture: who decides?

- Top down: designer, client
- Bottom up: users
- "folksonomies"
- Google Image Labeler
- Museum Categorizing Project
Information Architecture

The ability to find something goes hand-in-hand with how well it’s organized (Wurman, 1996). Any content can be organized in multiple ways, and information architecture involves making these organizational decisions. Over the course of this semester we have addressed various questions about the design of information and interaction. Looking at a partial list of these questions—our course content—design a framework for organizing the presentation of this material into a logical information structure.

What are some of the alternative approaches?

What are alternative approaches for organizing the content below for a graduate level course?

What content is to be presented? Who is this for?
How do people learn? What is knowledge? How should things look? How should this work? What should this do? How is information to be represented? What is the cultural context?
What is the learning context? What are the emotional implications?
What design patterns are applicable? What constraints are relevant?
What affordances are available? What are the alternatives?
What does the design research tell us?
Who will control this experience?
What form will input take? What form will feedback take?
What kind of guidance will users receive?
What is the theoretical justification for making each of these choices?

Real-life Alert

“You know when you’re on a website and you see a bunch of navigation choices to click on? I’m the one who decided what the choices are, what they are called and where they take you when you click”

Christina Wodtke, [http://www.sitepoint.com/article/architecture-defined](http://www.sitepoint.com/article/architecture-defined)
Real-life Alert

Evaluation

- Conceptual Design
  - Does design match goals, user requirements?

- Usability
  - Ease of use; Ease of learning
  - User acceptance

- Efficacy
  - Learning outcomes (skills, knowledge, affect)
Evaluation

- Conceptual Design
  - Expert review of the goals, objectives and target audience specifications
  - Review user logs

Evaluation

- Conceptual Design
  - Are educational theories/frameworks and epistemological/philosophical beliefs used for the design of the features appropriate for learners and content?
  - Do features sufficiently support the intended type of learning?
  - Were design principles or theory applied in an appropriately way, e.g., were conditions for the application of a particular design principle met?

Evaluation

- Usability Testing
  - Assess the ease of use and ease of learning in the system as well as subjective acceptance by users
Evaluation

Usability Testing Methods
- Surveys
- Interviews
- Focus groups
- Think-aloud protocols
- Walkthrough techniques
- Field observation / Video taping
- Recording log files of user actions
- Heuristic Evaluation/Expert Evaluation
- Experimental/Quasi-Experimental Designs

Usability Testing Criteria
- Time on Task
  - Time needed to learn specific system functions
  - Speed of task performance
  - Number of clicks/steps for task performance
- Accuracy
  - Error rate in task performance
- Recall
  - User retention of commands over time
- Emotional Response

Nielsen, 1993 • Alertbox
Evaluation

Usability Testing - User Acceptance

- Subjective Usefulness of System Features
- Criteria
  - Navigation
  - Screen design and layout
  - Terminology
  - Consistency and match with the user's tasks

Evaluation

Usability Testing - User Acceptance

- Subjective Usefulness of System Features
- Methods
  - Surveys
  - Interviews
  - Focus Groups

Evaluation

Efficacy Testing

- Assess the efficacy of system to obtain specific learning outcomes
Evaluation

Cognitive Learning Outcomes

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<th>Anderson et al., 2001</th>
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Final Projects

Final Projects include
- Revised and expanded Design Document
- Implemented Prototype of Project
- Online Activities

Also included in final grade
- Attendance/class participation
- Design Journal
- Design Document Review