# Information Architecture for Web Development

2/14/02 Guest Lecture

Scott Robinson

#### **Contact Information**

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Scott Robinson

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### Who is this guy?

- Scott
  - 6 years of multimedia/Web experience
  - B.A. in Theatrical stage management
  - Educational multimedia (UCSC)
  - Imagesmith—Executive management, project management & IA
  - Project Management certificate (UCSC)
  - · Library Science graduate student
  - Consultant & Contractor

#### IA Definition — Quotes

"Architecture: The art or science of building  $[\dots]$  a unifying or coherent form or structure."

-Webster's Dictionary

"Information is data endowed with relevance and purpose."

-Peter Drucker, Economist

"[An IA is] 1) the individual who organizes the patterns inherent in data, making the complex clear; 2) a person who creates the structure or map of information which allows others to find their personal paths to knowledge."

—Richard Saul Wurman, Information Designer
Information Architects

#### IA Definition — Quotes

"User experience is usefulness (would I use it?) plus usability (could I use it?)?"

—Terry Swack, Razorfish ACIA Conference

"Fundamentally, IA is about creating navigational and organizational structures that put users in touch with the information they need, when they want it."

—Alison Head, Usability Consultant

" I find it hard to shake my sense that information architecture currently represents a collective process more accurately than it describes what any individual does."

—Andrew Dillon, Informatics Prof.
ASIS IA Column

At its core, Information Architecture is a human activity.

-Mike Barnes, Human Ecologist/IA

#### Information interactions are everywhere

- •ATMs, car radios, multimedia & communications devices
- Using signs and visual queues—road signs while driving, product organization in stores, filing systems

#### Therefore, interaction frustrations are everywhere

- •Trying to locate a street while driving—when road signs are missing!
- Trying to locate a unique ingredient in a supermarket
- Trying to associate price labels with products on crowded store shelves or clothing racks. (Could this be intentional?)

#### IA History — Disciplines

#### Library & Information Science

- Information Organization
- Information Seeking & Retrieval
- Mental Models
- Analytic & Browsing Search Strategies

#### **Human-Computer Interaction**

• Fitt's Law

#### Anthropology

- Ethnographic Studies
- Cultural Expectations
- Social & Social Ecology

#### **Usability Engineering**

- Software Development
- Nielsen's work

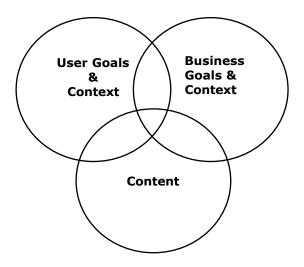
#### Cognitive Psychology

- Learning Theory
- Short- & Long-Term Memory and Learning
- Decision Making
- $7 \pm 2$  phone #s and social security #s

#### Information Design

- Richard Saul Wurman (Information Architects)
- Edward Tufte (Envisioning Information, Visual Explanations)
- Desktop Publishing (power to the people)

IA Trinity — Argus & Associates (from www.argus-acia.com)



#### **IA Job Titles**

- Information/Interaction Designer
- Interface Designer
- Information Scientist
- Usability Engineer
- User Experience Designer (UX)
- User Interaction/Interface Designer (UI)
- Customer Experience Designer
- Product Manager
- Product Designer
- Information Ecologist
- Market Researcher (and Marketing!)
- Content Manager
- Project Manager

#### Site Mapping — The Basics

#### Why:

- To see what we're building, its flow, its high-level complexity
- Helps with scoping—identifying all the pieces
- Identify groupings, organize them, find relationships

#### Who:

• Information Architect

#### Sponsor Considerations:

• Some people can't relate to maps ...

#### Page Wire Framing — The Basics

#### Why:

- The page-by-page details
- The devil comes out
- Content needs-e.g. instructional
- User Testing

#### Who:

• Information Architect

#### Sponsor Considerations:

- No design may=poor quality in their eyes
  - Walk though these with your sponsor!

#### Site Prototyping — The Basics

#### Why:

- Think wire frames for each page ... linked together
- User Testing

#### Who:

• Information Architect

#### Sponsor Considerations:

- HTML prototype can provide interactive experience
- Quality issue

#### Discount User Testing — The Basics

#### Why:

- This is the low-budget version of user testing, so you can test multiple times without a heavy financial burden
- To find the devil, through 'innocent' usage
- To put a site/application through real-world use

#### Who:

- Information Architect, User Testing Analyst, Receptionist
- Testers, Facilitator and Note Taker

#### **Sponsor Considerations:**

- Leverage quotes & results to make proactive changes
- Sometimes you're not doing it for them
- The most powerful tool in the IA tool belt
  - Watch out for leveraging users wrongly

#### **Discount User Testing**

#### Identify your Audience:

- How broad will your users be? i.e. their experience/exposure?
- Who can be appropriately tested?
- These groups should have been identified in your personas and should be known for any business endeavor

#### Getting your users:

- Friends & Family
- Targeted users—with domain expertise
- Using a marketing firm
- Screening questionnaire ("Do you use a PC?")
- Company privacy policies

#### **Discount User Testing**

#### Valuing their time:

- Keep the testing to 45 minutes 1 hour
   (this depends ... on complexity of your site/app)
- Always thank them for their time!

#### Paying your users:

- Stipend (\$50-100—depends on their expertise)
- Joanie loves chochkies

#### **Discount User Testing**

#### Defining the test:

- Defining what you want to test
  - Transitions
  - User comfort level (privacy, security, time commitment\*)
  - Task-based—or not
- Scenarios
  - "You are a customer wanting to return a product you just bought ..."
  - Guidance for non-domain specific users

Analyst: Interactive v. Observational

User: Focused v. Organic

### **Discount User Testing**

#### Preparation:

- Paper Prototype—'Wizard of Oz' testing
  - Ability to describe missing pages
- HTML Prototype
  - Make sure you delete browser history
  - Blank screen when you first meet with user

#### Video Taping?

- Prepare Note Taker—make sure they're unobtrusive & type quietly (fully charged laptop ... plugged in)
- It's about the comfort of your users
- It's good to run a couple test tests ...
  - Try out Pacing, Timing
  - Getting to the info you're really after (the good stuff—info you want)

#### **Discount User Testing**

#### Beginning the test:

- Users sign in with Receptionist, fill out survey
- Be welcoming—It's about comfort!
- NDA
- Good to have a script for introduction—for consistency
  - Introduction to the project, their value to it
  - We're not testing you—we're testing the site/app
  - Provide a Scenario or Task-or not
- Please keep on telling us what you're thinking

#### **Discount User Testing**

#### Running the test:

- Initial impressions of the site/app
  - What do you think this site does?
  - What grabs your attention first?
- Ask questions throughout
- You may need to elaborate on language or terms used
- Answer questions from the user when they get stuck
  - -but don't drive them
- If multiple scenarios/tasks, make sure to watch the clock
- May use some of your time for more focused questions
  - What do you think is behind this link?
  - Do you feel confident in the level of privacy or security of this site/app?

#### **Discount User Testing**

#### After each test:

- Discuss with your Note Taker
- Brainstorm some solutions
- Identify roadblocks in actual testing—ways to avoid lengthy testing glitches

#### Receptionist:

- Exit survey for each user
- Payment to user

#### **Discount User Testing**

#### After the test:

- Discuss with your Note Taker
- Brainstorm appropriate solutions
- Consider influential quotes from users
- Report depth depends on your audience
  - Do you have to show this to your project sponsor?
  - Always present to all team members
  - Executive summary format can be good

#### Recommended Books

- Art of Human-Computer Interface Design, The Brenda Laurel. Addison-Wesley. 1990.
- Designing Web Usability: The Practice of Simplicity Jakob Nielsen. New Riders Publishing. 2000.
- Don't Make Me Think! Steve Krug. New Riders Publishing. 2000.
- Envisioning Information Edward Tufte. Graphics Press. 1990.
- Information Architecture
   Lou Rosenfeld and Peter Morville. O'Reilly & Associates. 1998.
- Information Design
  Robert Jacobson, Ed. MIT Press. 1999.
- Information Seeking in Electronic Environments Gary Marchionini. Cambridge University Press. 1995.
- The Inmates are Running the Asylum Alan Cooper. Macmillan. 1999.

#### Recommended Books Cont'd

- Secrets of Successful Web Sites
  David Siegel. Hayden Books. 1997.
- Visual Explanations
   Edward Tufte. Graphics Press. 1997.
- Web Navigation: Designing the User Experience Jennifer Fleming. O'Reilly & Associates. 1998.
- Webworks: Navigation Ken Coupland, Ed. Rockport Press. 2000.