Web Design Process & Patterns

Slides from:
James Landay

Hall of Fame or Hall of Shame?

In Other News:
- US confident it can work with new Iranian leader
- Terrorist killed in New-York crash in California
- French F104 pilot survives part in crash with All Blacks

- Two sections of pages from cnn.com
- Ignore the fuzziness... that is my screen capture

Outline

- Web design process
- Motivation for design patterns
- Web design patterns
- Home page pattern

Web Design Process

Web Design Process & Patterns

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Web Design Process
Design Process:

**Discovery**
- Assess needs
  - understand client’s expectations
  - determine scope of project
  - characteristics of users
  - evaluate existing site and/or competition

**Design Exploration**
- Generate multiple designs
  - visualize solutions to discovered issues
  - information & navigation design
  - early graphic design
  - select one design for development

**Design Refinement**
- Develop the design
  - increasing level of detail
  - heavy emphasis on graphic design
  - iterate on design

**Production**
- Prepare design for handoff
  - create final deliverable
  - specifications, guidelines, and prototypes
  - as much detail as possible

Design Specialties
- Information Architecture
  - encompasses information & navigation design
- User Interface Design
  - also includes testing & evaluation

Artifacts of Design Practice
- Designers create representations of sites at multiple levels of detail
- Web sites are iteratively refined at all levels of detail
  - Site Maps
  - Storyboards
  - Schematics
  - Mock-ups
Site Maps
- High-level, coarse-grained view of entire site

Storyboards
- Interaction sequence, minimal page level detail

Schematics
- Page structure with respect to information & navigation

Mock-ups
- High-fidelity, precise representation of page

How can we Codify Design Knowledge?
- Design Patterns!
- Patterns reflect
  - what designers create
  - what users do on the web across sites
- Web design patterns emerge from how we interact with the world around us

Motivation for Design Patterns
- Most examples from UI literature are critiques
  - Norman, Nielsen, etc.
- Design is about finding solutions
- Unfortunately, designers often reinvent
  - hard to know how things were done before
  - hard to reuse specific solutions
- Design patterns are a solution
  - reuse existing knowledge of what works well
Design Patterns

- First used in architecture [Alexander]
- Communicate design problems & solutions
  - how big doors should be & where...
  - how to create a beer garden where people socialize...
  - how to use handles (remember Norman)...
- Not too general & not too specific
  - use solution "a million times over, without ever doing it the same way twice"

Example from Alexander: Night Life

- Knit together shops, amusements, and services which are open at night, along with hotels, bars, and all-night diners to form centers of night life: well-lit, safe, and lively places that increase the intensity of pedestrian activity at night by drawing all the people who are out at night to the same few spots in the town. Encourage these evening centers to distribute themselves evenly across the town.

Example from Alexander: Beer Hall

- Somewhere in the community at least one big place where a few hundred people can gather, with beer and wine, meals, and perhaps a ball-dance activities, so that people are continually circulating from one to another.

Example from Alexander: Alcoves

- Make small places at the edge of any common room, usually no more than 6 feet wide and 3 to 6 feet deep and possibly much smaller. These alcoves should be large enough for two people to sit, chat, eat, play and sometimes large enough to contain a desk or a table.

Design Patterns

- Next used in software engineering [Gamma, et al.]
  - communicate design problems & solutions
    - Proxy
      - surrogate for another object to control access to it
    - Observer
      - when one object changes state, its dependents are notified

Design Patterns

- We can do the same for Web Design
  - communicate design problems & solutions
    - how can on-line shoppers keep track of purchases?
      - use the idea of shopping in physical stores with carts
    - how do we communicate new links to customers?
      - blue underlined links are the standard -> use them
  - Leverage people’s usage habits on/off-line
    - if Yahoo does things a way that works well, use it
Web Design Patterns Book

- *The Design of Sites*, by Doug van Duyne, James Landay, & Jason Hong
- Patterns broken into groups
  - site genres
  - navigational framework
  - homepages
  - writing & managing content
  - basic e-commerce
  - advanced e-commerce
  - trust & credibility
  - completing tasks
  - page layouts
  - site search
  - navigation
  - fast sites

Pattern Format

1. Pattern Title
2. Background Information
3. Problem Statement
   - forces
4. Solution
5. Solution Sketch
6. Other Patterns to Consider

HOMEPAGE PORTAL (C1)

- Problem
  - Without a compelling home page (HP), no one will ever go on to the rest of your site.
  - Surveys show millions of visitors leave after HP.
  - Most will never come back -> lost sales, etc.

HOMEPAGE PORTAL (C1) Design Rules

- Breadth on left
- Highlights articles of general interest in center & right
- Links distinguished
- Subsections further down show more detail in particular areas

Six Ways to Make a Good Homepage

- Make a positive first impression by testing
  - Uses DESCRIPTIVE, LONGER LINK NAMES (K9) and FAMILIAR LANGUAGE (K11)
  - Understanding customers
    - Who are they? Contextual inquiry & surveys
    - Appropriate colors & graphics?
    - Neon green & screaming graphics on a skateboarding site, but not on a business-to-business or health site
Six Ways to Make a Good Homepage

- Focus on a single item of interest
  - create a CLEAR FIRST READ (I3)
  - draw the eye to a single graphical item
  - make it clean & larger than rest on the page
  - cut down remaining elements to chosen few

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Six Ways to Make a Good Homepage

- Build your site brand
  - present the message of what your company does
    - include
      - UP-FRONT VALUE PROPOSITION (C2) • promise to visitors
      - links to PRIVACY POLICY (E4) to show you are trustworthy

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Six Ways to Make a Good Homepage

- Lure visitors to return
  - keep it updated so there is a reason to come back
  - by seducing with text
    - you have only seconds • lively, sparkling, precise

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Six Ways to Make a Good Homepage

- Make it download quickly (2-3 seconds)
  - if not, they’ll go elsewhere

Strategies

- use HTML POWER (L4) (text) as much as possible
  - first thing to download
  - images take 10 server-browser communications
  - choose low bandwidth images with small graphics
  - use min. number of columns & sections in a GRID LAYOUT (I1)
  - easy to scan

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Six Ways to Make a Good Homepage

- Make it download quickly (2-3 seconds)
  - if not, they'll go elsewhere. Which have you left due to slowness?

Summary

- Design patterns allow us to reuse?
  - design knowledge
- Previously used in?
  - architecture & S/E
- Web design patterns are new & evolving
  - example: Homepage
    - problem
      - if it isn't compelling, they won't return
    - solutions
      - make a positive first impression
      - focus on a single item
      - build your site brand
      - make navigation easy
      - lure visitors to return
      - make it download fast