Hall of Fame or Shame?

Direct translations
- software telephony solution where users dial a number by clicking on a simulated keypad
- airline web site that simulates a ticket counter

Misused Metaphors!

Hall of Shame!

Improved southwest.com

Hall of Fame/Shame!

Great at opening up gaming to a wider audience but...

- the main thing that differentiated the product (movement in gaming) resulted in it being thrown at windows/TVs
- slippery plastic hard to hold onto. Later designs added rubber case & strap
- lack of a joystick was initial problem resulting in a second controller
Design Patterns

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Outline

- Detailed Design Example
- Web Design Patterns
- Team Break

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dt+UX: Design Thinking for User Experience Design, Prototyping & Evaluation
Basic Web Design

• Let’s take a closer look page by page

What site is this?
- Logo in top-left corner denotes the site
- Another name/logo at top-right to reinforce
- examples of SITE BRANDING (E1)
What kind of site is this?
- Shopping cart icon
- Tab row categories & content on left
- UP-FRONT VALUE PROPOSITION (C2)
- Changes from past version – no prices!
- Example of PERSONAL E-COMMERCE (A1)

What can I do here?
- Sell your stuff
- Tab row / Search on top
- Click on books
- Not great examples of OBVIOUS LINKS (K10)

What site am I at?
- Logo in upper-left reinforces brand, can click to go home
- Same font, layout, color scheme also reinforces
- Examples of SITE BRANDING (E1)
- Prices emphasize I can buy
- Example of PERSONAL E-COMMERCE (A1)

Where am I in the site?
- "Home > Books" is LOCATION BREAD CRUMBS (K6)
- "Books" selected in TAB ROW (K3) & SEARCH ACTION MODULE (J1)
- Book cover, "Product Info", ... are additional cues
Can I trust these sellers?
- Who am I buying from?
- Are they reputable?
  - aside: what do stars mean?
- What about shipping?
  - used to show total price!

The Fold
- Hmm, what’s below here?

• What site am I at?
  - Logo in upper-left
  - Colors, layout, font
  - examples of SITE BRANDING (E1)

• Where am I in the site?
  - Last button clicked was “Add to cart”
  - “Shopping Cart” and “Proceed to Checkout” reinforce that this is “the right page”
• Cross-selling
  – Possibly a pleasant surprise
  – Impulse buy
  – CROSS-SELLING & UP-SELLING (G2)

• What am I going to buy?
  – Easy to remove
  – Easy to move to save for later
• How much will it cost?
  – Shipping costs there, no surprises
• SHOPPING CART (F3)

What can I do (they want me to do)?
  – “Proceed to Checkout”
    HIGH VISIBILITY ACTION BUTTON (K5)
    – visually distinct
    – 3D, looks clickable
    – large
    – used to be repeated above and below the fold

• What if I don’t have a User ID?
• What if I forgot my password?
• SIGN-IN/NEW ACCOUNT (H2)
• What site?
  – Logo, layout, color, fonts
• Where in site?
  – Checkout, step 1 of 3
  – “Choose a shipping address”
  – QUICK-FLOW CHECKOUT (F1)

• Note what’s different (?)
  – No tab rows
  – No impulse buys
  – Only navigation on page takes you to next step
• This is a PROCESS FUNNEL (H1)
  – Extraneous info and links removed to focus customers

• Last step of process
  – Step 3, “Place Order”
  – “Place my order” button
• TWO HIGH-VISIBILITY ACTION BUTTONS (K5) for fold

• No nasty surprises
  – Can see order
  – Total price is same as shopping cart
  – ORDER SUMMARY (F7)

• Easy to change shipping and billing
Design = Solutions

- Design is about finding solutions
- Unfortunately, designers often reinvent
  - Hard to know how things were done before
  - Why things were done a certain way
  - How to reuse solutions

Design Patterns

- Design patterns communicate common design problems and solutions
  - First used in architecture [Alexander]
  - Ex. How to create a beer hall where people socialize?

Using Design Patterns

- Not too general and not too specific
  - use a solution “a million times over, without ever doing it the same way twice”
- Design patterns are a shared language
  - for “building and planning towns, neighborhoods, houses, gardens, & rooms.”
  - Ex. Beer hall is part of a center for public life…
  - Ex. Beer hall needs spaces for groups to be alone… ALCOVES

A Web of Design Patterns

- Now used in UI design
- Communicate design problems & solutions
  - how to create navigation bars for finding relevant content…
  - how to create a shopping cart that supports check out…
  - how to make e-commerce sites where people return & buy…

Web Design Patterns

- The Fire
- Mosaic of Subcultures
- Promenade
- Night Life
- Beer Hall
- Building Complex
- ALCOVES
- The Fire
**NAVIGATION BAR (K2)**

Problem: Customers need a structured, organized way of finding the most important parts of your Web site.

![Diagram of a navigation bar with links to different sections of a website.](image)

**Solution diagram**

- captures essence on how to solve problem

![Solution diagram showing first-level and second-level navigation.](image)

**Pattern Groups**

Our patterns organized by group:

- Site genres
- Navigational framework
- Home page
- Content management
- Trust and credibility
- Basic ecommerce
- Advanced ecommerce
- Completing tasks
- Page layouts
- Search
- Page-level navigation
- Speed
- The mobile web

**PROCESS FUNNEL (H1)**

Problem: Need a way to help people complete highly specific stepwise tasks

- Ex. Create a new account
- Ex. Fill out survey forms
- Ex. Check out

![Diagram of a process funnel showing steps in a user journey.](image)

**What’s different?**

- No tab rows
- No impulse buys
- Only navigation on page takes you to next step

**What’s the same?**

- Logo, layout, color, fonts
PROCESS FUNNEL (H1)

Problem: What if users need extra help?

CONTEXT-SENSITIVE HELP (H8)

FLOATING WINDOWS (H6)

FLOATING WINDOWS (H6)

PROCESS FUNNEL (H1)

Solution Diagram
**Patterns Support Creativity**

- Patterns come from successful examples
  - sites that are so successful that lots of users are familiar with their paradigms (e.g., Google, Amazon, Yahoo, Facebook...)
  - interaction techniques/metaphors that work well across many sites (e.g., shopping carts)
- Not too general & not too specific
  - you need to specialize to your needs
- Patterns let you focus on the hard, unique problems to your design situation
  - every real design will have many of these

**Patterns Offer the Best of Principles, Guidelines & Templates**

- Patterns help you get the details right, without over-constraining your solution
  - unlike principles, patterns not too general, so can see how to apply to your situation
  - unlike guidelines, patterns discuss tradeoffs, show good examples & tie to other patterns
  - unlike style guides, patterns not too specific, so can still be specialized
  - unlike page templates, patterns illustrate flows among different pages
- Patterns can serve as documentation for team-oriented environments

**Format of Web Design Patterns**

- Pattern Name and Number
- Exemplar
- Background
- Problem
- Forces
- Solution
- Solution Diagram
- Related Patterns
Patterns in Exploration Phase

- Use Exploration-level patterns to design overall structure
  - different choices will give radically different designs
- For example, how to organize information
  - HIERARCHICAL ORGANIZATION (B3)
  - TASK-BASED ORGANIZATION (B4)
  - ALPHABETICAL ORGANIZATION (B5)
  - ...

Design Exploration Example

- John given the task of designing a new subsite for showing maps to businesses
  - listings found by typing in address
  - key feature: show nearby businesses
- John comes up with two design sketches
  - Design #1 uses ALPHABETICAL ORGANIZATION (B5) for list of all nearby businesses
  - Design #2 uses TASK-BASED ORGANIZATION (B4) for list of related nearby businesses

Design #1
ALPHABETICAL ORGANIZATION (B5)

Design #2
TASK-BASED ORGANIZATION (B4)
Evaluating Which Design to Choose

- **Low-fidelity Usability Test**
  - sketches the rest of the key screens on paper
  - brings in 5 participants to his office
  - asks each to carry out 3 tasks while John’s colleague Sam “plays computer”
  - John observes how they perform

- **Tasks**
  1) look up 1645 Solano Ave., Berkeley CA
  2) look up 1700 California Ave, San Francisco CA & find Tadich Grill
  3) look up 2106 55th St, Seattle WA & find a Sushi restaurant nearby

Evaluating Which Design to Choose

- **Results with Design #1 (Alphabetical)**
  1) Task 1: look up 1645 Solano Ave
     - no difficulties encountered
     - warm-up task!
  2) Task 2: look up 1700 California & find Tadich Grill
     - several users didn’t notice that the list of nearby businesses was scrollable (due to paper affordances?)
     - those that scrolled took awhile to find in list of over 500
  3) Task 3: look up 2106 55th St & find nearby Sushi restaurant
     - 3 users only picked restaurants that had “restaurant” in the name & thus couldn’t find “Kisaku”

Evaluating Which Design to Choose

- **Results with Design #2 (Task-based)**
  1) Task 1: look up 1645 Solano Ave
     - no difficulties encountered – warm-up task!
  2) Task 2: look up 1700 California & find Tadich Grill
     - 1 user took awhile to figure out that Tadich Grill was a restaurant & to click on the “Restaurants” link
     - all others found it in 2 clicks (Restaurants>Tadich Grill)
  3) Task 3: look up 2106 55th St & find nearby Sushi restaurant
     - 3 found “Kisaku” in 2 clicks
     - 2 others asked for a listing of Japanese restaurants

Evaluating Which Design to Choose

- **General comments**
  - 2 users said they often want to email/SMS maps to friends who they will be meeting (task-based)
  - 3 users wanted driving directions (task-based)

→ TASK-BASED ORGANIZATION (B4) worked better, but still had some minor problems

Design #2 – Revision 1

Adding More Related Tasks

Design #2 – Revision 2

Adding HIERARCHICAL ORGANIZATION (B3) & LOCATION BREAD CRUMBS (K6)
Design #2 – Revision 3 Hi-Fi Prototype

Adding SEARCH ACTION MODULE (J1)

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administration

• Project Questions?
• Project Fair Questions?
• Exam should be graded by Wed.

Summary

- Lots of issues involved in designing compelling, usable websites
- Design patterns are one way of capturing good design knowledge
  - generative (help you create new designs)
  - consider trade-offs
  - concrete examples of successful uses
  - a networked language that works together

Further Reading

Books on Web Design

- Information Architecture for the Web and Beyond. Louis Rosenfeld, Peter Morville, Jorge Arango. O’Reilly. 4th edition. 2015

Further Reading

Websites on Web Design

- UsableWeb.com, links to other usability sites
- Usability.gov, for building accessible websites & more
- User Interface Engineering, at http://www.uie.com
- Mark Hurst’s creativegood.com
- Jakob Nielsen’s www.nngroup.com

Next Time

- Wed
  – Team Work on Project
TEAM BREAK
(30 MINUTES)
FINISH WEB SITES
OR
WORK ON MIDWAY MILESTONE
PRESENTATIONS