Learning, Design, & Technology Website

ED147 Product Redesign
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Topic Definition

• Learning Product
  – Learning, Design, and Technology program website

• Goals
  – Redesign the site using learning-centered design principles
  – Produce a site that serves all of its constituencies and provides them with a sense that they have learned what they sought to know
Redesign Process

1. Define the Purpose of the Product
2. Profile Learners and Their Needs Through Interviews
3. Evaluate of Current Product Using House of Quality Analysis
4. Create Prototypes
5. Perform Task Analysis Against Prototype
Define the Current Site
Product Purpose

• Primary Purposes
  – Serve as a repository of students’ work
  – Provide resources for prospective students to learn about the program
  – Facilitate networking

• Possible Purposes
  – Showcase work
  – Offer resources for current students
User Profiles

• Shruti, a current student, likes small things (except when it comes to diamonds) and has a background in bioengineering. She has one very broad need:
  – A source of ideas for classes, research topics, projects, and career options

• Sam, the prospective student, works for a computer company, but she dreams of going back to school to get her Master’s degree. She needs:
  – Information about the program and Stanford
  – Resources to explore her interests in Learning Technologies

• Paula, the alumnus, graduated from the LDT program last year and is pursuing her PhD at Stanford. She needs:
  – Contact information for her cohort
  – A convenient portal to her portfolio

• Decker, a faculty member, is lord and master of the LDT kingdom. Although he is omniscient, he needs:
  – Current, updated information about projects, studies, resources, and people that he can use when advising current (and prospective) students about how to pursue their interests

• All of these users are computer-literate and have come to the site seeking some particular bit of information.
Evaluate the Current Product
Interviews: Prospective Students

- Can find information on the site, but have no idea what information is deeper in the hierarchy because of poor organization
- Dislike lack of deep information about the program
- Are put off by the outdated design
- Would like to know more about particular areas of interest
- Said it’s one of the better sites for similar programs
Interviews: Current Students

- Find little use for the website, except for infrequent inquiries into projects or people recommended by faculty.
- Sometimes use the website to network with alumni in their job hunting, but don’t know where most are now.
- Feel that the website “has no personality” and does not represent the design aspects of the program.

“The ‘What’s New’ page has never had any content”.

“There’s no ‘Resources’ under ‘Resources’”.

“I’m not interested in having it as a portal to my portfolio because of the lack of design”.

“The title image makes me think of classic design”.

“The program page should sound like…something I want to be a part of and it’s OK”.
Interviews: Alumni

- Can successfully locate information about current students
- Do not use the site to network because information is not current

“It’s an ambiguous degree that needs definition”
“It’s hard to find out about current students and their interests”
“I use it to look up people, but not as a portal to my own work”
“Careers and internships… should have ties to industry”
“It doesn’t feel good”
Interviews: Faculty

• Can successfully locate information about past work to advise current students
Common Complaints

• Nothing new or dynamic
• Not a forum for anything else
• Doesn’t serve any purpose for current students or alumni
• No personality; does not represent the program
# House of Quality Analysis

<table>
<thead>
<tr>
<th>Needs</th>
<th>Features</th>
<th>Student Archives</th>
<th>Program Info</th>
<th>Student Profiles</th>
<th>Contact Info</th>
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<tbody>
<tr>
<td><strong>Current Students</strong></td>
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<td>Repository of Work</td>
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<td>Source of Ideas</td>
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<td>Resource for Research, Careers, and Fun</td>
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<td>Networking Tool</td>
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<td><strong>Prospective Students</strong></td>
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<td>Information About Program</td>
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<td>Resource for Exploration of Interests</td>
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<td>Networking Tool</td>
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<td><strong>Alumni</strong></td>
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<td>Networking Tool</td>
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<td>Portal to Repository of Work</td>
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<td><strong>Faculty</strong></td>
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<td>Information About Current Research</td>
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<tr>
<td>Information About Past Work</td>
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Conclusions

• The main problems with the current website are that it lacks definition, organization, sufficient content, and facilitated learning

• All learners experience problems with broken links, circular references, and missing resources

• Some needs are met well (repository); many are only met adequately (networking, program information, sources of ideas)
Design and Create Prototypes
• Principle: look and feel, if pleasurable, can make the site feel more usable and can compensate for real shortcomings in usability

• Design Solution: we strived for a sense of:
  – Modernity to convey connection to current technologies
  – Sophistication to convey focus on design
  – Academic Inquiry to impart educational focus
  – (for an overall feeling of) Credibility
• Principle: early focus on users and tasks, empirical measurement, and iterative design should be the driving force behind development

• Design Solution: we involved the users at every step; we showed solutions as often as possible
• Principle: users can be active participants in the design process

• Solution: we asked users to help design the site; we brainstormed with current students and alumni for possible features; we served the dual roles of both designers and users
Redesign Constraint: Maintenance

• Issues:
  – Maintained by its own students, who have little time to spend on it
  – Passes from one web master to the next each year

• Resulting Constraints:
  – Design must be scalable, must be easy to update, and requires infrequent attention
Design Alternatives

• Blue Sky
  – Portal to Everything Related to Learning Sciences
  – *Hyperbolic Interface* with Schools and Research Institutions as Nodes
  – Award-Winning

• Cutting Edge
  – Examples and Tutorials for Learning Technologies
  – Prototypes of New Learning Technologies
  – Newsfeeds and Calendar Events
  – Dynamic Content
  – Aesthetically *Super Snazzy*: Animation, Sound, Video

• Timeless
  – Wealth of Static Information: Readings, Research Sources, Application Information
  – User Control of Content: Blog/Wiki
  – Organization of Information by Area of Interest
  – Low Maintenance Aesthetic: Style Sheets, Clean and Simple
Prototype
Evaluation

Task analysis available in Appendix A
Evaluation Results: Approval

- Navigation bar and clear organization
- Categorization of people/projects by area of interest
- Possibility that blog might reduce email traffic
- Compendium of resources offered by blog
- Fun links to Stanford and Bay Area culture
Evaluation Results: Dislikes

- All blog posts available to the public
- Blog on the front page (wanted it deeper)
Evaluation Results: Wants

• Content
  – Elevator pitch description of program
    • Prospective students
    • Employers
  – Calendar of events, recommended speakers, etc.
  – Public and private posts to blog
  – More sample schedules and examples of diversity
  – Sample projects and papers with faculty feedback
  – More examples of career options

• Design
  – Improved aesthetic design

• Networking
  – List of alumni willing to be contacted
Final Design
Final Design Elements: Aesthetic Design

- Modular Design
  - Flash/JavaScript
  - Navigation Elements and Framesets
  - Cascading Style Sheets
  - Clean, Simple Content Pages

- Examples:
  - Emily Carr Institute
  - Portfolio of Paula Wellings
Final Design Elements: Blog Engine

- Introduces User-Controlled Content
  - Allows users to update information
  - Tags information with author names and dates

- Eases Creation and Maintenance of Resources

- Makes Use of Site License for Movable Type maintained by Stanford
  - Comes with easy-to-follow instructions
  - Includes technical support
Final Design Elements: Categorization/Tagging of Content

- Enhances resources by allowing filtering
- Three fields of classification:
  - Type of content (event, course offering, announcement, book, article, etc)
  - Area of Interest (K-12, Higher Ed, Lifelong Learning, Informal Learning, etc)
  - Public or private
Conclusions

• Current site meets primary needs of its constituents, but only barely
• Maintenance issues prevent constant curating
• Responsibility for content generation and maintenance can be moved to community via blog engine
• Users desire improvements to look-and-feel
  – Showcase for program and portfolios
  – Brochure for prospective students and employers

• Users want and can have a site that truly represents the program
Appendix A: Task Analysis

• **Shruti, the current student**, was asked to do the following:
  – Find one course taken by a past student that she did not know about and would like to take
  – Research previous Master’s projects; find one that involves K-12
  – Contact an alumnus that might be able to help her with a current project
  – Use the site to generate one idea for future career plans

• **Sam, the prospective student**, was asked to:
  – Find the deadline for application to the 2006 cohort
  – Find a professor that has a project or published work that matches his interests
  – Find out who is in charge of the program
  – Find a class that fascinates him
  – Research a career option taken by a graduate of the program that he would never pursue

• **Paula, the alumnus**, was asked to perform the following tasks:
  – Access her previous work (to show it to someone else)
  – Contact a member of her cohort
  – Look at current students’ work
  – Contact a current student with similar interests to her own
Appendix B: Ideas: Hyperbolic Interface

• Hyperbolic Tree Interface
  – Shows nodes (such as schools or search topics) and their relation to others
  – Pioneered by PARC
Appendix B: Ideas: Blog/Wiki

- **Blog/Wiki Engine**
  - Allows registered users to update pages
  - Includes categorization and search tools
  - Mitigates maintenance issue by allowing users to update their own content
  - Could reduce lack of up-to-date resources