NeuroWeb Redesign
Project Plan

Dave McColgin
Laboratory for Neuroengineering
July 23, 2004
## Schedule Overview

<table>
<thead>
<tr>
<th>Date</th>
<th>Notes</th>
<th>Deliverables</th>
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<tbody>
<tr>
<td><strong>PHASE 1</strong></td>
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<tr>
<td>May 14 - July 23</td>
<td>develop and deploy client [faculty] survey</td>
<td>Project Plan includes: overview, creative brief, schedule, user analysis and technical capabilities, details and assumptions</td>
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<tr>
<td></td>
<td>organize, homogenize Sharon's directories</td>
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<tr>
<td></td>
<td>technically analyze current site</td>
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<td></td>
<td>informal user testing</td>
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<td>mining web trends: users, paths, tasks</td>
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<tr>
<td></td>
<td>user analysis</td>
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<tr>
<td></td>
<td>competitive analysis (other labs)</td>
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<td></td>
<td>generate personas and scenarios</td>
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<td></td>
<td>develop creative brief</td>
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<td>develop schedule for main efforts (phases 2-5 below)</td>
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<td></td>
<td>develop project plan</td>
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<tr>
<td><strong>SIGN OFF</strong></td>
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<td><strong>PHASE 2</strong></td>
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<tr>
<td>July 23 - 26</td>
<td>Revisit, revise top-level navigation on NeuroLab main site</td>
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<tr>
<td>July 26 - 30</td>
<td>Creation of comprehensive new site map</td>
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<td>July 31 - Aug 14</td>
<td>Wireframing of 3-7 designs: main neuro, main group, other neuro, research group for each wireframe concept</td>
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<td>Aug 15 - 17</td>
<td>Revisit key user tasks of each persona developed in Phase 1. Step through tasks with Bryan to revise wireframes.</td>
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<td>Aug 17 - 19</td>
<td>Informal heuristic analysis</td>
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<td><strong>PHASE 3</strong></td>
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<tr>
<td>Aug 20 - 23</td>
<td>Pick 3 wireframe concepts</td>
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<td>Aug 24 - Sept 3</td>
<td>Begin developing color palettes, graphic design, imagery, layout</td>
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<td>Sept 4 - 17</td>
<td>Show designs to faculty, get feedback, and choose one (iterate up to 3 times with chosen design)</td>
<td>3 fleshed-out, black &amp; white wireframes</td>
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<td><strong>SIGN OFF</strong></td>
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<tr>
<td>Sept 18 - 25</td>
<td>Create graphic templates (main neuro, main group, other neuro, research group)</td>
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<td>Sept 26 - Oct 6</td>
<td>Develop CSS and formatting sets, translate to HTML templates</td>
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<td><strong>PHASE 4</strong></td>
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<td>Oct 7 - Nov 4</td>
<td>Production! Finalize functional templates, transfer all of NeuroLab into new format</td>
<td>Functional beta site, not public</td>
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<td><strong>SIGN OFF</strong></td>
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<td><strong>PHASE 5</strong></td>
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<td>Nov 5 - Nov 7</td>
<td>Develop announcement plan</td>
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<td>Nov 8 - 15</td>
<td>Finalize all pages, launch site</td>
<td>Redesigned NeuroWeb</td>
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**Budget Breakdown**

All software necessary is already available. Additional personnel could be recruited on an hourly contract basis in order to speed up the most time-consuming tasks, such as converting old pages into the chosen format. While not necessary, it is at the discretion of the faculty.
Project Summary

Administratively, the Laboratory for Neuroengineering (NeuroLab) is comprised of four departments: two engineering programs at Georgia Tech, the neuroscience program at Emory, and a joint biomedical engineering program. While most of its members come from these or similar backgrounds, the lab’s interdisciplinary work includes people with a variety of other skill sets. NeuroLab stands out from similar laboratories with its unusual strength in engineering and its integration with science. It is also rare for labs of comparable size to have as many as seven primary investigators working together. These relationships should be clear in the web site. Cutting edge technology is both a goal and a tool of research in NeuroLab, and should be highlighted in their online presence. Overall, the lab’s energy and ambition should come across in the design, but should be backed up with the rigorous research that keeps them at the top of their field.

Much progress has been made in new and updated content generation using a format that, while functional, seems too rigid and template-like to represent NeuroLab well. The redesign was initiated for aesthetic changes. Thus, the primary goal is to generate a global look and feel that reflects NeuroLab’s outstanding qualities and encourages visitors to dig deeper into the site’s resources.
Creative Brief

Target Audience

NeuroWeb’s typical visitors are described in detail in the User Analysis. They include Colleagues, Prospective students/staff, Press, Internal users (faculty, staff, students), and reviewers (funding institutions, administration).

Perception/Tone/Guidelines

1. Young: energetic, ambitious, tech-savvy, cool, broad-minded
2. Integrated: cohesive, collaborative, successful, rigorous
3. Elegant: clean, friendly, modern, understated, easy to navigate and find information
4. High level pages and content should be conversational
5. Project-specific pages and papers should use appropriate technical language and format

Communication Strategy

The most important content is the description of research with images. There are also personnel lists and contact information, links to related resources, access to original publications, application and class resources, and internal laboratory resources. The redesign will deal with global changes to look and feel. As before the redesign, additional content must be added on demand, meaning the design must be extensible.

Competitive Positioning

If the web site reflects the cooperation of seven labs under seven primary investigators in NeuroLab, it will already stand out from similar labs. Supporting content that highlights cutting edge technologies and demonstrating the integration of science and engineering will further distinguish the web site. Much of the required content is already present, and only needs a complementary look.

Single-Minded Message: Cutting-edge, interdisciplinary research
User Analysis

Dominant Groups. Subjective data indicate 5 main user groups: Colleagues, Prospective students/staff, Press, Internal users (faculty, staff, students), and reviewers (funding institutions, administration). Unfortunately, it is impossible to determine the individual computer resources and abilities of each group. However, all groups can be assumed to have college education and above average computer and internet experience due to their occupations.

- 25% of all hits come from the Georgia Tech domain, whereas just over 1% comes from the Emory domain.
- 80% of hits come from the US, and Japan, the Netherlands, and Canada provide the largest numbers amongst the other 19 countries.
- A large number of hits come from Reston, VA and Redmond, WA. It’s possible that there are web crawlers based in these cities.

Browser Analysis. 75% of visitors use MS Internet Explorer. 20% use Netscape or Netscape-compatibles, such as Mozilla. WebTrends could identify less than half a percent that use Opera, and did not (could not?) identify any Safari users.

OS Analysis. 65% of hits were from windows machines. 4% were from Macs. WebTrends could not identify 28% of OSs, and I believe these may be OSX boxes. It’s possible, but less likely, that they are XP boxes, as they are not explicitly listed either. I believe that XP boxes may be included in “Windows 2000” counts. 4% of hits were from SunOS and Linux combined. It is unknown whether WebTrends accounts for mobile devices, but it does not report any explicitly. Also, some ‘bots’ or web crawling programs are detected and excluded, but others are not excluded.

Usage Trends. Over 50% of users only view one page. It is possible that they were simply investigating a search result, knew and went directly to the sole page they needed, or happened to find the information they needed on their entry page. However, it’s also likely that at least some of them are not guided to the information they are interested in.

508 Compliance. Between 7-15% of all internet users had a disability as of 2001, and the number of disabled users was increasing at four times the rate of non-disabled users. The number of NeuroWeb visitors with disabilities is unknown, but as a part of a state institution and with funding from the federal government, NeuroLab is required by law to comply with section 508 of the Rehabilitation Act, appended in 1998. Summaries and detailed information is available at http://www.section508.gov. The webmaster has also obtained a companion to a course on accessible design based on Section 508 standards. Compliance includes consistent use of alt tags, synchronized captioning of all media, understandable plain text versions (e.g. if JavaScript, CSS, images were disabled), and much more.

Overview of Users and Tasks

Colleagues
These visitors are likely to be PhD researchers in industry, government, or academia with related interests. They can be considered savvy to the current language used on the site. No shared internet characteristics (browsers used, OS) can be assumed, but as a whole they have higher than average internet experience.

Likely tasks:
- Learn about Neuro Lab in general, including research and personnel
- Learn more about research of a specific known faculty member
- Learn more about any research related to their own

Prospective Members
Students/Post-docs
These visitors have a background in related studies, and likely with related research. Again, they share higher than average internet experience, but no other common internet characteristics should be assumed. They are savvy to the technical language used, but perhaps have experience in only one area of NeuroLab’s interdisciplinary research. While any of these groups may not have English as their first language, prospective members may be the most diverse group of visitors. Excellent English should not be assumed.

Likely tasks:
- Quickly find how to apply
- Easily find faculty with the most similar research interests
- Learn about NeuroLab’s structure, research, and personnel
- Learn about Tech as a workplace, Atlanta as a place to live

Prospective Staff
These visitors have the simplest tasks. They may be a disparate group, as hired positions vary from programming to engineering to managing. They may have distributed internet and computer experience.

Likely tasks:
- Quickly find open positions and submit application
- Learn about NeuroLab’s structure, research and personnel
- Learn about Tech as a workplace, Atlanta as a place to live

Internal users (faculty, staff, students)
Students are likely to use Windows or Sun machines in the lab. Other members use any of the major platforms. All can be assumed to have above average internet experience due to their education and university affiliation.

Likely tasks:
- Finding contact information for personnel
- Finding help or tutorials on purchasing and computer issues
- Contacting the web master with additions

*The next two groups may have limited experience with the specifics of research, and be interested in information on the lab in general, biographic information on researchers, and concise, non-technical overviews of the research methods and their potential impact.
Press

Journalists are likely to have above average internet skills, and probably use Mac or PC, but any number of browsers. They are unlikely to understand or look for detailed technical information.

 Likely tasks:
- Find contact information for researchers and their media contacts
- Find biographic information on researchers
- Find general information about NeuroLab’s structure and research
- Look for information specific to their reporting, perhaps a specific research project

Reviewers (funding institutions, administration)

Reviewers may share little in common in terms of internet experience and platforms/browsers. They share many tasks with the press.

 Likely tasks:
- Find contact information for researchers
- Find biographic information on researchers
- Find general information about NeuroLab’s structure and research
- Look for information specific to their funding or support, perhaps a specific research project

Recommendations.

- By designing a site that has no browser errors for IE back to version 5.x and Netscape version 4.x, we would ensure 99.75% of IE and NN users are accounted for
- Support in Opera and Safari should be ensured, as use of these browsers will likely grow in the future
- Index page: the navigation links at the top and those for faculty groups may need revision in placement and naming
- Differences between browsers on Windows and Mac boxes, plus significant usage from both on Neuroweb suggest that extensive testing should be done in as many OS and browsers as possible to ensure the look is consistent
- All information on Neuroweb should be fully accessible to Linux and Sun machines. So long as information is still accessible, the benefits of separating style and content with CSS outweigh differences in layout or aesthetics.
- Application instructions and navigation links should be clear and concise to facilitate non-native speakers. General audience text (laboratory and group intro pages, research overviews) should be in plain English.
- Applications for students and employees should be easy to find and submit
- Provide links to information on Atlanta, information on Tech as an employer
- Comply with the details and spirit of Section 508 standards to the extent possible.
Details and Assumptions

- This project includes design and layout for the NeuroWeb (NeuroLab and faculty group sites). It does not include student sites or the IGERT site.

- Pages that require faculty control of frequent updates will be located outside the neuro.gatech.edu domain, and will not share the official NeuroWeb look and feel. Associated NeuroWeb pages will link to them as appropriate.

- This project is scheduled and estimated for a 16-week turnaround, starting July 23rd and ending November 15th of 2004. Several factors may increase or decrease the production schedule (for example, late content, additional features requested later, or unusual amounts of content updates).

- Production of the site includes creation and optimization of all required images and layouts, and HTML and CSS coding for existing NeuroWeb pages. The redesign will require no scripting.

- The design chosen by the faculty will apply to each faculty group and to the main NeuroLab site. Variations in content will persist, but the format will be global, and deviations that make that break the continuity of the visitor’s experience will not be allowed.

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Dr. Bellamkonda Signature          Date
Dr. Butera Signature                 Date
Dr. DeWeerth Signature               Date
Dr. LaPlaca Signature                Date
Dr. Lee Signature                   Date
Dr. Potter Signature                 Date
Dr. Ting Signature                   Date

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