Team CookieCrumbs

Project Milestone 3

CGT 411
Contemporary Problems in Applied Computer Graphics

Purdue University

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Lafayette Instrument.

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Our progress for this class project since the start of this class from beginning to nearly complete. Between Milestone 1 and 2, we went from preparing the basics and researching to testing and analyzing data. Now, since Milestone 2, we have analyzed the results from our first round of testing, identified major UX problems based on those results, designed and created a low fidelity website with our proposed changes, and are now preparing for our second round of testing. This week we have already finished our second round with our professional participants with our low fidelity website model (Ref. Img. 1, 2). We plan to have our second round with novice users during week 14 (Ref. Img. 5). After that, we will be able to finalize our recommendations list for Jennifer, along with a high fidelity model of our suggested changes to the website.

From the feedback that was given to us by one of our participants, as well as Jennifer regarding information from Google Analytics, our target audience with the website itself is the younger generation. A point was made by a participant that older generation customers of Lafayette Instrument are more likely to call orders out of habit from the past or have someone younger at a lower position order online from the site. Prior to this feedback, our suggested changes help simplify the website for all ages. Older generation web users typically have a hard time separating information and images that are not relevant to their goal of visiting the website (Lukaitis, 2012). Also, our results from our round one of testing gave us a lot of insight on how users actually navigate the site.

First off, our eye tracking program provided us heat maps, displaying different areas of the website that users look at the most, or the longest. We learned that the navigation bar has too much clutter. Nearly every participant overlooked potential options of where to find the objective of their given task and spent much time rereading through the various options in each menu tab, some with success and some without success of finding the correct information. To be more specific, the “Support” and “Products” tab results will be broken down.

For the “Products” tab, the users focused mostly on the two center columns of the menu because of the type of font. The two columns to the most right and most left had all bolded font word, but the center two had bolded font words at the top of list and unbolded font words below it. We understood this as the users are drawn to what is different as potentially relevant information. Some looked over the most left and most right columns, but others spent less than a second to read those parts of the menu.

The “Support” tab had a layout just like the two center columns from the “Products” tab. Based on the heat maps, users did pay more attention to each column and spent more time glancing through the menu options compared to the “Products” tab. This supports our theory that the users interpret menus with a ‘topic’ and ‘subtopic’ options versus a list that has all ‘topic’ options below it more likely to be relevant information. To add to that, the information scent from the test showed us what users read on the screen and what that lead to based on their eyes, cursor, and clicks. That data showed that it was not clear to users what type of information they would find based on the names of the menu options and many were guessing where to find

information. This was indicated by quick clicks and skims then quickly going back to the menu to find another option.

These findings led us to simplify the website's menu and context. In our low fidelity model, we kept most of the tabs from the current website, but we changed the drop down menu to be a single column of options that would have a side sub menu drop down appear on the side depending on the option they were hovering over (Ref. Img. 4). The home tab in our model is a hover drop down that will allow the user to navigate between the home corporate page, Polygraph, Life Sciences, etc. (Ref. Img. 3). We also chose to rename, reorder, and reorganize menu options from the original website. In our second round of testing, participants quickly flew through the objective tasks, each taking about a minute or less. They told us it was significantly easier to navigate the website and guide oneself, and it would be easier to guide another customer via phone through the website with this layout to find information.

To help minimize clutter in the menu, we concluded that the "Contact Us" tabs and "About" tab should be removed from the menu and located elsewhere. We chose to layout the website similar to other popular websites, such as Amazon.com, because having a familiar design will allow more ease for the user's navigation. We moved the "Contact Us" and "About" information to the bottom of the page (Ref. Img. 2). Feedback from our participants from round two of testing support this change; they would instinctively look to the bottom of a website's page to find that information.

Some other ideas for improvements were rejected: follow down search bar, a "why you came" home page, and the home logo drop down menu. To allow for ease of navigation, we had the idea to include a top search bar that remains at the top of the browser even as they scroll down. Jennifer did not want this feature, and one of our participants shared with us that they felt top bars are distracting and they prefer not to have them. With that input, we decided not to add that the search bar. As an idea to reduce the number of clicks a user would have to make, we considered the idea of having a "why you came" page. The idea was to have three options on the corporate homepage: products, information, and downloads. We decided against this after concluding it was redundant and also may be too vague with the topics, such as information. Another idea was have a drop down menu from the logo, meaning there would be an identical drop down menu under the home tab and the logo. This idea was also rejected because it was redundant and would not serve a significant purpose, though it would be a unique feature.

There are also some changes that we have in our recommendations but are not displayed in our low fidelity model. One being the layout of the checkout page: we noticed that when a user clicks on the cart to checkout, the option to checkout is further below on the page and the user must scroll down to see it. It is understood that the purpose is to show and force the buyer to identify as a guest or login as a member. Though that is ineffective. Most sites do not have the user scroll down to continue; the page is small and each click to continue will take the customer to the next step, such as logging in or buying as a guest. This is a better flow and logic that will create a better user experience and make the buying process more user friendly.

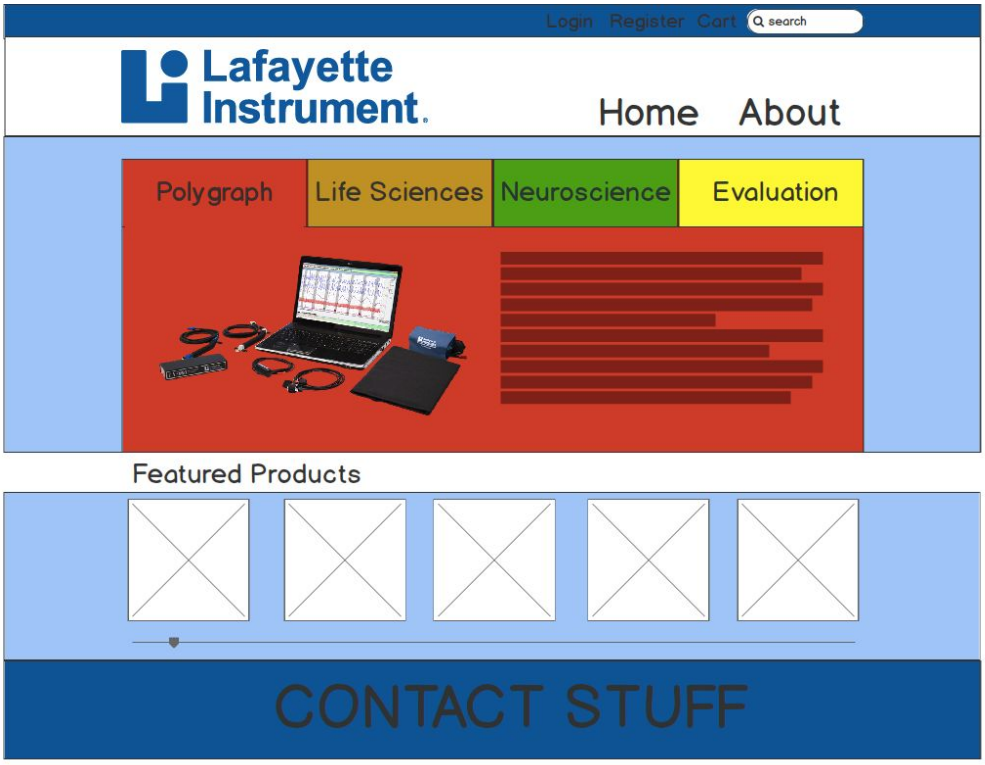
During this time of analysis and comparing different suggestions, it was difficult for us to find a balance between having less clicks and having too much clutter. That was the problem before as well with the previous design. There was a lot of information and options laid out for the user to see to minimize the number of clicks and pages a user must go through to find their objective, but there was also confusion. There was too much information laid out that users could not understand where their eyes should focus and important information blended and became ignored. This was heart of the problem for the website. Finding a balance of what to take away, what is necessary, and what Jennifer wants us to keep or not incorporate. Reading an article by Dan Hawthorn regarding universal design for all age groups, we understood that there really is no perfect balance, there will always be something that could be improved for one age group that may hinder another (Hawthorn, 2003). With our low fidelity model and our recent feedback from testing so far, we believe we have created a good recommendations list and soon to have a high fidelity model to showcase our suggestions.

We created our low fidelity using a mockup program, Balsamiq. To view this, visit: teamcookiecrumbs.com. Jonathan is currently working on our high fidelity model for the final presentation. Jordan and Jessica are finalizing data analysis from the rounds of testing once they are finished. Laurena is helping to put together the final presentation and gathering all data into documented work. Everyone is contributing to testing the remaining participants for round two. After all these activities and tasks are finished, all that remains is the final presentation material and speech (Ref. Img. 5).

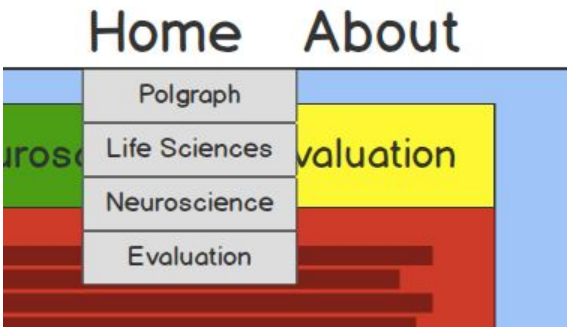
Img. 1: Usability Testing with Wireframe



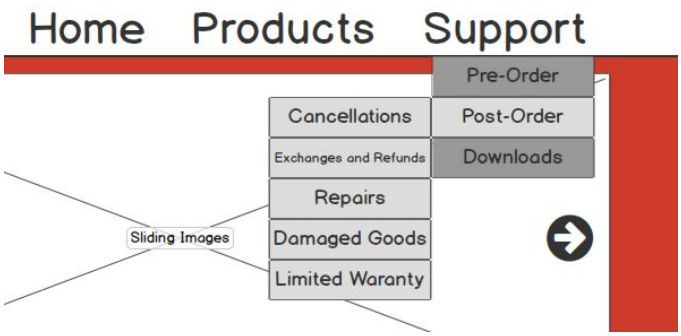
Img. 2: Wireframe



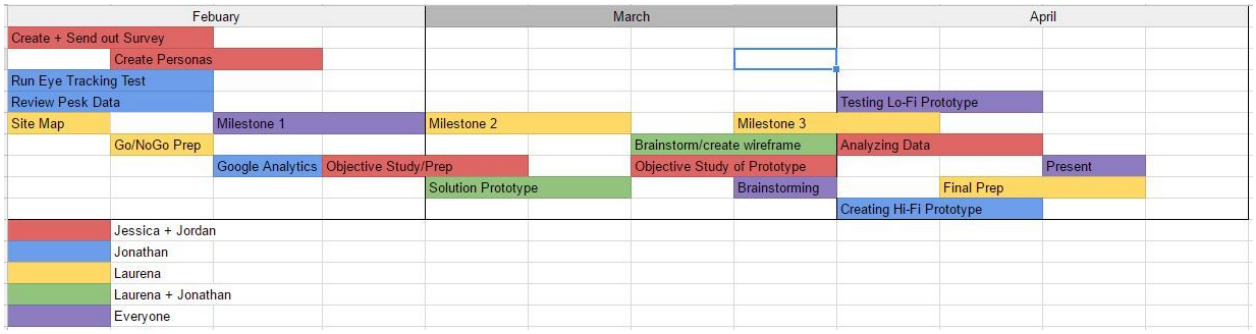
Img. 3: Home Menu Drop Down



Img. 4: Drop Down Menu



Img. 5: Updated Gantt Chart



References

Lukaitis, Audra & Davey, Bill. 2012. Web Design for Mature-Aged Travellers: Readability as a Design Issue. *Journal of Marketing Development & Competitiveness*, 6 (2), 69-101.

Hawthorn, Dan. 2003. How universal is good design for older users. *Association for Computing Machinary,* 38-45.