UNIVERSITY of VIRGINIA
MCINTIRE SCHOOL OF COMMERCE

COMM 4240
Electronic Commerce and Web Analytics
Spring 2016

Project Milestone 2 – Existing Site	**Due via email before 5pm on Friday, 2/19**

Background

Digital user experience (DUX) is a critical aspect of any organization's online presence, with significant immediate implications for conversion rates, engagement, satisfaction, trust, and e-loyalty. Therefore, DUX is an essential component of any conversion rate optimization (CRO) strategy. Also keep in mind that later in the semester, when participating in the Google Online Marketing Challenge, one criterion used by Google to determine acceptable bid prices during your paid search campaign is a website "quality score." CRO efforts are one avenue for improving that score (with search analytics being the other, which will be discussed later in the semester). Successful CRO can make the difference between paying $0.50 per click versus $5.00 per click; an important difference for any paid search budget, but especially important for the Challenge since teams only have $250 to work with. Additionally, Google also uses conversion rates to assess the success of a campaign. Therefore, getting people to visit the website is not enough; what they do once they have arrived (and how that impacts macro-level business key performance indicators) is ultimately of paramount importance.

Description

For this milestone, each team will examine their website from a DUX perspective, using the CRO model discussed in class as an evaluation lens. The milestone has two components:

(1) Analyzing website design elements (60%)
(2) Designing and developing the user survey (40%)

Part 1: Analyzing Website Design Elements (60%)

In this part, teams will leverage the existing body of knowledge on DUX best practices to examine their client's websites from a functional, informational, and visual design perspective.

Part 1a: Website Use Cases (10%)

Before diving into CRO design elements, it is important to think about client website's use cases. List at least 5 distinct use cases (e.g., check store location/hours is one example). List as many as possible. Try to rank/prioritize based on intuition and/or conversations with the client. We'll revisit this using Google analytics later on. The purpose is to have a little context before proceeding with the design analysis. <u>All team members should contribute to, and be aware of this final, aggregated list!</u>

Part 1b: Functional Design – Page Load Time Analysis (10%)

Load times are a critical aspect of DUX; fast load times are a major factor in CRO. Test page load times for your client's homepage using a publicly available tool. This test can be performed using Pingdom Tools (http://tools.pingdom.com/fpt/). If for some reason this tool doesn't work well for your website, other backup options are UpTrends' tool: http://www.uptrends.com/aspx/free-html-site-page-load-check-tool.aspx and WebPageTest (http://www.webpagetest.org/), though these are sometimes less reliable.

The test must be conducted systematically, with several samples per day, over a one-week period:

1. The test should be performed at least 3 times a day (i.e., morning, afternoon, evening).
2. The test should be performed over a one-week period to examine performance on all five weekdays and a weekend.
3. The test should be performed from one or many relevant checkpoints (e.g., Washington D.C., Philadelphia, New York, etc.). For local businesses, the NYC checkpoint test will suffice. For clients with a regional or national focus, a geographically diverse set of 3-4 checkpoints are warranted.
4. By applying steps 1-3, there will be at least 21 data points per checkpoint (3 times of day, 7 days of the week, per checkpoint).

The results will shed light on both the quality of the website design as well as the web hosting service, from a page load perspective. Keep in mind that under 3 seconds is ideal, 3-5 seconds is in the "acceptable" range for most users (but with increasing dissatisfaction for some), 5-8 seconds is "problematic" and above 8 seconds is "dire." Be sure to report:

- Overall mean and standard deviation for load times and perf. grade (if using Pingdom)
- Plots for load times by day, and by day of the week (figures should have captions)
- Mean and standard deviation for load times by location, if applicable

Part 1c: Visual Design – Browser Display Test (10%)
Layout elements and/or images that do not display properly hurt perceptions regarding visual design, trust, and credibility. Test the website using the following browsers, which collectively account for over 70% of desktop market share, and the majority of mobile market share:

- Google Chrome
- Microsoft Internet Explorer
- Mozilla Firefox
- iOS (mobile)
- Android (mobile)

For each browser, be sure to test multiple pages (i.e., home page, plus 3-4 important pages). Include a table summarizing any issues observed with respect to layout, images, and text formatting in a table similar to Table 1 below:

Table 1: Analysis of Visual Design Elements using Different Browsers/Devices

Page	**Chrome**	**Internet Explorer**	**Firefox**	**iOS**	**Android**
Home Page					
Page 1					
Page 2					
Page 3					

Part 1d: Information Design – Contact, Location, and About Us Information (10%)
Does the website provide sufficient contact, location, and about information? Testimonials? Is the information up-to-date? If not, propose additional relevant information that will need to be added and/or updated soon. If an "about" page with detailed information regarding the organization, important management team members, positive media attention, philanthropic activities, local outreach, etc. does not exist, it might make sense to work with the client on attaining and adding such information soon. Note: you are not expected to have all of the information design improvements completed by the end of this milestone. However, from an evaluation stand-point, teams must demonstrate a substantial effort to improve any information design deficiencies encountered. You may wish to include screenshots of changes made as an appendix at the end of the document. Also include a table as follows with an inventory of information design changes needed and performed for key pages:

Table 1: Information Design Elements Inventory

Page	Information - Text	Information - Images	Status
About	Organization overview Management team Media coverage Outreach	Team photo Media Logos Outreach photo	Still waiting on text for outreach
Testimonials	Event satisfaction story Location experience	Customer photo Location photo	Pending…waiting on photos
…			
…			
Homepage	Store hours Upcoming events	**Content Slider:** Store photo (exterior) Interior photo Upcoming events photo	Received all needed items

Part 1e: Initial DUX Improvement Suggestions (20%)
Leveraging the body of knowledge and best practices discussed in class through lecture slides, the Forrester reading, and the King/Kaushik chapters, begin to propose "obvious" necessary improvements to the client's website (including functional, informational, and visual design elements). You will need to discuss these proposed improvements with Prof. Abbasi, first. Eventually, the client will need to approve all changes. This includes de-cluttering wordy pages, improving and updating logos and images, refining layouts, etc. With respect to the proposed changes, from an evaluation stand-point, teams must demonstrate substantial effort:

- Include a list of proposed changes
- Wherever possible, screenshots will be helpful as appendices – both "before" and possibly "after" so we can better visualize and conceptualize the suggestions

<u>Part 2: Designing and Developing the User Survey (40%) – Please complete by 2/17</u>
In this part, teams will develop a survey with questions related to the CRO model discussed in class.

Part 2a: Survey Design – Questions (20%)
Similar to the BB&B example discussed in class, the survey should be arranged into 6 sections (which will later become the pages/blocks):

1. Functional design questions (including 1 on overall functional design perception)
2. Visual design questions (including 1 on overall visual design perception)
3. Informational design questions (including 1 on overall informational design perception)
4. Trust and Satisfaction questions
5. Demographic questions
6. Additional questions (e.g., e-loyalty question(s) such as how often they visit the website, purpose of their visits, how successfully the website helps them complete their objectives).
7. Text field for comments regarding possible improvement areas.

You are strongly encouraged to keep the total survey length at 25-30 questions or less. Since 5 of the questions will be CRO model-related (3 on design elements and 2 on trust and satisfaction), and an additional 2-3 questions will be demographic, plus 2-3 additional questions, this limits the number of specific design-element related questions to approximately 15 total for functional, information, and visual. Therefore, choose your questions wisely. The deliverable for Part 2a is a list of questions, arranged into the 7 aforementioned sections.

Part 2b: Survey Development – Building the Instrument (10%)
Develop the survey using Survey Monkey or Qualtrics. McIntire students should be able to access Qualtrics using the instructions posted on Blackboard (under the Tutorials/Qualtrics) folder. **Do not publish the survey, yet.** The survey will be disseminated soon after the Milestone 2 deadline, once Prof. Abbasi has had a chance to look over the questions, and you've received the green light from your client.

When developing your survey, consider best practices:

- Use a 1-10 rating scale for all non-demographic questions. You may allow either integer or one-decimal ratings, depending on your team's preference.
- Make sure that the questions are clearly worded and unambiguous to the extent possible.
- Make sure that the descriptions regarding end values (e.g., "not effective at all" and "very effective") are consistent across questions, and semantically congruent with what is being asked.
- Make sure that respondents are forced to answer all questions.
- Arrange questions in pages corresponding to question sections. You may decide the order of sections as you deem appropriate.
- Track the time taken by respondents to complete the survey (usually begin and end timestamps are included in the excel/csv files by default). Those completing the survey too quickly may need to be removed from the data analysis.

As part of the Part 2b deliverables, demonstrate that the survey was developed using the guidelines provided in the bulleted list, and include screenshots of the developed survey as an appendix at the end of the document. You should also test the survey in preview mode to ensure that survey page navigation, response enforcements, rating values, and data collection are all functioning properly.

Part 2c: Identifying Survey Population (10%)
Begin working with the client to identify the target audience for the survey. These users will be emailed the survey soon after the Milestone 2 deadline. Due to time constraints, it is important to line up participants as soon as possible. For your Part 2c deliverable, explicitly state who the

target audience for the survey will be and how the team intends to reach this audience (i.e., how email addresses are being or have been attained). Any historical data such as number of people on the listserv, past open rates, click through rates, etc. would also be beneficial (e.g., if they are using MailChimp style software).