1. Preface
   1. The company I work for, Life Technologies has different versions of its website: the “full” version, which automatically loads when accessed through a desktop or laptop computer browser, and a mobile version, which also automatically loads when accessed through a browser on a smartphone (e.g., iPhone, Android phone). However, our company was acquired by Thermo Fisher Scientific, which is a much older and bigger corporation, and only has one version of its website. This is also the case for its other 3 divisions, Thermo Scientific, Fisher Scientific, and Unity Lab Services. I recommend that a mobile version of these websites be developed, in the interest of catering to smartphone users and expanding our customer base. Since I do not work for, nor am I involved with any of these 3 other entities/divisions, I recommend the following strategy for the development of their mobile websites and mobile presence in general.
2. Strategy
   1. Determine the intentions and goals of our customers as well as our regular website visitors. Their goals should align with ours.
      1. The following questions should be answered:
         1. What are the reasons people are visiting our website?
         2. Which of our web pages would be easily ported to a mobile environment?
         3. Which products do our repeat customers regularly purchase?
      2. I recommend the use of Google Analytics/server logs to better assess the interaction patterns of our website visitors (Google, n.d.).
   2. Determine the type(s) of mobile experience we want our customers to have:
      1. *Platform specific*: The mobile experience of the customer is dependent on the platform they are using. Customers using an Android device may have a different experience than a customer using an iPhone. Experiences may also be different between devices of the same brand. For example, the iPhone and iPad, which may be mainly due to the available, screen real estate.
         1. Advantage: Provides a better customer experience.
         2. Disadvantage: This would probably require app development, specific for each platform. Thus more effort and resources will be required.
      2. *Platform agnostic*:
         1. All customers will have the same mobile experience, regardless of the platform they are using. This direction is the easiest because it will probably only require one source for content.
         2. I recommend taking this direction for our organization’s other divisions. Our customer base is not nearly as large as that of typical organizations that benefit from developing platform specific mobile environments (E.g., banks, and entertainment networks such as ESPN).
   3. Implement responsive web design
      1. This would be the best path to choose since a platform agnostic approach is recommended.
      2. This method, in a nutshell can be stated as website development with the goal of providing an experience mainly based on the characteristics of the device’s screen, and other specific features (Designmodo, 2014)
         1. The type of device and platform is detected by the site, and the site’s behavior adjusts to this feedback received (Cashmore, 2012)
      3. Advantages:
         1. The website just needs to be built once.
         2. Only one URL needed.
         3. Easier to maintain.
      4. Disadvantages:
         1. Initial cost.
   4. Development of the mobile website should target devices with WebKit browsers.
      1. “WebKit is an open source web browser engine” used by Safari, Chrome, and Opera browsers (Nyman, 2013).
      2. WebKit browsers (Android, iOS, Opera, Nokia, Chrome) currently dominate the mobile browser market (Browser Market Share, 2013), thus I recommend that the development of our organization’s mobile website concentrate on these users.
3. Create a project team, if it already does not exist.
   1. Identify the following roles/personnel:
      1. Project sponsor.
      2. Project manager.
      3. Software engineers.
      4. IT: System and database administration.
4. Identify tools to be used. I recommend the following:
   1. MacBook Pro for the software engineers.
   2. Dell Latitude for the project manager (because MS Project does not run on Mac OSX).
   3. iPhone (iOS) and Samsung phone (Android).
   4. BBEdit or Sublime Text for writing code.
   5. Oracle SQL Developer.
   6. GitHub for version control/SCM.
5. Create a project estimate
   1. How long will this project take?
      1. Estimate the time to be allocated for each phase:
      2. Requirements analysis
         1. Functional and non-functional requirements must be defined.
      3. Design
         1. The design of the website that was created earlier will undergo review.
      4. Implementation
         1. Actual coding.
      5. Testing (both system and unit)
   2. How much will it cost?
      1. Using the list of required tools and the rough schedule created above; estimate how much it will cost.
6. Determine acceptable metrics
   1. Number of errors allowed per 1000 lines of code.
   2. Percent code coverage in testing.
7. Risk management
   1. Identify project risks.
   2. Develop strategies for mitigating the identified risks.
8. Impact on our organization
   1. Increase in customer satisfaction.
      1. Most pages on our organization’s website are not suitable for viewing on small screens. No longer will customers be required to access our website through a browser on a laptop or desktop computer.
   2. Increase in product sales.
      1. Registered customers accessing our website using their mobile devices can quickly and easily order products, with just a few button taps on the screen.
   3. Potential expansion of customer base.
      1. Websites that were created using responsive web design lend themselves to be indexed more efficiently by search engines such as Google (Google Developers, 2014). Thus, clicking on search results leading to our organization will automatically be brought to content with the appropriate display. Studies have shown that positive experiences with a website results in a **67%** probability that the customer will purchase the organization’s product (Ramptom, 2014).

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