

Western University

Human-Computer Interaction

COMPSCI 4474/9552

Project Proposal

Team Overview

SARA BAKER

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I am an international graduate student with a scholarship from the government of Saudi Arabia. I have studied Information Technology and Computing (ITC) at Open University of United Kingdom. Moreover, I have worked as a teacher of Computer Science for two years in an intermediate school. I am familiar with several object-oriented languages such as C++ and Visual Basic. Also, I have real world experience and first-hand knowledge when designing programs. For instance, I worked on StarUML where I designed a variety of UML diagrams. Also, I am an Arabic writer, and I have written three novels and have an official forum on Internet. I came to Canada to get my Masters' degree. I am enrolled in three courses this semester. These are Human and Computer Interaction, Computational Linguistics, and Artificial Intelligence (Reading Course).

COLIN COSTELLO

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I am a 4th-year computer science major. I have five 4th-year computer science courses and two essay writing courses this semester. My current interests include iOS application development and computational algebra. I am currently working on implementing an Inverse Truncated Fast Fourier Transform algorithm for the Ontario Research Centre for Computational Algebra (O.R.C.C.A) Basic Polynomial Algebraic Subprogram (B.P.A.S) Library.

REMMY KILONZO

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I am an aspiring entrepreneur and software developer. As an Ivey HBA & Western Computer Science student, I am learning the technical and business knowledge relevant to software development. My development experience is primarily in designing and building web-based applications, and I have working knowledge of desktop-based application development. I enjoy learning new things, and currently, spends most of my free time analyzing datasets to improve my data-analytics skills. I hope to travel the world, and one day start a company that enhances the lives of many people.

(ZACK) RUIPENG LI

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I am from China. I am an ECE graduate student at Western. I earned my bachelor's degree in Computer Science at Dalhousie University. My research interests are in the area of Networking, Network Security, and Human-Computer Interaction. I have three years of experience in programming and one-year of work experience in the area of Telecommunication. I enjoy meeting new people and finding ways to help them have a great experience.

Project Proposal

Application Background

Reddit is one of the most popular social media on the Internet. People from different ages could use Reddit to post many different types of news such as videos, pictures, and world news. Moreover, users could share their interests in many domains. For instance, Reddit provides the variety of fields that have several topics which include food, science, movies, fitness, books, games, music, and much more common interests. Additionally, it gives the ability for the users to interact with each other by writing comments, voting, subscribing, submitting links, and creating their own space on the site's pages. Also, Reddit provides a service that called "AskReddit" where people could make discussions depending on questions. The most spectacular feature in Reddit that it is totally free and users could easily make registration to the website without requiring any personal information such as Email address. Therefore, anyone could use Reddit, even the people who do not own an Email address. In June 2015, Reddit recorded 36 million user accounts on its website. To sum up, Reddit is a very famous social network that has a capability to be in the top in the future.

Issues

As the home of one of the internet's most popular websites, Reddit's desktop experience is very unimpressive. Although simple in design, Reddit is under-designed—it is difficult to navigate, and is reminiscent of websites predating the year 2000. The visuals affect the user's perception of the website, and thus their experience. Moreover, its layout is cumbersome for the user, hampering their ability effectively use the application. Many of the title bars, and dropdown menus are unintuitive, and there are inconsistencies in the layout of the topic pages. Further, browsing through content is hampered by the user's inability to preview a "post" before committing to reading it. In fact, this process is exceptionally cumbersome, as the user must either load the entire post in their current window, or open a new window for each new intriguing post. These, and many other issues make the in-browser Reddit experience disappointing, especially when compared to the experience offered by their mobile apps.

Approaches

For this project, we divided the work into two phases. The first phase contains two steps, we will first generate a list of use cases, user tasks and user stories for different user groups, such as normal, elderly, children and people with disabilities. In the second step, we will implement a general prototype that fixes all the problems that we mentioned in the Issues section. We will using draw.io as the design tool. Draw.io provides more functional design tools and formal structures with a list of pre-defined templates. Matt Bower [2015] described that draw.io is a useful tool to develop procedural schematic diagrams. We will be using draw.io to construct the new site. In the second phase, we will evaluate our redesigned system based on the user's real-world tasks. To evaluate the redesigned site in terms of programmability and performance. We plan to generate a user study. We will create study processes, recruiting three to five participants and let our participants to do a list of study tasks. We will be collecting data that measures the preference of users. We will also be measuring the effectiveness for finding and searching user's interest topics, website fields and other contents compared with the existing methods that the participant is used to. We will be using collected data to build our final prototype.

Our final prototype will be generating with several web based development tools includes CSS, HTML, JavaScript and associated libraries (jQuery). We will also be using content management tools such as WordPress to help maintenance the website easily.

Goal

Our team aims to resolve the many design problems which persist with the Reddit website. Taking notes from similar content sharing websites like YouTube, and Imgur, we hope to redefine the way users explore Reddit. Given a content shift from text to images and videos, we want to redesign the interface to be more graphic-friendly. We will borrow design queues from Imgur and Instagram, by focusing on continuously feeding relevant content to the user, loading content in a never-ending stream, rather than having them manually hunt for what is relevant to them. Adding preview functionality for example, when the user hovers over a post would make exploring and navigating the website much less cumbersome. When a user first gets onto the Imgur website, they are greeted with “stacks” of pictures with intuitive categories, making it easy to use right from the beginning. This is not the case with Reddit—where content is organized into “threads” with unintuitive labels. For the unexperienced user, finding relevant threads is a chore, and so an onboarding process would help streamline this process. However, with all these solutions in mind, it is relevant to consider those who like the current layout and functionality of Reddit, and so an opt-in approach to these changes might be a way to keep everyone happy.

Impact

Improving the user experience benefits Reddit in many ways. The most obvious being that of user retention, as a happy user will be one that is less likely to explore other alternatives. Equally importantly, is that of user acquisition: new users are most likely to preview Reddit for their first time on the browser as downloading an app is more cumbersome. If their first impression is not spectacular, they are less likely to come back and become a loyal user.

Moreover, we believe that if Reddit fails to update its desktop experience, it faces a threat to its existing business model. Although their mobile app experience is leagues ahead of that offered on the desktop, posting and sharing content is done most easily from the desktop browser. With a cumbersome interface, users are less likely to share new content. Without having the best, continuously updating content, Reddit will lose users to its competitors. With fewer users, comes fewer contributors of new content, creating a self-perpetuating cycle. And so, should the desktop experience continue to be a pain-point of users, Reddit's risks jeopardizing its business model.

References

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