University of Calgary

CPSC 481 - Human-Computer Interaction: Foundations and Principles

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Project 2

Ideation and Lo-fi prototypes

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March 3, 2019

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1 Brainstorming

1.a Operating Platforms Ideas

1.a.1 Website

- Build the project as a website

- Pro:

  - Access to the service "On the go"
  - Compatibility - any device with internet access can potentially user our service

- Con:

  - Bad Performance Across Devices - Performance on different devices can significantly vary unless optimization and compatibility for these devices are specifically considered. This increases the cost of having good performance across different systems
  - Compatibility Issues - Our website may not work or it may display in unintended ways. Ensuring good device compatibility across devices increases the cost significanty since many different devices exist (i.e Samsung Internet, FireFox, Chrome, Edge, Opera, game console browsers, SmartTV, TV streaming box).

1.a.2 Native Desktop Program

- Create a Program that runs on Desktop Operating Systems

- Pro:

  - Can provide a better experience on Desktop Devices
  - Can utilize some unique OS features for better optimization, or integration with the machines

- Con:

  - Versions - several versions of the program need to be created, maintained, and updated in order to support the Operating Systems. (Supporting Multiple Systems greatly increases work)
  - Compatibility - The service will be limited only to devices running supported OS. Devices running different OS will not be able to use our service

1.a.3 Progressive Web App

- Web application that is hosted on a website. Using the website will display something similar to an application rather than a web page.

- Pro:

  - Access to the service "On the go"
  - Good compatibility on Some mobile Devices - certain mobile devices running Google Chrome will be prompted to "Add App to Home Screen". Doing so will place a shortcut to the Home Screen. Good web app implementation can make the app feel like a native mobile app
  - Will be able to use some SmartPhone functionalities (i.e. GPS)

- Con:

  - Won't provide a native mobile experience unless the user is using Google Chrome browser.
  - Requires additional work to implement a Progressive Web App

1.a.4 Mobile Application

- Create a mobile application for our service

- Pro:

  - Access to the service "On the go"
  - Most people have smart phones, means that many people can use the service
  - Can use SmartPhone features (Camera, Location, SMS, etc)

- Con:

  - Separate versions need to be maintained, updated, designed for different mobile OS
  - Optimization for different device specifications need to be considered for these different mobile OS (Tablet, Big Phones, Small Phones, SmartTV, etc).
  - Desktop OS systems will not be able to access the service

1.a.5 Text SMS service

- Some Text service, where texting a certain number will send a SMS response to the device with the requested Information

- Pro:

  - Access to the service "On the go"

- – Lowest Cost Implementation
  - – Good compatibility with any device that can send SMS

- Con:

  - – Any device that cannot send SMS cannot use the service
  - – Users can incur a SMS text charge
  - – Unable to integrate advanced features (friend lists, events, weapon information, etc)
  - – Restricts the service to mostly North America (other parts of the world don't really use SMS)

1.a.6 Chat Bot Service

- A service that is integrated to some chat/communication program that sends a response based on the user message it receives

- Pro:

  - – Access to service "On the go"
  - – Low cost implementation
  - – Can be utilized on established gaming communication platforms like Discord (people who use this service can easily adopt our service).
  - – Invested users - users that utilize the gaming communication platform/chat bot will generally be more invested than "casual users". The majority of people that utilize Discord for example (service designed for Gamers that provide a "voice call" functionality) would more likely be interested some features our service provides

- Con:

  - – Users that don't use the required chat/communication program will be unable to use our app (high barrier of entry)
  - – Implementation of some advanced features may require more work

1.b   Core Features

1.b.1 Provide User Statistics

- Provide users with statistics of their gameplay in support game titles

- Provide different filters, parameters(i.e. chart types) for different statistics that allow users to utilize data efficiently.

1.c   Optional Features

1.c.1   News

- Have a News feed that provides different Articles written about the game, Game updates, Game News

1.c.2   Events

- Inform users about in-game events being ran
- Host events on the webpage and allow users to participate in it

1.c.3   Leaderboards

- Rank the User performance (Global, Region, Country, City, Friend Leaderboards)

1.c.4   Game Information

- Provider user with a database showing information about in-game items
- Show users popularity of an item over time
- Show generalized statistics about an item (i.e. number of people with X item)

1.c.5   Streamer Information

- Show Streamers (people who broadcast game play) information.

1.c.6   Friend List

- Allow users to add other users as a Friend.
- Allow friends to view other friend's user profiles and information

1.c.7   Notifications

- Provide users with periodic updates through email, chat service, SMS, etc

1.c.8   Map

- Use location access to show when friends are nearby

1.c.9   Multi-Game Support

- Feature support for many different games