Requirements

Introduction

Purpose

This is a Requirements Specification document for an existing web and mobile based apps. These apps measure racial bias in human faces. The applications are for the CU Boulder Psychology Department. This document describes the scope, objectives and goal of the new system. In addition to describing non-functional requirements, this document models the functional requirements with use cases, interaction diagrams, and class models. This document is intended to direct the design and implementation of the target system in an object-oriented language.

Motivation

The goal of the apps is to help reduce the implicit bias between different racial/gender groups. The apps will also help train people to recognize an individual other than merely belong to a group, (i.e. a label). The new system will upgrade the current website and apps to provide users the ability to take daily test and experiments. These results are used for research purposes by the CU Phycology department.

Scope

Note, Any Changes to the scope must be carefully managed and then signed off on by all members involved.

High Level Scope Requirements

1) Expand the apps to allow for multiple genders and racial groups.

2) Implement/Improve the “Forced choice” task daily assessment. (The user sees a face and then has to pick from 4 images).

2.1) “Forced choice” should be the final, ultimate, in-the-end-of-day test.

2.2) Dynamically sample different sets of faces during the training.

3) Prepare and publish an iOS app to the App Store (iPhone).

4) Prepare and publish an Android app to the Google Store (Android).

High Level Out of Scope Requirements

1) Add a game mode option to make the user experience more pleasant to use.

2) Update the user UI so that the applications are more pleasant to use.

3) Make the web app responsive to allow users the ability to use a computer or tablet.

4) Prepare and publish a tablet friendly iOS app to the App Store.

5) Prepare and publish a tablet friendly Android app to the Google Store.

6) Participate in use trials that are proctored by the CU Boulder Psychology Department.

7) Attempt to use face recognition to automatically modify faces for inclusion in the app.

Requirement Change Control Process

Potential changes will be discussed in a Sponsor meeting. All viewpoints will be heard and respected. Changes to scope/requirements may be considered, but they will require careful, formal, disciplined control. A democratic vote will then be held to decide on the new changes. After which the new results will be documented in an updated Requirements document. Finally, this new document will be signed by all the members of the project.

Contact Information

Any serious questions regarding project requirements should be relayed to our instructor Alan Paradise.

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| --- | --- | --- |
| Name | Role | Email |
| Alan Paradise | Instructor | Alan.Paradise@Colorado.edu |
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Functional Requirements: (i.e. what - users view)

User Stories Project Development

|  |  |  |  |
| --- | --- | --- | --- |
| User Story ID | As a <type of user> | I want to <perform some task> | So that I can <achieve some goal> |
| 1 | Instructor | View a project status report every week. | Ensure the project is on track. |
| 2 | Project Owner | View a project status report every week. | Ensure the project is on track. |
| 3 | Teaching Assistant | View a project status report every week. | Ensure the project is on track. |
| 4 | Developer | Be reminded of upcoming deadlines. | Complete my tasks on time. |
| 5 | Developer | Know what tasks I need to accomplish. | Complete my tasks on time. |
| 6 | Developer | Have a support system in place. | Have people and resources to help me if I get stuck. |
| 7 | Developer | Have access to critical assets and support documents | Build upon the system. |
| 8 | Project Owner | See the big picture view of the project work. | Stay in the loop. |
| 9 | Teaching Assistant | See the big picture view of the project work. | Stay in the loop. |
| 10 | Teaching Assistant | Know if an issue arises. | So that I can try to fix it. |

User Stories Finished Application

|  |  |  |  |
| --- | --- | --- | --- |
| User Story ID | As a <type of user> | I want to <perform some task> | So that I can <achieve some goal> |
| 1 | Researcher | Collect user performance data. | Use it for research purposes. |
| 2 | Participant | Be able to download the app. | So that they can participate in the training process. |
| 3 | Participant | Be able to train using different face sets. | To help participants recognize individuals from different face sets. |
| 4 | Participant |  |  |

OPTIONAL

|  |  |  |  |
| --- | --- | --- | --- |
| User Story ID | As a <type of user> | I want to <perform some task> | So that I can <achieve some goal> |
| 1 | Researcher | Update the face data set. | Improve/Customize the training. |

Non-Functional Requirements: (i.e. how – developers view)