Introduction

1. 1 - Aims – 1st and 2nd paragraph in current Intro

1.2 - Motivation – what is the point?

1.3 - Specific objectives -

* Develop and evaluate a model that predicts where a user is looking on a screen from an image taken from their web-cam or front facing camera
  + predict gaze location within approximately a 2.5cm radius of the true location so the browser extension can accurately distinguish between paragraphs currently being read, and those that have already been read, or are still to be read
  + should be able to determine the bounding boxes of all paragraph elements in the webpage in relation to the current viewport using HTML semantics
* Develop and validate a software that:
  + takes a picture from the users webcam whenever the current tab is taken out of focus, for example, when the user switches tabs or changes windows
  + Securely transmits the image and gaze location, I.e. it encrypts the image before transmitting it to the software hosting the gaze mapping model. It should also receive and decrypt the gaze location from the software hosting the gaze mapping model

1.4 - Stretch objectives

• Predict gaze locations within a 1cm radius of the true location

* Could use a computer vision system to detect bounding boxes of paragraphs so the extension will work on pages which don’t use HTML to render information such as pdfs • Extension should also work on apples safari web browser

Methodology

2.1 - Gaze mapping (Machine learning) - current 3.1

2.2 - Software development – 3rd para in 4.1

2.3 - Dataset – 5.1.2

2.4 - Requirement analysis – 3rd and 4th paragraph in current Intro; everything else\* in 4.2.1; everything in else\* in 4.2.2

2.5 - Project plan - ???

Progress log

3.1 - Log

3.2 - 5.1\*

Appendix

Proposal