

Unconscious Automatons & Facebook

Adam Pere

Advisors - Prof. Chris Fernandes & Prof. Fernando Orellana

Abstract

The Internet is a relatively new phenomenon that has completely morphed the modern world. Living on a college campus, I almost never find myself in a room without access to the Internet and social media. I, along with many others in my generation, spend hours per month mindlessly surfing the Internet and Facebook. With my project, I want to start a conversation on the topic of how the Internet has shaped our society and whether these changes are positive or negative.

To do so, I will build an installation of three robots and a monitor. Each robot will be interactive in the physical world through the use of an Arduino, sensors, motors, LCD screens and LEDs. Each robot will also have a Facebook account where they can post photos of their surroundings, status updates or comments. I hope that by watching my robots mindlessly performing the same tasks that we do everyday, viewers will begin to ask the same questions proposed above.



Software

Arduino

- Receives input from sensors
- Moves motor
- Displays text on LCD
- Writes to serial (event detection)

Processing

- Reads from serial
- Displays live feed from webcams
- Simple Face Facial Recognition (openCV library)
- Determines Facebook action
- Runs Python Script to begin Facebook

Python

- Posts to Facebook (photo, status, comment)
- Opens/controls web browser (Selenium Module)

Hardware

- Aluminum + wood (water jet cut)
- Arduino Uno
- Sensors, LCD Screen, LEDs, Servo
- Webcam
- Computer

Arduino

- > sense motion
- > stop webcam
- > write to serial -----> read from serial
- > take photo
- > write info to file
- > run python script ----->

Processing

- > display webcam feed <-

Python

- > read file
- > upload photo
- > display photo's facebook page

Action Diagram

Uploading a photo to Facebook