Mood Picture

Project Proposal

Master in Creative Computing & A.I.

Project I

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# Goals

The main goal of this project is to make people reflect about their mood.

The majority of people only make life style changes and search professional help after experiencing extreme mental health problems.

Said that, this project also aims to raise awareness about the importance of mental health checkups to prevent extreme psychological problems.

# Functionalities

The main functionalities of this solution will be:

### Gather data that could represent the user’s mood:

The first type of data to be explored will be the environment sound, focusing on the loudness and wave length.

If possible, there will be experiments with another types of data, like heartbeat frequency and arterial pression.

### Create a meaningful output for the user’s reflection:

Use of generative art techniques to create an output based on the input data that represents the user’s mood on that period of time.

The format of the output is yet to be decided based on articles about visual representations of emotions, but it’ll be used different types of the input data to generate multiple aspects of the output (colors temperatures and angles of geometrical forms, for example).

### Compare input data over time searching for patterns:

Use A.I. to search for patterns on the input data to try to determine the importance of each pattern found.

If possible, determine a score of stress/relaxation based on the input data analysis.

### Define collaborative goals:

Use gamification techniques to combine data from multiple users that share an environment to define well-being collaborative goals.

# Units Application on the Project

### **Creative programming:**

**Use of p5.js library to create a generative output on a web application.**

### Physical computing and IoT:

Implementation of Arduino project to gather environment data with sensors.

### Applied A.I.:

Use of algorithms to find correlations between the sensor’s patterns.

### Gamification in I.S.:

Development of an application to set collaborative goals with the users that share an environment.

# Use Cases

## 4.1 Initial Use Case

The initial idea for a use case is:

**Step 1:** The user starts the sensors recording when is beginning some demanding activity (work, meetings, academic tasks);

**Step 2:** After some time, the user stops the sensor;

**Step 3:** The application server processes the input data and make the generative output available to the user.

## 4.2 Alternative Use Case

This project can have an alternative use helping to monitor recovering patients that are mentally vulnerable after treatments.

This possibility can be explored if a health expert is available to assess and test the application.