Mood Visualization



Overview:

The project aims at building an interface to detect moods and feelings of subjects, storing and analyzing the data and finally present it as visuals and abstract paintings. Its use can be extended to generate 'a painting for a book'.

Features:

The subject will enter a sentence or two to express his or her feelings and then using extractive summarization we will gauge the emotions. We will add knobs for various parameters which the subject can use to rate his emotions on a scale. This data will then be uploaded to a server in real-time.

This data will be analyzed to find the effect of various events on the overall emotions of the target group. The result will be displayed in the form of graphs. We will work on a creative visualization where each emotion will be assigned a particular colour. Every entry by the subject will add the colour representing that emotion.

Implementation.

* The Basic problem can be divided into 3 parts *

BASIC PROBLEM

INPUT METHOD

Various Knobs to show emotions and enter raw data through them. Or you can enter a sentence or Para about your feelings or emotions and we can extract the Summary out of it and categorize under various heads and upload to server. Reference: Stanford Project on language processing techniques (Extractive Summarization) (Stanford Library)

UPLOAD TO SERVER

The data collected from previous step will be uploaded to the server in real time and processing would be done histographically.

We will use Python as our coding language because it contains libraries for data analysis and graphical modulation and representation.

This could be thought as a Problem for displaying results of Polling. This Polling Station problem can be easily solved by using python.

REPRESENTATION

The Representation would be done in the form of visuals and abstract painting with a predefined colour for each mood and those colours will blurt out in circular rings or any other geometrical pattern.

Initial input for these painting would be data from the server which is in bar graph mode. Also note that These Paintings would be displayed in "Real Time" preferably on a LCD Screen or a Laptop Screen.

Timeline.

Phase 1: We'll work on taking input from the subject. The problem of extracting emotions from the entered sentence will also be solved during this phase,

Phase 2: We'll tackle the problem of uploading the data to the server and then analysing it to generate bar graphs.

Phase 3: In this phase we'll work on visual representation of the data

Hardware.

Arduino, Knobs (fan regulator may work), Router.

References:

Detecting emotional scenes using Semantic Analysis on Subtitles Chetan Kalyan, Min Young Kim Stanford University.

MIT Video of converting emotions of the city into painting.

Further Implementation.

- A Painting can represent a "Book" by analysing its content and emotions like suspense, horror, love, mystery or crime.
- A movie can even be represented as painting on basis of Subtitles.

Role of Team Members:

Vishal Rana: Hardware

Naman Gupta: Programming

Rohit Gupta: Programming

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