AUTOMATIC GROUP HAPPINESS INTENSITY ANALYSIS

ABSTRACT

The recent advancement of social media has given users a platform to socially engage and interact with a larger population. Millions of images and videos are being uploaded everyday by users on the web from different events and social gatherings. There is an increasing interest in designing systems capable of understanding human manifestations of emotional attributes and affective displays. As images and videos from social events generally contain multiple subjects, it is an essential step to study these groups of people. The problem of happiness intensity analysis of a group of people in an image using facial expression analysis. A user perception study is conducted to understand various attributes, which affect a person’s perception of the happiness intensity of a group.

We identify the challenges in developing an automatic mood analysis system and propose three models based on the attributes in the study. An ‘in the wild’ image-based database is collected. To validate the methods, both quantitative and qualitative experiments are performed and applied to the problem of shot selection, event summarisation and album creation. The experiments show that the global and local attributes defined in the paper provide useful information for theme expression analysis, with results close to human perception results.
EXISTING SYSTEM

Generally, these videos and images were recorded in different conditions and may contain one or more subjects. From a view of automatic emotion analysis, these diverse scenarios have received less attention in the affective computing community.

PROBLEMS IN EXISTING SYSTEM

- To scale the current emotion detection algorithms to work on this type of data in the wild, there are several challenges to overcome such as emotion modeling of group of people, labeled data, and face analysis.
- Expression analysis has been a long studied problem, focusing on inferring the emotional state of a single subject only

PROPOSED SYSTEM

Automatic mood analysis of a group of people. Here, we are interested in knowing an individual’s intensity of happiness and its contribution to the overall mood of the scene.

We model this global and local information based on a group graph, embed these features in our method and pose the problem in a probabilistic graphical model framework based on a relatively weighted soft-assignment.
ADVANTAGE OF PROPOSED SYSTEM

- The perception of the mood of a group is defined by attributes such as where people stand, how much of their face is visible etc. These social attributes play an important role in defining the overall happiness an image conveys.
- Low level features, such as color histograms, and high-level features, such as age, gender, hair and hat, were used as attributes to learn a Bag-of-Words classifier.
- A framework based on clothes related features was proposed for classifying a group of people based on their social group type.

SYSTEM SPECIFICATION

Hardware Requirements

System : Pentium IV 2.4 GHz
Hard Disk : 40 GB
Floppy Drive : 1.44 Mb
Monitor : 15 VGA Colour
Mouse : Logitech
Ram : 512 Mb
Software Requirements

Operating system : Windows XP
Technology Used : Microsoft .NET
Backend Used : SQL Server