ORTHOGONAL WAY TO ASSESS THE AESTHETIC NATURE OF USERS

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Abstract

The different types of human beings by their personality; each human has a different personality. The personality of each human is determined by selection of images from a set of images. The images are selected in order of the user and by this order there personality is identified. As each human as some uniqueness that shows different results provides. We also have an additional feature included in this implementation. If two people select the images in the same order the result won’t be the same as a question will be produced to the user and based on the answer of the users it will calculate their personality.

Keywords: Multi Bag Algorithm, Multi Instance Algorithm, Extraction.

Introduction

Each human being has a fixed image aesthetic evaluation system. This work is a proof of concept, presenting personal aesthetics as a novel behavioral biometrical trait. Personal aesthetics activate when an individual is presented with a set of photos they may like or not like. The goal is to extract and predetermine the uniqueness of visual preferences into a compact template.

Related Work

To tell about a particular person’s personality there were many ways to specify it and many studies took place to recognize it. By a person’s talk, walk, selection of things, etc their behaviour and character can be specified. In the past few years there many studies relate towards human actives and perception. In the paper [1] they have specified that the person likes the image and thus it is selected and the personality is given.

But if the same images are selected by two users the same result would have been showed which a limitation was found. Herewith [2] a person’s action will specify their characteristics. More over paper [3] provides a complete study of recent developments on gait recognition approach. This paper has three major issues complicated in general
gait recognition systems, which are namely gait image representation, feature dimensionality reduction and gait classification.

Herewith [4] specifies the art of the character in the human being. There were many studies which took place to specify a human character.

**Existing System**

It used a typical learning approach, considering images tagged as “favorite” by a certain person as training data, incorporating the expression of user's aesthetic preferences. Socially interrelated users may exhibit similar aesthetical signatures. The judgment of attractiveness of a face has been shown to be correlated among people connected by tight personal relations, as siblings, spouses, close friends. This may have a negative impact on our biometrical strategy, augmenting the probabilities of breaking our biometric system.

**Proposed System**

Works in Orthogonal way of existing Systems. Existing system are built on Aesthetic Nature of Scenery on an Image. This work assumes the Aesthetic Nature of Object in a scenery on an Image. Uses Multiple Instance Learning Algorithm.

**Feature Extraction**

First module gets the aesthetic features in terms of image intensity, luminous values. This method deals in displaying the images to the user; it can be 5 or more then 5 images. This method displays the images for the user to select the images according to their preference.

**Fig 1: Architecture Diagram of the Process.**

**Fig 2: Feature Extraction of the images.**
LEARNING THE PREFERENCE MODEL

This module analyses the aesthetic feature got from first module and finds the main object on the given images. It gives the order of the images selected by the user so that it can characterize it into an order. This order is fixed in determining the characteristics of user with the order selected by the user.

![Fig 2.1: Learning the Preference Model.](image)

The Matching Score

The Matching Score tries to find a matching for selection in case an image is having more than one selectable object.

If more than one user selects the same order of the object from the displayed images then the result given to the user should not be the same, for such scenarios we have the following more modules

![Fig 2.2: The Matching Score.](image)

Feature Analysis

Analyses each object score and confirm the reason for image selection. Based on that fixes the aesthetic nature of image as well users. This method extracts the observed score for the above method and gives the result to the user.

This method extracts the feature from the given image so that it can give the correct observed result to the user.

![Fig2.3: Feature Analysis.](image)

Multi Bag Formation

In case more than one user selects same order, or two photos contains objects like siblings, twins, close relationships form bags using multi instance, multi learning algorithms. This will separate the selection of identical order into bags.

Multi instance and Multi bag instance algorithm are applied. Multiple Learning helps to overcome this. Multi bag formation takes images of that type into different bags and analyses the cause for that ordering. After finding the cause once again features are analysed and images are classified. Bag feature analysis uses “classification algorithm” which is defined in data mining.
Bag Feature Analysis

Analyses the reason for the selection of same ordering of images, or selection of successive siblings, twin’s photos. This method analyses what is collected inside the bag and differentiates the two identically selected images. Thus this method differentiates the order by producing a question in which the user is supposed to answer. Thus both the identical twin or close relatives will produce a different answer to the question given, it finds the reason for the selection of the images in the order.

Classification

Classifies the same ordered images or successive sibling photos and concludes an aesthetic nature of users. By the given answer of the user, the system classifies the nature of the user by the answer. Depending on the answer given by the user, the character is analysed, thus the character is defined and displayed to the user. Classification module is used to classify the character of the user based on the answer. Although the images selected are the same the answer given by the user varies thus the conclusion can be given. Thus the user’s character can be defined and displayed based on images selection and given answer.

Result and Discussion

The project is executed to find the personality of a user by image selection, where the images are ordered and then selected randomly in an order the user selects it according to their personality. These selected images are then arranged and given to the system which gives the user personality, if there are two users with same order of selection of images then the system will use multi bag instance algorithm and asks a question to the user and by that answer it classifies the user into different personality.
Conclusion

The key idea of this project is that the cognitive mechanisms that regulate the appreciation of an image selection, personal and unique, and that their distillation can provide an interesting soft-biometrical trait. We will also design prototypes of authentication and recognition interfaces, so that user usability studies can be performed, toward a real deployment of this new biometric strategy. This work presented a novel approach, for assessing the aesthetic nature of users using Multiple Learning Algorithms. The work will also dare a problem of not taking decision when users presented same answers for the selection of photos with same ordering and with same aesthetics. Refinement of features is needed to resolve this problem.

Future Development

In our experiment we have improved the existing application by letting two users select the images in the same order but a different output will appear as the application proposes a question and judges based on the answer. But if both the users answer are the same for the asked question the result will be displayed the same for both the users. That is their personality is displayed as the same without any difference, which is the drawback to this implementation.

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Reference


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