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Paper & Artworks: A WINDOW TO THE EMOTIONS



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Abstract:

Nowadays, psychologists classify the emotions into discrete categories in a common and universal language. The simplest category is composed of six basic emotions resulting from cross-cultural studies [1] [2]: happiness, sadness, fear, anger, disgust / displeasure and surprise.

This work presents a new paint generator which uses facial feature extraction and analyzes most important face's contours to infer expressions with different degrades of intensity.

These measurements conform the basis to create personalized (both in colour and design) generative paintings from the emotions detected earlier. Each emotion is reflected in a set of colours [3] and shapes applied to a group of points drawn in a canvas using RGB colour palette.

The resulting paint represents the user's facial emotion along a temporal axis. It is generated from a non-repeatable seed by means of complex transformations producing unique results. All of them have its own identity and are recognizable by the creative concept introduced in this work.

Topic: Art

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References:

- [1] Z. Zhihong et al. A "Survey of Affect Recognition Methods: Audio, Visual and Spontaneous Expressions", 2007
- [2] Paul Ekman. "Universals and cultural differences in facial expressions of emotion", 1972
- [3] Osvaldo da Pos et al, "Facial Expressions Colours and Basic Emotions", Colour: Design and creativity, 2007

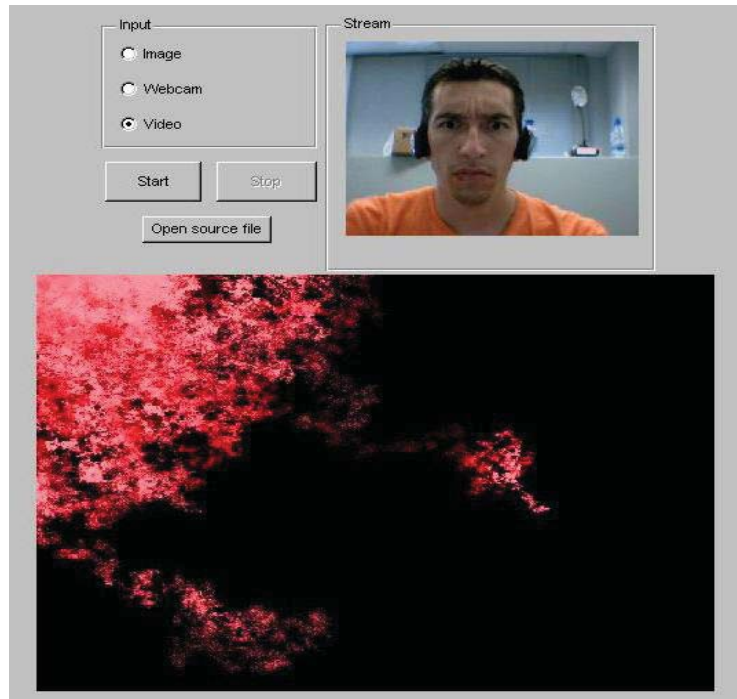


Figure1: Example of a painting generated by an anger expression.

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Keywords:

Art, emotions, face, colours, shapes