

A Tool for Ranking and Enhancing Aesthetic Quality of Paintings

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Abstract. Measuring aesthetic value of an artwork is a significant task in the field of visual & performing arts. Artists follow several techniques manually using traditional methods to balance the visual aesthetic value of different aesthetic products such as a film, a drama, a painting etc. Today, artists are enthusiastic on emerging information technology techniques for judgment and enhancement of designed product aesthetically and efficiently while applying traditional concepts to design initial form of the artwork. Computational aesthetics is the research of computational methods that do make applicable aesthetic decisions in a similar fashion as human can. This paper introduces a new tool that can be used to rank a given digital image of paintings based on a common parameter set with their weighting factors which are supposed to be adjusted for changing the aesthetic level of a particular painting in the area of computational aesthetics.

Keywords: computational aesthetics, aesthetics quality, artwork (painting) evaluation, analytic hierarchy process (AHP).

1 Introduction

The theory of aesthetics introduced by George David Birkhoff (1933) in his book *Aesthetic Measure* involves a lot of computational methods. Aesthetic quality assessment is a challenging task as it is a subjective matter and there are not clear standard procedures which can be applied directly to measure it. Therefore, particular area is needed to study well in terms of evaluation and enhancement of a given artwork in different field of visual & performing arts. Practically, it depends on the quantitative and qualitative parameters which lead to change the aesthetic feelings of human beings regarding the particular product that we are concerning. In case of comparing a given set of aesthetic products, evaluators may follow particular criteria and rank them as very good, good, bad etc. Basically, it is a qualitative measurement and a team of judges will end up with a result like first place, second place etc. Therefore, it is required to proceed with the observations made by them using a particular hierarchical methodology and to find an approach to propose a model which is applicable to rank them quantitatively.