



4th International Workshop on Multimodal Affect and Aesthetic Experience

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ABSTRACT

“Aesthetic experience” corresponds to the inner state of a person exposed to the form and content of artistic objects. Quantifying and interpreting the aesthetic experience of people in various contexts contribute towards a) creating context, and b) better understanding people’s affective reactions to aesthetic stimuli. Focusing on different types of artistic content, such as movie, music, literature, urban art, ancient artwork, and modern interactive technology, the 4th international workshop on Multimodal Affect and Aesthetic Experience (MAAE) aims to enhance interdisciplinary collaboration among researchers from affective computing, aesthetics, human-robot/computer interaction, digital archaeology and art, culture, ethics, and addictive games.

CCS CONCEPTS

• **Applied computing** → **Arts and humanities**; • **Human-centered computing** → **Collaborative and social computing**; • **Computing methodologies** → **Artificial intelligence**.

KEYWORDS

Affective computing, Aesthetic experience, Multimodal modeling, Signal processing, Machine Learning, Emotions, Human-robot interaction, Digital archaeology, Digital art, AI for fashion

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1 INTRODUCTION

Aesthetic experiences are personal experiences of individuals exposed to artworks, which differ from everyday experiences corresponding to interpretation of natural objects, events, circumstances, and other people [3, 13]. Studies on affective states established a felt-during-aesthetic-experience (i.e., aesthetic emotions) attempt to provide new insights into humans’ aesthetic preferences that might encourage individuals to engage with certain artistic objects. Further, research on uncovering different features of artistic objects in terms of form and content can facilitate art understanding and the underlying factors that evoke aesthetic experience [14].

To understand ancient and modern art, past and recent research focused on exploring accounts given by writers, artists and philosophers, exploring debates around empathy in aesthetic experience [1, 11, 12]. Recent research on affect focused on the multimodal interaction of humans, such as in virtual environments [4, 5], films [8, 15, 19], digital archaeology and art [17, 18], and human-robot interaction [20]. However, the affective states resulting, or likely to result, from the exposition of a person to art content, are often measured by written reports on interactive questionnaires on a narrative-verbal form of art. Moreover, depending on its shape and structure, the urban environment can serve as a significant factor for promoting human content, but also contributing to its decline. In this sense, recent work has explored the interaction between human and urban environment [6, 7, 21]. Meanwhile, modern interactive technology that becomes a significant part of everyday life can have aesthetic values and evoke emotions. Therefore, measuring multimodal affective reactions can facilitate better understanding of emotions elicited by a variety of aesthetic contents, including content created by AI in gaming, addictive games [2], or multimedia where certain form and content combinations are used to engage players/users in different environments.

This is the fourth subsequent workshop on Multimodal Affect and Aesthetic Experience at ICMI [9, 10, 16]. Considering the diverse topics covered previously, MAAE 2023 aims to connect researchers and advance affective computing, addressing the following research topics:

- Multimodal aesthetic experience of AI-generated content
- Evaluation of experience and absorption of aesthetic values
- Physiological and behavioural analytics for aesthetic experience

- Affective responses to movie, music, ancient&modern artwork
- Automated content analysis of artistic objects
- Synchronization in aesthetic experience in social setting
- Neuroaesthetics
- Human-habitat interaction and its relation to human content, well-being, and modern interactive technology
- Aesthetic/Affective Human-robot/computer interaction
- Virtual or social environments and aesthetic content
- Digital art and archaeology, and computer vision
- Form and content exploration in addictive games
- Bias in aesthetic analytics and inclusive aesthetic experience

2 KEYNOTE AND ACCEPTED PAPER

The keynote speaker at MAAE 2023, Jasmin Mahmoodi, is an interdisciplinary researcher working on topics spanning from Behavioral Economics to Human-Computer Interaction. She is currently a Senior User Experience Researcher based in Zurich, Switzerland, where she applies insights from these disciplines to improve user experiences and interactions with smart devices and digital touch points. Prior to this, Jasmin worked at the University of Geneva, where she also received her PhD in the field of Behavioural Economics, investigating the impact of biases and choice architecture on sustainable decision making. She has published on these topics in peer-reviewed journals such as *Current Opinion in Behavioral Sciences*, *Frontiers in Psychology*, *Energy Policy*, and *Journal of Consumer Behavior*. Next to this, Jasmin also worked as a PhD intern in People Analytics at Google in the US, where she applied insights from Behavioural Economics and quantitative analyses to ensure equitable hiring processes for 3m annual applicants.

The three accepted papers cover a diverse range of topics, exploring the use of biofeedback to design player-adaptive video games, the collaboration between human artists and generative artificial intelligence tools on creating emotive artworks, and the computational modelling of emotional experiences while gambling.

3 CONTRIBUTION AND IMPACT

MAAE 2023 addresses topics that contribute to the understanding of aesthetic and emotional components of tangible and intangible pieces. Specifically, the rise of generative artificial intelligence technology in art creation expands on current research approaches to understanding, eliciting, and measuring aesthetic emotions.

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