



Multimedia Tools and Applications

<https://springer.com/11042>

Editor-in-Chief: Borko Furht

Special issue: Call for Papers

Special Issue on Multimedia Alternate Realities: enabling technologies, mediated interactions and experiences

Scope, Dimensions and Topics

Novel multimedia technologies enable us to experience other realities, to live other people's stories, or to interact in remote scenarios. Different spaces, times, situations or contexts can be entered thanks to multimedia contents and systems, which coexist with our current reality, and are sometimes so vivid and engaging that we feel we are immersed in them. These experiences may feel like an alternate reality.

Recent advancements in multimedia and related technologies together with increased computational capabilities facilitate the creation of hypermedia content with higher quality using multiple sensory channels, including audio, visual, haptic, olfactory, and taste.

Following three inspiring editions of the Multimedia Alternate Realities workshop at the ACM Multimedia conference, this MTAP Special Issue brings new opportunities to share ideas and results. Research contributions may explore how the synergy between multimedia technologies and its perceptual/cognitive effects can foster the creation of alternate realities and make their access an enriching and valuable experience. This call is open for everyone working on the broader theme of Alternate Multimedia realities, including previous workshop participants as well as new contributors. In line with this conceptual theme, we seek contributions that present multimedia technologies, methods and evaluation approaches from the perspective of "enabling other realities".

In particular, one or more of the following **dimensions** must be addressed in the contributions by prospective authors, when characterizing the type of multimedia alternate realities that they are aiming for:

- Alternate - refers to what is alternate about it: different space, time, situation, and so on;
- Virtual/Augmented - how far or close to the actual reality content can be experienced, ranging from totally virtual to augmented reality (VR/AR);

- Real/Fictional - how real or fictional the content is;
- Interactive - the level of interactivity as a means of engagement and immersion;
- Immersive - level in perceptual, cognitive and emotional terms, the sense of presence and belonging, the quality of the content and the experience, imagination and engagement;
- Multisensorial - the media involved and how much multimedia it is, also going beyond audiovisual content to include the five senses;
- Personal - adaptation to individual preferences and contexts;
- Social - individualized vs shared experiences and communication.

We invite contributions with the goals and the perspective of enabling alternate realities experiences as characterized above, through multimedia technologies, design and evaluation methods for its creation and consumption. This involves the use of different types of media content (audiovisual, haptics, smell, and taste), increased immersion (e.g., 3D, holographic, UHD, panoramic and 360-degree visual media, and spatial audio), new interaction devices, environments, modalities, and formats.

Topics include but are not limited to:

Creation and Consumption of Alternate Realities

- Capturing and sensing;
- Content production and authoring, interactive storytelling, digital narratives, cinema and TV;
- Crowdsourcing and co-creation;
- Delivery, rendering, and consumption paradigms, co-experience and communication;
- Personalization, post-processing, enhancement and real-time adaptation.

Design and Evaluation of Alternate Realities Experience

- Engagement, immersion, flow assessment and prediction;
- Experience (QoE) evaluation through the analysis of quantitative (e.g., physiological data, self-reports, logging data) and qualitative data (e.g., interviews, observations);
- Quality of alternate reality experience measurements and metrics;
- Field trial reports and user studies.

Alternate Realities Applications

- From more traditional to innovative applications, e.g. based on multi-device and multisensory shared content consumption, in asynchronous or live scenarios, as in telepresence;
- In domains like personal media, culture, tourism, art, education, entertainment, manufacturing, training, health and wellbeing, etc.

Guest Editors

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Important Dates

Expression of interest (abstract, 400 words): extended to **March 16, 2020**

Submission deadline: **May 1, 2020**

*Manuscripts submitted before the deadline will enter the review process straightaway. If accepted, your paper will proceed to be published **online first** and will be fully citable before issue publication.*

*The Expression of Interest (**abstract** sent by **email** to the guest editors (see guidelines below) not to Springer) is not mandatory. It is recommended and allows to receive feedback prior to finishing the full paper (manuscript). Ultimately, it is the full paper submitted to Springer that is going through the full review process.*

For up-to-date information please check: <http://altmmsi.di.fc.ul.pt/>

Contact the guest editors at: altmmsi@di.fc.ul.pt

Submission Guidelines

Authors should prepare their manuscript according to the Instructions for Authors available from the Multimedia Tools and Applications [website](#). As a general guide, the journal recommends papers to be 15-25 pages in length. Authors should submit through the online submission site at <https://www.editorialmanager.com/mtap/default.aspx> and select “1161 - Multimedia Alternate Realities” when they reach the “Article Type” step in the submission process. Submitted papers should present original, unpublished work, relevant to one of the topics of the Special Issue. All submitted papers will be evaluated on the basis of relevance, significance of contribution, technical quality, scholarship, and quality of presentation, by at

least three independent reviewers. It is the policy of the journal that no submission, or substantially overlapping submission, be published or be under review at another journal or conference at any time during the review process.

This Springer special issue will consider papers extending previously published conference papers, as long as the journal submission provides a significant contribution beyond the conference paper. It would normally be expected that the extended version contains at least 30% original scientific contribution, for example in the form of new algorithms, experiments or qualitative/quantitative comparisons; and cites the original conference publication while briefly explaining the extension.

Expression of Interest: by email to altmmsi@di.fc.ul.pt, subject: "AltMM SI – Expression of Interest".