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ACM Transactions on Internet Technology

Special Issue on Human-Human Multimedia Communications in Metaverse

Guest Editors:

- Zhihan Lv, Associate Professor, Uppsala University, Sweden, lvzhihan@gmail.com
- James J. Park, Professor, Department of Computer Science and Engineering, Seoul National University of Science and Technology (SeoulTech), Seoul, Korea, jhpark1@snut.ac.kr
- **Jun Shen**, Professor, School of Computing and Information Technology, University of Wollongong, Australia, jshen@uow.edu.au
- **Houbing Song**, Associate Professor, Department of Information Systems, University of Maryland, Baltimore County (UMBC), Baltimore, MD 21250 USA, songh@umbc.edu

Although the Metaverse is the collective product of the development of various fields, it also reacts to the development of various fields. In the field of media research, the digital and virtual characteristics of the Metaverse urge social media to complete self-innovation in the new media form and realize the realistic and visual presentation of social media communication. To realize the Metaverse, many network conditions must be met, including improving network delay, symmetrical network bandwidth and increasing the overall network speed. For the Metaverse, network delay is a big challenge that affects interactive experience, and different types of applications have different requirements for delay.

A wide range of scenarios and diverse technologies are integrated in the Metaverse, which makes most of the content in the evolution of the 5G standard support the Metaverse. Large bandwidth, low delay, high reliability and low power consumption are all required capabilities of the Metaverse. In the era of man-machine multimedia in the universe, each generation of communication technology needs to evolve continuously, so that it can produce more value. By 2030, it will enter the 6G era, and continuous investment in 5G and 5G evolution technology can help take the lead in the 6G stage and give full play to the industrial advantages. The 6G vision includes global ubiquity, instantaneous speed, high efficiency and energy saving, certainty and reliability, immersion holography, intelligent inclusiveness, synaesthesia and multi-dimensional and virtual-real twins. The 6G real-time cloud rendering has remarkable characteristics such as high bandwidth and ubiquitous network. Virtual live broadcast, virtual idol/digital person, online interactive display-cloud room selection, etc., with the "technical blessing" of 6G real-time cloud rendering, have unlimited applications in the Metaverse scene.

It is undeniable that the realization of the expected effect of the Metaverse needs the support of a lot of mature technologies, but there are still many bottlenecks in the Metaverse, among which the bottleneck of communication technology is very obvious, and it is not possible to make a breakthrough in a short time. Based on this, this special issue is mainly aimed at soliciting contributions from researchers in the field of Metaverse, collecting more applications of interpersonal multimedia communication in the Metaverse, and then promoting the development of the Metaverse.

Topics

- Construction of Two-way Communication between Metaverse Public Space and Virtual Subject Image
- Interpersonal Communication Interconnection Technology of Media Convergence in Metaverse
- Communication and Internet Technology of Interpersonal Social Mode in Metaverse

- • Deep Media Mode of Interpersonal Communication in Metaverse Cloud
- • Digital Mimicry of Interpersonal Multimedia Communication in Metaverse
- Interactive Media Technology Based on the Combination of Reality and Reality in Metaverse
- Metaverse Technology for the Transition from Digital Infrastructure to Digital Interpersonal Communication
- • Organizational Power, Calculation, Maintenance and Regulation of Metaverse Multimedia Communication
- Construction of Metaverse Multimedia Communication Society Based on Virtual Reality
- • Communication Support of 5G and 6G for Metaverse Scene Formation

Important Dates

• Submissions deadline: January 30, 2024

• First-round review decisions: April 30, 2024

• Deadline for revision submissions: June 30, 2024

• Notification of final decisions: August 30, 2024

• Tentative publication: November 30, 2024

Submission Information

For questions and further information, please contact Zhihan Lv / lvzhihan@gmail.com.