

Introduction to the HICSS-56 Minitrack on Immersive Technologies in Business

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Immersive technologies integrate virtual content with the physical environment and create an immersive experience for users. Typical examples of immersive technologies include augmented reality (AR), virtual reality (VR), and mixed reality (MR). Other immersive technologies with developing applications and potentials include extended reality (XR), digital twin technology, holography, and the metaverse. These technologies have long captivated public attention and imagination, and are now coming into our daily life. They have been adopted in application areas such as entertainment, retailing, e-commerce, education, gaming, tourism, military, and medicine (Javaid & Haleem, 2020; Radianti et al., 2020; Tom Dieck & Han, 2022). Immersive technologies are increasingly transforming our experience in various aspects of life and business. With further maturity of the technologies and reduction in cost, they are on the verge of a more pervasive entrance into our life and are expected to revolutionize how we interact with the world and digital content.

Research on the adoption, usage, and impact of immersive technologies in business has drawn growing interest in recent years. This minitrack aims to provide a discussion forum for involved and interested researchers to share their developing work and foster collaborative efforts in this field. This minitrack attracted two research paper submissions and one is accepted for publication.

“Augmented Reality in Sports Event Videos: A Qualitative Study on Viewer Experience” by Tianjiao Zhao, Zhao Du, Fang Wang and Shan Wang studies viewer experience with AR applications in the sports industry. AR, in combination with other cutting-edge technologies such as big data, artificial intelligence and edge computing is transforming viewer experience in watching sports broadcasts (Bozyer, 2015; da Silva et al., 2021; Rogers et al., 2017). For example, while fans watch games from home, AR can provide an immersive experience when 3D graphics

are used to overlay replays and provide in-depth analysis (echo3D, 2020). This provides viewers with a better understanding of sports games and a better overall viewing experience. AR is also likely to transform the in-stadium viewing experience. With AR equipment, viewers can access live AR stats and scoreboards during a game without being distracted by checking information online. Another example is location-based AR visualizations, which can transform the stadium into a massive stage for 3D animation games (Soltani & Morice, 2020). Viewers can even “play an AR game that has Cowboys players facing off against robots during half-time” (Roettgers, 2019).

Despite the transforming viewer experience brought by the growing applications of AR in the sports industry, theoretical knowledge of viewer experience with AR is limited. The paper intends to fill this gap by studying viewer experience with AR applications in sports event videos, identifying key AR features as well as their advantages and drawbacks to the viewer experience. The research is exploratory and qualitative in nature. It conducted interviews with 30 participants on their experience with AR use in sport event videos, and applied content analysis to identify AR features and the viewer's perception of such features. The analysis of the interview transcript identified four salient features of AR in the sports event video context, i.e., informativeness, novelty, vividness, and telepresence. It also revealed three key advantages of AR to sports audiences, including game comprehension, enjoyment, and fan socialization, as well as two drawbacks, including distraction and inauthenticity.

We thank all authors for submitting their work to this minitrack. We trust an engaging discussion will push ahead the scholarship in the field of AR in business and look forward to further development of collaborations and insights.

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