

Introduction to Actors, Agents, and Avatars: Visualizing Digital Humans in E-Commerce and Social Media Minitrack at HICSS 56

Lingyao (Ivy) Yuan
Iowa State University
lyuan@iastate.edu

Mike Seymour
The University of Sydney
mike.seymour@sydney.edu.au

Kai Riemer
The University of Sydney
Kai.riemer@sydney.edu.au

The focuses of minitrack, Actors, Agents, and Avatars: Visualizing Digital Humans in E-Commerce and Social Media, are the design, visualization, and applications of digital human characters in the context of E-commerce and social media disciplines. On social media platforms, human realistic digital agents have become virtual influencers. In electronic commerce, virtual agents have been deployed as digital sales assistants, fashion advisers, financial consultants, and personal shoppers.

With the continuing support of the HICSS Internet and the Digital Economy Track chairs as well as the contributing authors and quality reviewers, we have successfully organized this minitrack for the second time this year. This year, our minitrack has accepted four research papers. In terms of research topics, three of the papers are on virtual influencers, and one is on digital celebrities. Both virtual influencers and digital celebrities are emerging phenomena in recent years. We are proud to provide a space for research focusing on innovative technologies. Papers in our minitrack have stayed extremely relevant to our fast-changing world. The accepted papers are diverse in research methods, with three papers using quantitative methods and one using qualitative methods. All papers were built on strong theoretical foundations as well as great practical implications, satisfying our goal of making this mini-track a platform for researchers with different backgrounds.

The following three papers focus on virtual influencers. In the first paper, *Credibility of Virtual Influencers: The Role of Design Stimuli, Knowledge Cues, and User Disposition*, by Samia Cornelli, Dorothy Leidner, and Hind Benbya, a research model of disposition (i.e. need for cognition and loneliness) and knowledge moderating the relationship between humanness and perceived credibility was proposed. From the results of two experiments, the authors found that active thinkers and lonely people perceive less humanness virtual influencers as more credible. They also found providing important and honest information weakens the negative effect of human-like design on credibility perceptions. The authors

cautioned companies in deploying human realistic digital influencers.

The paper, *How Virtuous Are Virtual Influencers? —A Qualitative Analysis of Virtual Actors' Virtues on Instagram*, by Lennart Hofeditz, Lukas Erle, Lara Timm, and Milad Mirbabaie, also focuses on the phenomenon of virtual influencers on social media. They conducted content analysis on Instagram posts to identify the virtues most frequently conveyed by virtual influencers. They found *Humanity* was the most frequently expressed, followed by *Wisdom*, *Transcendence*, and *Temperance*. They also found a positive relationship between virtual influencers' behavior of expressing virtues and their followers' engagement.

Deeply grounded on the Uncanny Valley Theory, the paper, *Significance of Visual Realism – Eeriness, Credibility, and Persuasiveness of Virtual Influencers*, by Samia Cornelius, Dorothy Leidner, and Saman Bina, measured people's preferences and perceptions towards virtual influencers with different levels of human realism. They found highly realistic virtual influencers with visual imperfections evoked eeriness from participants. Those avatars were perceived as less trustworthy as well as less attractive. Those findings are consistent with the Uncanny Valley Theory.

The last paper focuses on the creation and adoption of digital celebrities in the context of e-commerce. The paper, *Celebrity at Your Service: The Effects of Digital-Human Customer Service Agents*, by Lingyao Yuan, Antino Kim, Mike Seymour, and Alan Dennis, looked at digital celebrities, which are digital humans designed to look like real celebrities, in the context of customer service. The authors created a digital human of Hugh Jackman, a famous Australian actor, and used this digital celebrity as a customer service agent in a lab experiment. Celebrity effects indeed were observed from digital celebrities. They found that compared with real human customer agents, digital celebrity agents were more likely to be forgiven for making mistakes. The authors also found that people are very acceptant of digital celebrities.