**Actors, Agents, and Avatars:** **Digital Humans in E-Commerce and Social Media**

**Guest Editors**

Lingyao (Ivy) Yuan

lyuan@iastate.edu

Iowa State University

2167 Union Dr.,

Ames, IA 50021

USA

Mike Seymour

mike.seymour@sydney.edu.au

The University of Sydney

Business School

Darlington NSW 2006

Australia

Kai Riemer

kai.riemer@ sydney.edu.au

The University of Sydney

Business School

Darlington NSW 2006

Australia

Alan Dennis

ardennis@indiana.edu

Indiana University

1275 E 10th St.

Bloomington, IN 47405

USA

A Special Issue of the International Journal of Electronic Commerce

As visualization technology has advanced in recent years, digital humans have begun to transform how we work, live, play, and learn. As a technology category, digital humans comprise computer-generated models, avatars, and virtual people created with Generative AI and other AI technology that evolved from Deep Fake statistical methods. Realistic digital humans have been deployed in multiple areas, including e-commerce and social media. In social media, human realistic digital agents have emerged as virtual influencers. In electronic commerce, virtual agents have been deployed as digital sales assistants, fashion advisers, digital fashion models, financial consultants, and personal shoppers. With the ongoing integration of social media into the e-commerce customer experience, digital humans stand to become even more relevant and prevalent.

This special issue covers a wide range of topics within this area. Submissions may focus on theory, strategy, cases, practices, methods, or any topic compelling and of interest to the industry and academia. Importantly, each submission must convey a sense of significance, richness, or impact for theory, behaviors, and/or practice.

Digital humans are a rapidly emerging and maturing technology. The first emphasis is on AI visualization. Along with the existing AI research on algorithm design and data mining techniques for agents without humanlike visual representations, such as chatbots and voice recognition agents, we welcome submissions on any technological advancement to create human-realistic avatars and agents, such as the application of neural rendering technology. The second emphasis is on the importance of investigating behavioral and perception outcomes to uncover the complex, interactive nature of the technology, the end user, the tasks, as well as the organizational environment, and opening the black box of the underlying cognitive processes undertaken by the end-user while interacting with digital humans. The third emphasis is on how interaction with digital human characters challenges established concepts of information systems concepts, such as IT artifact, user, and use, when interacting with digital humans differs markedly from the more established phenomenon of tool use to accomplish a task. The fourth emphasis is on how the adoption and interaction with digital humans can provide incomparable guidance to creating such digital characters.

We would like to position this special issue as a place for researchers and practitioners from diverse backgrounds to share their research and ideas. We also want to use this special issue to bridge academic research with practitioner concerns to create synergy in promoting the creation and usage of digital humans. There are a variety of important issues and topics of importance, such as new technology and visual design advancements to digital humans, the behavioral, emotional, and even physical responses of the users while interacting with digital humans, the underlying cognitive processes underlying the interactions, the impact of digital humans on the firm level or industry level (industries such as gaming, movies, fashion, and online retailers), issues of conceptualization and theorizing, and ethical issues and societal considerations of the application of digital humans. Research could be wide-ranging, such as rich descriptive statistics, theories, emergent and innovative topics, models and frameworks related to technologies and their impact on marketing, case studies, methods, qualitative research, etc. The topics include but are not limited to:

* Visualization technology to advance digital humans.
* Challenges and problems with creating digital humans or avatars of customers using scanning and sampling technologies.
* Human-computer interactions, instilled with digital humans, including affective computing issues.
* Design of digital human interactions by combining human and computer cognitive power.
* Use of GANs and VAEs to infer digital human faces, including approaches building on ‘Deep Fakes’ or neural rendering technology.
* Analysis of machine learning, big data, data mining, and other underlying technologies and algorithms of digital humans.
* Taxonomy of digital humans.
* Virtual influencers and YouTube digital celebrities.
* Impact of digital humans on the individual level (decision-making, problem-solving, negotiation, and creativity/innovation).
* Psychological and emotional effects of interacting with realistic digital humans.
* Biases in interacting with digital humans and biases in the digital humans deployed.
* The relation between large language models (LLMs) and digital humans, including conversational interactions and retrieval augmented generation (RAG) mitigation.
* The use of digital humans beyond individuals and its consequences in organizations and as representatives of organizations.
* Management of deployment (e.g., corporate governance, data management).
* Issues regarding privacy, data scraping, and data security.
* Case studies on industry adoption of digital humans, including digital twins.
* Use and economic implications of digital humans in e-commerce, social media, and the combinations of multiple industries involving e-commerce and social media.
* Social impact and ethics related to digital humans and their deployment.
* Philosophical questions surrounding the idea of ‘using’ digital humans.
* Conceptualizations of the phenomenon of digital human interactions.

**Guidelines that Apply to All Papers to Be Recommended for Review and Acceptance in the *IJEC* Special Issue**

1. All papers should be in Word.
2. All papers should be edited for the English-language style.
3. No PLS should be used for validation.
4. There should be no copied material, such as figures, without the copyright holder's attached permission to reproduce. It is best not to use reproductions at all.
5. All papers should be tied to Electronic Commerce and, when appropriate, reference the relevant *IJEC* papers.
6. References should be alphabetized, numbered, and cited by number. All References should be exactly in the format specified on the ijec-web.org website of IJEC.
7. The length should be up to 50 pp, with a separate online appendix file if desired.
8. The corresponding author should be indicated.
9. Delete section numbers, as *IJEC* does not use them.

Authors are encouraged to submit their research to our mini-track titled "Actors, Agents, and Avatars: Visualizing Digital Humans in E-Commerce and Social Media" at the 58th Hawaii International Conference on System Sciences (HICSS-58) for feedback. Submitted papers have the chance to be invited and expedited for publication in this special issue.

**Please submit a complete Word file of the paper, including the cover page will complete postal and e-addresses of all the authors (the corresponding specified), followed by the page with the authors' bios and the body of the paper. If an appendix file is attached, it should be in Word as well, with references as specified above (by number).**

**Timeline:**

*International Journal of Electronic Commerce (IJEC) Special Issue Timeline*

* Submission Deadline for Extended Abstract (if not submitted to HICSS mini track): July 15, 2024
* Submission Invitation: September 15, 2024
* Submission Deadline for Complete Manuscript: February 15, 2025
* Initial Notification (reviews, rejections, and desk rejections): 15 April 2025
* Revisions Due: 15 June 2025
* Second Round of Decisions: 15 August 2025
* Final Resubmission Deadline: 1 October 2025
* Final Decision or Minor Revisions Handled by Editors: 30 November 2025

**Submission Venue:**

To submit to this special issue, please send your submission to email [**lyuan@iastate.edu**](mailto:lyuan@iastate.edu) with the subject line: **Submission to IJEC Special Issue on Digital Humans**.