



AI-powered E-Commerce and Information Management *Special Issue of Data Science and Management*

In recent years, artificial intelligence (AI) has been deeply integrated with customer service and supply chain optimization, reshaping the e-commerce with great changes. Based on its powerful analysis competence and excellent learning ability, AI presents opportunities to gain useful insights from big data, promote information management, and perform several tasks autonomously that were previously performed by humans. For example, AI-powered recommendation systems and chatbots can help to provide precise, convenient, and personalized customer services (Hoyer, Kroschke, Schmitt, Kraume, & Shankar, 2020), thus improving customers' experience (Ameen, Tarhini, Reppel, & Anand, 2021) and employees' work efficiencies. Although increasing research focusing on AI-powered E-Commerce has explored the impact of AI on the behavior of customers and employees, the emerging Generative Artificial Intelligence (GAI) such as ChatGPT (Paul, Ueno, & Dennis, 2023) is calling into question our existing assumptions due to the tendency of transforming from weak AI to strong AI.

Given the ubiquitous use of AI in e-commerce today, there are many fascinating phenomena and research questions that are understudied. For example, the horrendously accurate recommendation algorithms may bring information cocoons problem (Nechushtai & Lewis, 2019), limiting customers obtain diverse information. It may also give customers a sense of being monitored, raising privacy concerns. For employees, AI increasingly threatens their work processes and even replace their jobs (Mirbabaie, Brünker, Möllmann (Frick), & Stieglitz, 2021). These phenomena highlight the significant negative or detrimental consequences of AI to customers, employees, and organizations that are worthy of further research attention. Therefore, in the context of AI-powered e-commerce, we call for a need to understand the role of AI's characteristics like autonomy, to investigate the resources and mechanisms of the ethics issues like privacy, and to explore how better human-AI interactions and information management can be achieved by interaction designs.

Possible Topics of Submissions

Based on this context, the topics of this special issue tentatively contain, but are not limited to the following areas:

- AI-powered information management, analysis, and optimization
- Customer behaviors and experience in AI-powered e-commerce
- Employee behaviors and performance in human-AI collaboration
- Organization strategies and business model innovations in AI-powered e-commerce
- Design for human-AI interaction

- Explainability, robustness, responsible AI in e-commerce
- Algorithmic bias and fairness issues
- Information cocoons and elimination
- Ethics issues (e.g., trust, privacy, and accountability) and governance
- The impact of GAI in e-commerce
- Emerging e-commerce and information management issues in the age of AI
- AI and platform economy
- The social and regulations issues related to AI
- Intelligent applications in industries (e.g., healthcare, e-commerce, and manufacturing)

Data Science and Management

Data Science and Management (DSM) is a quarterly SCOPUS Indexed international journal. It is also on the journal list of FMS Journal Rating Guide. DSM is a peer-reviewed journal for original research articles, review articles and technical reports related to all aspects of data science and its application in the field of business, engineering, and social management. For further information, refer to the Science Direct at <https://www.sciencedirect.com/journal/data-science-and-management>.

Forms of Submission

This special issue will consist of:

- (1) The papers from an open call selected from the ICEC2024 (International Conference on Electronic Commerce 2024) as posted at <http://www.icec.net>;
- (2) Voluntary submitted papers according to the due date; and
- (3) Invited papers that are requested from the editorial members.

All submitted papers and invited papers will go through peer review.

The submission due date for ICEC2024 is February 28, 2024, and conference dates are May 29-31, 2024 at Seoul as posted at <https://www.icec.net/cfp>.

Submission Instruction

Manuscripts are recommended to submit to ICEC 2024 submission systems first. Then, accepted manuscripts will be selected and invited to revise to submit via the fast-track submissions system of Data Science and Management (<https://www.editorialmanager.com/dsm/default2.aspx>). The submission schedule of revised papers and new voluntary and invited submission are:

Submission Deadline: 31th July, 2024.

Notification of first round reviews and acceptance: 30th September, 2024.

Revised manuscripts due: 30th November, 2024.

Notification of second round reviews and acceptance: 15th January 2025.

Final manuscript due: 28th February, 2025

Last date for final acceptance: 15th April, 2025

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Haibing Lu is a Professor and Department Co-Chair of Information Systems & Analytics at Santa Clara University. He joined Santa Clara University in fall 2011, right after receiving his Ph.D. in Management (Information Technology) from Rutgers University. He earned his B.S. and M.S. degrees both in mathematics from Xi'an Jiaotong University, China, in 2002 and 2005 respectively. He is a frequent recipient of the SCU Leavey Business School's Extraordinary Research, Teaching and Service Awards. He has expertise in information privacy & security, and data analytics. He is particularly interested in applying state-of-art technologies to real-world problems, e.g., private keyword search in cloud computing, reinforcement learning for sales representative engagement, analytics for smart energy, privacy-preserving textual analytics, machine learning fairness. He has published over 50 well-cited technical papers in leading journals, including IEEE Transactions on Dependable and Secure Computing, IEEE Transactions on Intelligent Transportation Systems, IEEE Transactions on Big Data, ACM Transactions on Management Information Systems, INFORMS Journal on Computing, Manufacturing Service Operations Management, and premium computer science conferences, including KDD, S&P, ICDM, and ICDE. His research has been supported by companies and organizations, e.g., GEIRI North America, Ultimate Software, AKTANA, and Markkula Center. His research is reported by the United Nations, Forbes, and WIRED Magazine.

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