



CALL FOR PAPERS

**Special Issue on “Generative Computational Social Intelligence:
Modeling, Simulation, and Applications”**

Introduction: Recent advances in generative artificial intelligence (GenAI), such as large language models and diffusion models, have significantly expanded the capabilities of computational social intelligence. These technologies enable the generation of realistic human-like text and images, as well as the simulation of complex social behaviors and interactions in large-scale cyber-physical-social systems. For example, LLMs-based agents constructed from brief descriptive inputs can replicate individual memory patterns and behavioral traits with notable consistency, aligning closely with real-world behaviors. In controlled environments, autonomous AI with predefined social characteristics can engage in dynamic interactions and schedule-driven activities, leading to the emergence of collective behavior. These developments have opened new directions for GenAI-based social modeling and simulations, providing a foundation for investigating emergent phenomena in artificial societies.

At the same time, GenAI is increasingly integrated into practical applications that involve human-centric decision-making, such as policy reasoning, scenario generation, behavioral forecasting, and virtual advisory systems. Natural language interfaces, context-aware reasoning, and adaptive response mechanisms have enhanced the capability of generative systems to participate in meaningful human-AI collaborations. Such interactions enable more accessible and adaptive decision support in complex socio-technical settings. As GenAI becomes more widespread, there is a growing need to rethink how to model, simulate, and influence collective behavior in computational social systems. GenAI offers a promising foundation for building data-driven representations of individuals and groups, which are especially valuable in areas such as public decision support, behavioral analytics, crisis response, and the governance of online communities.

This special issue seeks to bring together interdisciplinary perspectives on the foundations and applications of generative models in Behavioural and Social Computing (BESC). It aims to foster dialogue between researchers in artificial intelligence, computational social science, and behavioral disciplines, and to advance theory and practice in this emerging area. We invite original research contributions that explore generative computational social intelligence, including but not limited to the following topics:

- **GenAI-augmented computational social system:** Novel application paradigms integrate GenAI into computational social systems, enabling new forms of modeling, simulation, and interaction.
- **Behavioral guidance and intervention:** Designing generative methods for nudging, persuasion, or behavior change in contexts such as health, emergency, or education.
- **Multi-agent modeling and simulation:** Using generative models to construct and simulate large-scale artificial societies with complex social dynamics.
- **Human behavior simulation:** Data-driven generation of individual or group behavioral patterns under social, economic, or psychological constraints.
- **Generative human-AI collaboration:** Mechanisms for socially intelligent cooperation between humans and generative systems in decision-making and task execution.
- **Strategy formulation in social systems:** Leveraging generative tools to design and evaluate strategies in social networks, markets, and organizational environments.
- **Misinformation and trust mechanisms:** Modeling the generation, spread, and mitigation of misinformation and analyzing their implications on public trust and perception.
- **Generative decision support in dynamic environments:** Supporting real-time decisions in domains such as emergency response or urban planning.
- **Social norms and cultural dynamics:** Exploring how norms or theories emerge, evolve, or are disrupted in agent-based environments driven by generative interactions.

Important Dates

- Paper Submission Deadline: December 31, 2025
- First Round of Reviews Deadline: March 31, 2026
- Submission of Revision Deadline: May 31, 2026
- 2nd Round of Reviews Deadline: July 31, 2026
- Decision of Acceptance Deadline: September 30, 2026

Guest Editors

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- Prof. Qi Zhang, Tongji University, China

Submission Guidelines

All papers are to be submitted through the [IEEE's Manuscript Central for Transactions on Computational Social Systems](#). Please select "Special Issue – **Generative Computational Social Intelligence: Modeling, Simulation, and Applications**" under the Manuscript Category of your submission. All manuscripts must be prepared according to the IEEE Transactions on Computational Social Systems publication guidelines.