**Call for Papers**
**Special Issue on**
**Large-Scale Knowledge Discovery in Computational Social Systems**

Over the last decade, significant progress has been made in understanding the inherent dynamics of social systems. In the current digital era, where each social interaction leaves a digital trace, computational modeling has proven instrumental in untangling the complexities of human behavior, collective dynamics, and societal evolution. This ever-changing landscape of social systems is continuously unfolding, playing a vital role in deciphering the intricate nature of interactions, especially in the domain of large-scale knowledge discovery. Large-scale knowledge discovery within social systems, facilitated by computational models, offers unprecedented advantages. The sheer volume and diversity of data generated in contemporary social interactions provides an expansive canvas for exploration. Leveraging large-scale datasets allows for more comprehensive insights into behavioral patterns, societal trends, and emergent phenomena, fostering a deeper understanding of the complexities inherent in social dynamics.

Nevertheless, this shift toward large-scale knowledge discovery also reveals research gaps. The challenges lie in efficiently harnessing, processing, and deriving meaningful insights from vast and diverse datasets. The adaptability of existing computational models may lag behind the dynamic nature of large-scale social interactions, necessitating efforts to bridge the divide between potential advantages and current limitations. This special issue aims to facilitate a comprehensive exploration of large-scale knowledge discovery through innovative advancements in computational modeling tailored to the intricate dynamics of contemporary social systems. The goal is to advance the field, offering a nuanced understanding of the opportunities and limitations inherent in large-scale knowledge discovery within the complex tapestry of social systems.

This special issue invites original research papers, reviews, and case studies that delve into, but are not limited to, the following topics, with a specific emphasis on large-scale knowledge discovery:
- Agent-based modeling of social interactions
- Network analysis and graph theory applications
- Machine learning and artificial intelligence methodologies for large-scale knowledge discovery
- Dynamics of opinion formation and diffusion in large-scale social networks
- Computational models elucidating cultural evolution in large-scale societies
- Simulation of collective behavior to unravel emergent phenomena in complex social systems
- Applications of computational models in decision-making with a focus on large-scale knowledge discovery
- Innovations in Large-Scale Knowledge Discovery

**Important Dates:**

Manuscript submissions due: January 1, 2025

First round of reviews completed: April 1, 2025

Revised manuscripts deadline: June 1, 2025

Second round of reviews completed: July 15, 2025

Final manuscripts deadline: August 15, 2025

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