

SPRINGSIM'20

2020 Spring Simulation Conference

AIMS AND SCOPE

In the **Humans, Societies and Artificial Agents (HSAA) Track**, you will see that artificial societies have typically relied on agent-based models, Geographical Information Systems (GIS), or cellular automata to capture the decision-making processes of individuals in relation to places and/or social interactions. This has supported a wide range of applications (e.g., in archaeology, economics, geography, psychology, political science, or health) and research tasks (e.g., what-if scenarios or predictive models, models to guide data collection). Several opportunities have recently emerged that augment the capacity of artificial societies at capturing complex human and social behavior. Mixed-methods and hybrid approaches now enable the use of 'big data', for instance by combining machine learning with artificial societies to explore the model's output (i.e., artificial societies as input to machine learning), define the model structure (i.e. machine learning as a preliminary to designing artificial societies), or run a model efficiently (i.e. machine learning as a proxy or surrogate to artificial societies). Datasets are also broader in type since artificial societies can now be built from text, or generate textual as well as visual outputs to better engage end-users. Authors are encouraged to submit papers in the following areas:

- Applications of artificial societies (e.g., modeling group decisions and collective behaviors, emergence of social structures and norms, dynamics of social networks)
- Data collection for artificial societies (e.g., using simulations to identify data gaps, population simulations with multiple data sources, use of the Internet-of-Things)
- Design and implementation of artificial agents and societies (e.g., case studies, analyses of moral and ethical considerations)
- Participatory modeling and simulation
- Policy development and evaluation through simulations
- Predictive models of social behavior
- Simulations of societies as public educational tools
- Mixed-methods (e.g., analyzing or generating text data with artificial societies, combining machine learning and artificial societies)
- Models of individual decision-making, mobility patterns, or socio-environmental interactions
- Testbeds and environments to facilitate artificial society development
- Tools and methods (e.g., agent-based models, case-based modeling, soft systems)