SERIOUS GAMES ANALYTICS IN THE AGE OF AI

Editors: Christian S. Loh, Yanyan Sheng, & Dirk Ifenthaler Published by Springer Nature Switzerland AG (est. 2026)

We invite chapter proposals for an **upcoming edited volume** that explores the evolving intersection of **Serious Games Analytics (SGA)** and **Artificial Intelligence (AI)**. Building on the foundational work of *Serious Games Analytics: Methodologies for Performance Measurement, Assessment, and Improvement* (Loh, Sheng, & Ifenthaler, 2015), this volume expands the conversation to how various iterations of AI — including machine learning (ML) and large language models (LLMs) — are reshaping the research and development of serious games analytics. Topics span serious games design, learner/user modeling, performance assessment, and AI-driven analytics for (non-entertainment) training and performance improvement.

The goal of this volume is to gather rigorous, research-informed contributions that highlight emerging trends, practical applications, and methodological innovations <u>across sectors where serious games are actively used</u> — including education, healthcare, military, emergency response, public safety, and workforce development. Submissions grounded in empirical research, applied studies, or technical implementation are welcome. Purely conceptual or speculative chapters will not be prioritized.

TOPICS OF INTEREST INCLUDE (BUT ARE NOT LIMITED TO):

• Integration of Al into serious game systems
(e.g., Al-driven game design, data collection and analytics pipelines, machine learning models for player assessment and adaptation)



- Player behavior and performance analytics
 (e.g., Al-enhanced expert-novice modeling, in situ action tracking, adaptive learning systems)
- Agentic Al and simulation-based instruction (e.g., conversational Al, simulation-based decision-making with human-Al collaboration)
- Visualization and engagement modeling (e.g., Al-powered dashboards, Al-monitored engagement metrics for personalized feedback)
- Ethical and responsible Al use (e.g., privacy and surveillance concerns, fairness, bias mitigation, responsible design, transparency in analytics)

SUBMISSION GUIDELINES:

Please submit a **ONE-page** abstract outlining your proposed chapter, including:

- Chapter title
- Main objectives, and motivation
- Methodology or perspective
- Expected contribution to the volume

TIMELINE:

- Proposal deadline: August 01, 2025
- Notification of acceptance: October 01, 2025
- First drafts of chapters due: March 15, 2026
- Chapters returned with reviewer feedback: July 01, 2026
- Final chapters due: September or October 2026



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