Call for Book Chapters for the Springer-Verlag Handbook:

“Superintelligent Systems for Business Transformation”

AI, Autonomous Decision-Making and the Future of Intelligent Enterprises

(Scopus indexed)

Editors

Athina Bourdena, Hellenic Mediterranean University, Greece

Constandinos X. Mavromoustakis, University of Nicosia, Cyprus

Evangelos K. Markakis, Hellenic Mediterranean University, Greece

George Mastorakis, Hellenic Mediterranean University, Greece

The rapid evolution of Artificial Intelligence (AI), Generative AI, autonomous agents, large language models (LLMs) and advanced digital infrastructures is transforming the way modern enterprises operate, innovate and make decisions. Organizations are increasingly moving beyond traditional digital transformation toward AI-native business models, where intelligent systems support strategic planning, operational optimization, customer interaction, cybersecurity and complex decision-making processes. One of the most significant developments in this transformation is the emergence of autonomous AI systems and intelligent agents. Combined with Generative AI, AI copilots and advanced analytics, these technologies enable organizations to automate knowledge-intensive processes, enhance productivity, improve customer experiences and support faster and more informed decision-making. At the same time, predictive analytics, digital twins, and intelligent automation are helping businesses anticipate changes, optimize resources, and adapt dynamically to evolving operational conditions.

The integration of AI with big data analytics, IoT infrastructures, cloud-edge environments and next-generation communication technologies is further accelerating the development of intelligent and autonomous ecosystems. Edge AI enables real-time processing closer

to data sources, while blockchain-enabled trust mechanisms and AI-powered cybersecurity can enhance transparency, security and organizational resilience. These technologies are transforming sectors such as healthcare, finance, logistics, smart manufacturing, telecommunications, smart cities, transportation, retail and digital services.

Emerging concepts such as AI-native enterprises, human-AI collaboration, autonomous business ecosystems, intelligent decision frameworks and self-optimizing organizations are redefining traditional business structures. However, the increasing autonomy of intelligent systems also raises important ethical, societal, legal and governance challenges. Responsible AI, explainability, trustworthiness, privacy, algorithmic bias, regulatory compliance and workforce transformation are therefore critical considerations for the future of intelligent enterprises. By combining emerging technological advances with real-world business applications and responsible AI considerations, this book explores how superintelligent systems are enabling the transition toward adaptive, autonomous and data-driven enterprises and shaping the future of business transformation.

Sections of interest include but are ***not limited*** to:

- *Introduction to Superintelligent Systems and Intelligent Enterprises*
- *Generative AI and Large Language Models in Business*
- *Autonomous AI Agents and Intelligent Decision-Making*
- *AI-Driven Digital Transformation Strategies*
- *Intelligent Automation and Hyperautomation*
- *AI-Native Enterprise Architectures*
- *Big Data Analytics and Predictive Business Intelligence*
- *Edge AI and Real-Time Intelligent Systems*
- *Blockchain and Trustworthy AI Ecosystems*
- *AI-Powered Cybersecurity and Threat Intelligence*
- *AI in Smart Manufacturing and Industry 5.0*
- *AI Applications in Healthcare and Personalized Services*
- *Intelligent Transportation and Smart Mobility Systems*
- *AI in Smart Cities and Urban Intelligence*
- *Human-AI Collaboration and Future Workplaces*
- *Ethical, Legal and Governance Challenges of Superintelligent Systems*
- *Sustainable AI and Green Intelligent Enterprises*
- *Future Trends and Research Directions*

We strongly welcome other topic suggestions.

Schedule & Deadlines

- **15th December 2026**
  Full chapter submission via e-mail: gmastorakis@hmu.gr
- **15th February 2027**
  Review comments
- **15th March 2027**
  Submission of the revised version
- **30th April 2027**
  Final acceptance notification
- **15th May 2027**
  Final manuscript

Manuscript Preparation

- Please follow the manuscript formatting guidelines below and submit the original version (in ***Microsoft word***) and or ***LaTex*** format as per the guidelines (URL: https://www.springer.com/us/authors-editors/book-authors-editors/your-publication-journey/manuscript-preparation).
- Each final manuscript should be about 25-35 pages long (formatted). Depending on the number of submissions, longer manuscripts will also be accepted.
- Submit your chapter(s) via e-mail: gmastorakis@hmu.gr