Call for Book Chapters for the Springer-Verlag Handbook:

“Intelligent Technologies for Healthcare Business Applications”

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The healthcare industry has long been at the forefront of innovation and technological advancement, and intelligent technologies have the potential to revolutionize the way healthcare businesses operate. From improving patient outcomes to streamlining administrative processes, intelligent technologies can offer a range of benefits to healthcare businesses. One of the most promising areas for intelligent technologies in healthcare is in the field of predictive analytics. Predictive analytics uses data mining, machine learning, and other advanced analytics techniques to identify patterns and relationships in large data sets. By analyzing patient data, healthcare businesses can identify trends and risk factors that can help them to predict and prevent health problems before they occur. For example, predictive analytics can be used to identify patients who are at high risk of developing a particular disease or condition, and to provide targeted interventions to prevent the condition from developing. Another promising area for intelligent technologies in healthcare is in the field of telehealth (telemedicine). Telehealth allows healthcare professionals to provide remote care to patients, using video conferencing, remote monitoring devices, and other technologies. Telehealth can help to improve access to healthcare, particularly for patients in rural or remote areas, and can also help to reduce healthcare costs by minimizing the need for in-person visits. Intelligent technologies such as machine learning and natural language processing can be used to analyze patient data collected through telehealth visits, and to provide personalized recommendations for care.

Intelligent technologies can also be used to improve the efficiency of administrative processes in healthcare businesses. For example, machine learning algorithms can be used to analyze patient data and identify patterns that can help to optimize scheduling and resource allocation. Similarly, natural language processing can be used to automate the processing of medical records and other administrative documents, freeing up healthcare professionals to focus on patient care. One of the most exciting areas for intelligent technologies in healthcare is in the development of personalized medicine. Personalized medicine uses data analytics and other advanced technologies to identify the unique characteristics of individual patients, and to tailor treatment plans to their specific needs. For example, genetic data can be used to identify patients who are at high risk of developing certain diseases, and to provide personalized interventions to prevent or treat those conditions. However, there are also some challenges and concerns associated with the use of intelligent technologies in healthcare. One of the biggest concerns is around data privacy and security. Healthcare businesses need to ensure that patient data is kept secure and confidential, and that it is only used for legitimate purposes. They also need to ensure that their employees are trained to use intelligent technologies safely and ethically, and that they understand the potential risks and limitations of these technologies. In a general context, intelligent technologies have the potential to transform the healthcare industry, offering a range of benefits from improved patient outcomes to streamlined administrative processes. However, healthcare businesses need to be aware of the challenges and concerns associated with the use of these technologies, and to take steps to ensure that they are used safely and ethically. By doing so, they can unlock the full potential of intelligent technologies to improve healthcare outcomes for patients around the world.

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

Section I — Introduction of AI and healthcare

Section II — Architectures and intelligent systems for AI and healthcare convergence

Section III— IoT with Machine Learning and Artificial System technologies

Section IV— AI and 6G mobile systems

Section V— AI enabled healthcare systems

Section VI— Performance Evaluation of Deep Learning and IoT-related mechanisms

We strongly welcome other topic suggestions.

Schedule & Deadlines

- **31st July 2023**
  Full chapter submission via e-mail: gmastorakis@hmu.gr

- **30th September 2023**
  Review comments
- **31st October 2023**
  Submission of the revised version
- **30th November 2023**
  Final acceptance notification
- **31st December 2023**
  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 the proposal of your chapter(s) via e-mail: gmastorakis@hmu.gr