

# Call for chapters for a monograph

## Human versus Machine:

### Accounting and Management in the Face of the Fifth Industrial Revolution

The latest artificial intelligence (AI) developments have started reshaping the world we know. In this context, accounting and management professionals' future tasks and skills also become subject to many changes (ICAEW, 2018; Leitner-Hanetseder et al., 2021). As Hassan (2022, p. 444 ) emphasises, "*AI, according to most definitions, is hardware and software that can learn, reason, adapt, analyse, make judgments, and execute complicated and judgment-based activities in the same way as the human brain can.*" The new AI-based accounting tools and software enhance their outcomes through learning and become closer to humans' cognitive abilities in performing specific tasks (Munoko et al., 2020; Lehner et al., 2022). Thus, the accountancy profession is undergoing a kind of revolution reflected in automating monotonous and repetitive operations (Kommunuri, 2022), reducing the possibility of fraud and discrepancies in accounting data (Chukwuani and Egiyi, 2020) and improving the quality of managerial accounting (Chen et al., 2021) due to provision of real-time data analytics to boost corporate performance (Appelbaum et al., 2017).

However, the growing importance of AI-based accounting tools and software caused researchers, accounting professionals and managers to raise challenging questions on whether it would be possible to have AI solutions that mirror human intelligence in the accounting domain (Weber, 2023) or whether it would be possible to perform human-machine hybrid work (Mollick, 2022) particularly when the autonomy of AI-based solutions (Rieder et al., 2020) may shift decision-making from humans to technical systems (Heyder et al., 2023). These problems drive another issue (Heyder et al., 2023): How can we understand and explain the ethical management of human-AI interaction? Zhang et al. (2023) address some ethical concerns related to applying AI systems in managerial accounting, indicating that risks of de-professionalisation, data breaches, and isolation among accountants may occur. Other ethical implications may also appear, such as whether AI technologies will consider justice and fairness with regard to vulnerable groups (Villegas-Galaviz and Martin, 2022) or whether too much trust in AI will not get rid of managerial accountants from professional judgement (Sutton et al., 2023).

In the monograph, we want to address the broad aspects of human-AI interaction in the field of accounting and management. Therefore, we invite all the authors interested in this topic to submit the chapters that may refer (but are not limited) to the following issues:

- Facing the fifth revolution: *How will AI technologies affect organisational culture, staff development, business innovations and the future of accounting and management?*
- Mirroring human intelligence in accounting and management through AI technology: *To what extent is it possible, and what are the boundaries?*

- Generative AI tools, machine learning (ML) software, networks of sensors and robotic process automation (RPA): *What is their meaning for expanding the role of the accounting field for management?*
- The accountability in adopting AI tools: *Can we trust AI technology, and how to ensure its credibility?*
- Big Data, data analytics, cloud-based accounting software and AI technologies in management accounting and control: *What are perceived benefits and risks?*
- Performance measurement and management: *Will AI technologies facilitate decision-making and make decisions more accurate?*
- AI in sustainability reporting: *How can AI technologies be used to collect, analyse, and report ESG data more efficiently?*
- AI for sustainable management: *How can AI technologies be used to measure businesses' social and environmental impact and improve their sustainable performance?*
- AI in auditing: *What AI tools do the auditors apply, and for what purpose?*
- AI and attestation of sustainability reports: *How can AI tools be used for the assurance process of sustainability reports?*
- Ethical concerns associated with the AI application in auditing: *Will human professional judgement, scepticism and critical thinking still count?*
- Long-term vision for AI and the accounting profession: *Will human-machine hybrid work supersede traditional work styles?*
- AI development and job burnout: *Will AI technologies improve the accountants' and managers' work-life balance?*

We warmly invite You to submit the chapter.

Please share this information with Your colleagues who may be interested in this topic.

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