Foreword

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Digital transformation, characterised by integrating technologies such as artificial intelligence, big data, cloud computing, the internet of things (IoT), and blockchain, fundamentally alters organisational operations and societal functions (Marston et al., 2011; Chen et al., 2014). In fact, this transformation holds significant potential for advancing sustainable development, which seeks to balance economic growth, social inclusion, and environmental protection (Vial, 2019). Thus, digital technologies can drive progress in these areas by enhancing efficiency, reducing waste, improving service access, and fostering innovation (Hilty and Aebischer, 2015).

However, deploying these technologies is full of biases, often rooted in the data, system designs, and socio-economic contexts. Such biases can perpetuate inequalities and exacerbate digital divides, necessitating critical examination and mitigation strategies to ensure positive contributions to sustainable development (Mehrabi et al., 2021).

Also, the challenges of digital transformation include increased energy consumption, electronic waste, socio-economic disparities, and ethical concerns around data privacy and security (Syed et al., 2020). So, regulatory frameworks frequently must catch up to technological advancements, creating governance gaps (Mansell, 2015). Conversely, the opportunities are substantial, such as optimising resource management through IoT, enhancing supply chain transparency via blockchain, and supporting inclusive economic growth (Syed et al., 2023).

A multi-stakeholder approach involving collaboration among governments, private sector entities, academia, and civil society is essential to harnessing these opportunities effectively. Accordingly, such an approach ensures that digital solutions are innovative and aligned with sustainable development principles (Barrane et al., 2020).

In this regard, this special issue, entitled *Digital Transformation for Sustainable Development: Biases and Upcoming Challenges and Opportunities – Part 1*, delves into the multifaceted impact of digital technologies on sustainable practices. It critically examines the biases inherent in these technologies and addresses the challenges and opportunities ahead.

Therefore, through this special issue, it is possible to address the transformative period; the need for inclusive and equitable digital solutions has never been more pressing. The articles within this issue highlight the importance of bridging the digital

divide, ensuring that advancements contribute positively to environmental, social, and economic sustainability. The contributors bring diverse perspectives, providing a comprehensive understanding of how digital transformation can be harnessed to foster sustainable development while mitigating unintended negative consequences.

Contextually, it is expected that this special issue will inspire researchers, practitioners, and policymakers to engage in thoughtful dialogue and collaborative efforts, driving forward innovative solutions for a sustainable digital future.

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