

# Guest editorial: Digital transformation and environmental sustainability in emerging markets: challenges and opportunities – a wake-up call to the “Global North”

As the lead guest editor along with co-editors Professor Jessica Victoria Lichy, associate professor Derek Watson and Dr Wei Guan, am honoured to present this special issue of the *Journal of International Organisation Analysis*. This special issue calls for papers to explore the interplay between digital transformation and environmental sustainability in emerging markets, hoping to raise awareness in the global North. Emerging economies, while experiencing rapid economic expansion, also face significant sustainability pressures, including increased resource consumption, greenhouse gas emissions, pollution and social inequality (Gari, 2022; Gladys and Thierry, 2023). Digital technologies such as artificial intelligence (AI), big data analytics, the Internet of Things and robotics have enormous potential to drive sustainable development in sectors such as manufacturing, energy, agriculture and transportation (Tsolakis *et al.*, 2022; Spanaki *et al.*, 2022). However, irresponsible deployment can have counterproductive effects, including higher energy consumption, e-waste, privacy risks and threats to livelihoods (Schaltegger *et al.*, 2022).

Social entrepreneurship offers a complementary perspective, combining business models with social and environmental impacts to foster community-driven solutions (Hassan, 2020; Gupta *et al.*, 2020; Rivera-Santos *et al.*, 2015). This special issue encourages a critical, interdisciplinary perspective, drawing on institutional theory, stakeholder theory and resource-based view perspectives, to explore how digital innovation can support environmentally sustainable and socially equitable development aligned with the UN Sustainable Development Goals (SDGs), while addressing issues such as greenwashing, the digital divide and the environmental footprint of digital infrastructure.

The call attracted a strong, geographically diverse response, with accepted papers originating from Portugal, Iran, Tunisia, Hungary, Jordan, India, Vietnam, the UK, Poland and Brazil. Following peer review, 19 original articles were accepted, forming a rich collection that illuminates opportunities, risks and responsible pathways for digital-enabled sustainability in emerging economies.

Each article presents several key themes. Several papers emphasise the role of digital tools in driving green organisational practices. For example, a study of Indian manufacturing SMEs explored the role of technology adoption, innovative marketing and strategic digitalisation in sustainable growth in the post-pandemic era. Another paper explored the role of big data in enhancing corporate social responsibility and green operations in Vietnamese SMEs, highlighting the moderating role of governance. Furthermore, green human resource management practices and their impact on employee green behaviour have also received attention, with knowledge playing a mediating role.

AI and emerging technologies are a focus of this special issue. The article explores the application of AI-generated learning materials in active learning in higher education, the application of AI and blockchain in accounting to improve environmental, social and



governance (ESG) performance and risk management and the integration of green IT policies to support the sustainability, performance and employee well-being of remote work.

Industry and forward-looking insights include the impact of the metaverse on corporate sustainability, the application of enhanced reality in customer experience and achieving sustainable digital transformation despite organisational barriers. Several papers analyse Building 4.0 technologies, smart cities and stakeholder adoption of methodologies such as TOPSIS and SWARA and explore barriers to integrating SDGs. Broader applications cover B2C digital marketing in a sustainable development context, behavioural beliefs in sustainable entrepreneurship and expert perspectives on decarbonising Brazilian supply chains through digital tools.

This research delves into the themes of this call for papers: balancing the opportunities and risks of digital technologies, fostering responsible innovation, examining the roles of stakeholders (government, civil society and the private sector), bridging the digital divide and infrastructure footprint and exploring platform-enabled circular and sharing economies. Many papers offer, explicitly or implicitly, comparative insights between emerging and mature economies, challenging the Global North centric model and demonstrating how innovations from specific Global South contexts can provide lessons for broader global strategies.

These articles collectively emphasise that digital transformation is not inherently sustainable; it requires ethical governance, stakeholder collaboration and avoiding pitfalls such as selective disclosure or unintended environmental damage. By broadening the perspective of emerging markets, this special issue serves as a timely reminder that experiences from these regions resilient, inclusive and pragmatic digital integration can guide the Global North towards a more equitable and effective sustainable transformation.

We sincerely thank all the contributing authors, dedicated reviewers and the IJOA team for their contributions to this special issue. We anticipate that these papers will foster further academic and practical dialogue on how to leverage digitalisation for sustainable development in emerging economies.

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### About the Guest Editors

Yuan Zhai is an emerging researcher, Zhai have several research projects which are currently at the stage of work-in-progress, due to be submitted by the end of 2023 or early 2024. Zhai aim to advance ethical, inclusive approaches to digital innovation that improve societal outcomes. Through interdisciplinary projects, Zhai plan to explore strategies for applying technologies like AI and data analytics to create sustainable solutions centred on positive social impact. Zhai's goal is to conduct community-engaged research that provides guidance for purpose-driven organisations on leveraging technology to advance justice, sustainability and shared prosperity.

Prof Jessica Lichy is a researcher focused on responsible technology deployment, Lichy's publications over the past decade have examined digital transformation barriers and unintended consequences from a user perspective. This includes studying the blurring of professional-personal boundaries in online contexts as well as potential misuse of big data analytics. Lichy's current research traces emerging trends in 21st century technology-enhanced work-life balance, explaining sustainable strategies that promote employee wellbeing, ethical data usage and organisational transformation. By highlighting risks and best practices, Lichy's goal is to enable organisations to leverage digital solutions to drive social inclusion, human welfare and environmental sustainability.

Derek Watson a track impact record in terms of applied international consultancy and research/conference papers in organisational transformational change and quality compliance strategies and cultural barriers to enable sustainable development. Watson's current work involves developing innovative food safety compliance models that identify core challenges for companies seeking to implement sustainable practices. By conducting food safety impact studies spanning diverse regions from Inner Mongolia to Panama, Watson hope to generate transferable insights on how to leverage organisational change strategies to advance corporate sustainability worldwide.

Wei Guan's recent publications focus on the determinants and consequences of digital technology adoption in supply chain. Guan is developing new research projects that examine whether and how the adoption of digital technology shapes corporate social responsibility (CSR). Guan's work provides evidence that with the introduction of technologies, such as the Internet of Things, big data, artificial intelligence and blockchain, companies can improve their pollution control capabilities and internal control efficiency, thereby improving CSR performance.