

ARTIFICIAL INTELLIGENCE AND HUMAN INTELLIGENCE FOR SUSTAINABLE DEVELOPMENT

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ABSTRACT

This introductory chapter of the World Sustainable Development Outlook 2026 focuses on the intersection of Artificial Intelligence (AI) and Human Intelligence, the book explores how technological innovation and human capabilities can work together to address contemporary sustainability challenges. The contributions examine a diverse range of topics, including AI governance, sustainable healthcare, renewable energy, education, employment, finance, food security, digital identity, and sustainable business development. Collectively, these different chapters highlight the opportunities and challenges associated with AI adoption and emphasise the importance of human-centred approaches, ethical governance, skills development, and institutional capacity in advancing sustainable development and accelerate the pace of the implementation of the United Nations 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals.

KEYWORDS: *Artificial Intelligence (AI); Human Intelligence; Data Science; Digital Transformation; Education; Sustainable Development; Renewable Energy; Sustainable Healthcare; Sustainable Business Development.*

INTRODUCTION

The rapid development of Artificial Intelligence (AI) is reshaping societies, economies, institutions, and the ways in which knowledge is created and applied. While AI offers considerable opportunities to improve decision-making, productivity, innovation,

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and service delivery, its contribution to sustainable development (SD) depends on how effectively it is integrated with human intelligence, professional expertise, ethical values, and social responsibility. These questions formed an important part of the discussions in this book.

The *World Sustainable Development Outlook 2026* brings together selected best contributions from the 24th Annual International Sustainability Conference of the World Association for Sustainable Development (WASD), held in London, United Kingdom, 23-26 June 2026. The collection considers AI not simply as a technological tool but as part of a wider transformation involving human capital, governance, institutional learning, and sustainable development. The chapters address challenges at global, national, organisational, and community levels, illustrating the need to ensure that technological progress contributes to inclusive prosperity and long-term resilience.

OVERVIEW OF THE CONTRIBUTIONS

The chapters selected for this edition address a broad range of interconnected sustainability priorities. The contributions on **Artificial Intelligence and Human Intelligence** examine the comparative capabilities of AI and human reasoning in solving sustainability problems, the influence of cognitive biases on skills development, and the potential to move from automation towards human augmentation. Related work explores human-centred leadership and the AIMS AI-Human Framework, highlighting the importance of responsible governance, institutional capacity, and the development of human capabilities in the AI era.

In **education and skills development**, the chapters consider dialogue-based governance in STEM education and the role of higher education institutions in developing the knowledge and competencies needed for responsible AI adoption. These contributions underline the importance of preparing students, educators, and professionals to engage critically and effectively with emerging technologies.

The chapters on **healthcare and human development** explore clinical data analysis, paediatric diabetic ketoacidosis, collaboration between human and artificial intelligence in healthcare transformation, and inequalities in global health outcomes. The contribution on predictive AI adoption in sustainable healthcare in the United States further draws attention to the implications of emerging technologies for human-centric knowledge management. Together, these topics highlight the potential for data-driven innovation to support healthcare decisions while maintaining professional judgement, patient-centred care, and responsible information governance.

In **energy and environmental sustainability**, the chapter on climate diplomacy examines the role of Kazakhstan and the Gulf States in shaping sustainable energy policies. This contribution illustrates the significance of international cooperation and policy coordination in responding to climate change and advancing energy transitions.

The collection also addresses **economic inclusion and sustainable business development**. Contributions examine AI-driven portfolio optimisation for sustainable investment, AI-supported business innovation in Feni, Bangladesh, and the application of AI in fraud detection and sustainable banking integrity. These chapters demonstrate the relevance of technological innovation to economic resilience, financial accountability, and locally grounded development strategies.

Other contributions explore **food security, gender equality, and digital governance**. The chapter on women's empowerment and the stunting crisis in Indonesia considers the relationship between public health and national prosperity, while the work on gender-responsive pathways to zero hunger focuses on nutrition, equity, and human capital. Chapters on digital identity security and digital marketing governance raise important questions about privacy, consumer rights, transparency, and trust in an increasingly AI-driven world.

Taken together, these contributions demonstrate that SD is a multidimensional endeavour. Progress requires technological innovation to be accompanied by effective governance, social inclusion, ethical responsibility, and investment in people and institutions.

CONCLUSION

The chapters selected for this volume had tremendous scope in both focus and source, covering a broad geographical spectrum including Africa, America, Asia, the Caribbean, Europe, and the Middle East. We hope that these chapters will help to stimulate debate amongst scholars, researchers and policy-makers, and that you will find this volume interesting and thought-provoking.

This edition of the *World Sustainable Development Outlook* reflects WASD's continuing commitment to advancing knowledge, encouraging international collaboration, and promoting practical approaches to SD. The chapters presented demonstrate both the transformative potential of AI and the continuing importance of human intelligence in addressing complex global challenges. Across healthcare, education, energy, finance, governance, and social development, a common message emerges: AI can make a meaningful contribution to sustainability when it is developed and applied responsibly,

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supported by human expertise, and guided by inclusive and ethical principles. As societies continue to navigate rapid technological change, the challenge is not simply to adopt AI, but to ensure that its benefits contribute to human wellbeing, institutional resilience, environmental responsibility, and shared prosperity. We hope this edition stimulates further research, constructive dialogue, and collaborative action towards a more sustainable future.

We hope that you will find this volume informative and engaging. Any feedback you can provide will be greatly appreciated as we are always looking at ways in which we can improve your experience.

ACKNOWLEDGEMENTS

We would like to congratulate the authors for their valuable contributions, and we hope that the ensemble of chapters presented in this volume will help to stimulate debate amongst scholars, researchers, and policymakers across the world with a view to defining common, effective responses to tomorrow's challenges that will ultimately lead to a more integrated and multidisciplinary approach to a sustainable future particularly relating to AI, human intelligence and digital transformation.

We are also grateful to all reviewers for graciously offering their invaluable comments, which have enriched the quality of the volumes in this series, and also for making available to us their valuable time and efforts. The suggestions and criticisms of these leading world experts greatly enhanced the quality of the book series, and much credit goes to them for the quality of this series.

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BIOGRAPHY



Professor Allam Ahmed is a Professor of Knowledge Management and Sustainable Development; Founding President World Association for Sustainable Development; Founding Director London Institute of Sustainable Development; SDGs Universities Initiatives and SDGs Tracker Initiative; and Honorary Professor Faculty of Medicine and Dentistry (2022-2026) and Senior Policy Fellow Global Policy Institute, Queen Mary University of London. He is a Fellow (FCIM) and Chartered Marketer of the *Chartered Institute of Marketing (CIM)*, UK; *Fellow (FFPH) Faculty of Public Health*, UK; PhD in Economics in two years at *Edinburgh Napier University*, UK; awarded the *Royal Agricultural University (RAU)* Scholarship and Prestigious Book Prize for Best MSc/MBA Dissertation; Listed in the *Who's Who in the World 2009- 2021 and 2021 Who's Who in the World Lifetime Achievement Award*, *Who's Who in Finance and Business 2009/2010* and *Who's Who in America 2012-2014* published by Marquis Who's Who, USA.

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