Chapter 10
Strategic Communication for AI-Driven Sustainability Initiatives: Bridging Technology, Policy, and Public Engagement in Achieving SDGs

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ABSTRACT

This study explores the crucial role of strategic communication in AI-driven sustainability initiatives, emphasizing its potential for stakeholder engagement and message dissemination. It highlights how strategic communication bridges the gap between complex AI technologies and practical implementation, fostering public trust and policy support. The chapter identifies challenges such as technical complexity, data privacy, and cultural sensitivities, advocating for a comprehensive approach with stakeholder analysis, adaptive communication strategies, and continuous feedback mechanisms. The proposed communication model and implementation framework address these challenges by leveraging advanced digital tools, fostering multi-stakeholder collaboration, and ensuring transparency to achieve the SDGs. Embedding sustainability into organizational values, supported by strategic communication, is essential for fostering a global sustainability culture. These insights offer guidance for researchers, practitioners, and policymakers to enhance AI-driven sustainability initiatives.

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INTRODUCTION

The Sustainable Development Goals (SDGs) represent a global call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity by 2030. Adopted by all United Nations Member States in 2015, these 17 goals provide a shared blueprint for peace and prosperity for people and the planet, now and into the future (Sadiq et al., 2023). The SDGs address a broad spectrum of challenges, including poverty, inequality, climate change, environmental degradation, peace, and justice (Elavarasan et al., 2022). Achieving these ambitious targets necessitates a multifaceted approach that integrates economic, social, and environmental dimensions of sustainability (Manigandan et al., 2023). Successfully implementing such goals and targets requires mastering new approaches, or more specifically, reliance on technologies based on artificial intelligence (AI). AI has become the new frontier with the ability to solve multifaceted global issues through technological advancements. Current applications of AI for sustainability include forecasting and addressing the effects of climate change, improving resource utilization in the agricultural domain, the enhancement of healthcare delivery, etc., all of which fall under the umbrella of the SDGs. For instance, AI can be used to predict weather patterns by sifting through large data sets to make appropriate recommendations on planting and irrigation to support SDG 2 or for climate change interventions to support SDG 13. In the healthcare sector, the integration of AI in diagnostics and treatment improves patients' health and speed, aligning with SDG 3.

Nevertheless, the effective use of these technologies to promote sustainability relies not only on their technical capabilities but also on how effectively they are communicated to and understood by the public and stakeholders. Strategic communication is essential for ensuring that new and potentially useful technologies are not met with resistance or underutilised due to a lack of understanding, trust, and participation. The disparity between technical advancement and its practical implementation highlights the urgent need for effective communication strategies. For example, integrating AI into urban traffic management systems has the potential to greatly decrease congestion and emissions. However, the effectiveness of this implementation relies on the public's knowledge and willingness to acknowledge and accept it, which may be achieved through clear and transparent communication.

Furthermore, strategic communication guarantees that stakeholders are not only provided with information, but also actively involved in the sustainability projects. It tackles possible ethical issues and promotes openness, therefore establishing credibility and support. Efficient communication has the ability to streamline intricate technological ideas, rendering them comprehensible to a wide range of people and promoting wider engagement. Furthermore, by integrating feedback mechanisms, strategic communication enables immediate adaptations and ongoing enhancements,

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