



sustainability



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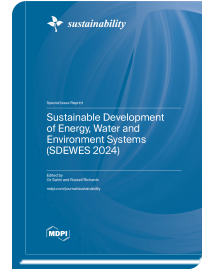
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Sustainable development requires a holistic approach that promotes interdependency between humans and nature. As global demands for energy, water, transport, housing and food systems rise, so does the challenge of embedding these needs within a framework that balances long-term ecological and human well-being. Technical innovation will be important for achieving this. The political economy aspects of sustainable development also need to be considered along with the roles of political leaders and voters, energy democracy, and community and citizen participation in the energy transition. At its core, sustainability is a systems concept, concerned not only with resource efficiency and environmental stewardship but also with the interdependencies between human well-being, economic performance, technological progress, and governance. Finally, the importance of digital technologies, particularly through the recent emergence of generative artificial intelligence (AI), presents a potential enabler of sustainability. They can enhance decision-making, optimize resource use, and enable new forms of education and governance. However, this is counter-balanced by important ethical and governance questions, particularly around data privacy, security and equity. These tensions underscore the need for robust governance frameworks and inclusive dialogue in guiding ‘digital innovation’ towards sustainable development goals. Consequently, the intersection of AI and sustainability is poised to become a vital area of research and inquiry, shaping both policy and practice in the years to come.



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