Editorial

Artificial Intelligence (AI) and Sustainable Development Goals (SDGs): Exploring the Impact of AI on Politics and Society

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In popular discourse, artificial intelligence (AI) has turned into one of the most inexplicable issues. It has turned into an artifact that people do not dare to question. As a result, in as much as references to AI are frequent, they also tend to be devoid of substance. In contrast, the academic debate on AI is filled with ever more interesting accounts of what AI is [1,2], how to conceptualize it [3], what dilemmas it triggers [4,5], and—perhaps most importantly—how AI can benefit our societies [6–8]. A cognitive divide has emerged between the general audience, the decision makers and the community of experts dealing with AI and related topics. This divide ought to be bridged. Only in this way will the stakeholders be able to engage in the still nascent debate on AI and its role in modern societies. However, the challenge is bigger than that. That is, the thrust, the value, and the promise of AI and AI-based systems, solutions, and applications still need to be effectively communicated to decision makers. Only in this way will they be able to deal with the topic and its ramifications in the manner that is required. An effective, i.e., clear, direct, and simple (but not simplistic) way of emulating knowledge and understanding of AI to all society members which is devoid of superfluous jargon (and yet is serious) is an imperative that the academic community has to embrace. This Special Issue sought to encourage it.

By framing the conversation with the United Nations' Sustainable Development Goals (SDGs), the objective of this Special Issue was to nurture a conversation on diverse aspects of AI and several fields of application, including AI and its role in promoting inclusive and sustainable growth and development. Several manuscripts were submitted in response to the initial call for papers. However, only seven papers were eventually accepted and included in this Special Issue. The following section offers an overview of these papers.

The Special Issue opens with a discussion on AI in and the SDGs, whereby the central tenet of the argument is defined by the notion of the unsustainability of the sociotechnical system [9]. As the author argues, AI has great positive potential; however, it is also intimately linked to nonuniversal access to increasingly large data sets and the computing infrastructure required to make use of them. In this view, a great number of questions are raised as to how to harness the value and potential of AI for our societies. In what follows, Reis et al. [10] explore the impact of AI on politics in the European Union (EU). With a direct focus on Portugal, the findings suggest that solutions, such as intelligent decision support systems, tend to improve the political decision-making process, and therefore, have positive impacts on Portuguese society at local, regional, and national levels. At the same time, as noted by Saetra [9], a great number of challenges emerge when AI and AI-based solutions are applied in contexts that require the handling and protection of patient/citizen data and critical information.

Nevertheless, as the authors of the next paper [11] argue, AI and, more specifically, machine learning (ML) may revolutionize the process of data collection and analysis, especially when applied in the context of poverty identification and classification. This in turn may allow more timely and more accurate policy responses. Poverty is a frequent cause of social exclusion. If contested cultural identity is added to the equation, the policymaking

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challenge becomes exponential. Cultural identity, as the following paper highlights [12], is a complex concept that includes subjective factors such as ideology, family knowledge, customs, language, and acquired skills, among others. The prospect of measuring it bears the promise of more accurate ways of dealing with the challenges that it brings about. This task was undertaken by Espin-Leon et al. [12] who developed a method of computing cultural identity distance and applied it to the case of the Waorani community.

The business sector is a vast field, where AI and AI-based solutions are tested and applied on a daily basis [13]. The COVID-19 pandemic created a new environment where business' capacity to use AI could be tested. Accordingly, Chen et al. [14] outline five major related business challenges: production and supply-chain disruption, appropriate business model selection, inventory management, budget planning, and workforce management. Consequently, the authors elaborate how AI and big data may be consequential in effectively addressing these challenges. The following paper [15] explores another aspect of the broader AI ecosystem, i.e., blockchain and its potential to ease conventional and replicable practices, for instance, in the field of administration. While this paper focuses specifically on the challenge of verifying the integrity of academic certificates, the findings can easily be applied in a number of different contexts. The Special Issue closes with a contribution by Meppelink et al. [16], who propose a method of using mobile phone data to obtain reliable information on traffic, etc. To sum up, the discussion on AI and its value for our societies has only just begun. As advancements in AI and its ecosystem [1] proliferate, it is imperative that corresponding insights into these technological developments are provided by the remaining communities of scholars and practitioners.

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