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Tackling Issues at the Nexus of Artificial Intelligence and Climate Change in the European Union

As climate change continues to threaten wide-ranging aspects of human life and natural ecosystems, efforts to mitigate and adapt to the looming phenomenon are becoming more urgent. Recently, artificial intelligence and machine learning-based techniques have emerged as key assets in the fight against global warming. Such approaches include transportation and energy use optimization, urban planning, supply chain optimization, remote sensing of emissions and forest management, carbon sequestration, extreme weather event prediction, climate forecasting, ecological assessment, solar geoengineering, social interaction modeling, and much more. While this provides unprecedented opportunities for facilitating greater societal wellbeing and environmental preservation, the European Union must also tackle the many legal and ethical issues that come with the widespread use of artificial intelligence in this scope. The EU can serve as a model for the rest of the world, as it has on many other climate-related issues, by legislating laws regarding topics such as privacy in big data, particularly for climate change applications, interpretability of machine learning and deep learning models for transparency and accessibility, and accountability for both developers and end users. Another challenge that must be tackled is equity in AI capabilities, which is difficult due to the uneven distribution of computing resources across Europe and around the world.

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