Assessing Transparency, Fairness, and Accountability in AI-Based Systems: Examining the Implications of AI Algorithms and Machine Learning Models in Legal Decision-Making

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Abstract

The use of artificial intelligence (AI) in legal decision-making is discussed in this paper in terms of both legal and ethical issues. It defines intelligence as the capacity for consistent, rational, and abstract reasoning. This study used doctrinal research to collect both primary and secondary data. Increasing public sector responsibility, enacting regulatory supervision, enhancing global coordination of algorithmic governance, and promoting awareness via education are some of the ideas discussed. The potential advantages of AI for the legal sector including improved access to justice through online courts and conflict settlement are highlighted. It also underlines the value of human engagement in decision-making, particularly in difficult circumstances that call for legal interpretation and compassion, and it also acknowledges the limitations of AI systems. The study tackles questions with algorithmic accountability, transparency, and bias in AI systems. To increase openness, it advises passing legislation dictating how professionals should behave when using AI and supplying verified sources of trustworthy information. This study also recognizes difficulties in integrating AI into the judicial system, such as the necessity for accuracy and comprehension of legal principles. It raises concerns about accountability, openness, and justice when utilizing AI, as demonstrated by a situation in which a person's right to due process was contested because of an algorithm-generated report that was not subject to scrutiny. The final section of the paper examines the application of AI algorithms and machine learning models in the context of legal decision-making, with a focus on foreseeing case outcomes, establishing sentencing guidelines, and evaluating the reliability of evidence. It draws attention to how intricate the underlying algorithms are and how they might affect the justice system.

Keywords: *artificial intelligence, transparency, accountability, human factor*