MERSIN STUDY ON ETHICAL DIMENSIONS OF ARTIFICIAL INTELLIGENCE IN LAW

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ÖZ

Yapay zeka (YZ) teknolojileri hukuk alanında devrim niteliğinde değişikliklere yol açıyor. YZ, büyük veri kümelerini işleme, yasal belgeleri hızla tarama ve analiz etme ve yargı kararlarını destekleme gibi alanlarda süreçleri hızlandırıyor ve verimliliği artırıyor. Ayrıca YZ, dava sonuçlarını tahmin etmeye ve yasal stratejiler geliştirmeye yardımcı olarak hukuk firmalarının müvekkillerine daha doğru tavsiyelerde bulunmalarını sağlıyor. Ancak YZ'nin hukukta kullanımı, adaletin eşit dağıtımı, algoritmik önyargılar, gizlilik ve veri koruması, sorumluluk ve hesap verebilirlik gibi önemli etik endişeleri de gündeme getiriyor. Önyargılı veri kümeleri üzerinde eğitilen algoritmalar, belirli toplumsal gruplara karşı haksız kararlara yol açabilir. YZ'nin yargı süreçlerinde insan denetimi olmadan kullanılması, adaleti tamamen mekanik bir sürece indirgeme riski taşıyor. Bu çalışma, YZ'nin hukuktaki etik boyutlarını inceliyor ve şeffaf, denetlenebilir ve etik kullanımının önemini vurguluyor. YZ'nin her zaman insan denetimi altında çalışması gerektiği ve etkili ve etik uygulanmasını sağlamak için yasal çerçevelerde sürekli güncellemelerin şart olduğu sonucuna varıyor.

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ABSTRACT

Artificial intelligence (AI) technologies are revolutionizing the field of law. AI is accelerating and increasing efficiency in areas such as processing large data sets, rapidly scanning and analyzing legal documents, and supporting judicial decisions. AI also helps predict case outcomes and develop legal strategies, allowing law firms to provide more accurate advice to their clients. However, the use of AI in law also raises important ethical concerns such as equal distribution of justice, algorithmic biases, privacy and data protection, responsibility and accountability. Algorithms trained on biased data sets can lead to unfair decisions against certain social groups. The use of AI in judicial processes without human supervision risks reducing justice to a purely mechanical process. This study examines the ethical dimensions of AI in law and emphasizes the importance of its transparent, auditable, and ethical use. It concludes that AI should always operate under human supervision and that continuous updates to legal frameworks are essential to ensure its effective and ethical implementation.

Introduction

Artificial intelligence (AI) is defined in the scientific world as the ability of a computer or computer-assisted machine to perform tasks related to higher logic processes, such as problem-solving, understanding, deriving meaning, generalizing, and learning from past experiences, which are typically human characteristics [1]. While AI technologies are creating a revolution in many sectors, law is also part of this transformation. AI's integration into legal processes is being used in a wide range of areas, from litigation processes to legal research and even decision support systems [2]. The primary advantages of AI in the field of law include speeding up processes, increasing efficiency, and analyzing large datasets. However, the use of this technology brings serious ethical issues along with it. Critical ethical issues such as ensuring justice, protecting individual rights, and the responsibility of legal decisions based on AI have sparked significant debate. This study will explore the ethical dimensions of AI in law, analyzing current and future potential problems and examining the societal impact of this technology in depth,

based on the researcher's experiences in legal internships in the province of Mersin, Turkey, and readings on the effects of AI on law worldwide.

Applications of Artificial Intelligence in Law
Analysis of Legal Documents and Data Processing

AI is highly effective in analyzing large datasets and is particularly used in law for scanning and analyzing legal documents. While it typically takes lawyers and legal experts a long time to review large case files, AI-based software can quickly scan these documents to access crucial information. Especially in international cases and large corporate agreements, manual review of thousands of pages of documents can take weeks, but AI can reduce this process to hours.

This process not only saves time but also minimizes errors. AI assists lawyers in developing strategies by detecting patterns and relationships among documents [3]. The analysis of past cases to produce similar outcomes has become a method that strengthens the hands of lawyers. However, AI's inability to consider human factors during legal document analysis and its difficulty in understanding certain contextual information emerges as a significant limitation. Social, cultural, and emotional factors found in legal documents may not be sufficiently evaluated by AI.

Decision Support Systems in Judicial Processes

AI has also started to be used as a decision support system in judicial processes. In the United States, a system called COMPAS is used to evaluate the likelihood of defendants reoffending, and these evaluations assist judges in making decisions. However, COMPAS has been criticized for giving biased results against minority groups, thus undermining the equal distribution of justice. The biases in the datasets used to train algorithms can directly affect the decisions made by these systems [4].

For instance, a system predicting that Black defendants are at higher risk of committing crimes may lead judges to impose harsher penalties. This situation can result in certain segments of society being wronged due to algorithmic biases. Similar systems are gradually being introduced in Europe as well. In countries like Estonia, digital judges are being used to make decisions in low-level cases. However, there are ethical issues with these systems, as AI making judicial decisions without human intervention could lead to the perception of justice as merely a mechanical process [5]

Prediction of Case Outcomes and Legal Strategy Development

AI is not only used as a decision support system but also as a tool to predict case outcomes in the legal field [6]. AI-based systems analyze the results of past cases and provide strategic support to lawyers by predicting the outcomes of similar cases. For example, large law firms use AI systems to predict the outcome of cases and provide their clients with potential results.

These systems particularly strengthen lawyers' risk analyses in large cases and allow them to provide more accurate advice to their clients [7]. However, the fact that these systems rely solely on data and statistical outcomes brings the risk of overlooking the human dimension of law. AI systems, as they are based only on numerical data, may fall short in evaluating the social, cultural, and psychological aspects of a case. Therefore, caution must be exercised when using such systems, and human factors must always be taken into account.

Legal Consultancy and Legal Research

AI technologies are also used in the field of legal consultancy. AI-based legal consultancy software speeds up the processes of preparing legal documents, conducting legal research, and providing legal advice for companies and individuals. For example, some companies use AI systems to analyze complex contracts and identify potential legal risks in advance [8].

The use of these systems reduces lawyers' workload and enables them to provide faster services to their clients. However, the complete provision of legal consultancy services by AI raises ethical concerns. Legal decisions and advice should always be based on legal grounds, but social, cultural, and psychological factors must also be

taken into consideration [9]. If AI systems do not account for these factors, they may provide incorrect or incomplete advice.

Ethical Issues in Artificial Intelligence
Equal Distribution of Justice and Algorithmic Biases

One of the most significant ethical concerns regarding the use of AI in legal processes is its potential to jeopardize the equal distribution of justice. The datasets on which AI is trained may contain historical societal biases and injustices [10]. For example, a study in the U.S. revealed that AI-based decision support systems recommended harsher penalties for Black defendants. This leads to the reproduction of societal biases through AI systems [11].

Algorithmic biases are not only a problem in judicial processes but also in legal consultancy and research. For example, an AI system might provide biased advice based on factors such as gender or ethnicity [12]. This could lead to a situation that contradicts the universal principle of justice in law. Therefore, it is crucial that AI systems are trained on unbiased datasets and are constantly monitored.

Responsibility and Accountability

One of the most important ethical issues arising from the use of AI in law is the matter of responsibility and accountability [13]. When an AI system makes an incorrect decision or produces a biased outcome, who will bear the responsibility? Will it be the system developers, the judges, or the lawyers? These questions are among the key ethical concerns surrounding the use of AI technologies in law.

The European Union has developed ethical principles stating that AI technologies must operate under human supervision. According to these principles, AI systems should only be used as decision support tools, and the final decision must always be made by a human [14]. However, there are still various debates on how this principle will be applied in practice.

Protection of Personal Data and Privacy

The use of AI in law raises serious ethical concerns regarding the protection and privacy of personal data [15]. Since AI-based systems rely on large datasets, these datasets may contain personal information. The unauthorized processing, storage, or sharing of personal data could violate individuals' privacy rights. The European Union's General Data Protection Regulation (GDPR) has introduced comprehensive regulations on this matter. GDPR mandates that AI-based systems must obtain the consent of data owners when processing personal data. Turkey has also implemented similar regulations under the Personal Data Protection Law (KVKK). However, as AI technology evolves, these regulations must be continuously updated [16].

The Human Element in AI-Based Judicial Processes

The use of AI systems in judicial processes has sparked debates over the necessity of human intervention. Fully autonomous AI systems making judicial decisions could lead to the exclusion of the human element from legal systems [17]. Justice is not only achieved through the application of legal rules; human, social, and cultural factors are also integral to justice.

The European Union's ethical principles regarding AI emphasize that AI systems should only be used as support tools and that the final decision should be made by human judges. This principle is crucial to ensuring that justice remains centered on human involvement.

Legal Regulations and Ethical Guidelines

To address the ethical issues surrounding the use of AI in legal systems, both national and international regulations must be established. The European Union has developed comprehensive ethical guidelines for the use of AI. These guidelines prioritize fundamental ethical values such as justice, responsibility, and accountability. In Turkey, similar regulations are being implemented, such as the Personal Data Protection Law (KVKK), which addresses privacy concerns. However, as AI technology rapidly advances, these regulations must be continuously

updated. It is also crucial to increase awareness among legal professionals and judges regarding AI technologies and to provide training on the ethical use of these technologies [18].

Conclusion

AI technologies offer significant potential in the field of law, with advantages such as faster processes, increased efficiency, and the ability to analyze large datasets. However, the integration of AI into legal systems also raises serious ethical questions concerning the preservation of justice, the protection of individual rights, and the ethical dimensions of AI-based decisions. The fact that AI can overlook the human element in legal processes and that algorithms may carry biases suggests a cautious approach to the unrestricted use of this technology. It is clear that legal decisions should not only be shaped by data and algorithms but also by social, cultural, and human factors. To ensure the effective use of AI in law, human oversight must always be maintained, datasets must be cleansed of biases, and AI systems must be continuously monitored. Furthermore, protecting personal data and ensuring that the human element remains central in AI-based legal processes is critical to ensuring justice. In conclusion, as the use of AI in law rapidly increases, the balanced and careful implementation of this technology, especially in terms of ethics, responsibility, and accountability, is of paramount importance. Both national and international regulations must guide AI technologies in a way that protects universal legal values and human rights.

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