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## **Review Article**

## Artificial Intelligence in Legal Research and Practice: An Exploration of Ethics and Policy in Bangladesh

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Abstract: Technological developments like artificial intelligence (AI) have given scholars and professionals new opportunities. On the other hand, they have created obstacles to maintaining academic integrity by bringing up issues with plagiarism, cheating, and falsification. Researchers and academics need to make sure that they are utilizing artificial intelligence (AI) in a way that complies with academic integrity standards and ethics. Al ethics is a set of moral principles and values that direct people's conduct in the fields of academia and research. In this particular setting, we are still in the early phases of determining how the sector will evolve, what safeguards will be necessary, and how all of us, including governments, must get ready. The objective of this research paper is to analyze the impact of Artificial Intelligence (AI) in legal research and the law profession with ethical standards. The paper also aims to explore the potential benefits and drawbacks of AI technologies in legal research and their implications for lawyers, clients, and the legal system as a whole.

Keywords: artificial intelligence, legal arena, academia, research.

Introduction: The majority of people on the earth use artificial intelligence (AI) in their daily lives. Artificial intelligence (AI) has drawn a lot of interest recently because of its potential to improve legal research in a variety of contexts, from document review to research1. However, the use of AI in legal study brings up important ethical and societal issues that need to be carefully considered, such as maintaining responsibility, openness, and preventing bias in academia.

Al tools that improve plagiarism detection and authorship attribution systems. As a result, Al mechanisms play a significant role in everyone's daily life and present both numerous opportunities and threats2. Since Al has drawbacks, academic integrity must be upheld, awareness is necessary. so Bangladesh is dedicated to finding a solution to this issue through the 2041 by Smart Bangladesh vision and the Digital Bangladesh project<sup>3</sup>.

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Academic institutions have a wide range of policies in place to promote integrity and forbid certain forms of academic dishonesty in many Generally, different countries4. guidelines emphasize the importance of upholding academic integrity and the need for agreement on particular norms<sup>5</sup>. Last year, on October 18, 2023, the "International Day of Action for Academic Integrity," was observed. Bangladesh was not behind the observing the day. To mark the day, the Bangladesh Bioethics Society organized an international conference on Academic integrity in Al technology in December 2023, which fosters collaboration among educators, students, and institutions.

Yet, fairness, transparency, and accuracy are other requirements for Al-based learning systems. The legal industry may effectively deploy Al technology while maintaining responsible and ethical use by recognizing these dynamics<sup>6</sup>.

However, Al has enormous potential to advance research capacities by creating prediction models, identifying data trends, and automating data processing and retrieval7. Al may also help with information retrieval and processing, as well as with the creation of new tools and techniques. There are worries, meanwhile, that an over-reliance on Al can result in a decline in critical thinking and human contact8. To allay these worries, scientists have underlined how critical it is to use AI to enhance rather than replace academic and research activities. After that, the article will discuss the possible legal ramifications of bringing artificial intelligence (AI) into the legal sphere, where efforts to build comprehensive legislation as well as moral norms and guidelines are part of the AI governance legislation.

**Methods:** This paper examines the use of Al in legal research through a content analysis approach developed between December 2023 and January 2024. First, suitable sources are found for this study by looking through primary and secondary sources through library-based research. Second, content analysis is used to investigate the significance of academic integrity in the use of Al by examining the main

and secondary sources. Secondary data are gathered from already-published sources such as government statistics newspapers, research articles, textbooks, journals, and the internet, as well as from international treaties.

Al in Legal Research and Practice: The process of locating pertinent legal data to bolster legal arguments and rulings is known as legal research<sup>9</sup>. Legal research has historically been done manually by actual lawyers, which can be laborious and errorprone<sup>10</sup>. By automating parts of the procedures and increasing the precision and effectiveness of the outcomes, artificial intelligence (Al) offers the potential to improve legal research<sup>11</sup>.

Legal research databases, document review software, and chatbots with legal knowledge are examples of AI systems of legal research. However. legal practice defines interpretation and application of the law to a particular situation Legal decision have traditionally been made by human judges and attorneys using their interpretations of statutes and case law12. By offering insights and forecasts based on vast volumes of legal data, including decision support systems and predictive analytics software, artificial intelligence (AI) has the potential to improve the practice of law.

Importance and worries of AI in the legal system: Legal document analysis is one of the main ways ChatGPT may be applied in the legal field. Attorneys using ChatGPT can upload contracts and other legal papers into the system and utilize it to evaluate and extract important data, including terms or clauses. This can free up a lot of time and energy for manual document inspection and analysis. This allows attorneys to devote more time to do more complex work. Lawyers and law companies can also use ChatGPT to help with legal research by using the platform to look out for cases of laws or legislation. When compared to other legal research techniques, this can prove to be incredibly resource and time-efficient.

It is important to remember, nevertheless, that although ChatGPT has access to the majority

of Bangladeshi laws that are in the public domain. The case laws are not currently included in the search results. ChatGPT is likely to make case law searching and analysis easier when Bangladeshi case laws become more widely digitalized and accessible in the public domain, hopefully soon.

However, it is important to remember that using chatbots to deliver legal advice raises concerns about how accurate and trustworthy the advice is and whether or not clients can rely on it. In light of this, attorneys and law firms must use ChatGPT to make sure the system has undergone the proper training and testing, and that any potential biases or inaccuracies are found and fixed.

When questioned by the authors, ChatGPT asserts that, as an Al language model, it may help judges write decisions by evaluating and summarizing the arguments made in petitions submitted by both parties. It claimed that it could locate pertinent case law, statute laws. and legal precedents that dealt with the matter at hand. It also offered formatting and wording recommendations. When questioned by the writers, ChatGPT further asserted that it could assist the judge in assessing the merits and demerits of the arguments put out by each provide recommendations resolving any contradictions or gaps in logic. This can guarantee that the ruling is rational, well-reasoned, and compliant with the law.

However, there are still unaddressed concerns about the accuracy and dependability of ChatGPT's output and whether or not it can be relied upon to correctly identify important phrases and clauses when used to analyze legal documents. Consequently, to guarantee accuracy, the outcomes generated by ChatGPT must eventually be reviewed by a lawyer<sup>13</sup>.

Concerns around ownership and data privacy also exist while using ChatGPT in the legal industry. Attorneys and legal firms are required to guarantee that any information gathered by the system is secure and handled in accordance with regional data protection regulations. The ownership of the data produced by the system is another issue<sup>14</sup>. Some contend that rather than being owned by

the attorneys or law firms who utilize it, the data should belong to the clients who supply it.

There are a lot of advantages to using AI in the legal field, including cost reductions, improved accuracy, and efficiency. Lawyers can concentrate on more difficult legal work by using AI to help with time-consuming and repetitive chores like document evaluation and legal research. But there are also a number of issues with AI use in the legal field. A primary worry pertains to the possibility of prejudice within AI systems. The objectivity of AI systems is limited by the quality of the training data<sup>15</sup>. The Al algorithm will replicate any biases included in the training data, which could result in discrimination in legal decisionmaking. Artificial Intelligence (AI) replacing human lawyers is another worry. Artificial intelligence (AI) can help lawyers do work more quickly, but it cannot take the place of human judgment, empathy, or considerations<sup>16</sup>. The human touch is essential in the legal profession, especially when verdicts made by juries have large social and financial ramifications<sup>17</sup>.

The utilization of ChatGPT in the legal field in Bangladesh and globally holds great promise offerina substantial advantages attorneys, law firms, and clients in equal measure. It is commonly acknowledged, though, that ChatGPT's acceptance for comprehensive legal research will go slowly. Certain general activities, like reviewing contracts or conducting due diligence on financial papers, may be completed; however, one must keep in mind that this technology is not flawless yet and that there may be unintended legal or ethical consequences that need to be well-watched. Notwithstanding the aforementioned, ChatGPT can be a useful instrument in increasing productivity, cutting expenses, expanding access to legal services, and streamlining the administration of justice 18.

According to this viewpoint, academic integrity is crucial because it preserves the principles of justice, honesty, and trust in the classroom. It makes sure that pupils are judged on their own work, not the work of others, and it encourages intellectual curiosity and originality in the classroom. Al can support the preservation of academic integrity by offering instruments for

identifying plagiarism and other types of academic misconduct. Al-powered evaluation and grading tools can potentially lessen prejudice and improve impartiality. The possibility for students to cheat using Al-powered tools, the difficulty in identifying content generated by Al, and the possibility of bias in Al-powered assessments are some of the threats Al brings to academic integrity<sup>19</sup>.

Ethical and Legal Considerations: There are several ethical and legal issues with Al applications in the legal field. The possibility of prejudice in Al algorithms, the possibility of mistakes in judgment, and the effect on the employment market for human judges and attorneys are some ethical issues<sup>20</sup>. Liability for mistakes made by Al systems, the necessity of rules and guidelines for AI in the legal field, and the possibility that Al could erode legal values like justice and fairness are all examples of legal concerns<sup>21</sup>. The use of Al in the legal profession is still in its early stages, and there is much potential for further development and refinement. As AI technology continues to evolve, likely, its impact on the legal profession will only increase<sup>22</sup>. However, it is important to carefully consider the ethical and legal implications of Al in the legal profession and to ensure that it is used responsibly and transparently<sup>23</sup>.

A new Artificial Intelligence Declaration was passed by the UN Educational, Scientific, and Cultural Organization (UNESCO) in 2021. This most recent statement addresses the rapidly developing subject of artificial intelligence, significantly which offers promise for advancing industries like research education but also raises the possibility of abuse, deception, and criminal activity<sup>24</sup>. In actuality, the widespread application of AI may frequently create a barrier in the institutions' interactions with their users. In order to develop a long-lasting system for streamlining digital interactions and fostering partnerships between users, administrators. and technology, it will be necessary to make investments in the cultural transformation of society<sup>25</sup>.

However, the decision-makers must deal with a few clear pressing issues. Relevant data, such as different kinds of legal papers, should be digitalized for improved functionality and performance. The more semi-structured and unstructured data can be made structured, the more accurate the outcome can be anticipated<sup>26</sup>. Since Bengali is still used extensively in legal publications and is the primary language of the subordinate courts, language is still a major concern<sup>27</sup>.

The Challenges of the Use of Al: Bangladesh is not alone in facing difficulties in using artificial intelligence; these are universal struggles. The government must address a few fundamental issues before it can fully utilize Al. Making the most of Al's opportunities is crucial.

Data Eco-System: The foundation of artificial intelligence is data. To create interactive and intelliaent systems, all Al tools methodologies rely on full data that is of high quality and interoperability<sup>28</sup>. One of the main challenges to Bangladesh's data revolution has been identified as the absence of free and open access to data<sup>29</sup>. Online access to government ministries' and departments' administrative data has stated. In this sense, data.gov.bd functions as an open data platform for the development, gathering, and administration of specific kinds of data ecosystems. However, not all data are gathered in digital form.. They ought to make the data available for business, research, and decisionmaking open<sup>30</sup>.

Technology & Infrastructure: In Bangladesh, there is a dearth of infrastructural development and technical acceptance related to Al technologies<sup>31</sup>. The primary infrastructure components of data management, storage, computing, scaling, extensibility, and security remain difficult problems for Bangladesh32. Big data, machine learning, deep learning, and technologies decision-making commonly accessible in Bangladesh33. These difficulties can be lessened by establishing a cloud platform, a high computation tool for Al technologies, and educating a responsible pool to apply. Therefore, both the public and private sectors can use this technology.

Skilled Al Resources: Artificial intelligence (Al) is a relatively new technology, and as such, professional settings in the public sector are with its less accustomed application. Bangladesh has previously launched numerous IT training initiatives under various programs. The first round of Al hands-on training can begin in three or six months for those who would be in charge of applying the technology in various government agencies<sup>34</sup>. Projects for AI professional training ought to be launched around the nation.

Inequality & Technological Unemployment: The World Economic Forum claims that robots and artificial intelligence may create more employment than they eliminate<sup>35</sup>. government ought to concentrate on effectively replacing them. One of the key industries that supports our economy and employs a large low-wage proportion of people manufacturing. The government must consider their placement if people lose their jobs due to automation<sup>36</sup>. For displaced workers to launch their businesses or enterprises, there should be programs and chances for apprenticeships. free or subsidized training, and small loans.

Accountability, Transparency & Privacy: An overturn may result from a lack of machine learning-related transparency and competence. Because AI systems are used in decision-making, it is difficult to determine the motivation behind the application of an algorithm in a particular process, and there are no clear guidelines regarding who is accountable for an unintended inversion<sup>37</sup>. In this case, the EU General Data Protection Regulation (GDPR) may be a useful remedy. Every procedure must to have a clause titled "right to get an explanation".

Human Dignity, Autonomy & Psychological Impact: There's also the worry that people's jobs will become less significant as we cede power to robots in various areas of our life<sup>38</sup>. Finally, it is unclear how people will interact with AI frameworks once they are increasingly suited for natural language and how this will impact interpersonal interactions and workplace environments<sup>39</sup>.

Legal & Ethical Framework: Every facet of modern society, including banking and financial institutions, law enforcement, healthcare, government decision-making, humanitarian work, agriculture, etc., has gradually benefited from artificial intelligence (AI)<sup>40</sup>. Thus, there ought to be a robust ethical and legal framework governing the use of AI in applications. Ethics in AI should be morally upright, essentially sound, measurable, reversible, and inclusive<sup>41</sup>.

Policies, Regulations, and Laws Related to Artificial Intelligence in Bangladesh: To ensure that artificial intelligence (AI) is employed in accordance with local laws and regulations, the Bangladeshi government has not yet taken any action till writing this article. Although there are no laws in Bangladesh specifically governing the use of AI, several current legislations may provide guidelines for the use and operation of AI-based systems:

1. Cyber Security Act, 2023: The Cyber Security Act 2023 has been enacted to ensure cyber security by repealing the Digital Security Act, 2018, and to make new provisions for the detection, prevention, suppression, prosecution of crimes committed through digital or electronic means and related matters<sup>42</sup>. The Act criminalizes actions including cyber terrorism, hacking, and the dissemination of false information via digital media and governs digital activities in Bangladesh through regulations pertaining to the misuse of digital equipment, especially computers<sup>43</sup>.

the government needs to be mindful of the fact AI. Setting up a center of research excellence for AI, offering PhD scholarships, providing faculty fellowships or Chairs in academic institutes to promote research in AI, supra-national collaboration, ethical and responsible research in AI is essential for policymakers, the government I.44

**2. Data Protection Bill 2022**: A bill called the Data Protection Bill 2022 is being considered in Bangladesh to handling of personal data<sup>45</sup>. According to the bill, companies that gather and use personal data must have consent from data subjects, guarantee data security and accuracy, and alert data subjects in the event of a data breach.

3. National Strategy for Artificial Intelligence Bangladesh 2019-2024: The government of Bangladesh created National Strategy for Artificial Intelligence Bangladesh 2019-2014 as a framework to direct the growth of Al-related initiatives in the nation<sup>46</sup>. In order to increase productivity and effectiveness, the framework contains provisions pertaining to the application of AI in a number of industries, including healthcare. agriculture, and education. The plan also suggests including a robust legal and ethical framework that will govern the application of AI in various industries<sup>47</sup>.

Al has the potential to revolutionize the legal industry by enhancing speed, accuracy, and accessibility. But as we navigate this new century, we must face the associated issues to ensure that the benefits are fulfilled in a way is morally, legally, and socially acceptable<sup>48</sup>. All is not a panacea or a threat. It's an apparatus, a powerful tool that, in the right hands, could revolutionize the legal sector<sup>49</sup>. Since legal technology is still in its infancy, we must carefully balance its advantages with disadvantages. This is not just the birth of legal technology, but also the commencement of a new era in law50.

Bangladesh requires a thorough plan to handle the dangers posed by Al: Bangladesh lacks a national policy or legal framework for the governance of Al technology during the writing of this paper. Bangladesh lacks legal competency in technology ethics, despite having professionals in Al technology, which makes the construction of regulatory frameworks difficult<sup>51</sup>.

The knowledge and resources needed to enforce laws against deception are lacking in law enforcement and regulatory organizations. The effective execution of legal frameworks in Bangladesh necessitates cooperation among civil society organizations, technological specialists, and law enforcement to close this gap. Bangladesh Bioethics Society has many experts on Al and is already advocating the ethical implications of deploying Al in Bangladesh. The inclusion of their expertise

can be an added value in the decision-making process<sup>52</sup>.

Where the EU, USA, China, etc. are taking regulatory and legislative steps to control and appreciate the significance of transparency and accountability in the application of AI, there we also need to take a step after comparative legal analysis. The "Recommendation on the ethics of Artificial Intelligence" released by UNESCO in 2022 highlights the significance of AI accountability and transparency in upholding ethical values, fundamental freedoms, and human rights<sup>53</sup>.

Conclusion and Recommendations: The Fourth Industrial Revolution (4IR) is now taking place across the world. One of the main forces behind the 4IR would be artificial intelligence (AI). So, the government needs to be mindful of the fact AI. Setting up a centre of research excellence for AI, offering PhD scholarships, and providing faculty Chairs or fellowships in academic institutes to promote research in AI, supra-national collaboration, and ethical as well as responsible research in AI is essential for policymakers, and the government.

Artificial Intelligence (AI) holds promise for improving the effectiveness and precision of legal research and practice in Bangladesh. To guarantee that AI is used ethically and openly, some legal and ethical considerations must be carefully made. The current Bangladeshi administration will take on the challenge of offering a calculated response to the rapidly advancing field of artificial intelligence (AI), while also making use of the advancements sparked by the invention to benefit society as a whole. Due to Al's immense potential, it is becoming an obvious item on the global agenda. Because AI is directly related to employment, it is also certain that it will impact political policy and change a number of discussions. We focus on the architecture of national ΑI applications, information frameworks, and ecosystems. The citizens will benefit from concrete success indicators. Clear guidelines and direction for the digital world are necessary for artificial intelligence. We can use AI to make Bangladesh an innovative country and in economic growth if we can guarantee sound governance in the strategy's implementation from the outset.

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28