Artificial Intelligence (AI) Vs Academic Integrity (AI) in Law and Society

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Abstract: Artificial Intelligence (AI) having its ever-evolving nature and far-reaching implications in law and society has become too great to be ignored by individuals, educators, businesses, and regulators globally. AI systems with specific sets of rules to conduct a particular task existed in our society for many decades in the form of voice assistants like Siri or Alexa, Google’s search or Google map’s algorithm, and even the recommendation engines on Netflix or Amazon have been through the use of AI all these years. So why is this sudden need for thorough examination of this technology having remarkable capabilities and its unprecedented adoption facing the controversy of harming contemporary education’s integrity? For Bangladesh, to a large extent, it has been the rise of tech startups accelerating AI penetration where the abundance of collecting and mining educational data of the learners came with ethical implications. A survey conducted for this paper identified the impact of AI on college and university teachers which was critical for addressing the concerns about AI and its short and long-term impacts on education systems generally. This paper attempts to explore the intricate dual relationship between AI and academic integrity (ai), in law making it imperative to critically examine the unintended consequences by addressing some of the misconceptions regarding the use of AI in education, while acknowledging its potential benefits for society and educational institutions without compromising on academic integrity in law and society. By having a responsive approach to the changes brought about by AI in law & to uphold academic integrity in our society, rethinking and redeveloping the educational programs is the way to make an impact on our education and training systems which will only grow further and further in the future of Smart Bangladesh.

Keywords: Artificial Intelligence, Academic Integrity, Ethics, Plagiarism, Technology in Education

Introduction: Collins Dictionary defines AI (Artificial Intelligence) as “The study of the modeling of human mental functions by computer programs” or as the simulation of human intelligence processes by machines, especially computer systems¹. Anything that is not created naturally by humans but made by human enables a machine by coding,

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technology or algorithm to understand, reason, plan or mimic a human-like behavior intelligently without any error is AI. Typically, AI works on large datasets of labeled data where it is trained to learn to identify the patterns in the data and use them to make predictions or generate algorithmic outputs, without creating anything new\(^2\). Data sets and labeled data, the enormous increase in data generation helps provide more accuracy than the other subsets of AI, being Machine Learning (ML) and Deep Learning (DL) applications.

Figure A: The evolution & subsets of AI.

Figure A depicts that while ML is the subset of AI and DL is the subset of ML, both learn and perform better when exposed to large amounts of data while AI using the algorithms and neutral networks of DL and ML can act, reason, and adapt better than humans. However, due to rapid deployment of AI technology, both in terms of its use and its development demands a thorough examination of this booming technological domain as it has the capability of altering every aspect of our society and is likely to cause serious risks of harming academic integrity and ethics.

Yet, during the pandemic we have seen the ubiquity of digital devices and their expansion in every industry including the rise of the EdTech providers with AI-enabled learning technologies can now be seen to be increasing in the classrooms even post-pandemic. This has put a burden on the teaching professions to adapt to rapidly changing demands as educators now require an increasingly broad and more sophisticated set of competencies than before as the use of AI tools has become integrated with academic dishonesty. On one hand, there are now AI detection tools that are providing educators with the means to identify and address instances of plagiarism more promptly than ever before. AI’s easy method of generating content is leading to a blurring of lines between authentic skill-based tasks and machine-generated output. For educational institutions, it is a big concern as it increases the potential for cheating and other forms of academic misconduct, whether it’s course assignments or during online exams, as students may be able to access and share resources\(^3\).

Moreover, the traditional notions of originality and academic authorship may come under scrutiny when the results of AI infringe on copyrights or if there is a problem with the sources as we don't know how the AI came to a particular conclusion. Thus, it becomes a challenge as to why the conclusion drawn may be right or wrong as AI-generated text will often give facts and not cite the sources and without an analytical explanation of the facts might not be insightful. Educational institutions harness learners’ data and as AI relies heavily on data, it is not 100 percent protected from data breaches, and safeguarding sensitive student information is paramount for an institution built on trust. A robust cyber security program becomes essential to protect data from breaches, and education institutions should invest in protecting data to ensure fairness, and transparency in algorithms to minimize biased outcomes.

A study conducted by the University of Auckland, New Zealand in 2022 found that with minimal input, ChatGPT generated highly realistic text making it a potential threat to the integrity of online exams, which has become increasingly common, even post covid and is likely to continue to do so\(^4\). Institutions must invest in AI tools to improve security, detect and deter cheating, and make educators competent to investigate how to maintain the fairness and validity of online exams for all students. Introducing a specific policy or
guideline may be easier to ensure reliability on the examination platform while making it easier for students to take the exam from any location but the effectiveness of having only a policy to combat the risk of cheating and other forms of academic misconduct may not be sufficient in this digital age.

In the rapidly evolving digital age with the recent popularity of the use of AI, the balance between AI and academic integrity within the parameters of law and society has become a focal point of scholarly debate among academicians and students. Though AI technologies developed to enable accessible and user-friendly learning, there are growing concerns about the potential misuse and threats of the technology. This research aims to explore the line between AI and academic integrity through their multifaceted dimensions. The study recommends the enactment of a comprehensive policy framework to address the vital issues of ethics, accountability, and the maintenance of academic integrity while utilizing AI tools and devices in the education sector.

**Methodology:** A survey was conducted by a law firm based in Banani, Dhaka, named Justicia Legal Minds using a qualitative method from teachers who have been in the profession for about 1 to 10 plus years to illustrate what is their level of understanding and how they think about the use of AI may have an impact in academic integrity. The survey asked the following questions:

(i) Have you heard of AI/ChatGPT/Bard?

(ii) Do you think ChatGPT will make your jobs more difficult?

(iii) Have you identified/cought a student cheating using ChatGPT?

(iv) Have you received any faculty guidance on the use of AI/ChatGPT?

(v) Do you support the use of AI tools like ChatGPT, or do you believe they should be banned in the education sector?

(vi) Please provide any additional comments or thoughts you have about the use of AI/ChatGPT in the education sector?

**Results and Discussion:**

**Legal Framework of AI:** European Union’s last report of the Commission expert group on Artificial Intelligence and data in education and training published in 2022 underlined the value of education in a society and its core objectives in a student’s life, acknowledging that the use of AI and data has the potential to become a transformative tool for education. The use of AI and its data for learning, teaching, and assessment are faced with ethical dilemmas and challenges, the solutions must also be illustrated in an education-focused manner to avoid any confusion. The focus on ethics, research on education and training, developments in AI, and the different types of data that emerge in an educational institution must ensure that the educators are competent to use AI and data ethically in their teaching and their student’s learning. The Report suggests the development of the Ethical guidelines on the use of AI and data in teaching and learning for educators. Finally, on 9 December 2023, the final version of what is claimed to be the world’s first-ever comprehensive legal framework on Artificial Intelligence, called the European Union Artificial Intelligence Act (the “EU AI Act”) has been provisionally agreed upon. The EU AI Act aims to ensure that fundamental rights, democracy, the rule of law and environmental sustainability are protected from high-risk AI while boosting innovation and creating obligations for AI based on its potential risks and level of impact.

**Impact of AI and Academic Integrity in Society: Bangladesh**

**The Survey Outcome:** A survey conducted by Justicia Legal Minds (a law firm headed by the author), revealed that most teachers of universities and colleges in Bangladesh were familiar with AI tools, such as ChatGPT, Bard, etc. Among them, 64.7% of teachers have identified or caught a student cheating using ChatGPT or other tools. When asked whether they think AI technology makes their jobs difficult, 29.4% answered in negative.
However, a stellar 58.8% responded that they have not received any comprehensive guidance on how to use the AI tools from their institutions. Interestingly, 35% remained neutral and 17.6% of teachers expressed strong support for the use of AI tools in the education sector. More than 50% of the teachers participating in the survey have been teaching for more than 5 years in different fields, including engineering, social sciences and humanities. The outcomes of the survey provide a clear indication that while teachers support the use of AI technology, not enough is being done by educational institutions to provide guidelines or any capacity-building training to prevent the use and abuse of AI technologies to uphold the academic integrity or to combat the ethical challenges of AI and data use in education.

The Societal Impact: A Goldman Sachs report predicts that as many as 300 million jobs could be impacted by AI automation. In a country with more than 173 million population with more than 43 million youths, the biggest fear factor for our society of having unregulated AI tools is likely to be employment issues. The unemployment rate amongst graduate students is higher unless the youth population has the opportunity to avail themselves of quality education to enhance their skills, the society and economy of Bangladesh will suffer. According to the survey, AI tools are being used widely which comprise academic integrity and academic ethics and are also known to educators and/or educational institutions. However, to date, not a single educational institution has implemented nor taken a step towards developing any stand-alone guideline for the use of AI in educational institutions. It is predicted by many studies that AI will replace certain low-level skills jobs with faster, smarter and cheaper AI-powered chatbots and it might find it difficult to survive or compete without boosting the quality of education and enhanced skills fit for this era. This is also true for countries like India and the Philippines, where call centers provide modest-paying work, and surveys have shown automation could render over a million jobs obsolete.

Al and Academic Integrity in Law: Bangladesh: Currently, there are no laws in Bangladesh directly addressing the use of AI and the significant threat it brings to academic integrity in the existing legal frameworks of Bangladesh. The Information & Communication Technology (ICT) Act 2006, Copyright Act 2000, and Cyber Security Act 2023 may be relevant to address AI-generated content, however, none of them defines AI or mentions it in the texts. Furthermore, none of the laws specify the enforcement in terms of protecting academic integrity and the education sector.

It cannot be denied that this is in an era where a machine can also be labeled as a creator. The traditional copyright law does not address this transformation of technology and requires clarity and amendment on how to protect original human work when it can also be generated using AI? The AI-generated content is sold, published or distributed for commercial gain, the current law does not address whether the ownership rights belong to the programmer, the user, the machine or the algorithm? Many US-based AI technology companies to promote the use of AI tools are giving their users commitment to fight any copyright claim on behalf of the user if faced at any point.

Legal Precedents & Case Laws: Plagiarism, in the academic world, is considered a severe offense if the act of borrowing someone else’s and presenting it as own without giving due credit to the original author or the work. However, training can change the knowledge, attitude, and skill of the students for maintaining academic integrity. In most countries, educational institutions have very strict rules regarding plagiarism, and if found guilty the consequences could be either immediate suspension, dismissal, withholding of a degree, etc. If it is student or dismissal, demotion, or fine for teachers being the most common forms of punishment for this offense but can also face legal challenges depending on the severity of plagiarism. In Samia Rahman v Bangladesh (2021), the High Court Division of Bangladesh made some noteworthy observations with regard to plagiarism.
and the role of universities in preventing such corrupt practices and addressed plagiarism as "an intellectual crime" and "essentially theft and fraud committed simultaneously". It is the responsibility of the educational institute to prevent and detect plagiarism and suggested implementing AI tools and software that detect any and all forms of cheating, copying or plagiarism issues. Additionally, educational institutes should have internal policies or codes of academic ethics and academic integrity along with adequate training for educators on ethics and integrity. A PIL (Public Interest Litigation) was filed due to the rise of PhD theses lacking acceptable criteria for research work, and failing to provide references or citations. Finally, being frustrated with the rise of plagiarism incidents. It was the University Grant Commission (UGC) that invested in a software tool to detect plagiarism and provided access to many universities while some private institutions have made its usage mandatory.

Moreover, judicial intervention to detect plagiarism in academia is not encouraged and is usually the last resort in response to the denial of due process as such every educational institute must uphold academic integrity and ethics, form editorial and review boards for journal/thesis publications integrated into its own Code of Ethics or policies.

**National Strategy for Artificial Intelligence Bangladesh:** There is a national, BAIS strategy, where institutional promotion and awareness of AI was listed in 2020 and the establishment of law and policy was listed to be developed by 2022. The AI-driven future skill development and capacity building of teachers for the education sector, by 2024. Bangladesh shall be able to establish an AI lab, implement a predictive intelligence system, and develop AI-supported legal solutions, if implemented in accordance with the strategy can solve the problem by institutionalizing legal frameworks and data-driven directives or regulations. According to the BAIS strategy, the educational institutions of Bangladesh should have comprehensive guidelines to navigate AI tools. The following areas were identified to fall within the scope of AI for skill development and education:

- Personalized Learning Using Adaptive Learning Tools
- Interactive Tutoring Systems
- Predictive Tools Using AI to Inform
- Preemptive Action for Students and Learners
- Employment and Skill Reallocation

The BAIS strategy also listed recommendations the following:

- Need Initiatives for AI-Driven Future Skill Development
- Include AI in Secondary and Higher Secondary Education Curriculums
- Establish AI Research Lab in Academia
- Enhancing the Capacity Building of Teachers
- Formation of AI Supported Legal Framework
- Need-Based AI Training

**Use of AI In Legal Services:** A comparison of “Rules of Professional Conduct of the State Bar of California, USA that approved a guidance on the use of generative AI in the practice of law” with “Conduct of Ethics for Lawyers of the Bangladesh Bar Council”. On November 16, 2023, the State Bar Board of Trustees approved the Practical Guidance for the Use of Generative Artificial Intelligence in the Practice of Law, developed by the Committee on Professional Responsibility and Conduct to assist lawyers in navigating their ethical obligations when using generative artificial intelligence. The Practical Guidance will be a living document that is periodically updated as the technology evolves and matures, and as new issues are presented. For the purpose of this research paper, the Conduct of Ethics for Lawyers of the Bangladesh Bar Council has been compared with the guidance on the use of generative AI in the practice of law for attorneys licensed to practice in the state of California, USA. The similarities do make it seem possible for Bangladeshi lawyers to have similar guidance issued by the Bangladesh Bar Council for complying with our ethical obligations in the world of AI (Table 1).
### Table 1: Bangladesh Bar Council Rules versus State Bar of California Guidance

<table>
<thead>
<tr>
<th>Specific section</th>
<th>Description (According to Bangladesh Bar Council Rule)</th>
<th>State Bar of California approves guidance on the use of generative AI in the practice of law (California)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Duty of Confidentiality</strong> (Conduct with Clients)</td>
<td>An advocate is obligated to maintain the confidentiality of client information. This duty extends to not disclosing information without client consent, even after the attorney-client relationship ends.</td>
<td>A lawyer must not input any confidential information of the client into any generative AI solution that lacks adequate confidentiality and security protections. A lawyer must anonymize client information and avoid entering details that can be used to identify the client. (Duty of Confidentiality)</td>
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<tr>
<td><strong>Duty of Competence and Diligence</strong> (Conduct with Advocates)</td>
<td>Advocates are required to provide competent and diligent representation to their clients. This involves staying informed about relevant laws and legal practices and applying due skill in handling cases.</td>
<td>AI-generated outputs can be used as a starting point but must be carefully scrutinized. They should be critically analyzed for accuracy and bias, supplemented, and improved, if necessary. (Duty of Competence and Diligence)</td>
</tr>
<tr>
<td><strong>Duty to Comply with the Law</strong> (Conduct with Clients)</td>
<td>Advocates must conduct themselves in accordance with the law and ethical standards. This includes following applicable laws and regulations in their legal practice.</td>
<td>A lawyer must comply with the law (e.g. IP, privacy, cybersecurity) and cannot counsel a client to engage, or assist a client in conduct that the lawyer knows is a violation of any law, rule, or ruling of a tribunal when using generative AI tools. (Duty to Comply with the Law)</td>
</tr>
<tr>
<td><strong>Duty to Supervise</strong> (Rule 60 of Bangladesh Bar Council Rules, 1972)</td>
<td>Advocates have a duty to supervise subordinate lawyers and non-lawyer personnel to ensure that they comply with ethical standards and provide competent representation.</td>
<td>Managerial and supervisory lawyers should establish clear policies regarding the permissible uses of generative AI and make reasonable efforts to ensure that the firm adopts measures that give reasonable assurance that the firm’s lawyers and non-lawyers’ conduct complies with their professional obligations when using generative AI. This includes providing training on the ethical and practical aspects, and pitfalls, of any generative AI use. (Duty to Supervise)</td>
</tr>
<tr>
<td><strong>Charging for Work Produced by AI</strong> (Conduct with Clients)</td>
<td>No Provision in Bangladesh Bar Council Rules and Order. But there is a provision for fixing fees where Advocates should avoid charges which other estimate their advice and services as well as those which undervalue them. In determining the among of fee, it is proper to consider: i. Time, labor, novelty, and difficulty of the case, as well as the skill required. ii. Potential conflicts and restrictions on the advocate’s availability, and the impact on other businesses. iii. Customary charges for similar services, the amount involved, and the client’s benefits. iv. Contingency or certainty of compensation. v. The nature of the employment, whether casual or for a regular client. No single factor is decisive; these considerations collectively determine the fair value of legal services.</td>
<td>A lawyer may use generative AI to more efficiently create work products and may charge for actual time spent (e.g., crafting or refining generative AI inputs and prompts, or reviewing and editing generative AI outputs). A lawyer must not charge hourly fees for the time saved by using generative AI. (Charging for Work Produced by AI)</td>
</tr>
</tbody>
</table>
Duty of Candor to Tribunal  
(Conduct with Court)  
Chapter 3; Clause 3  
Advocates must be truthful and candid when dealing with courts or tribunals. This involves presenting accurate information and disclosing any legal authority contrary to their position.  
A lawyer must review all generative AI outputs, including, but not limited to, analysis and citations to authority for accuracy before submission to the court, and correct any errors or misleading statements made to the court. (Duty of Candor to Tribunal)

Prohibition on Discrimination  
(Conduct with General Public)  
Chapter 4; Clause 4, 5  
Advocates are prohibited from discriminating against clients or others based on factors such as race, gender, religion, or other protected characteristics.  
Some generative AI is trained on biased information, and a lawyer should be aware of possible biases and the risks they may create when using generative AI (e.g., to screen potential clients or employees) (Prohibition on Discrimination)

Duties in Other Jurisdictions  
(Conduct with Court)  
Chapter 3; Clause 1  
When practicing in jurisdictions other than their own, advocates are expected to comply with the ethical rules and legal standards of those jurisdictions.  
A lawyer should analyze the relevant laws and regulations of each jurisdiction in which a lawyer is licensed to ensure compliance with such rules. (Duties in Other Jurisdictions)

Duty to communicate  
(Conduct with Clients)  
Rule 3, 4; Chapter 2  
An Advocate shall not accept professional employment without first disclosing his relation, if any, with the adverse party, and his interest, if any, in the subject matter of such employment. An advocate shall not represent conflicting interests.  
The lawyer should consider disclosure to their client that they intend to use generative AI in the representation, including how the technology will be used, and the benefits and risks of such use. A lawyer should review any applicable client instructions or guidelines that may restrict or limit the use of generative AI (Duty to communicate)

### Conclusion:

AI is no more just a buzzword; it has become a reality that is part of our everyday lives. As a legal professional and an infopreneur promoting digital legal tools and training programs, it is my responsibility to share the apprehensions regarding the use of AI technologies in a manner that promotes innovation while upholding academic ethics and academic integrity, protecting against potential risks of harm to law and society. With companies building intelligent machines for diverse applications using AI, it is revolutionizing business sectors like never before. AI could look very different in a few years and it is very likely to remain in development and be dependent on data.

However, AI cannot do everything, even if it can, the real question is should it be allowed to do that thing? Human intervention will always be needed and new skills will be required to be in the job market as new types of jobs will be created. Hence, it is essential to be updated both in terms of education and skill development. It is now time to protect your rights, your privacy, your integrity and your ethics. Machines don’t have such needs.

While fostering a culture of academic integrity, in the absence of any specific law for AI, educational institutions are advised to develop an internal policy with clear regulations on the use of AI by students and teachers. It is essential to continuously monitor and assess the impact of AI and continue to invest in training and building competencies. Still a long way to go for Bangladesh to have a specific law for AI, to uphold academic integrity in law and society the legal precedents and the recommendations of Bangladesh’s National Strategy of AI shall have to be heavily highlighted and until then, any individual education institute that wants to allow use AI, should make its internal policy for its use.

### Recommendation:

Preparing the Code of Ethical Guidelines on the use of Artificial Intelligence (AI) in Skills and Education following are the recommendations:

1. There is a need to develop guidelines for their use in skills and education, and the involvement of educators and other relevant stakeholders are essential as they bring a critical understanding of educational practices.
and to uphold academic integrity and ethics in law and society.

2. The Code of Ethics of AI and data use in education must be based on ethical principles in the context of the social and developmental objectives of education The Code should address how personalized learning is used without compromising on skills development. Any interactive tutoring systems should ensure that there is no scope to cheat during online or remote examinations. 3. During adaptive learning tools for customized & personalized learning should ensure privacy and monitor their progress while ensuring their employment and skills are properly allocated.

4. Specific AI law, should be enforced to protect ethical principles with respect to AI systems for protecting fundamental rights and safety.

5. Develop and encourage more research on AI amongst the academics and continuously focus on competence training which should be often refined based on trials and testing.

6. The code of ethical guidelines, therefore, can be viewed as an evolving practical tool for developing skills and education, that will be an important starting point for the digital education ecosystem envisioned in Smart Bangladesh.

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