LEGAL AND ETHICAL IMPLICATIONS OF ARTIFICIAL INTELLIGENCE IN NIGERIA

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ABSTRACT

The 21st century has seen Artificial Intelligence (AI) emerge as a revolutionary technology that affects various sectors of the economy, healthcare, agriculture, education, and police services worldwide. Why is AI such enigmatic? Nigeria has seen a surge in the use of AI-driven systems, leading to economic development, better public service quality, and innovation. However, this development also presents complex judicial and moral problems. Data privacy breaches, algorithmic bias, accountability gaps, and the lack of clear liability frameworks are among several issues that require comprehensive governance. The main obstacle identified in this paper is the absence of a dedicated regulatory and ethical framework for the advancement, deployment, and use of AI technologies in Nigeria. The paper adopts a doctrinal methodology, drawing on current Nigerian legislation, foreign law, academic literature, and policy papers to evaluate the appropriateness of present systems. The paper's comparative legal analysis reveals significant gaps in Nigeria's legal framework, which include inadequate data protection enforcement, limited institutional capacity, and inadequate ethical oversight mechanisms for AI applications. The paper suggests that solution to these difficulties would be to create an innovative approach, detailed National AI Policy and Legal Framework to create a foundation. Moreover, the proposal suggests improved training of regulatory agents and lawyers in AI research, collaborative public-private partnerships, and the integration of international best practices focused on fairness. According to the paper, Nigeria's sustainable digital transformation can only be achieved through proactive, rights-based governance involving AI that balances innovation with legal and ethical obligations. Ethical considerations and strong legal structures can be integrated into the development of AI, enabling Nigeria to tap into its transformative potential while maintaining fundamental rights and public trust.

Keywords: Accountability, Artificial Intelligence, Data Protection, Digital Transformation, Ethics, Governance, Human Rights.

1.0. Introduction

While the concept of artificial intelligence goes way back to the early 1900s[1], the AI revolution came up following the breakthrough of OpenAi's Chatgpt in 2022.[2] Since this time, the world has given as much necessary attentions to the adoption of artificial intelligence. Humans are then left in an awe over how fast paced artificial intelligence development has become in virtually all imaginable aspect of human's works.[3] This has resultantly caused the paradigm shift in the world's attention towards the widespread adoption of artificial intelligence.

The emergence of artificial intelligence is marked by significant innovations and efficiency brought to different aspects of human lives. This unprecedented technological advancement has refashioned different sectors in Nigeria. Through improved disease detection, the increased accuracy in timely diagnoses, increased speed in patient's recovery, artificial intelligence has a largely significant

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[1] Raffle. "Who is the father of AI?". Available at https://raffle.ai/newsroom/who-is-the-father-of-ai accessed on 29th October, 2025.

[2] OpenAI. "Introducing ChatGPT". Available at https://openai.com/index/chatgpt/ accessed on 29th October, 2025.

intervention in the healthcare sector[4] By strengthening financial fraud detection, the finance sector is not in exclusion.[5] Further, through artificial intelligence, crops yield better and more efficient results.[6]

Standing like a double-edged sword, the unprecedented opportunities of artificial intelligence has put the world in an inestimable excitement which is ultimately hit and cut short with the fear and challenges accompanying the adoption and usage of artificial intelligence.[7] While artificial intelligence models present transformative solutions, there are concerns on the fast pacing artificial intelligence over ethical concerns, breach of privacy, unlawful data collection and over reliance.[8]
This paper begins with the discussion of artificial intelligence, evaluating its background with its widespread adoption across the globe. It explores the different types and applications of artificial intelligence, while also accessing the distinctions between ethical and legal implications in the context of artificial intelligence. Further, it seeks to examine the various legal framework governing the use of artificial intelligence while exposing the gaps in these frameworks, highlighting how the gaps can serve as exploitative tools. Ultimately, this paper proposes to evaluate the ethical and legal implications of the adoption of artificial intelligence and rounding it off with suggestions to further bring reformation and disruptive changes to the adoptions of artificial intelligence, not only in Nigeria, but in the global context at large.

2.0. Conceptual Clarifications

The discussion of this paper revolves around the ethical and legal implications of artificial intelligence. However, the discourse of this paper will not be coherently emphasized without a proper understanding of the key terms used in this paper subsequently. Therefore, this part of the paper explores the different meanings to key terms which are quintessential to the discourse.

2.1. Definition of Artificial Intelligence

In virtually all facet of human's existence, the definition and meaning attached to something is largely dependent on the understanding of the person giving meaning to that subject matter.[9] This subjectivity in definition percolates into the definition of artificial intelligence as well.
The concept of artificial intelligence extends beyond what can be restricted to a specific subject matter. However, artificial intelligence generally may be taken to mean the ability of machines to imitate human intelligence in the performance of their functions.[10] These include to the ability to reason, learn and even make self corrections.[11]

2.2. Types and Applications of AI

The complexity in artificial intelligence makes it capable of permeating into differing aspects and industries. This causes the application of artificial intelligence in different areas which will be briefly discussed in this paper.

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[3] Aparna Krishna Bhat. "The Evolution of AI: From Foundations to Future Prospects". Available at https://www.computer.org/publications/tech-news/research/evolution-of-ai accessed on 29th October, 2025.
[4] Bernard Marr. "The Evolution Of AI: Transforming The World One Algorithm At A Time". Available at https://bernardmarr.com/the-evolution-of-ai-transforming-the-world-one-algorithm-at-a-time/ accessed on 29th October, 2025.
[5] Tableau. "What is the history of artificial intelligence (AI)?". Available at https://www.tableau.com/data-insights/ai/history accessed on 29th October, 2025.
[6] Aparna Krishna Bhat. (n 2).
[7] Osano Staff. "AI and Data Privacy: Exploring the Privacy Risks in the Era of Artificial Intelligence". Available at https://www.osano.com/articles/ai-and-data-privacy accessed on 29th October, 2025.
[8] Bisiriyumaqsudhat. "The Dual Nature of Artificial Intelligence – Opportunities and Challenges". Available at https://www.scribd.com/document/865538065/The-Dual-Nature-of-Artificial-Intelligence-Opportunities-and-Challenges accessed on 29th October, 2025.
[9] Fiveable;Becky Bahr. "subjective interpretation – Intro to Literary Theory." Available at https://fiveable.me/key-terms/introduction-to-literary-theory/subjective-interpretation. Accessed on 29th October, 2025.
[10] Lev Craig Nicole Laskowski, Linda Tucci. "What is AI (Artificial Intelligence)? Definition, Types, Examples & Use Cases" . Available at https://www.techtarget.com/searchenterpriseai/definition/AI-Artificial-Intelligence accessed on 30th October, 2025.
[11] Ibid.

2.2.1. Natural Language Processing

Abbreviated as NLP, it is a subset of artificial intelligence that enables artificial intelligence to understand, reason and communicate using human language. Through NLP, artificial intelligence is able to comprehend, understand and generate texts and speeches as long as they have their forms in human language.[13]

Through NLP, humans interactions with artificial intelligence are enhanced, and it gives human the ability to understand computer systems without having to learn or know programming languages.[14]

2.2.2. Machine Learning

This subset of artificial intelligence focuses on using algorithms to learn insights and patterns from existing training data to improve new data and make overall better outputs.[15] This system enables artificial intelligence to make decisions and predictions without even coded instructions.[16]

It is commonly used today in suggesting products to consumers based on purchase histories, prediction in stock markets, self driving cars and automation as well translation of texts from a language to another.[17]

2.2.3. Predictive Analysis

This is another advancement under artificial intelligence that focuses on using historical and existing statistics and modelling techniques to make predictions on future outcomes.[18] It makes use of past and current data, examine their patterns and use them to determine the likeliness of similar occurences in the future.[19] This may be employed by financial institutions in determining who is likely to default on a loan.[20]

2.2.4. Robotics

Robotics deals with the simulation of human physical appearance. It is basically the creation of mechanical humans.[21] These machines are capable of performing tasks which may be dangerous for a human or repetitive tasks either autonomously or semi-autonomously.[22]

This particular subset has revolutionized various industries through assembling of products, sorting of items and maintenance of other machines in the manufacturing industry;[23] transportation of medical supplies, performing of surgery and diagnostics in the medical field [24]; helping in the agriculture sector by performing tasks such as planting of crops, weeding, and harvesting.[25]

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[12] Cole Stryker, Jim Holdsworth. "What is NLP (natural language processing)?". Available at https://www.ibm.com/think/topics/natural-language-processing accessed on 30th October, 2025.

[13] Jeffrey Erickson. "What Is Natural Language Processing (NLP)?". Available at https://www.oracle.com/africa/artificial-intelligence/natural-language-processing/ accessed on 30th October, 2025.

[14] Rahul Awati Alexander S. Gillis, Ben Lutkevich. "What is natural language processing (NLP)?" . Available at https://www.techtarget.com/searchenterpriseai/definition/natural-language-processing-NLP accessed on 30th October, 2025.

[15] Dave Bergmann. "What is machine learning?" available at https://www.ibm.com/think/topics/machine-learning accessed on 30th October, 2025.

[16] Ibid.

[17] Coursera Staff. "What Is Machine Learning? Definition, Types, and Examples". available at https://www.coursera.org/articles/what-is-machine-learning accessed on 30th October, 2025.

[18] Clay Halton, Robert C. Kelly, Michael Rosenston. "Predictive Analytics: Definition, Model Types, and Uses" available at accessed on 30th October, 2025.

[19] Ibid.

[20] IBM Staff. "What is predictive analytics?" available at https://www.ibm.com/think/topics/predictive-analytics accessed on 30th October, 2025.

[21] IBM Staff. "Artificial Intelligence in Robotics" available at https://www.geeksforgeeks.org/artificial-intelligence/artificial-intelligence-in-robotics/ accessed on 30th October, 2025.

[22] Industry, University of San Diego. "9 Real-Life Applications of AI in Robotics "available at https://onlinedegrees.sandiego.edu/application-of-ai-in-robotics/ accessed on 30th October, 2025.

[3] Michigan Technological University. "What is Robotics?" available at https://www.mtu.edu/academics/robotics/what/ accessed on 30th October, 2025.

[24] Ibid

[25] Ibid.

2.3. Understanding Ethics in the Context of AI

The increasing demand for artificial intelligence in the society has instigated experts to demand for ethical boundaries in the creation and use of artificial intelligence.[26] In the use of artificial intelligence, users making use of it are to follow some moral principles. These moral principles are established to discern the objective standard of what is right and wrong. These moral principles are identified as AI ethics.[27]

These principles are ultimately to guide towards a responsible use in artificial intelligence. Not only that, these ethics demand accountability, transparency, trustworthiness, inclusivity, and fairness in the development, use and deployment of artificial intelligence.[28] Transparency demands that the functionality and collection of users' data by artificial intelligence should be through the consent of the data subject. Fairness demands artificial intelligence to avoid discrimination or bias in its outputs. Rules and principles like respect for persons – *protection of individuals with diminished autonomy, and seeking individuals' consent in things which they are involved in*; beneficence – *doing good and seeking to improve a particular system*; justice – *based on upholding fairness and equality among individuals in the society;* serve as the guidelines in evaluating artificial intelligence behaviors and functionality.[29]

2.4. Defining Legal Implications vs. Ethical Implications

The concept of law and morality are two key terms that ensure humans are to act according to an utmost goodwill.[30] While there are differences to the two terms, they ultimately serve to enable humans to live responsibly. The resemblance between the two lies in the imperative language of the two and the language employed by the two, with one mandating that "thou shall" and the other mandating that "thou shall not".[31] This is one of the reasons why the differentiation between the two terms is often subjected to controversies.[32]

However, it is pertinent to note that the two terms are ultimately different in their sources and mode of enforcement with one being backed by moral integrity and other being backed by sanctions. Also, the definition of what is right or wrong between the two differs.[33] For example, adultery may be seen as a moral wrong, while under the law, adultery is not seen as a wrong.[34]

When we talk on legal implications as opposed to ethical implications, legal implications refers to the results of engaging in something which has been provided for, under the law.[35] When someone gets married under the law, all properties which are acquired after the marriage are co-owned by the couples.[36] Legal implications may either be positive or negative. In situations where a person is victims of sanctions, the legal implications may be seen as negative, while in a situation where one is the judgement creditor, the legal implications may be seen as positive.[37]

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[26] Coursera Staff. "AI Ethics: What It Is, Why It Matters, and More". Available at https://www.coursera.org/articles/ai-ethics accessed on 30th October, 2025.
[27] Ibid.
[28] IBM Staff. "What is AI ethics?". Available at https://www.ibm.com/think/topics/ai-ethics accessed on 30th October, 2025.
[29] Ibid.
[30] Jude Burtler. "Legal & Ethical Standards | Definition, Differences & Examples". Available at https://study.com/academy/lesson/what-is-the-difference-between-legal-ethical-standards.html accessed on 30th October, 2025.
[31] CJ Okoye Lawview. "LAW AND MORALITY". Available at https://cjokoyelawview.com/pol-211-nigerian-legal-system/topic-2-law-and-morality accessed on 30th October, 2025.
[32] REV. FR. DR. JOHN S. EZENWANKWOR. "LAW AND MORALITY; An Appraisal of Hart's Concept of Law. Available at https://philpapers.org/archive/EZELAM.pdf accessed on 30th October, 202
[33] CJ Okoye Lawview. (n 31).
[34] Aoko v. Fagbemi (1961)1 ALL NLR 400.
[35] Martin Luenendonk. "Legal Implications". Available at https://cleverism.com/lexicon/legal-implication-definition/ accessed on 30th October, 2025.
[36] Ibid.
[37] Ibid.

On the other hand, ethical implications are the moral consequences that arise from certain actions, decisions, or situations. These consequences involve differentiating between the rightness or wrongness of an action and the impact on individual and the society.[38] Ethical implications include risk of distress, depression, physical or psychological injury to the participant, conflict of interest, privacy concerns.[39]

3.0. Legal Framework Governing Artificial Intelligence in Nigeria

In Nigeria, while artificial intelligence is widely adopted, there is yet to be a specifically established legal framework regulating the use of artificial intelligence. Therefore, the discussion of the legal frameworks discussed in this part is only based on the existing laws which are only relevant to the use of artificial intelligence.

3.1. Constitution of the Federal Republic of Nigeria

Artificial intelligence is becoming increasingly integrated into human modern affairs, and there is the need to consider the needs in which artificial intelligence is impacting the fundamental rights of Nigerians. Ultimately, the use of artificial intelligence may either promote or undermine the fundamental rights,[40] especially rights such as the right to privacy, non-discrimination and the freedom of expression.[41]

By virtue of the constitution, the Government shall promote science and technology.[42] While artificial intelligence is not expressly postulated in fore-cited section, however, considering the recent trending of the digital era, artificial intelligence stands as one of these foremost technologies. Therefore, the implication of the above section is that a national policy on artificial intelligence is critical for the country's economy, and this vests in key stakeholders and legislator the duty to ensure the creation of this policy to enable the creation of artificial intelligence economy in line to maintain objective algorithm, reduce trails of biases, foster economy growth, uphold transparency and protect the fundamental rights of citizens.[43]

The constitution has conferred the right from being discriminated against, on the citizens from disabilities or restrictions to which citizens of Nigeria of other communities, ethnic groups, places of origin, sex, religions or political opinions are not made subject.[44] Artificial intelligence being a technology heavily built on data may be trained with data not representative enough.[45] This, however, makes artificial intelligence capable of generating results which are discriminatory. [46] Acting on the clarion given by the constitution, while artificial intelligence may not have been intended when the provision was stated, it is however captured under the mischief which was sought to be eliminated. Therefore, while artificial intelligence is not emphasized in the provision, its creation, training and development must be in line to eliminate discrimination against the citizens of Nigeria.

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[38] Fiveable; Becky Bahr. "Ethical Implications – AP English Language." Available at https://fiveable.me/key-terms/ap-lang/ethical-implications. Accessed on 30th October, 2025.

[39] University of South Australia. "Ethical Implications". Available at https://i.unisa.edu.au/staff/research/research-ethics/human-research-ethics/ethical-implications/ accessed on 30th October, 2025.

[40] Jake Okechukwu Effoduh. "Towards A Rights-Respecting Artificial Intelligence Policy for Nigeria" Available at <https://paradigmhq.org/wp-content/uploads/2021/11/Towards-A-Rights-Respecting-Artificial-Intelligence-Policy-for-Nigeria.pdf> accessed on 31st October, 2025.

[41] Palmieri, S., Goffin, T. "Artificial Intelligence and Fundamental Rights: Under the European Legal Eye." available at <https://doi.org/10.1007/978-3-031-98406-8_3> accessed on 31st October, 2025.

[42] Section 18(2), Constitution of the Federal Republic of Nigeria.

[43] Jake Okechukwu Effoduh. (n 1).

[44] Section 42, CFRN, 1999.

[45] Sandra Suszterová. "What Is AI in Data Analytics?" Available at <https://www.gooddata.com/blog/what-is-ai-in-analytics/> accessed on 31st October, 2025.

[46] Chiraag Bains. "The legal doctrine that will be key to preventing AI discrimination" Available at <https://www.brookings.edu/articles/the-legal-doctrine-that-will-be-key-to-preventing-ai-discrimination/> accessed on 31st October, 2025.

Another vital fundamental right guaranteed by the constitution which artificial intelligence is capable of infringing on is the rights to privacy.[47] The growing influence of artificial intelligence on our everyday lives has heightened the needs to address the protection of privacy of respect of digital context. The right to privacy is critical to well-functioning of a democratic society. It encompasses the right of citizens to keep their homes, correspondence, telephone conversations and telegraphic communications hidden from members of the public.[48] The utilization of artificial intelligence for the collection and analysis of data which encompass facial recognition, biometric identification, and predictive analytics, has generated apprehensions regarding the potential infringement upon individual privacy.[49] As the development of artificial intelligence progresses, it becomes essential to streamline its collection of data with the provision of the constitution as regards the privacy of the constitution.

The constitution has mandated the upholding and respect for the dignity of human person.[50] The dignity of a human is an essentially inherent fundamental right of citizens that remains paramount even when the need to limit the fundamental rights of citizens arise. This emphasizes that the creation, development and deployment of artificial intelligence must be streamlined towards upholding the dignity of those making use out of it. Therefore, users should be treated as an entity worthy of respect and not mere objects capable of being controlled.[51]

3.2. Nigeria Data Protection Act, 2023

Assented by the President of Nigeria, Bola Ahmed Tinubu, GCFR, on the 12th day of June, 2023, as an Act to provide a legal framework for the protection of personal information, and establish the Nigeria Data Protection Commission for the regulation of the processing of personal information and related matters[52]

The Act aims at protecting the personal data, safeguarding the fundamental rights of Nigerians and uphold the freedom and interests of citizens in line with the mandate of the constitution.[53] The Act is responsible for the establishment of the Nigeria Data Protection Commission (NDPC)[54] granting it the power to oversee and implement the provisions of the Act.[55]The Act provides for the principles of personal data processing,[56] obligations of data controller and processor, as well as the rights of a data subject.[57]

It should be borne in mind that the principles of personal data processing provided by the NDPA are capable of significantly influencing artificial intelligence functionality. Notably, the Act mandates the processing of personal data to be lawful, meaning that data processing must be in line with the manner provided for, by the Act.[58] The implication of this is that the processing of personal data by artificial intelligence must be through the consent of the data subject, fulfilling the performance of a

[47] Section 37, CFRN, 1999.
[48] Ibid.
[49] Syed Raza Shah Gilani, Ali Mohammed Al-Matrooshi, Muhammad Haroon Khan. "Right of Privacy and the Growing Scope of Artificial Intelligence". Available at https://www.internationalrasd.org/journals/index.php/ctls/article/view/1633/1059 accessed on 31st October, 2025.
[50] Section 34, CFRN, 1999.
[51] OAL Publication. "Artificial Intelligence (AI) Regulation in Nigeria: Key Considerations, Recommendations, Legal Framework, and Policy Development for Artificial Intelligence (AI) in Nigeria" Available at https://oal.law/artificial-intelligence-ai-regulation-in-nigeria-key-considerations-recommendations-legal-framework-and-policy-development-for-artificial-intelligence-ai-in-nigeria/ accessed on 31st October, 2025.
[52] Schedule to the Nigeria Data Protection Bill, 2023.
[53] Section 1, NDPA, 2023.
[54] Section 4, Ibid.
[55] Section 6, Ibid.
[56] Section 24, Ibid.
[57] Section 34, Ibid.
[58] Section 25, Ibid.

contract to which the data subject is a party, fulfillment of a legal obligation, to protect the vital interest of another user, carrying it out for the purpose of public interest, and for a legitimate reason by the data processor.[59]

Flowing from the above, the implication is that the development of artificial intelligence and its collection of data must be in line with the principles provided by the NDPA, and therefore should uphold the rights of data subjects.[60]

3.3. Cybercrimes (Prohibition, Prevention, etc.) Act, 2015

The Cybercrimes (Prohibition, Prevention, etc.) Act, 2015, stands as the primary act seeking to prevent, detect, prohibit and prosecute the commission of cybercrimes in Nigeria, and ensure the protection of critical national information in Nigeria.[61]

While the Act has not been passed to regulate the conduct of artificial intelligence in Nigeria, the nature and the capability of artificial intelligence makes the provisions of the Act relevant. Artificial intelligence as a technological advancement is capable of redefining the legal landscape in the prevention and detection of cybercrimes, simultaneously, it is equally a big threat capable of being exploited by bad actors to commit cyber frauds and other related offenses. Artificial intelligence is capable of being used a tool to automate phishing, enhance malware attack, and creating deepfakes with doctored images, videos and audios.

The Cybercrimes Act, convicts any person who unlawfully and without authorization accesses a computer system it network for fraud and collection of important national data to imprisonment or fine or both, as the case may be.[62]

Further, the Act convicts a person who knowingly accesses any computer or network and inputs, alters, deletes or suppresses any data resulting in inauthentic data with the intention that such inauthentic data will be considered or acted upon as if it were authentic or genuine, regardless of whether or not such data is directly readable or intelligible to imprisonment for a term of not less than 3 years or to a fine of not less than 7,000,000.00 or both.[63]

Additionally, Any person who with intent and without lawful authority directly or indirectly modifies or causes modification of any data held in any computer system or network, commits an offence and shall be liable on conviction to imprisonment for a term of not more than 3 years or to a fine of not more than N7,000,000.00 or to both such fine and imprisonment.[64]

The Act additionally sentences a person found guilty of identity theft to 7years imprisonment or N5,000,000.00 fine or both.[65]

Furthermore, Any person who knowingly or intentionally engages in computer phishing shall be liable upon conviction to 3 years imprisonment or a fine of N1, 000,000.00 or both.[66]

Any person who engages in spamming with intent to disrupt the operations of a computer be it public or private or financial institutions shall be guilty of an offence and liable upon conviction to 3 years imprisonment or a fine of N1, 000,000.00 or both.[67]

Any person who engages in malicious or deliberate spread of viruses or any malware thereby causing

[59] Ibid.

[60] Emmanuel Salam, Iheanyi Nwankwo. "Regulating the privacy aspects of artificial Intelligence systems in Nigeria: A primer". Available at https://doi.org/10.29053/ajpdp.v1i1.0011 accessed on 31st October, 2025.

[61] Section 1, Cybercrimes Act, 2015.

[62] Section 6, Ibid.

[63] Section 13, Ibid.

[64] Section 16, Ibid.

[65] Section 22, Ibid.

[66] Section 32 (1), Ibid.

[67] Section 32(2), Ibid.

damage to critical information in public, private or financial institution's computers shall be guilty of an offence is liable upon conviction to 3 years imprisonment or a fine of N1, 000,000.00 or both.[68]
It is not a gainsaying that artificial intelligence, due to the rapid growth in its abilities, may be used as a tool for the commission of different cyber related offences which include but are not limited to the ones stated above. However, in line with the above cited provisions of the Cybercrimes Act, it is therefore needless to say that the development, deployment and use of artificial intelligence must be in line with the provisions of the Act.

3.4. National Information Technology Development Agency (NITDA) Act

Since the widespread adoption of artificial intelligence in Nigeria, the National Information Technology Development Agency (NITDA), which is the commission established by the National Information Technology Development Agency (NITDA) Act to implement the provisions of the Act, as well see to the development of technology in Nigeria there have been emerging issues. Since the establishment, the commission has been at the forefront in respect of regulatory frameworks for artificial intelligence in Nigeria through the establishment of the National Center for Artificial Intelligence and Robotics.[69]

While the Act does not expressly include artificial intelligence in its provision, NITDA, which is the commission established by the Act to primarily serve as the body leading Nigeria's IT development, of which artificial intelligence is no exception. The agency ensures collaboration with innovators, startups, government bodies and private persons to create frameworks that can further the development of artificial intelligence that align with national digital goals and strengthen Nigeria's stand in the global race for digital evolution.

4.0. Ethical Implications of Artificial Intelligence

Artificial intelligence development is moving at an unprecedented pace. This serves as one of the biggest reasons why the intelligence of artificial intelligence surpassing human natural intelligence is still highly a subject of debate in today's world.[70]
In consideration of the above discussed, it is important to consider the ethical implications in the use and development of this fast growing artificial intelligence. Thus, this part of this paper seeks to assess the ethical implications of artificial intelligence.

4.1. Privacy and Surveillance Concerns

In artificial intelligence, privacy risk is particularly high as artificial intelligence is trained based on users' collected data which may in turn be sensitive data.[71] In today's world, data is becoming more and more critical as assets to both individuals and businesses. The increasing growth of technological advancements, and widespread use of the internet have necessitated the needs to ensure data privacy.[72] In relation to technological advancements and the risk to privacy, artificial intelligence in particular is monumental among these technologies that pose significant threat to human privacy.[73]

The integration of artificial intelligence into various facets of human endeavors has largely increased

[68]Section 32(3), Ibid.
[69]NITDA. "National Center for Artificial Intelligence and Robotics". Available at https://nitda.gov.ng/ncair/ accessed on 31st October, 2025.
[70] Stefanini. "The Moral And Ethical Implications Of Artificial Intelligence". Available at https://stefanini.com/en/insights/articles/the-moral-and-ethical-implications-of-artificial-intelligence accessed on 30th October, 2025.
[71]Alice Gomstyn, Alexandra Jonker. "Exploring privacy issues in the age of AI". Available at https://www.ibm.com/think/insights/ai-privacy accessed on 30th October, 2025.
[72]Admin. "SAFEGUARDING DATA: THE IMPORTANCE OF DATA PROTECTION IN NIGERIA". Available at https://aocsolicitors.com.ng/safeguarding-data-the-importance-of-data-protection-in-nigeria/ accessed on 30th October, 2025.
[73]Philipp Rosenauer, Fatih Sahin. "Data Protection and Artificial Intelligence; How to assess your AI systems from a legal and regulatory perspective". Available at https://www.pwc.ch/en/insights/regulation/data-protection-and-artificial-intelligence.html accessed on 31st October, 2025.

the concerns associated with privacy. The more developed an artificial intelligence, particularly, machine learning system, the more it is capable of collecting, analyze and inferring of user's sensitive data.[74] This capability of artificial intelligence stands to create big challenges to the existing data protection regulatory frameworks which have not been designed for such highly sophisticated technology. These challenges include ability of artificial intelligence to bypass user's consent, unlawful collection and deployment of sensitive data, lack of transparency and accountability in its operations etc.[75]

Artificial intelligence is important and equally beneficial in cyber security, having the capability to prevent and detect frauds faster than the traditional methods. However, it is impeccable that artificial intelligence reflects the motive of the person behind its control serving as just a mere tool in the hands of its creator. Manipulative people may take advantage of artificial intelligence in deceiving, manipulating or harming other people.[76] While implementing artificial intelligence into monitoring and surveillance systems may be a landmark, ethical challenges that are likely to arise from this is not to be underscored. Through doctored images, videos or audios made by deepfake AI, it may be used to spread misinformation in tricking people into accepting a particular belief. It could further serve as a tool for cyber-attackers in enhancing their attacking tools. It could also serve as a discrimination tool capable of discriminating and generating of outputs that express bias towards certain race or group.[77]

4.2. Algorithmic Bias and Discrimination

It goes without saying, artificial intelligence is merely a tool in the hand of its creator. The motive and opinions of the creator largely determine the outputs of the artificial intelligence.[78] The creation of artificial intelligence by discriminatory individual amounts to the discrimination in the functionality of the AI. Resultantly, artificial intelligence is capable of generating outcomes which may be biased, unfair or discriminatory. This then reflects and reinforces the existing socioeconomic, racial and gender biases.[79]

The efficient capability of artificial intelligence is heavy on data. Data is the driving force behind the learning and decision making of artificial intelligence.[80] Artificial intelligence receives command and gets trained through data inputs. While the developers of artificial intelligence may believe that their process of inputting data may mitigate biases, it is argued that algorithm can never eliminate bias completely. Decisions making of artificial intelligence is influenced by the initial data it receives. If the data is unfair and biased, the resulting algorithm can express discrimination, bias or enable the widespread of inequality which can reinforce existing socioeconomic division and classism.[81]

4.3. Accountability and Transparency in AI Decision-Making

[74] Dr. Kalada D.S. Nonju and Agent Benjamin Ihua-Maduenyi. "The Impact of Artificial Intelligence on Privacy Laws". Available at https://dx.doi.org/10.47772/IJRISS.2024.8090178 accessed on 31st October, 2025.

Ibid.

[76] Nitin Vats. "The Ethics of AI in Monitoring and Surveillance". Available at https://www.niceactimize.com/blog/fmc-the-ethics-of-ai-in-monitoring-and-surveillance/ accessed on 31st October, 2025.

[77] Ibid.

[78] Matt Egan. "The 'godfather of AI' reveals the only way humanity can survive superintelligent AI". Available at https://edition.cnn.com/2025/08/13/tech/ai-geoffrey-hinton Accessed on 31st October, 2025.

[79] Alexandra Jonker, Julie Rogers. "What is algorithmic bias?". Available at https://www.ibm.com/think/topics/algorithmic-bias accessed on 31st October, 2025.

[80] André Hammer. "Exploring the Link Between Data and Artificial Intelligence". Available at https://www.readynez.com/en/blog/exploring-the-link-between-data-and-artificial-intelligence/ accessed on 31st October, 2025.

[81] Chen, Z. "Ethics and discrimination in artificial intelligence-enabled recruitment practices". Available at https://doi.org/10.1057/s41599-023-02079-x accessed on 31st October, 2025.

The continued increase in the integration of artificial intelligence into various humans works has raised ethical concerns and its overall impact on individuals and the society at large, particularly, due to the lack of accountability and transparency in its decision making processes.[82] Transparency of artificial intelligence refers to the clear communication of artificial intelligence operations, its development, and decision making.[83] Accountability on the other hand mandates individuals and organizations to be held responsible for outcomes of artificial intelligence on the society.[84]
As artificial intelligence becomes more developed and more independent, their decision makings can become more vague, hampering individuals' ability to understand how these decisions are made and what effect they have. The centerpin of the discussion revolves around the complexity in determining on whom the liability of wrong and harmful decisions made by artificial intelligence lies.[86]

4.4. Impact on Employment and Socio-Economic Equality

The development of artificial intelligence has significantly increased over the years, invoking fears of job loss stemming from the increasing capabilities of artificial intelligence to function in different sectors and handle works faster than human workers.[87] The integration of artificial intelligence into industries has had a significant effect on employment leading to automation of tasks, resulting in job displacement.[88]
Stemming from the above, while artificial intelligence has enabled job displacement and layoff of workers, it has necessitated individuals to acquire new skills and collaborate effectively with AI this results in job transformation.[89] While the proliferation of artificial intelligence has brought about challenges, it has alternatively created opportunities in employment and enabled creation of more roles.[90]

4.5. Ethical Use of AI in Sensitive Sectors

Artificial intelligence significantly influences many sectors including agriculture, education, healthcare, security, education, manufacturing and production, sport analytics and activities. This technology has the power to shape the figure of the industry and its actors.[91]
The use of artificial intelligence has tremendously changed the medical field enabling electronic medical records, easier and faster diagnosis, treatment and performing of surgery, enhancing the intelligence of medical practitioners, discovery of new drugs, providing preventive medicine.[92]
In the security sector, organizations are turning attention to artificial intelligence to strengthen the

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[82] Ben Chester Cheong. "Transparency and accountability in AI systems: safeguarding wellbeing in the age of algorithmic decision-making". Available at https://www.frontiersin.org/journals/human-dynamics/articles/10.3389/fhumd.2024.1421273/full accessed on 31st October, 2025.
[83] Paul Thompson, Husam Rajab. "The Role of Transparency and Accountability in AI Systems." Available at https://www.researchgate.net/publication/386083234_The_Role_of_Transparency_and_Accountability_in_AI_Systems accessed on 31st October, 2025.
[84] Ibid.
[85] Ben Chester Cheong. (n 52).
[86] O. E. Olorunniwo, Mayowa Alomge, Olatunji Isreal. "Accountability in AI Decision-Making". Available at https://www.researchgate.net/publication/390668560_Accountability_in_AI_Decision-Making accessed on 31st October, 2025.
[87] Marguerita Lane, Anne Saint-Martin. "The impact of Artificial Intelligence on the labour Market: What do we know So far?" available at https://dx.doi.org/10.1787/7c895724-en accessed on 31st October, 2025.
[88] Yihang Liang. "The Impact of Artificial Intelligence on Employment and Income Distribution." Available at https://www.researchgate.net/publication/380107141_The_Impact_of_Artificial_Intelligence_on_Employment_and_Income_Distribution accessed on 31st October, 2025.
[89] Ibid.
[90] Ibid.
[91] Dariush D Farhud, Shaghayegh Zokaei. "Ethical Issues of Artificial Intelligence in Medicine and Healthcare". Available at https://pmc.ncbi.nlm.nih.gov/articles/PMC8826344/ accessed on 31st October, 2025.
[92] Ibid.

security of their digital assets and sensitive data as the digital space further evolves. A large number of institutions consider AI automation as a very useful means of staying ahead of threats and vulnerabilities thereby preventing cyberattacks.[93]

5.0. Legal Implications of Artificial Intelligence

While the ethical implications of artificial intelligence has been discussed above in this paper, just as the ultimate aim proposes, the next part of this paper seeks to discuss on the legal implications artificial intelligence has on individuals, organizations and the society at large.

5.1. Data Ownership and Intellectual Property Rights in AI-Generated Content

It has been severally established, the development of artificial intelligence grows at a fast pace. As time goes by, artificial intelligence becomes more and more capable of handling works ordinarily associated with humans, conspicuously, content creation.[94] This, which is primarily fueled by Natural Language Processing, Machine Learning and Deep Learning algorithm.[95]

Right from the inception, determining the ownership of intellectual property rights in relation to AI-generated contents has been a complexity. Ordinarily, the traditional IP laws vests ownership of content in the author of the content. However, the ability of artificial intelligence to create a content from scratch challenges this postulation of the law, with some contentions revolving around the inexistence of artificial intelligence under the law, therefore being incapable of owning a property, including intellectual property.[96]

Ostensibly in all jurisdictions, the intent under which ownership and authorship are defined are in respect of a natural person, therefore, as artificial intelligence continues to generate content autonomously or semi-autonomously, the conventional meaning of ownership and authorship creates significant challenges. In the context of the Nigerian jurisdictions, the copyright law are built on the premise of conferring ownership on only human. However, this unforeseen capability of artificial intelligence creates significant legal implications on the ownership in relation to AI-generated content.[97]

5.2. Liability for AI Decisions and Damages

Artificial intelligence being a technological advancement is deemed imperfect, therefore the risks associated with it are not to be underscored. Artificial intelligence is susceptible to bias, errors, misinformation, or security breaches which are capable of being harmful to human, all of which encompasses potential liabilities in the use of AI.[98] An Instances is determining the responsibility when an autonomous vehicle causes an accident.[99]

The nature of complex AI systems establishes sort of difficulties in determining on whom does the

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[93] Orson Lucas. "The ethical use of AI in cybersecurity". Available at https://kpmg.com/us/en/articles/2025/ethical-ai-cybersecurity-balancing-security-privacy-digital-age.html accessed on 31st October, 2025.

[94] Mr. Prateek Shaw, Mrs. Puja Devgun. "AI in Content Creation" Available at https://www.ijfmr.com/papers/2025/3/45053.pdf accessed on 1st November, 2025.

[95] Ibid.

[96] Kelvin L. Nkai. "AI-generated content and IP rights: Challenges and policy considerations". Available at https://www.diplomacy.edu/blog/ai-generated-content-and-ip-rights-challenges-and-policy-considerations/ accessed on 1st November, 2025.

[97] OBIANYO, Chukwubuikem I. "Artificial Intelligence And Intellectual Property Rights In Nigeria: Rethinking Authorship And Ownership".

[98] Miodrag Jevtić. "Who's Responsible? Addressing Liability in the Age of AI". Available at https://www.geciclaw.com/whos-responsible-addressing-liability-in-the-age-of-artificial-intelligence/ accessed on 1st November, 2025.

[99] Ibid.

liability incurred by artificial intelligence lies. The inability of artificial intelligence to intentionally cause harm or damage with a guilty mind exacerbates the application of the traditional principles of determining liability.

The development, deployment and use of AI involves multiple parties which include and may not be limited to the manufacturer, developer and user. This multiplicity of parties in relation to artificial intelligence makes the question on the liability of AI a difficulty to determine.[100]

5.3. AI and Criminal Responsibility

Artificial intelligence has the capability to completely transform policing and law enforcement. From the investigation of crime, through analysis of vast data to analysis of biometrics to identify and track down criminals.[101]

While artificial intelligence can significantly transform and improve law enforcement, it may as well be susceptible to the commissioning of a crime, especially, artificial intelligence that requires no human intervention. Robots are a form of artificial intelligence with human physicality capable of executing human actions.[102] These artificial intelligence are either semi-autonomous or completely autonomous, and require little to no human intervention in their actions. Under the Nigerian law, a person cannot be convicted for an offense unless it is contained in a written law and its punishment therein.[103]

It is evident from the foregoing that a crime has to be stated to be one, and its punishment be provided alongside it. However, this does not serve to surmount the possibility of the engagement in the act by artificial intelligence. Robots which have been equipped with artificial intelligence may commit offenses which have been expressly stated in the criminal code. This raises the issue of the possible direct criminal offense for robots and the possibility of putting criminal responsibility on intelligent robots according to the traditional criminal law.[104]

5.4. Consumer Protection and Product Liability Concerns

When a consumer purchases a good for use, his intent relies on the safeness of the product for use. Therefore, the traditional product liability regulation opines on holding manufacturers, distributors and retailers legally liable for a defective products purchased by a consumer.[105] In consideration of its nature, in putting artificial intelligence into context, determining the product liability requires careful scrutiny. [106]

Mitigating manufacturing defects in artificial intelligence is significantly challenging as AI models and their underlying data cannot be scrutinized or inspected to ensure that they act according to the given instructions and how they have been designed. In the same vein, even if an artificial intelligence is manufactured to function according to specification, a design defect may cause it to function or operate dangerously.[107]

6.0. Challenges in Regulating Artificial Intelligence in Nigeria

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[100] Megan Howart, Katie Chandler. "AI liability – who is accountable when artificial intelligence malfunctions?" Available at https://www.taylorwessing.com/en/insights-and-events/insights/2025/01/ai-liability-who-is-accountable-when-artificial-intelligence-malfunctions accessed on 1st November, 2025.

[101] Europol. "AI and policing". Available at https://www.europol.europa.eu/publication-events/main-reports/ai-and-policing accessed on 1st November, 2025.

[102] Sam Daley. "Robotics: What Are Robots?". Available at https://builtin.com/robotics accessed on 1st November, 2025.

[103] Section 36(12), CFRN, 1999.

[104] Monther Sami Abdulrhman Al-Makaneen. "Criminal Responsibility for AI Crimes". Available at https://www.researchgate.net/publication/385119505_Criminal_Responsibility_for_AI_Crimes accessed on 2nd November, 2025.

[105] Finch McCranie, LLP. "Anatomy of Product Liability: Causes and Consequences" available at https://www.finchmccranie.com/blog/anatomy-of-product-liability-causes-and-consequences/> accessed on 2nd November, 2025.

[106] Joseph Mazzarella, Kimberly Castellino Metzger. "Artificial Intelligence & Product Liability". Available at https://www.mccarter.com/insights/artificial-intelligence-product-liability/ accessed on 2nd November, 2025.

[107] Ibid.

In Nigeria, several industries are potentially impacted by the integration of artificial intelligence into their workforce. This technology is capable of bringing ground-breaking solutions and efficiency to improve the overall welfare, and well-functioning and reduce the problems encountered in these industries. However, artificial intelligence as a never-heard of technology which is one unusual in the digital era moves at a frenetic speed which challenges the existing regulations of laws in Nigeria. In light of the foregoing, the next part of this paper seeks to examine the challenges that accompany the adoption and utilization of artificial intelligence in Nigeria.

6.1. Lack of Specific AI Legislation and Policy Framework

The utilization of artificial intelligence in Nigeria is characterized by the lack in a specific legislation in regulating its use which leaves the society prone and vulnerable to risks posed by the technology. Owing to the nature of artificial intelligence being a technology that integrates itself into many sectors, its regulation is fragmented across various regulations and regulatory bodies which can result in confusion and a lack of precision.[108]

6.2. Low Awareness and Technical Capacity Among Regulators

It is no gainsaying that artificial intelligence is a transformative and disruptive technology that lacks a clear specificity in its comprehension. Artificial intelligence expands way beyond man's understanding. Resultantly, as artificial intelligence systems become developed, the corresponding need for its regulations increases. However, in trying to establish a regulatory framework to govern the use, the blistering pace adopted by artificial intelligence in its development makes it a difficulty. [109]

The legislators face myriad of issues in defining artificial intelligence, not due to illiteracy, but due to the disruptive feature of the technology. Hayley Tsukayama, senior legislative activist, at the Electronic Frontier Foundation, a nonprofit dedicated to defending digital privacy noted “These are difficult issues to regulate,” adding that “AI covers a broad spectrum of things,”.[110] Legislators are barely expert in the field, thus differentiating machine learnings to deep learning to algorithm automation may prove difficult, and lead to reliance on foreign legislations which may not be streamlined to fit into the Nigerian socio-legal reality.

6.3. Inadequate Infrastructure and Research Investment

Artificial intelligence has shown so many potentials to transform the entirety of situations than the traditional mode of conducting these affairs. However, the adoption of artificial intelligence is widely hampered by the inadequacy in infrastructures. While other advanced countries are rapidly adopting the use, developing countries like Nigeria are struggling to catch up in the race, and infrastructural deficit is particularly a monumental clog in its proper growth.

Notably, the use of artificial intelligence requires a standard and stable high-capacity electricity, strong and reliable internet connection for cloud computing and real time data processing, GPUs and specialized chips clean, structured and organization data record, however, Nigeria as a country still experiences issues like incessant blackout, limited access to the internet and high cost associated

[108] PWC. “AI in Nigeria”. Available at https://www.pwc.com/ng/en/publications/ai-in-nigeria.html accessed on 2nd November, 2025.

[109] Xudong Shen, Hannah Brown, Jiashu Tao, Martin Strobel, Yao Tong, Akshay Narayan, Harold Soh, Finale Doshi velez. “Towards Regulatable AI Systems: Technical Gaps and Policy Opportunities”. Available at https://www.researchgate.net/publication/371786822_Towards_Regulatable_AI_Systems_Technical_Gaps_and_Policy_Opportunities accessed on 2nd November, 2025.

[110] BRIAN JOSEPH. “AI Decision-Making Poses Unique Challenge for State Legislators, Regulators”. Available at https://www.lexisnexis.com/community/insights/legal/capitol-journal/b/state-net/posts/ai-decision-making-poses-unique-challenge-for-state-legislators-regulators accessed on 2nd November, 2025.

with internet connectivity like wifi etc, lack of maintenance records, lack of proper healthcare data storage etc.[111]

In light of the foregoing, all the above infrastructural gaps serve as barriers to the proper adoption of artificial intelligence in Nigeria. Without these in place, the development of Nigeria will lag, and underscore Nigeria's efforts to create specific and dedicated legislations in regulating artificial intelligence.

6.4. Data Privacy and Security Vulnerabilities

The breakthrough of the technology itself is accompanied with cyber risks. Consequently, the breakthrough of artificial intelligence being accompanied with security risks would not come as a surprise.

Firstly, artificial intelligence handles vast amount of data, and if not properly safeguarded, this data may attract cybercriminals. Data breaches may result in loss and exposure of sensitive information including personal data and financial information. Similarly, this may cause artificial intelligence system may become target for cybercriminals seeking to gain unauthorized access to personal information and engage in identity theft.[112]

In addition, AI's reliance on data raises heavy privacy concerns. Also, Deep learning artificial intelligence models are complex to understand due to the lack of transparency in their decision making processes. This instigates errors and can potentially hinder accountability and responsibility.[113]

7.0. Conclusion

The breakthrough of artificial intelligence has given the technology to prove itself as an unequalled technology, standing as a disruptive one which cannot be confined to a specific definition as its covers wide range of spectrum behind human's comprehension. The technology holds so much potentials to enhance economic growth, social development, and improve the overall welfare in Nigeria. However, while artificial intelligence is widely adopted globally due to its unprecedented solutions and innovations, the inception of the technology has introduced myriad of both legal and ethical concerns. Artificial intelligence capabilities challenge the traditional regulations of privacy, data protection criminal responsibility, ownership and authorship, as well as liabilities. Its development also exposes the society to ethical lapses, violation of privacy, lack of accountability and responsibility. The absence of dedicated and specific legislations regulating the technology stands as big gap because the existing frameworks that vaguely relate to artificial intelligence have not been designed with such technology in mind.

In order to get the best out of AI use, Nigeria's regulations must be anticipatory, not reactive. This requires a unified national AI policy that is built on constitutional principles, human rights, and global best practices. Legal and ethical regulations must evolve paralleled to technological advances ensuring that innovation serves justice, equity, and public welfare rather than undermining them.

8.0. Recommendations and Way Forward

8.1. Need for a Comprehensive National AI Policy and Legal Framework

It is only ideal to hold that Nigeria stands at the foremost front among African countries in the adoption of artificial intelligence. However, despite this, the increasing development of AI outpaces legislations in the country. In spite of the prevalent adoptions, the lawmakers have not deemed it

[111] Otim Fredrick. "8 Key Barriers Slowing AI Adoption in Africa, essentially developing countries." Available at https://medium.com/@otimfredrick/8-key-barriers-slowing-ai-adoption-in-africa-c6b0afc0d6a0 accessed on 2nd November, 2025.

[112] Provost, Washington State University. "Challenges of AI". Available at https://provost.wsu.edu/challenges-of-ai/ accessed on 2nd November, 2025.

[113] Ibid.

necessary to establish a legal framework to govern the development, deployment and use of AI. The lack of a specific regulations governing artificial intelligence even gives the actors in control of the technology to exploit the use of the technology according to their own whims. As it Is said "where there exists no laws, there exists no crimes".

In light of the foregoing, this paper is therefore making a recommendation that the increasing development of artificial intelligence is worthy of a recognition under the legal system. Therefore, in order to hamper irregularities that may later arise from the use of the technology, there should be a specific and dedicated legislation put in place to regulating the creation, development and use of artificial intelligence in Nigeria. The reliance of the lawmakers should not be on the legislations from foreign jurisdictions that may ultimately not be efficient and effective in the Nigerian socio-legal system.

8.2. Establishment of an AI Ethics and Governance Commission

Ethics in the use of artificial intelligence ensures that the use of AI is in line with the standard objectives of what is right as opposed to what is wrong. The lack of a dedicated legislation, as well as the lack of a dedicated commission regulating and governing the use of artificial intelligence enables individuals to make use of technology in line with their subjective definitions of rights and wrongs, which may ultimately undermine legal rights.

Therefore, this paper is making a recommendation that after the establishment of a dedicated legislation, there should as well be a dedicated commission which is established to enable the use of artificial intelligence in line with ethical and moral principles.

8.3. Adoption of Ethical AI Principles

One of the challenges artificial intelligence poses is the lack of transparency, accountability and algorithmic bias in its decision making and outcomes. It is contended that bias cannot be totally eliminated in the use of artificial intelligence as long as it relies heavily on data. The data artificial intelligence is trained with determines a lot in its outcomes and outputs.

In view of the above, a recommendation is therefore made that the creation of artificial intelligence should be streamlined towards ethical principles. Its decision making should foster transparency and ensures that appropriate persons or organizations are held responsible for the effect of artificial intelligence in the society. This will therefore ensures that the development of artificial intelligence does not serve as potential harm to the society, but rather its development will be in line to enable inclusions of the society.