

ADMISSIBILITY AND EVALUATION OF AI-GENERATED EVIDENCE IN NIGERIA

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Abstract

Although sections 84 – 84D of the Evidence Act 2011, as amended by the (Amendment) Act 2023, provide for the admission of computer-produced documents, issues concerning the admissibility and evaluation of AI-generated evidence are not specifically covered by the Act. There is yet no reported Nigerian case where a court of law has dealt with the admissibility and evaluation of AI-generated evidence. Thus, judicial discussion on the topic is virtually nonexistent. While several writers have written on the subject of computer-produced evidence within the framework of the Evidence Act, academic discussions focused specifically on the admissibility and evaluation of AI-generated evidence in Nigeria are minimal. Against this background, this paper aims to contribute to knowledge in this emerging and important area of the law of evidence by highlighting and discussing the pertinent legal issues that Nigerian judges are likely to grapple with as litigants begin, slowly but inevitably, to introduce AI-generated evidence in legal proceedings in Nigeria. The paper adopts a doctrinal methodology, critically analyzing relevant case law and existing legislation to determine whether AI-generated evidence can be admitted and relied upon in legal proceedings within the framework of the Nigerian Evidence Act. Drawing from American jurisprudence, the paper highlights the challenges that Nigerian judges are likely to face when carrying out their judicial duty to evaluate AI-generated evidence. The paper argues that existing statutory provisions in Nigeria are inadequate to deal with the admissibility and evaluation of AI-generated evidence in legal proceedings. In conclusion, the article advocates for comprehensive legislative action integrating AI-generated evidence into the Nigerian legal system in a manner that optimizes its benefits while dealing with its potential negative impact on fair hearing.

Keywords: Evidence Act, AI-Generated Evidence, Admissibility, Evaluation of Evidence and Nigeria

1. Introduction

1.1 Background

Worldwide, computers have been in existence for many decades. Computers appear to have been first introduced in Nigerian educational institutions in 1963.¹ Thereafter, the use of computers developed rapidly in Nigeria, with several Universities offering computer science

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¹ That year, the IBM World Trade Corporation launched the IBM African Education Centre at the University of Ibadan and enrolled students to study computer applications and programming. See Anyanwu, J. A. (1978). Computer Science Education in a Developing Nation. SIGCSE/CSA Technical Symposium on Computer Science Education. 10(1): 37 - 40.

degree programmes at the undergraduate level.² Commercial institutions in Nigeria have also widely used computers for several decades. Nigerian banks have had digitalized banking operations for decades.

Not surprisingly, it did not take long before judges had to grapple with issues concerning computer-produced evidence in court proceedings. Several countries, particularly in the Western world, swiftly adjusted their legal systems to accommodate the new phenomenon. In England, as far back as 1968, the Civil Evidence Act made provisions for the admissibility of computer-produced evidence.³ While much of the world's legal systems were moving to keep pace with the computer age, Nigeria did nothing. It was not until 2011 that the country re-enacted its existing, old Evidence Act and introduced section 84 to deal with the admissibility of computer-produced evidence in court proceedings.⁴

Today, the world is confronted with a similar but much more complex phenomenon – Artificial Intelligence, otherwise called AI. The use of AI Technology is now prevalent across the world. As with traditional computer systems, AI generates evidence that could be relevant in legal proceedings, civil as well as criminal. At present, Nigeria lacks a specific legislative framework to address issues arising from the use of AI-generated evidence in legal proceedings. Some writers appear to argue that sections 84 – 84D of the Evidence Act⁵ is broad enough to accommodate AI-generated evidence.⁶ In other words, they argue that AI-generated evidence could be admitted under the said sections 84 – 84D. It is submitted that this position is overly simplistic as it treats AI-generated evidence as no more than a species of “computer-produced” documents. It takes no account of the distinctive nature of AI-generated evidence.⁷ It can hardly be argued that the lawmakers had AI-generated evidence in mind when they enacted the Evidence Act 2011, or indeed, the Evidence (Amendment) Act 2023. Thus, issues concerning the admissibility and evaluation of AI-generated evidence are not specifically covered by the extant statute on evidence. There is yet no reported Nigerian case where a court of law has dealt with the admissibility and evaluation of AI-generated evidence. Consequently, judicial discussion on the topic is virtually nonexistent. While several writers⁸ have written on the subject of computer-produced evidence, which is specifically provided for in sections 84 – 84D of the Evidence Act 2011,⁹ academic discussions focused specifically on the admissibility and evaluation of AI-generated evidence in Nigeria are minimal.¹⁰ It is against this background that this article is written. The article aims to contribute to knowledge in this emerging and important area of the law of evidence

² For example, the University of Ibadan, University of Ife (now Obafemi Awolowo University), University of Nigeria, Nsukka (UNN), and the University of Benin have all ran computer science degree programmes for decades.

³ See Civil Evidence Act 1968, s. 5 (later replaced by section 69 of the Police and Criminal Evidence Act 1984 for criminal proceedings, and updated by the Civil Evidence Act 1995 for civil proceedings).

⁴ Evidence Act 2011, s. 84. The provisions of which have now been updated and incorporated in sections 84 – 84D by the Evidence (Amendment) Act 2023.

⁵ As amended by the Evidence (Amendment) Act 2023

⁶ See for example, Orji, N, "An Inquiry into the Admissibility of AI-Generated Evidence Under the Nigerian Evidence Act, 2023." Available at <https://ssrn.com/abstract=5036811>.

⁷ This will be discussed in detail.

⁸ See for example, Taanimu, A.I. and Doma-Kutigi, "Proof by Electronically Generated Evidence under the Evidence Act (2011)." *Afe Babalola University, Ado-Ekiti (ABUAD) (2021) Law Journal (AJL)* 9 (1).

⁹ As amended by the Evidence (Amendment) Act 2023.

¹⁰ See for example, Orji, N, "An Inquiry into the Admissibility of AI-Generated Evidence Under the Nigerian Evidence Act, 2023." Available at <https://ssrn.com/abstract=5036811>.

by highlighting and examining the pertinent legal issues that Nigerian judges are likely to grapple with as litigants begin, slowly but inevitably, to introduce AI-generated evidence in legal proceedings in Nigeria. The paper adopts a doctrinal methodology, critically analyzing relevant case law and existing legislation to determine whether AI-generated evidence can be admitted within the framework of the Evidence Act 2011, and highlights the challenges that Nigerian judges are likely to face when carrying out their judicial duty to evaluate AI-generated evidence. Because there is yet no reported case on the admissibility and evaluation of AI-generated evidence in Nigeria, the article draws from American jurisprudence on the subject, providing helpful guidance for Nigerian courts. The article is divided into five broad parts. The first part, which is the introduction, sets out the background against which this paper is written, and reviews the existing literature on the subject. The second part consists of a discussion of AI systems and the nature of evidence that they generate. This part highlights the crucial difference between AI-generated evidence and the traditional, less complicated and more familiar computer-produced evidence that sections 84 – 84D of the Evidence Act 2011¹¹ have already provided for.

The third part of the paper examines the admissibility of AI-generated evidence within the context of the existing legal framework for the admissibility of evidence in Nigeria. This part aims to examine whether AI-generated evidence can fit into relevant provisions of the Evidence Act 2011.

Part Four of the paper focuses on the challenges posed by AI-generated evidence concerning the judicial duty to evaluate evidence and determine the appropriate weight to attach to such evidence. These challenges are discussed against the background of relevant evidentiary principles that protect fundamental rights, ensure transparency and accountability, and instil public confidence in the justice delivery system.

The last part makes suggestions aimed at adjusting the Nigerian legal system to accommodate the use of AI in legal proceedings in a manner that optimizes its benefits while dealing with its potential negative impact on fair hearing.

1.2 Literature Review

AI-generated evidence is a new and still-emerging area of the law of evidence, particularly in Nigeria. There is yet no statutory regulation of AI usage in the country. Neither is there a specially prescribed mode for introducing AI-generated evidence in legal proceedings. As noted earlier, there has been no reported case in Nigeria where the courts have dealt with the admissibility and evaluation of AI-generated evidence in legal proceedings. Thus, case law and judicial discussions in the area remain virtually non-existent. It is not surprising, therefore, that much of the existing academic discussions focus on the admission in evidence of traditional, computer-produced documents covered by sections 84 – 84D of the Evidence Act 2011, rather than on the admissibility and evaluation of AI-generated evidence.¹² N.A. Orji, who has written specifically on the admissibility of AI-generated evidence in Nigeria, agrees that there is a lacuna in the Nigerian Evidence Act to the extent that the admissibility of AI-generated evidence is not expressly dealt with in the Evidence Act.¹³ The learned writer

¹¹ As amended by the Evidence (Amendment) Act 2023.

¹² See for example, Taanimu, A.I. and Doma-Kutigi (2021). "Proof by Electronically Generated Evidence under the Evidence Act (2011)." *Afe Babalola University, Ado-Ekiti (ABUAD) Law Journal (AJL)* 9 (1).

¹³ Orji, N. A, (n 10).

argues that “AI-generated documents will fall under the category of computer-generated documents under the Act, which by implication includes Artificial Intelligence Systems.” For Orji, AI-generated evidence can be admitted through the provisions of sections 84 – 84D of the Evidence Act. Nevertheless, Orji admits that significant hurdles remain in the way of a litigant seeking the admission of AI-generated evidence in Nigeria. These include the need to establish the working condition of the AI System, proving the integrity of the input data of the AI System, ensuring that the AI-generated documents were not illegally obtained, and making sure that the AI-generated evidence is not such as to fetter the opponent’s right to a fair hearing.

It would appear that much of Orji’s analysis is focused on the admission in evidence of the AI-generated “document” itself, which he quite rightly equated with “computer-produced document” referred to in the Evidence Act. It is submitted that this is an overly simplified view of AI-generated evidence. It does not take into account the fact that AI Systems have great autonomy in the way they operate and generate results. This is a crucial distinction between AI-generated evidence and the traditional, computer-produced document covered by the Evidence Act. The present article attempts to answer the question of whether evidence autonomously generated by AI systems can be admitted within the framework of the extant Evidence Act.

2. AI Systems and the Nature of AI-Generated Evidence

2.1. What is AI?

Experts in the field of AI technology have provided technical definitions of AI. The High-Level Expert Group on Artificial Intelligence (AI HLEG)¹⁴ defined AI systems as

... software systems designed by humans that, given a complex goal, act in the physical or digital dimension by perceiving their environment through data acquisition, interpreting the collected structured or unstructured data, reasoning on the knowledge, or processing the information derived from this data and deciding the best action(s) to take to achieve the given goal.¹⁵

In the National Artificial Intelligence Initiative Act, 2020, enacted by the Congress of the United States, “artificial intelligence” is defined as “a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations or decisions influencing real or virtual environments.”¹⁶

The European Union (EU) Artificial Intelligence Act¹⁷ defines “AI system” as

¹⁴ A group of 52 experts set up by the European Commission to advise and support the Commission on the implementation of the European initiative on AI.

¹⁵ Ethics Guidelines for Trustworthy AI published by the High-Level Expert Group on Artificial Intelligence (AI) on 8 April 2019.

¹⁶ 15 U.S.C.A. § 9401(3).

¹⁷ Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024, which lay down directly applicable harmonised rules on artificial intelligence. See Article 3(1) thereof.

... a machine-based system that is designed to operate with varying levels of autonomy and that may exhibit adaptiveness after deployment, and that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments.

The common thread running through the technical definitions set out above is that AI systems are machine-based. For centuries, humans have used machines to assist in carrying out varied functions. For example, in forensic science, machines have been used in areas such as ballistics, toxicology, fingerprints and DNA identification to produce useful results. Machines have also been used to measure alcohol levels in humans. For decades, computers have been used to process vast amounts of data and to make mathematical calculations within seconds, tasks that are humanly impossible to perform. However, there is a remarkable difference between AI machine systems and the traditional machines referred to above. The traditional machines of the past decades were generally operated by humans and under the direct control of humans. Humans determine the parameters of the operation of the machine; they control the data and are directly responsible for the outcome. The human operator is in a position to fully explain the processes, from input to output, by which the results are achieved. By contrast, an AI system refers to the ability of a machine to learn from raw data input into it and replicate human intelligence by performing tasks that humans would normally perform, but without any direct human input or control over the process by which it produces outcomes. Eftychia Bampasika put it succinctly: “Core to the concept of AI ... is the notion of an agent capable of taking relatively autonomous decisions, depending on its perception and cognition of its environment.”¹⁸

2.2 Categories of AI Systems

There are two main categories of AI systems. These are the expert systems and the machine learning systems (which include neural networks). An expert system has been described as one “... composed of a database (the “knowledge base”) containing relevant information about the subject matter of the system and the program (the “inference engine”) that applies the rules of logic and probability to the knowledge base to draw conclusions.”¹⁹

Expert systems²⁰ depend on a database of detailed, specialised knowledge and rules provided by experts in a specific field of knowledge. The database necessarily contains relevant facts, rules and cases which the machine processes by logical reasoning in response to the user’s query, and produces an intelligent conclusion. Because expert systems rely on specialised knowledge provided by human experts in a given field and apply the rules of logic and probability in arriving at conclusions, their conclusions are relatively easy to explain. Thus, expert systems are regarded as “open-box” systems.²¹ Expert systems replicate the judgment of a human expert in a given field of knowledge, for example, fingerprints and DNA identification. Because they do this by automation of routine tasks, they can process vast

¹⁸ Bampasika, E. (2020). “Artificial Intelligence as Evidence in Criminal Trial.” *WAIEL*.at p. 22.

¹⁹ Andrew W. Jurs, S. D. (2024). “Machines Like Me: A Proposal on the Admissibility of Artificially Intelligent Expert Testimony.” *Pepperdine Law Review* Vol. 51(No. 4): 71.at p. 616.

²⁰ Although there are varieties of expert systems, their basic characteristics remain essentially the same.

²¹ *Op cit*, at p. 611.

amounts of data and resolve queries within seconds. This saves time and increases productivity.

In contrast, machine learning systems refer to machines that are programmed to learn patterns and relationships from the raw data input into them, and to autonomously produce results from their learning experiences. While humans input the raw data, the algorithmic processing of the raw data by which the system makes its conclusions and recommendations does not follow the rules and logical reasoning set by the programmers. In between the inputting of the raw data and the output of conclusions and recommendations, there is a “black box” of algorithmic processing and calculations autonomously carried out by the system that is largely unexplainable even by the programmers. Thus, no one, including the programmers, may be able to explain how a particular result, although accurate, was arrived at. For this reason, machine learning systems are regarded as “closed box” systems.²²

2.3 Various Uses of AI Technology and the Evidence they Generate

AI Technology is becoming pervasive. Its usage is widespread. In transportation, there are now AI-driven self-driving vehicles. A passenger can hail a taxi through a designated application, and sure enough, the driverless taxi will arrive to take the passenger to their destination. Using AI technology, the driverless taxi can meander through traffic while obeying traffic laws and regulations. In banking and finance, AI technology can help to identify patterns in financial transactions and flag potential fraudulent activity. AI’s capacity to recognise patterns and create customised suggestions has been utilised widely in entertainment, e-commerce, advertising and education. One may try a friend’s wireless headphones on one’s smartphone today and begin to see tailored advertisements of the product on the phone the next day. One may watch a Nollywood movie on Netflix today and begin to see suggestions of similar movies pop up on the screen thereafter. AI technology can be used to produce “deep fakes.”²³ These are audio and video recordings that appear authentic but are fake in that they have been artificially created or have been digitally altered. Some deepfakes appear so real that it is almost impossible to detect that they are indeed fake without utilising AI technology to do so.

The transformative use of AI can be seen in the area of policing and criminal investigation. In Spain and Germany, law enforcement agents have deployed AI technology to analyse digital devices to detect faces, objects, sexual organs and other information indicative of child sexual abuse.²⁴ Police authorities in the United Kingdom have also used AI forensic tools to examine mobile phones to search for potential evidence by analysing images, communication patterns, matching faces, and cross-referencing data from different devices.²⁵

AI technology is also used to assist in predictive policing. AI technology can monitor social media, analyse crime patterns, and detect potential threats. These capabilities enable authorities to manage resource prioritisation. AI technology for facial recognition can be

²² Ibid.

²³ Deep fakes are not necessarily unlawful. However, if produced with a malicious intent, they may attract civil or criminal liability.

²⁴ Katherine Quezada-Tavárez, P. V., Dr. Sofie Royer. (2021). *Legal Challenges in Bringing AI Evidence to the Criminal Courtroom*. New Journal of European Criminal Law 12(4): 20.

²⁵ Op. cit.

deployed to identify suspects who may otherwise be unidentifiable because they are masked or their photographic images are blurred. In the area of forensic investigation, AI technology is used for fingerprint and DNA analysis to identify individuals.²⁶

While evidence may be generated by any of the AI technologies mentioned above, those utilised by law-enforcement agencies in criminal investigations appear, potentially, to have the most impact on existing legal frameworks for the admissibility and assessment of evidence by the law courts. This is due largely to the fact that criminal investigations carried out by law enforcement agencies invariably lead to criminal proceedings where the AI-generated evidence will have to be presented in support of the case for the prosecution.²⁷

2.4 Difference Between AI-generated Evidence and Ordinary Computer-produced Evidence

AI-generated evidence and computer-produced evidence are both regarded as digital evidence. However, there is a marked difference between them, and this will be made clear shortly.

The Evidence Act 2011 recognizes computer-produced evidence. Section 84(1) of the Act makes provisions for the admissibility of documents produced by computers:

In any proceeding, a statement contained in a document produced by a computer shall be admissible as evidence of any fact stated in it of which direct oral evidence would be admissible, if it is shown that the conditions in subsection (2) of this section are satisfied in relation to the statement and computer in question.

Subsection (2)²⁸ sets out the conditions to be satisfied before a computer-produced document would be admissible. The conditions are:

- (a) that the document containing the statement was produced by the computer during a period when the computer was regularly used to store or process information for any activities regularly carried out over that period,
- (b) that over the relevant period, the computer was regularly supplied, in the ordinary course of those activities, with the kind of information contained in the statement, or of the kind of information from which the statement is derived,
- (c) that throughout the relevant period, the computer was operating properly, and
- (d) that the information contained in the document “reproduces or is derived from information supplied to the computer in the ordinary course of those activities.

²⁶ See U.S. Department of Justice Final Report on Artificial Intelligence and Criminal Justice: “AI is widely used in biometric analysis, including fingerprint, palm print, iris, and face comparison” Accessed at <https://www.justice.gov/>

²⁷ For example, a Press Release on Sexual Offences and Cyber/Online Crimes issued by the Crown Prosecution Service in the United Kingdom on 9th August 2024 revealed that a man who created computer-generated child sex abuse images was prosecuted and convicted. Accessed at <https://www.cps.gov.uk>

²⁸ Of section 84 of the Evidence Act 2011.

Remarkably, the provisions set out above reveal the essential characteristics of computer-produced evidence within the context of the Evidence Act. Under section 84(1) of the Evidence Act, the computer-produced document may be admissible as evidence only if it contains a fact of which “direct oral evidence would be admissible.” The term “direct oral evidence” is used here in contradistinction to hearsay evidence as defined in section 37 of the Evidence Act:

Hearsay means a statement –

- (a) oral or written made otherwise than by a witness in a proceeding; or
- (b) contained or recorded in a book, document or any record whatever, proof of which is not admissible under any provision of this Act, which is tendered in evidence for the purpose of proving the truth of the matter stated in it.

A combined reading of sections 84(1) and 37 shows that a human being must take responsibility for the authenticity and accuracy of the information contained in the computer-produced document. This notion is reinforced by the provisions of section 84(2) (d) of the Act, which indicates that the information contained in the computer-produced document is expected to produce two categories of information only. First, the computer may merely reproduce information supplied to it. For example, the Branch Manager of a bank in Lagos, Nigeria, may compose and send an email to his colleague in Yenagoa, Nigeria. If the email is relevant in legal proceedings, the computer is expected to merely reproduce the sent email as composed by the sender. Secondly, the computer may produce information derived from information supplied to it. For example, whenever a bank customer makes deposits and withdrawals from his account, such deposits and withdrawals are recorded in the bank’s computers. If the customer requests his bank statement covering a period, the computer produces the statement from the record of deposits and withdrawals input into it over the relevant period. Thus, the most essential characteristic of computer-produced evidence within the context of the Evidence Act is that a human operator is at the core of the evidence. A human being must take responsibility for the authenticity and accuracy of the computer-produced evidence. That person must be available as a witness in the proceedings and must be subject to cross-examination. Thus, only the maker of the document is competent to give evidence as to the accuracy of the contents of the document.²⁹

In contrast, AI-generated evidence refers to evidence produced by AI systems that engage in autonomous decision-making. These systems operate with a great degree of autonomy by replicating human intelligence and making decisions, delivering expert opinions and making recommendations that humans would normally do. Because the participation of a human being in the decision-making process of the AI system is minimal, even the programmers of the AI system may not be in a position to take direct responsibility for the accuracy of the evidence generated by the system. This is particularly so with “closed box” AI systems. The algorithmic processing of raw data resulting in the final output produced by these systems is often unexplainable even by the programmers themselves. Thus, to test the accuracy of AI-generated evidence, the focus of the fact-finder will be more on the workings of the machine itself and less on a human witness.

²⁹ See *Akeredolu v. Mimiko* (2013) LPELR-20532(CA), pp. 27 – 29.

3. Admissibility of AI-Generated Evidence within the framework of the Evidence Act 2011³⁰

Facts are the foundation upon which cases are built. They are at the core of legal proceedings, civil or criminal. A claimant who invites the court to award damages for trespass or breach of contract must establish his entitlement by proving the facts relevant to his claim. A prosecutor seeking a defendant's conviction cannot succeed unless he proves the facts alleged against the defendant. Under the Evidence Act 2011, facts are proved in one of two ways. Section 125 states, "All facts, except the contents of documents, may be proved by oral evidence."³¹ Section 126 of the Act requires that oral evidence of a relevant fact must be direct in the sense that the evidence must be given by a witness who saw the fact with his eyes, heard the fact with his ears, or perceived the fact by any of the other human sensory organs.³² If the oral evidence "... refers to an opinion or to the grounds on which that opinion is held, it must be the evidence of the person who holds that opinion on those grounds..."³³

Central to the provisions of section 126 of the Evidence Act is the notion that oral evidence must be given by a witness who is a natural person. Only a human being can perceive facts with one or more of the five human sensory organs. Although AI machines can replicate human intelligence and operate autonomously, they do so not because they see, hear or feel in the sense that a human being sees, hears or feels. AI systems cannot appear as witnesses in court and give direct testimony of the evidence that they generate. AI machines were outside the contemplation of lawmakers when the Evidence Act was enacted in 2011. In addition to the provisions of section 126 of the Evidence Act, section 68 of the Act also indicates clearly that experts who may give opinion evidence must be natural persons. A literal reading of this section would appear to exclude expert evidence generated by AI machines.

Nevertheless, it must be noted that AI machines produce evidence that is often relevant to facts in issue in legal proceedings. For example, in a criminal case where the decision to acquit or convict depends solely on the DNA identification of the defendant, DNA analysis becomes crucial. There are expert AI systems that can analyze DNA samples and resolve identification disputes.³⁴ In such a case, the "expert opinion evidence" generated by the AI system becomes relevant. Under section 1 of the Evidence Act,³⁵ evidence may be given of facts in issue or facts relevant to the facts in issue.³⁶ It may be argued that although the AI system may not qualify as a witness within the context of section 126 of the Evidence Act, to the extent that the evidence that it generates is relevant to the issues for determination in the proceedings, the evidence can be presented to the fact-finding court through a human witness. Although this argument appears sound, it is problematic. It is submitted that if the human witness had minimal participation in the DNA analysis that produced the result, he cannot give direct evidence of facts that he did not perceive himself, or of opinions that he did not

³⁰ As amended by the Evidence (Amendment) Act 2023.

³¹ See *Okoye v. Okoye* (2022) LPELR-59270(CA), at p. 9, per Gbagi, JCA: "The law is crystal clear that all facts in contention between parties to a case must be proved by direct oral evidence except when what is intended to be proved is the content of a document."

³² See Evidence Act, s.126(a) – (c).

³³ Ibid, s. 126(d).

³⁴ For example, TrueAllele is an AI tool created by Cybernetics that performs DNA analysis by statistical methodology through a process called probabilistic genotyping. See the United States case of *People v. Wakefield* 195 N.E. 3rd 19, 32 (N.Y. 2022).

³⁵ 2011.

³⁶ Relevancy is key to admissibility: *Okon v. Ekpo* (2025) LPELR-80901(CA).

hold. Thus, allowing him to give evidence of the AI-generated evidence may be contrary to the provisions of section 126 of the Evidence Act.

The rationale behind the evidentiary requirement that the perceiver of the fact or the holder of the expert opinion should be the person who should testify in court as to the fact or opinion is that a party in the proceedings who is adversely affected by the evidence must be allowed to cross-examine the witness to challenge the authenticity and accuracy of the fact, or the soundness of the grounds of the opinion. The opportunity for cross-examination must not be merely superficial. It must be functional. It must be a real opportunity that carries with it the capacity to test the evidence for authenticity and accuracy. This cannot be achieved if the witness presents evidence for which he cannot be held responsible.

There is the question of whether the absence of a real opportunity for cross-examination should operate as a bar to the admissibility of the AI-generated evidence, or whether it should be treated only as an issue of the appropriate weight to be attached to the evidence. Generally, under Nigerian law, relevancy is key to admissibility.³⁷ Once a piece of evidence is relevant to the issue for determination in legal proceedings and there is no specific statutory bar empowering a trial court to exclude such evidence, that evidence may be admitted. Thereafter, the court may decide on the appropriate weight to be attached to the evidence, having regard to all the facts and circumstances of the case.³⁸ This appears to be the approach taken by the New York Court of Appeals in the case of *People v. Wakefield*.³⁹ The case concerned the admissibility of DNA analysis performed by the AI tool, True Allele. Before the Court of Appeals, the defendant argued that the constitutional requirement of “confrontation”⁴⁰ was not met as there was no real opportunity to subject the AI-generated evidence to cross-examination. The Court rejected this argument, holding that as the AI programmer and laboratory technician who used the AI tool to get the DNA results both testified and were subject to cross-examination, this satisfied the right to “confrontation.” In other words, concerning expert AI-generated evidence, the right to cross-examination can be satisfied with the testimony of the programmer and a human expert in the relevant field of knowledge.

At present, there appears to be no judicial guidance from the appellate courts in Nigeria as to how trial courts should approach this matter. Should Nigerian courts follow the US approach, it would then mean that AI-generated evidence will be admitted through a human witness so far as the evidence is relevant to the issues for determination. Thereafter, the court may decide on the weight to be attached to the evidence. In the example given above, the court may consider the level of participation of the human witness in the AI-driven decision-making process to determine the appropriate weight to be attached to the evidence. The less the level of human participation in the decision-making process, the less the evidential weight to be attached to the evidence.⁴¹

4. Evaluation of AI-generated Evidence

The use of AI technology has been transformative in many areas of human endeavour. Concerning the justice delivery system, it has been suggested that

³⁷ *Okon v. Ekpo* (2025) LPELR-80901(CA).

³⁸ *Abubakar v. Chuks* (2007) LPELR-52(SC).

³⁹ 195 N.E. 3rd 19, 32 (N.Y. 2022).

⁴⁰ Which is the equivalent term for the right to cross-examine opposing witnesses.

⁴¹ The challenges concerning the evaluation of AI-generated evidence will be discussed in greater detail below.

... AI could serve as an auxiliary mechanism, assisting the court in the fact-finding process, by reducing judicial arbitrariness, systematizing the proof process and improving trial efficiency.”⁴² Indeed, some scholars have advocated the use of AI as a panacea for judicial corruption.⁴³

While it cannot be denied that the deployment of AI technology for evidentiary purposes can have significant benefits for justice systems, the potential risks cannot be ignored. For example, research has shown that AI is susceptible to biases and can have an unacceptable degree of inaccuracy in output. In research carried out on the COMPAS recidivism⁴⁴ algorithm, an AI tool widely used by judges, probation and parole officers in the United States to assess the probability of a criminal defendant re-offending, the researchers had this to say:

We compared the recidivism risk categories predicted by the COMPAS tool to the actual recidivism rates of defendants in the two years after they were scored, and found that the score correctly predicted an offender’s recidivism 61 per cent of the time, but was only correct in its predictions of violent recidivism 20 per cent of the time.⁴⁵

The researchers’ analysis also revealed a great deal of bias against black defendants when compared to their white counterparts:

Black defendants were often predicted to be at a higher risk of recidivism than they actually were. Our analysis found that black defendants who did not recidivate over a two-year period were nearly twice as likely to be misclassified as higher risk compared to their white counterparts (45 per cent vs. 23 per cent).

White defendants were often predicted to be less risky than they were. Our analysis found that white defendants who re-offended within the next two years were mistakenly labelled low risk almost twice as often as black re-offenders (48 per cent vs. 28 per cent).⁴⁶

The above shows that the use of AI as an evidence-producing tool poses new challenges to trial judges engaged in the evaluation of evidence. The following passages will highlight and examine some of the most concerning challenges.

4.1 Reliability

For their operation, AI systems depend on vast amounts of data fed into them. The data may comprise a wide range of materials such as videos, photos, audio recordings and documents obtained from millions of sources. Through machine learning algorithms, the data is analysed for patterns, and conclusions and recommendations are made by the system. This is how many of the machine learning models work. Take, for example, AI-driven facial recognition

⁴² Bampasika, E. (2020). "Artificial Intelligence as Evidence in Criminal Trial." WAIEL.

⁴³ Cui, Y. , *Artificial Intelligence and Judicial Modernization*. Singapore, Springer, (2020). p.22.

⁴⁴ Recidivism refers to the act of an individual repeating an unlawful behaviour after they have been punished for it, or have been rehabilitated to terminate the behaviour.

⁴⁵ Jeff Larson, S. M., Lauren Kirchner, Julia Angwin, *How We Analyzed the COMPAS Recidivism Algorithm, ProPublica*. (2016). Available at <https://www.propublica.org/article/how-we-analyzed-the-compas-recidivism-algorithm>. Accessed on 15 August 2024.

⁴⁶ Ibid.

technology that can be deployed to identify suspected offenders. By processing and analysing the data collected and fed into the AI system, blurred and ordinarily unidentifiable images of suspected offenders can become clear and identifiable, thus leading to the identification of the suspect.

At trial, the evidence-assessing judge may be faced with questions as to the reliability of the AI-generated evidence. As has been noted, “For evidence to be considered reliable, there must be no doubt over its authenticity and integrity.”⁴⁷ In this context, authenticity refers to the genuineness of the data materials collected and fed into the AI system from a vast array of sources. Are the sources identifiable? Are the data materials really what they purport to be? If the data is defective in terms of genuineness, the output becomes unreliable, and this invariably affects the weight to be attached to the AI-generated evidence.

The other limb of reliability is the integrity of the data collected. Questions as to whether the data was tampered with during its collection and transit from one person to the other may be relevant. If the chain of custody of the data is broken and unauthorised persons are seen to have handled relevant data, that may affect the reliability of the evidentiary output, and consequently, the weight to be attached to the AI-generated evidence. Katherine Quezada-Tavárez, *et al*⁴⁸ have noted three levels at which reliability issues can arise.⁴⁹ First, it can arise at the “raw” data stage. Inaccurate data or data that has been tampered with can be inputted into the AI system by human operators. Secondly, reliability issues can also arise from the “black box” problem associated with AI systems. This refers to the inner workings of AI systems by which data is autonomously processed and analysed. In this context, reliability issues arise because these inner workings are neither visible to nor explainable by humans. Thirdly, it has been shown that human digital forensic experts who examined the same evidence file have arrived at different interpretations and conclusions.⁵⁰ When the same human forensic experts are involved in the creation of expert AI tools deployed for forensic analysis, the probability that they could jeopardise the reliability of the system is present. As can be seen above, the reliability issue is a concerning challenge in the assessment of AI-generated evidence.

4.2 Transparency and Explainability

One of the fundamental principles underpinning the justice delivery system in Nigeria is that a trial court must give the reasons underlying its judgment clearly and transparently. This requirement applies both to issues of law and issues of fact. In evaluating the evidence before him, a trial judge must go beyond merely “believing” one set of contending facts and disbelieving the other. In *Ezekoye v. Ogunlade*,⁵¹ Okoronwko, JCA put it succinctly:

In respect of the trial judge’s reception and evaluation at evidence, it is not enough to assert as the trial judge did in this case, ‘I prefer’ or ‘I believe.’ A court has a duty to review the evidence placed before it, evaluate the evidence, giving reason thereof before making a finding.

⁴⁷ Katherine Quezada-Tavárez, P. V., Dr. Sofie Royer. (2021). “Legal Challenges in Bringing AI Evidence to the Criminal Courtroom.” *New Journal of European Criminal Law* 12(4): 20.

⁴⁸ Ibid.

⁴⁹ Ibid.

⁵⁰ Ibid.

⁵¹ (2017) LPELR-41954(CA).

Machine learning AI models autonomously learn from the learning data inputted into them. The learning algorithm then independently processes the data within a “closed box” of complex algorithmic calculations that are neither seen nor explainable even by the programmers themselves. Thus, it is difficult, if not impossible, for a trial judge to validate the evidence generated by the AI system with a clear explanation of **how** the system worked to arrive at the conclusion that it did. This lack of transparency and explainability poses a major challenge to the judge’s proper evaluation of AI-generated evidence.

4.3 Potential for Breaching the Right to a Fair Hearing

In Nigeria, there is a constitutional guarantee of the right to a fair hearing in civil as well as criminal proceedings. This right is embedded in section 36 of the Constitution.⁵² The notion of fair hearing includes the right to cross-examine to test the authenticity and reliability of the evidence put up by a party to the proceedings. The introduction of expert evidence generated by AI systems in the field of DNA analysis and fingerprint identification poses significant challenges to the fundamental right to a fair hearing. This is because a machine cannot be cross-examined directly. Thus, in a situation where a party merely dumps AI-generated expert evidence in legal proceedings with no real opportunity for the opposing party to engage in meaningful cross-examination to challenge the authenticity and accuracy of the evidence, fair hearing principles may demand that no weight be attached to the evidence.

As has been stated earlier, it may be argued that an opportunity to cross-examine the software engineers and the subject experts involved in the creation of the AI expert system concerning the fairness and reliability of the system will serve to safeguard the right to a fair hearing. While this argument may appear reasonable with regard to expert systems, significant problems remain. Expert evidence autonomously generated by AI systems may be caught by the hearsay rule contained in section 37 of the Evidence Act 2011. The section provides:

Hearsay means a statement

- (a) oral or written made otherwise than by a witness in a proceeding, or
- (b) contained or recorded in a book, document or any record whatever, proof of which is not admissible under any provision of this Act,⁵³ which is tendered in evidence for the purpose of proving the truth of the matter stated in it.

Thus, to the extent that no one could fully take direct responsibility for the result generated by the expert AI system, the evidence may be regarded as hearsay and ultimately valueless in terms of weight. As for the machine learning models, their opacity makes any meaningful cross-examination impossible. This is because of the “black box” problem, which makes it impossible to explain the machine’s inner workings by which the evidence is generated.

4.4 Potential for Breaching the Right to Privacy

Section 37 of the Nigerian Constitution guarantees the right to privacy: “The privacy of citizens, their homes, correspondence, telephone conversations and telegraphic communications is hereby guaranteed and protected.”

⁵² The Constitution of the Federal Republic of Nigeria, 1999.

⁵³ Certain exceptions are contained in sections 39 – 63 of the Evidence Act. However, none of the exceptions appears to include AI-generated evidence.

AI surveillance technology can monitor social media, internet access, and electronic communications and gather intelligence for general crime detection and prevention purposes. How are trial courts to assess evidence intercepted by AI systems which breach the individual's constitutional right to privacy?

Evidence obtained in contravention of the constitutional right to privacy qualifies as “improperly obtained evidence” under section 14 of the Evidence Act. Under section 14, a trial court has a discretionary power to admit improperly obtained evidence.⁵⁴ However, the fact that a trial court decides to admit the evidence does not mean that it must be given significant weight. The breach of a fundamental constitutional right is not on the same pedestal as, for example, the breach of a procedural requirement stipulated by statute. It should be a principle of public policy that courts do not, by granting weight to evidence obtained in breach of the constitutional right to privacy, encourage further breaches by law-enforcement agencies. Only in exceptional circumstances should a court excuse a breach of the fundamental right to privacy.

4.5 Potential for Producing Discriminatory and Biased Evidence

As research has shown, data input into AI systems can contain elements of discrimination and bias against certain sections of society.⁵⁵ This risk appears to be more prevalent in the machine learning models that learn from the raw data fed to them and produce predictive output based on their learning experience. If the data fed to the machine is defective, the output is likely to be faulty. As it is said, garbage in, garbage out! How can a trial court ascertain that the data from which the AI system concerned generated the evidence is indeed devoid of discriminatory and biased material? This would be a herculean task given that the learning data of AI systems is typically sourced from millions of sources.

5. Conclusion

5.1 Observations

At present, Nigeria has no legal framework governing the use of AI technology. Yet, the use of AI is increasing day by day. Soon, Nigerian judges will have to grapple with issues arising from AI-generated evidence in legal proceedings. The preceding passages have shown that introducing AI-generated evidence in legal proceedings raises significant admissibility and evaluation challenges for trial judges. Nigeria cannot afford to leave those challenges to be dealt with on an *ad hoc* basis by judges. The country must adopt a comprehensive approach capable of fully utilising the benefits of AI integration into the legal system and eliminating or minimising the risks presently associated with AI.

5.2 Recommendations

1. Legislative Action: The Ministry of Communications, Innovation and Digital Technology, the Ministry of Innovation, Science and Technology (along with all relevant agencies under them), and the National Assembly must work with technical experts to produce new, specialised and comprehensive legislation that sets minimum regulatory standards for AI systems to ensure the authenticity, reliability, accuracy and fairness of outputs. There is a need to specifically regulate certain AI tools that tend to violate fundamental rights. For example, specific regulations should govern the development and use of AI tools for

⁵⁴ See the statement of Ejembi Eko, JSC in *Kekong v. State* (2017) LPELR-4234(SC) at p. 8 of the Report.

⁵⁵ Jeff Larson, S. M., Lauren Kirchner, Julia Angwin (2016). “How We Analyzed the COMPAS Recidivism Algorithm, ProPublica.” Available at <https://www.propublica.org/article/how-we-analyzed-the-compas-recidivism-algorithm>. Accessed on 15 August 2024.

surveillance purposes. Regulations should stipulate their lawful use, impose obligations on operators and ensure that the fundamental right to privacy is optimally protected.

2. Further Updating the Evidence Act 2011: The Evidence Act 2011 was amended by the Evidence (Amendment) Act 2023 without any mention of AI-generated evidence. It is clear that the potential use of AI-generated evidence in legal proceedings was not contemplated by the lawmakers when they enacted the 2023 Act. The Evidence Act 2011 should now be further amended to make specific provisions for the admissibility of AI-generated evidence in the same manner as sections 84 – 84D of the Evidence Act make provision for computer-produced documents. Procedures for introducing AI-generated evidence in legal proceedings should be clearly stated in the Act. Should an AI system be regarded as an expert witness capable of giving expert evidence? Should the AI-generated evidence be regarded as direct oral or documentary evidence? Should new exceptions to the hearsay rule be introduced to include certain kinds of AI-generated evidence? These issues need to be clarified by statute. The proposed amendments should also provide clear guidelines for the evaluation of AI-generated evidence against the background of the minimum statutory standards for the development and use of the relevant AI system.

3. Amendment of Existing Criminal and Civil Procedure Rules: The existing procedural rules governing criminal and civil proceedings should be amended to integrate AI-generated evidence in legal proceedings and ensure that trials conform to principles of fair hearing. For example, Pre-Trial protocols should include provisions requiring any party proposing to use AI-generated evidence to indicate their intention to do so, and to provide to the other party in advance all relevant details of how the data was collected and inputted into the AI system and how the AI system worked to produce the evidence intended to be presented in court.⁵⁶

4. Training of Stakeholders: New legislation, no matter how effective it may appear to be, will be meaningless if the operators of the legal system are not adequately equipped in terms of knowledge. Consequently, there is a need for the National Judicial Council, the Nigerian Bar Association and the Federal and State Ministries of Justice to collaborate to train lawyers and judges⁵⁷ on the potential for AI systems to be used for both good and bad purposes, thus equipping them to effectively deal with issues arising from AI-generated evidence.

⁵⁶ It is accepted that the need to protect trade secrets may be a challenge in this respect.

⁵⁷ The term is used loosely here to include members of the lower bench such as magistrates and customary court judges.

