
REGULATING AI-GENERATED EVIDENCE AND DUE PROCESS IN INDIA

Aarushi Aggarwal, LLM, School of Law, IILM University, Greater Noida, Uttar Pradesh

ABSTRACT

Artificial Intelligence (AI) is rapidly transforming the legal landscape, particularly in the collection, analysis, and presentation of evidence in criminal and civil proceedings. From automated surveillance systems and predictive policing tools to advanced digital forensic analysis, AI technologies are increasingly being deployed to enhance efficiency, accuracy, and speed in investigative and judicial processes¹. However, these innovations also raise significant legal, ethical, and constitutional challenges. Key concerns include the reliability and accuracy of AI-generated evidence, potential algorithmic bias, the transparency and explainability of AI systems, and the protection of privacy and other fundamental rights guaranteed under the Constitution of India.

India's current legal framework, primarily comprising the Information Technology Act, 2000², the Digital Personal Data Protection Act, 2023, and the newly enacted Bharatiya Sakshya Adhinyam, 2023³, provides a foundation for the recognition and use of electronic and digital evidence. Yet, these laws are not fully equipped to address the unique challenges posed by AI-generated evidence, such as algorithmic opacity, automated decision-making, and data integrity issues. Courts face the task of ensuring that AI-assisted evidence adheres to principles of due process, fairness, and accountability, while also maintaining judicial efficiency.

This study examines the admissibility, authenticity, and accountability of AI-generated evidence within the Indian judicial system. It analyses landmark Supreme Court and High Court judgments on electronic and digital evidence, including principles that govern authentication and verification, to assess their applicability to AI-driven data. Additionally, the research presents a comparative study of international practices, focusing on regulatory frameworks and judicial approaches in the European Union, California (USA), and China, highlighting best practices and lessons that could inform India's evolving legal standards.

¹ Surana & Surana, *Bharatiya Sakshya Adhinyam, 2023* (LexisNexis, 2024).

² Information Technology Act, 2000.

³ Bharatiya Sakshya Adhinyam, 2023.

Finally, the study proposes legal and policy reforms to create a robust, rights-oriented framework for AI-generated evidence. It emphasizes the need for algorithmic transparency, procedural safeguards, human oversight, and standardized validation processes to ensure that AI evidence strengthens judicial processes without undermining fundamental rights or due process guarantees. This research contributes to the broader discourse on responsible AI governance, digital justice, and the modernization of India's legal system in response to emerging technological challenges.

Keywords: AI-generated evidence, digital forensics, due process, privacy rights, Information Technology Act, AI governance, comparative law.

INTRODUCTION

Traditionally, the legal system has shown a willingness to adjust to the changing landscape of technology, be it photographic evidence, electronic records, or other forms of emerging technology. Yet, the advent of Artificial Intelligence (AI) has given rise to a new set of challenges that have far-reaching implications, not only on the legal system as a whole but also on the Indian legal system, specifically.

AI-generated evidence has become an integral part of investigations, trials, and legal processes. Law enforcement agencies employ various tools, such as facial recognition, data analysis, and artificial intelligence, to aid their investigations, whereas, on the other hand, generative tools have the ability to create realistic images, audio, and documents, which, although artificial, have the potential to be perceived as genuine.

India's legislative framework acknowledges digital evidence but does not address AI-generated evidence in particular. The Bharatiya Sakshya Adhiniyam, 2023 makes provision for electronic evidence's admissibility, but it does not address standards of transparency and reliability of algorithms⁴. The Information Technology Act of 2000 gives legal sanction to electronic evidence and covers cybercrime issues, but it was enacted prior to contemporary AI-generated evidence. Likewise, the Digital Personal Data Protection Act of 2023 regulates personal data processing, including automated processes, but it does not address issues of admissibility of evidence.

CONCEPT AND NATURE OF AI-GENERATED EVIDENCE

AI is becoming more and more a part of modern legal and investigative processes. One of the

⁴ Bharatiya Sakshya Adhiniyam, 2023.

new things happening in this field is AI-generated evidence. This is digital material that is made, processed, or understood by AI systems and then used in court as proof or supporting information.

In the past, courts used human observation, physical objects, documents, or direct recordings as evidence. But thanks to advances in technology, machine-learning algorithms can now look at large amounts of digital data. AI systems look for patterns, recognize voices or images, understand speech, or come to analytical conclusions based on raw data. During an investigation or trial, the outputs of these systems, like identification results, synthesized media, or automated reports, can be used as proof.

AI-generated evidence doesn't always come from a human witness or a physical source, like traditional evidence does. Instead, it uses algorithmic processing, which means that a computer program uses math models and training data to get results. This technological mediation raises questions about the algorithms that produce such evidence, such as whether they are transparent, reliable, authentic, or biased. In legal and investigative settings, AI-generated evidence can take many different forms such as:

1. Fake Videos and Pictures-

Deepfake technology makes fake images and videos that look a lot like real people by using advanced machine-learning methods, especially deep learning and neural networks⁵. AI systems can change or make media in which a person seems to speak, act, or behave in ways that never actually happened by training algorithms on large sets of photos and videos.

These fake recordings can be very convincing, which makes it hard for people to tell them apart from real ones. Deepfakes are a big problem in the legal world because they can be used to trick investigators, hurt people's reputations, or make up evidence. If this kind of information is brought up in court without being checked first, it could mess up the process of finding facts and possibly lead to wrong conclusions.

2. AI-Generated Voice Recordings-

The basis for voice cloning is an AI program that studies a person's vocal patterns, tone, pitch, and speech cadence. By analysing a brief sample of a person's speech, it is possible for an AI program to produce new audio recordings that mimic a person's speech.

⁵ Sahibpreet Singh & Lalita Devi, "Reliability and Admissibility of AI-Generated Forensic Evidence in Criminal Trials".

Although voice cloning has some practical applications, such as helping a person who has lost their ability to speak, it can also be misused as a tool to produce false audio statements or impersonate a person⁶. In a court of law, it may be hard to verify such audio recordings as genuine since it is possible to produce audio that sounds genuine despite being artificially created.

3. Facial Recognition Identification-

Facial recognition identification refers to a technology or series of technologies based on artificial intelligence used in the identification or verification of people based on their facial characteristics. It compares images of people taken through surveillance cameras or videos with those stored in a database.

The facial recognition algorithm checks the unique characteristics of an individual's face, including the gap between the eyes and the shape of the nose. It determines whether there is a match or not. Law enforcement agencies use facial recognition identification.

Facial recognition identification technology helps law enforcement agencies in the identification of suspects or people. However, it has raised a lot of controversy over its accuracy in the identification of people. Research indicates that facial recognition identification may have a high error rate in the identification of people in certain demographic groups. It may lead to false identification of people.

4. Predictive Policing Data-

Predictive policing entails the use of AI-based tools that analyse crime data and forecast the potential for crime. The tools use historical crime data to analyse the probability of crime occurring in specific locations and at specific times. Therefore, they help law enforcement agencies identify the potential for crime and areas that might be prone to crime.

However, the use of predictive policing has led to various arguments and debates. One of the main arguments is that the data might be biased. Since the tools use historical crime data to make their forecasts, the data might already be biased. Therefore, the use of predictive policing data as evidence of law enforcement activities might be questionable.

5. Automated Forensic Reports-

Artificial intelligence technology is also being increasingly employed in forensic activities.

⁶ Sahibpreet Singh & Shikha Dhiman, "Cybercrime and Computer Forensics in the Epoch of Artificial Intelligence in India".

AI technology has the ability to analyse vast amounts of digital data, including mobile phone communications, emails, and surveillance footage. This digital data is then subject to an automated report of analysis.

For instance, AI technology might be employed to analyse digital communications and automatically produce an analysis report. This report might also be employed to assist investigators in the forensic field. However, questions arise regarding the transparency of the algorithm employed and the capacity of experts to evaluate the results produced by the AI technology. If the algorithm employed by the AI technology is opaque, it might be difficult for the courts to evaluate the report produced.

6. AI-Generated Transcripts-

The use of speech recognition technology enables an AI system to recognize spoken words and transform them into written text. This technology is often employed in the creation of transcripts for conversations, interviews, and court cases.

The use of AI-generated transcripts may enhance efficiency, enabling a quick and easily searchable form of communication. However, the accuracy of the generated transcripts may be influenced by noise, accent, and other forms of interference.

The inaccuracy in the transcripts may cause a significant impact on the meaning of the statements, and this may be crucial in legal cases. Therefore, it is often required for a person to review and edit the transcripts generated by the AI system.

LEGAL RECOGNITION OF DIGITAL EVIDENCE IN INDIA

The Indian system of evidence has gradually adjusted to technological advancements and the trend of using digital technologies in day-to-day communication and data management⁷. As computerization, mobile, and internet technologies have become integral parts of Indian society, a considerable volume of information pertinent to crime investigations is in digital format. As a result, the Indian system of evidence has adjusted to recognize the legal importance of digital evidence.

The Bharatiya Sakshya Adhiniyam, 2023 is a recent piece of legislation in India that specifically deals with the admissibility and proof of electronic evidence in Indian courts⁸. This legislation specifically includes electronic evidence in the list of documentary evidence, thus

⁷ Avtar Singh, *Principles of the Law of Evidence* (Central Law Publications).

⁸ Surana & Surana, *Bharatiya Sakshya Adhiniyam, 2023*.

granting it the same status as other forms of evidence. This is a recognition of the fact that communication, internet, and computer evidence often play a vital role in crime investigations and trials.

The inclusion of provisions specifically dealing with electronic evidence in the Indian system ensures the admissibility of digital evidence in Indian courts.

Section 61 – Admissibility of Electronic Records:

The basic tenet of the law as laid out in Section 61 of the Bharatiya Sakshya Adhiniyam is that the evidentiary value of an electronic record cannot be denied merely because it is an electronic record. This means that any information that is presented electronically, such as emails, photographs, computer files, and communications of an electronic nature, will be admissible as evidence before the court of law.

The rationale behind the law is that it aims to remove any legal hesitation that might arise regarding the admissibility of evidence of an electronic nature. This is because the law holds that the courts will be able to decide on the admissibility of the evidence based on its relevance and reliability rather than the fact that it is of an electronic nature.

Section 62 – Proof of Electronic Records:

This section pertains to the procedures that need to be followed while proving electronic records in court. Though electronic evidence is admissible as per law, it needs to be presented in a way that meets the requirements of the law as far as the presentation of evidence is concerned⁹. This section simply clarifies that the electronic record needs to be proved in the way that has been provided for in the Act.

This means that the party needs to prove that the electronic record is genuine and that it has been obtained in the way that it has been presented. There is also the need to check whether the record has been tampered with in any way. This is because electronic evidence is easily tamperable if the necessary precautions are not taken.

Section 63 – Admissibility of Computer Output:

Section 63 deals specifically with situations where information is generated by computers or communication devices. The section states that computer-generated information may be considered documentary evidence, subject to certain conditions being met regarding reliability

⁹ Legal Service India, “Understanding Evidence in the Bharatiya Sakshya Adhiniyam, 2023”.

and integrity.

For such information to be admissible as evidence, it must be established that the computer was functioning correctly during the relevant time and that information in the computer was regularly entered into the system during normal activities. These conditions are intended to ensure that information generated by computers is based on actual information and not on unreliable information that has been tampered with or otherwise compromised.

This is particularly relevant to situations where digital communication is involved, such as surveillance or electronic transaction systems.

Relevance to AI-Generated Evidence:

The provisions discussed above illustrate that Indian law on evidence now recognizes the importance of digital and electronic evidence in the context of modern litigation. However, the emergence of artificial intelligence creates a new set of complexities that were not fully taken into consideration when the provisions were formulated. For instance, the difference between the traditional concept of electronic evidence and AI-generated evidence is that the former deals with the storage, transmission, and retrieval of existing information. However, the latter may generate new information based on the algorithm and the training data. For instance: Synthetic images, Voice replicas, Predictive analytics, Automated forensic reports etc.

The difference between the two creates a new set of complexities in terms of the authenticity and accountability of the AI-generated evidence. For instance, the Bharatiya Sakshya Adhiniyam provides a strong legal foundation for the admissibility of electronic evidence. However, the emergence of AI-generated evidence creates a new set of complexities in terms of the evaluation and regulation of the same.

CONSTITUTIONAL FRAMEWORK AND DUE PROCESS

The admissibility and usability of AI-generated evidence in criminal trials need to be considered from a broader perspective of constitutional law as well. In the Indian context, the Constitution provides a set of fundamental safeguards that aim to ensure that individuals are not subjected to any kind of arbitrariness by the State and that the entire process of law is fair and just. Therefore, when technology is used, as in the case of AI, it is important that it is in consonance with the constitutional framework.

Two constitutional provisions are pertinent while examining the legitimacy of AI-generated evidence in the criminal justice system. They are: -

1. Article 14 – Equality Before the Law- Article 14 of the Constitution of India provides that "Equality before the law" and "Equal protection of the laws" shall be guaranteed to every citizen¹⁰. This provides that the state will not act arbitrarily and that the procedure followed will be "just, reasonable, and non-discriminatory."

In the case of AI technology, the importance of the provisions of Article 14 of the Constitution of India will be seen because AI technology may act arbitrarily and may be biased against certain sections of the community. For example, predictive analytics technology and facial recognition technology may act arbitrarily against certain sections of the community because of the data that is provided to the technology.

As the courts will be using the evidence provided by the AI technology, it is possible that the evidence provided by the technology will be biased and will act arbitrarily against certain sections of the community. Hence, it is important that the evidence provided by the AI technology is evaluated so that it does not act arbitrarily and that the evidence provided by the technology is consistent with the provisions of Article 14 of the Constitution of India.

2. Article 21 – Protection of Life and Personal Liberty- Another important constitutional provision is Article 21 of the Constitution of India, which states that "no person shall be deprived of life or personal liberty except according to a procedure established by law"¹¹. This article is the foundation of individual rights under the Indian Constitution.

However, over time, it has been interpreted that Article 21 is more than just a guarantee of individual rights. In a significant case involving Article 21, i.e., *Maneka Gandhi vs. Union of India*, it was held by the Supreme Court that "the procedure by which personal liberty is deprived must be just, fair, reasonable, and not arbitrary, fanciful or oppressive"¹². In other words, it was held by the Supreme Court that "the procedure must be fair" under Article 21 of the Constitution of India. The Supreme Court of India has thus significantly enlarged the scope of Article 21 by incorporating the doctrine of substantive due process into Indian constitutional law. In other words, it has now become imperative that any action by the government that impacts individual liberty must be fair, reasonable, and transparent.

¹⁰ Constitution of India, Article 14.

¹¹ Constitution of India, Article 21.

¹² *Maneka Gandhi v. Union of India*, (1978) 1 SCC 248.

IMPORTANT INDIAN JUDGMENTS ON DIGITAL OR AI-RELATED EVIDENCE

YEAR	CASE	COURT	KEY LEGAL PRINCIPLE
2004	State (NCT of Delhi) v. Navjot Sandhu ¹³	Supreme Court of India	The Court initially allowed electronic records such as call data records to be proved through oral testimony even without a certificate. This approach was later reconsidered in subsequent cases.
2004	Suhas Katti v. State of Tamil Nadu ¹⁴	Tamil Nadu Court	One of the earliest convictions in India based on electronic evidence in a cybercrime case, demonstrating judicial acceptance of digital records.
2014	Anvar P.V. v. P.K. Basheer ¹⁵	Supreme Court of India	The Court held that electronic records are admissible only if accompanied by the mandatory certificate under Section 65B of the Indian Evidence Act.
2015	Tomaso Bruno v. State of Uttar Pradesh ¹⁶	Supreme Court of India	The Court emphasized the growing importance of electronic evidence such as CCTV footage in criminal investigations.
2018	Shafhi Mohammad v. State of Himachal Pradesh ¹⁷	Supreme Court of India	The Court temporarily relaxed the requirement of a Section 65B certificate when the party producing evidence did not control the device.
2020	Arjun Panditrao Khotkar v. Kailash Kushanrao Gorantyal ¹⁸	Supreme Court of India	The Court reaffirmed that a Section 65B certificate is mandatory for admissibility of electronic evidence unless the original device is produced.
2025	Deepfake & Personality Rights Petitions	Bombay / Other High Courts	Courts entertained petitions relating to misuse of AI-generated deepfakes affecting dignity, privacy, and reputation, reflecting judicial engagement with AI impacts.
2025	AI Content Regulation Discussions	Various High Courts	High Courts flagged the need for regulatory responses to AI misuse in public content and legal documents, signalling evolving jurisprudential attention.
2026	PIL on Deepfake & Synthetic Media	Punjab & Haryana High Court	HC issued notices on a PIL seeking regulation of deepfake technology and broader AI-generated synthetic content,

¹³ State (NCT of Delhi) v. Navjot Sandhu (2005) 11 SCC 600.

¹⁴ Suhas Katti v. State of Tamil Nadu, (2004) Cyber Crime Case No. 4680/2004.

¹⁵ Anvar P.V. v. P.K. Basheer (2014) 10 SCC 473.

¹⁶ Tomaso Bruno v. State of Uttar Pradesh (2015) 7 SCC 178.

¹⁷ Shafhi Mohammad v. State of Himachal Pradesh (2018) 2 SCC 801.

¹⁸ Arjun Panditrao Khotkar v. Kailash Kushanrao Gorantyal (2020) 7 SCC 1.

			urging legislative action for protections.
2026	PIL on AI Misuse & Deepfakes	Gujarat High Court	HC issued notices to central & state governments on AI misuse for creating deepfake content and sought responses from major tech platforms, indicating concern over synthetic media.
2026	AI-drafted PIL Dismissed	Supreme Court of India	SC dismissed a PIL drafted using AI after the petitioner could not explain the content, cautioning against uncritical reliance on AI for legal pleadings.
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IMPLICATIONS FOR AI-GENERATED EVIDENCE-

When AI is used to produce or interpret evidence, its application must be consistent with constitutional principles derived from Articles 14 and 21. The application of technology in criminal proceedings must not undermine the fairness of the legal process or limit the rights of individuals accused of committing a crime. From a due process perspective, some critical safeguards emerge as being fundamental. Some safeguards are as follows:

1. **Transparency and Verifiability:** AI-generated evidence must be verifiable. The courts must be able to assess how the algorithm worked through the data to arrive at a particular conclusion. There is a problem in evaluating the accuracy and reliability of AI-generated evidence without sufficient transparency regarding how the AI system worked.
2. **Right to Challenge Algorithmic Evidence:** Another aspect of fair trial rights is related to the right to challenge the evidence provided to the defendant or any other party involved in the trial. For instance, if AI technology is used to identify suspects or analyse digital data,

then the defendant has the right to challenge such technology and its possible error rate.

3. **Judicial Oversight and Fair Evaluation:** Judges are responsible for ensuring that any technology-based evidence is evaluated properly and is not given undue weight simply because it is technology-based. They should be able to assess whether or not the technology used in a particular case is reliable and has been validated.

The involvement of AI technology in criminal procedures gives rise to certain “black box” algorithms that make it difficult to understand the internal decision-making processes of AI systems. Since complex computational processes are usually involved in machine learning algorithms, it may be very difficult for even the developer of the system to clearly understand the processes that led to the creation of a specific output. The involvement of AI technology in criminal procedures may give rise to several constitutional issues, as the accused has a right to a meaningful opportunity to challenge the reliability and accuracy of evidence that is presented against them. Therefore, if the internal processes of AI systems are not understood, it may give rise to a violation of the principles of fairness and procedural due process that are enshrined in Article 14 of the Constitution of India and Article 21 of the Constitution of India.

CHALLENGES OF AI-GENERATED EVIDENCE IN CRIMINAL TRIALS

The use of artificial intelligence is also becoming more prominent in criminal investigations as well as trials. However, there are a number of challenges that are being posed by the use of artificial intelligence. Although it is a great tool that can be utilized by criminal investigators to analyse large quantities of digital data as well as identify patterns that are relevant to criminal investigations, it is also a great challenge to criminal trials as a form of evidence.

1. **Authenticity and Reliability of AI Evidence-** The first challenge that is associated with AI evidence is the problem of determining the authenticity and reliability of AI evidence. Unlike traditional evidence, which is usually gathered from direct observation and experience, AI evidence is usually created through a set of algorithms. There is deepfake technology that is able to create images, videos, and sounds that are almost indistinguishable from real evidence.

However, as AI technology continues to advance, it is very likely that people will be able to manipulate evidence, leading to the creation of fake evidence that could be used to mislead the courts. Therefore, it is of utmost importance for judicial authorities to examine the source of AI evidence and the technology that is used in the creation of AI evidence.

2. **Algorithmic Bias-**Another crucial issue at hand is the concept of algorithmic bias. It is a

known fact that artificial intelligence systems are generally trained using a large amount of data available in the past. If these datasets have a bias in itself, the algorithm may end up reflecting the bias in its results. For example, research has shown that facial recognition systems have a higher error rate in recognizing people of a particular demographic background¹⁹. Similarly, a predictive policing algorithm may have a bias in favor of a particular neighbourhood or community if it was previously under a lot of police surveillance. Such an algorithm may be in direct contravention of the constitutional provision of equality under Article 14 of the Constitution of India.

3. **Lack of Transparency-** The second challenge that arises is the lack of transparency that is associated with AI. Most AI systems use complex computer processes that cannot be easily explained. This has proved to be quite problematic within the legal system. The evidentiary requirements of the law demand that the evidence presented be explainable and verifiable.

In any criminal case that comes to trial, it is important that the parties be able to scrutinize the processes that were employed in the generation of the evidence. However, if the AI system cannot be fully explained, it becomes quite difficult for the opposing side to be able to question the validity of the output of the algorithm.

4. **Data Manipulation and Deep Fakes-** Artificial intelligence can also be employed for manipulating or creating fake data, which is another challenge that is affecting the criminal justice system. For example, deep fake technology enables users to produce videos or audio recordings that show a person engaging in activities or making statements that are false or did not happen at all. The fact that manipulated data could be introduced as evidence during a criminal case has sparked some fears about data integrity. In addition, it is also feared that due to the popularity of deep fake technology, genuine data could be viewed as artificially created.

PROCEDURAL SAFEGUARDS FOR AI EVIDENCE

With the advent of AI technology in criminal investigations and evidentiary processes, it is now necessary for courts to take appropriate procedural measures to address AI-generated evidence. Although these technologies are useful in analysing digital information, it is important that such processes do not undermine the fairness of criminal trials or the rights of those on trial. To ensure the integrity of the judicial process, courts should ensure that AI-based

¹⁹ Dr. Anju Sinha, "Digital Proofs and Legal Admissibility: Understanding Electronic Evidence under the Bharatiya Sakshya Adhiniyam".

evidence is subjected to critical scrutiny and has a strong verification mechanism to ensure its reliability.

1. **Algorithmic Transparency-** One of the most critical procedural safeguards is algorithmic transparency. As such, courts should ensure that there is adequate disclosure regarding the working of the AI system used to analyse or generate the evidence. This information may include details regarding the accuracy or error rates associated with such systems. Such information will enable courts and litigating parties to understand how these systems work and whether such information is reliable. Transparency will allow the defendant to effectively question the validity of algorithmic information, thereby ensuring fairness in the judicial process.
2. **Expert Testimony-** Considering the fact that AI systems are highly technical in nature, expert testimony is an important aid to the court. Technical experts who are qualified to do so can explain to the court how the methodology and technology used in the AI system work. Experts can also assess whether or not the AI technology has been validated properly and whether or not the results obtained from such technology are scientifically reliable. Expert testimony is particularly important in cases involving advanced technology such as deepfake detection technology, facial recognition technology, or data interpretation technology, where expert knowledge is required to assess the reliability of the evidence presented to the court.
3. **Digital Forensic Verification-** The courts can rely on digital forensic techniques to verify whether or not digital records related to AI technology are genuine or not. Digital forensic techniques include metadata analysis, hash value verification, or blockchain-based authentication techniques to verify whether or not digital files have been tampered with or altered after being created. Digital forensic techniques allow investigators to verify whether or not digital files are original and whether or not they have been altered from the time they were collected.
4. **Chain of Custody-** Another important aspect is ensuring that there is a clear chain of custody for digital evidence. The investigating authorities should document every stage involved in dealing with digital evidence. This ensures that the digital evidence is not tampered with during the investigation process. In dealing with AI-generated digital evidence, ensuring a clear chain of custody is crucial. This is because digital information can be easily tampered with unless proper precautions are taken.

COMPARATIVE APPROACHES TO AI EVIDENCE

With the increased integration of AI in investigative and judicial processes, there have been differing approaches in various jurisdictions in regulating AI-generated evidence. These approaches have focused on issues of reliability, transparency, and respect for fundamental rights in criminal procedures. Below is a table that compares how some jurisdictions have addressed issues related to AI evidence.

JURISDICTION	REGULATORY / LEGAL APPROACH	KEY SAFEGUARDS FOR AI OR DIGITAL EVIDENCE
United States	Courts rely heavily on established standards governing scientific and technological evidence in criminal trials.	Emphasis on reliability of technological methods, expert testimony, validation of algorithms, and judicial scrutiny of technical evidence.
European Union	The EU Artificial Intelligence Act introduces a risk-based regulatory model for AI technologies. ²⁰	High-risk AI systems, including those used in law enforcement, must comply with strict requirements relating to transparency, human oversight, and data quality.
United Kingdom	Courts rely on established principles of digital evidence and forensic verification when evaluating technological material.	Strong reliance on expert witnesses, digital forensic analysis, and verification of the integrity and authenticity of electronic records.
Canada	Canadian courts apply reliability and fairness principles when considering technological or algorithmic evidence.	Emphasis on expert evaluation, scientific validation, and protection of fair trial rights of the accused.
Singapore	Singapore has developed a technology-focused legal framework addressing cybercrime and digital investigations.	Strong digital forensic standards, structured procedures for electronic evidence handling, and technological expertise in investigations.
International Framework	Efforts at the global level aim to strengthen cooperation in cybercrime investigations and	The United Nations Convention against Cybercrime promotes international cooperation, evidence preservation, and standardized

²⁰ European Union Artificial Intelligence Act, 2024.

	digital evidence sharing.	procedures for handling digital data ²¹ .
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A comparative analysis of these jurisdictions reveals that there is a similar focus on ensuring that technology-based evidence is subjected to sufficient measures before being used in any criminal proceeding. For instance, while there are differences in legal systems and regulatory frameworks between the US, UK, Canada, Singapore, and the EU, these countries place a high emphasis on expert examination, scientific reliability, and digital validation, whereas the EU has adopted a risk-based regulatory approach, whereby stricter measures are applied to high-risk AI systems used in law enforcement activities. These measures collectively reveal an emerging international consensus on the importance of ensuring that there is transparency, accountability, and procedural safeguards in the use of AI in criminal justice systems to ensure that fair trial rights are not compromised.

RECOMMENDATIONS FOR REGULATING AI-GENERATED EVIDENCE IN INDIA

In light of the significant role being played by artificial intelligence in the context of criminal investigations and evidence analysis, it is vital for the Indian legal system to establish proper standards and regulations for the use and incorporation of AI-generated evidence. Although the Bharatiya Sakshya Adhiniyam, 2023 has recognized the admissibility of electronic records, the distinct nature of AI-generated evidence, such as its automated analysis, decision-making, and creation, necessitates the incorporation of proper regulations. These recommendations may prove instrumental in striking a balance between technological advancements and the Indian Constitution's provisions.

- 1. Establish Clear Standards on AI Evidence Admissibility-** The Indian courts must establish clear standards on admissibility in AI evidence cases²². These standards should involve establishing that there is technical reliability, accuracy, and validation of the algorithmic system that produced the evidence. In addition, the courts could require that parties who have produced AI evidence demonstrate that there has been testing and that there is scientific credibility. This would ensure that AI evidence is not admitted into courts without scrutiny.
- 2. Mandate Algorithmic Transparency and Disclosure-** There is a need for procedural

²¹ United Nations Convention Against Cybercrime (Draft Convention).

²² Ratanlal & Dhirajlal, *The Law of Evidence* (LexisNexis).

fairness, and in order to achieve that, there is a requirement that there be disclosure on information related to AI evidence. This includes information related to the algorithmic system that has been used. This information could include information related to algorithmic design, methodology, and error rates. This would ensure that there is an opportunity for the defence to challenge AI evidence and that there is evaluation of the credibility of AI evidence.

- 3. Strengthening the Role of Expert Testimony-** In light of the technological sophistication of AI systems, it is suggested that courts make greater use of independent expert testimony in assessing AI-generated evidence. Experts can assist the court in comprehending the technology and the workings of the system, whether the technology is scientifically sound, and whether the conclusions drawn from the system are trustworthy. The involvement of experts ensures that the judiciary and litigating parties are able to critically evaluate the results of the algorithm.
- 4. Development of Digital Forensic Verification Standards-** India should develop standardized procedures for the verification of AI-related evidence through digital forensic technology. Digital forensic technology can assist in ascertaining whether the digital evidence has been altered, modified, or tampered with. Developing standardized procedures for the verification of evidence will enhance the credibility and reliability of digital evidence produced in courts of law.
- 5. Protect Fair Trial Rights and Constitutional Safeguards-** The use of evidence generated by the application of AI must always be in line with the provisions for equality and due process under the Constitution, particularly under Article 14 of the Constitution of India and Article 21 of the Constitution of India. This is crucial in ensuring that there is no discrimination and that a defendant is given adequate opportunities to refute the evidence against them. This is where judicial review is vital in ensuring fair trial rights in cases where technological evidence is presented.
- 6. Promote Judicial and Investigative Training-** Another significant step in promoting the use of evidence generated by the application of AI is the creation of training programs for judges, prosecutors, and law enforcement agencies on the use and application of AI technologies. This is crucial in considering the dynamic nature of technological tools, where legal practitioners must be sufficiently knowledgeable in the application and potential limitations and dangers of the use of AI-generated evidence.

FUTURE OF AI EVIDENCE IN INDIA

The growing pace of digital technology is considerably changing the character of criminal investigations and the nature of evidence that is presented in the courts of law. Digital evidence and electronically stored information have already become an important part of various criminal trials, especially in situations where other forms of evidence are not feasible. With the growing use of AI technology in the coming years, it is likely that the courts will be presented with various algorithmic analyses and AI-based investigative reports in the context of judicial proceedings. Therefore, it becomes imperative that the Indian legal system is able to develop an appropriate regulatory framework that will define the use of AI evidence in the context of the Indian judiciary. This will enable the Indian legal system to harness the benefits of AI technology while ensuring that the use of AI evidence in the courts of law is consistent with the principles of due process and fair trial.

CONCLUSION

Artificial intelligence is significantly affecting the nature of evidence as well as its assessment within contemporary criminal justice systems. Although artificial intelligence has the potential to improve efficiency in criminal investigations and help law enforcement agencies better comprehend complex digital information, it is also raising important concerns related to reliability, transparency, and procedural fairness. In this regard, it is important for criminal courts to exercise caution while assessing artificial intelligence-generated evidence to ensure that it is credible and subject to judicial scrutiny.

The Bharatiya Sakshya Adhiniyam, 2023, is a significant step forward in the development of Indian law related to evidence by recognizing electronic and digital records as a form of evidence. However, it is important to note that it has not fully dealt with the challenges related to artificial intelligence-generated evidence. In this regard, it is important that while dealing with artificial intelligence-generated evidence, it is assessed in a manner that is consistent with the constitutional principles of fairness and due process as enshrined under Article 14 of the Constitution of India and Article 21 of the Constitution of India.

By establishing clear regulatory guidelines, enhancing procedural protections, and advocating effective technological regulation, India can capitalize on the benefits of artificial intelligence within criminal investigation practices while protecting fundamental rights and principles of justice that are at the heart of the rule of law.

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