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ADMISSIBILITY OF AI-GENERATED ELECTRONIC EVIDENCE: A LEGAL ANALYSIS WITH REFERENCE TO BHARATIYA SAKSHYA ADHINIYAM, 2023

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ABSTRACT

1. INTRODUCTION

This research examines the **admissibility of AI-generated electronic evidence** within the framework of the **Bharatiya Sakshya Adhinyam, 2023**. With the rapid integration of artificial intelligence into digital ecosystems, courts are increasingly confronted with outputs such as algorithmic decisions, machine-generated reports, chat logs, and synthetic media. The study explores whether such AI-generated outputs qualify as “electronic records” and “evidence” under existing statutory provisions, and how principles governing relevancy, admissibility, and proof apply to non-human generated content.

2. STATEMENT OF PROBLEM

The core issue lies in the **absence of explicit statutory recognition of AI-generated evidence**. While the law accommodates electronic and digital records, it does not clearly address questions of **authorship, reliability, accountability, and authenticity** in cases where evidence is produced autonomously by AI systems. This creates doctrinal uncertainty regarding admissibility standards, burden of proof, and evidentiary value, particularly in cases involving deepfakes, automated decision-making, and algorithmic outputs.

3. NEED, RELEVANCE, AND IMPORTANCE OF STUDY

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Year of Study: LLM, Batch of 2026

The study is significant due to the **growing reliance on AI in governance, commerce, and criminal investigations**. As courts increasingly encounter AI-derived material, the lack of a clear legal framework risks inconsistent judicial approaches and potential miscarriage of justice. This research is relevant in bridging the gap between **traditional evidentiary principles and emerging technological realities**, ensuring that evidentiary law remains robust, fair, and adaptable in the age of artificial intelligence.

4. METHODOLOGY ADOPTED

The research adopts a **doctrinal and analytical methodology**, focusing on a close examination of statutory provisions under the **Bharatiya Sakshya Adhiniyam, 2023**, alongside relevant constitutional principles such as **fair trial, due process, and evidentiary reliability**. It analyses provisions relating to electronic records, admissibility, expert opinion, and presumptions, while critically evaluating their applicability to AI-generated evidence. The study also considers the broader implications of the **entry of AI technology into legal processes**, highlighting interpretative challenges and normative gaps.

5. OUTCOMES

The research concludes that while the existing legal framework partially accommodates AI-generated evidence under the broader category of electronic records, it remains **inadequate in addressing issues of authenticity, explainability, and accountability**. It proposes the need for **clarified evidentiary standards, enhanced reliance on expert testimony, and possible legislative intervention** to explicitly regulate AI-generated material. The study emphasizes a balanced approach that safeguards both **technological advancement and procedural fairness**.

6. KEYWORDS

AI-generated evidence; Electronic records; Admissibility; Bharatiya Sakshya Adhiniyam; Digital evidence; Artificial intelligence; Deepfakes; Authentication; Burden of proof; Expert opinion; Presumptions; Evidentiary value; Algorithmic outputs; Legal framework; Fair trial.

1. INTRODUCTION

The emergence of artificial intelligence has necessitated a re-examination of traditional evidentiary principles, particularly in relation to electronic evidence. The following discussion outlines the context, legal concerns, and scope of the present research.

1.1 EMERGENCE OF AI IN LEGAL EVIDENCE

The rapid advancement of artificial intelligence (AI) has significantly transformed the nature of information and its use in legal proceedings. AI systems are now capable of generating a wide range of outputs, including text, images, audio, and analytical reports, which may be relied upon as evidence before courts. This development raises important questions regarding the admissibility, authentication, and evidentiary value of such material within the existing legal framework.

1.2 LIMITATIONS OF EXISTING LEGAL FRAMEWORK

The law of evidence, as codified in the **Bharatiya Sakshya Adhiniyam, 2023**, has evolved to accommodate electronic records and digital forms of communication. However, these provisions were primarily designed for human-generated electronic data, where authorship, intent, and traceability can be established through conventional means. AI-generated evidence, by contrast, introduces complexities that challenge these foundational assumptions.

1.3 CORE ISSUES IN AI-GENERATED EVIDENCE

A key issue arises from the nature of AI systems, which generate outputs through automated processes rather than direct human intervention. This raises concerns regarding authorship, reliability, and the ability to verify the origin and accuracy of such evidence. Traditional evidentiary principles—such as proof through witness testimony or documentary verification—may not be readily applicable in this context.

1.4 NEED FOR CRITICAL EXAMINATION

The growing use of AI in areas such as surveillance, data analysis, and decision-making further underscores the need to critically examine its role in legal proceedings. While AI-generated evidence offers potential benefits in terms of efficiency and analytical capability, it also presents risks relating to opacity, error, and misuse. These concerns necessitate a careful evaluation of how such evidence should be treated under the law.

1.5 SCOPE AND OBJECTIVE OF THE STUDY

This research examines the admissibility of AI-generated electronic evidence within the framework of the **Bharatiya Sakshya Adhiniyam, 2023**, focusing on the adequacy of existing provisions and the challenges posed by emerging technologies. It seeks to analyse how principles of admissibility, authentication, and evidentiary value apply to AI-generated material, and whether the current legal framework is equipped to address these issues.

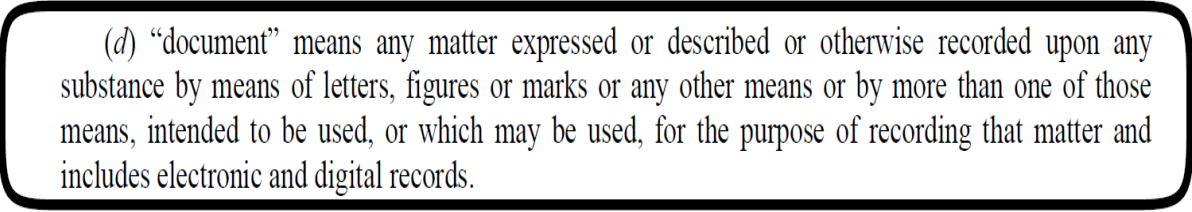
2. CONCEPTUAL FRAMEWORK

A clear conceptual foundation is essential for analysing the admissibility of AI-generated evidence. The legal treatment of such evidence depends on how it is classified within the existing evidentiary framework, particularly in relation to the concept of a “document.”

2.1 DEFINITION OF DOCUMENT AND ELECTRONIC RECORD

Under the **Bharatiya Sakshya Adhiniyam, 2023**, the term “document” is defined broadly to include any matter expressed or described upon any substance by means of letters, figures, or marks, intended to be used for recording information. This definition extends to **electronic records**, thereby recognizing digital forms of information as admissible evidence.

Such an inclusive definition allows technologically generated material to be treated as documentary evidence, provided it satisfies the requirements of relevance and proof. AI-generated outputs—whether textual, visual, or analytical—can therefore be brought within the scope of documentary evidence in a formal sense.



(d) “document” means any matter expressed or described or otherwise recorded upon any substance by means of letters, figures or marks or any other means or by more than one of those means, intended to be used, or which may be used, for the purpose of recording that matter and includes electronic and digital records.

Fig.: Statutory Definition of “Document” under the BSA, 2023

2.2 THE CONCEPTUAL GAP IN AI-GENERATED EVIDENCE

Despite this broad framework, a **conceptual gap** arises when applying traditional definitions to AI-generated evidence. The statutory understanding of a document presupposes **human intention and authorship**, where information is deliberately created or recorded by an identifiable source.

AI-generated outputs, however, are produced through automated processes without direct human authorship at the point of creation. This creates ambiguity in attributing responsibility and in applying conventional evidentiary principles that rely on human agency.

As a result, while AI-generated material may technically fall within the definition of a document, its underlying nature challenges the assumptions on which that definition is based. This gap forms the basis for further inquiry into admissibility, authentication, and evidentiary value in the subsequent sections.

3. NATURE AND CHALLENGES OF AI EVIDENCE

Having established the conceptual foundation, it is essential to examine both the **intrinsic nature** of AI-generated evidence and the **unique challenges** it presents. Unlike traditional forms of evidence, which are rooted in human perception and intention, AI-generated outputs emerge from computational processes driven by data and algorithms. This dual inquiry into nature and challenges provides a more coherent understanding of how such evidence fits within the legal framework.

3.1 CHARACTERISTICS OF AI-GENERATED EVIDENCE

AI-generated evidence is fundamentally **algorithmic, data-driven, and probabilistic** in nature. Rather than directly recording or reflecting events, AI systems analyse large datasets to generate outputs based on patterns and statistical correlations. This distinguishes AI evidence from traditional documentary or oral evidence, which is typically based on human observation or deliberate recording.

Additionally, many AI systems exhibit **non-deterministic behaviour**, meaning that identical inputs may not always yield identical outputs. This affects the reproducibility of evidence—an important consideration in legal proceedings. The absence of direct human intention further complicates its classification, as the output is not the result of conscious human authorship but of automated computation.

3.2 TYPES OF AI-GENERATED EVIDENCE

AI-generated evidence can manifest in diverse forms, each with distinct legal implications. These include **textual outputs** such as chatbot responses and automated reports, **visual and audio content** including synthetic media, and **analytical outputs** such as predictive models and algorithmic assessments. Additionally, AI systems may generate **logs and metadata**, which record internal processes and decision pathways.

The diversity of these outputs necessitates a nuanced approach to evidentiary evaluation. For instance, while textual outputs may be treated similarly to digital documents, synthetic media raises heightened concerns regarding authenticity, and predictive analytics introduces questions about reliability and bias.

3.3 AUTONOMY AND ABSENCE OF HUMAN AUTHORSHIP

A defining feature of AI-generated evidence is the **degree of autonomy involved in its creation**. Unlike conventional electronic records, which are created or curated by human actors, AI-generated outputs may be produced with minimal or no direct human intervention at the point of generation.

This absence of human authorship creates significant legal challenges. Evidence law traditionally relies on identifiable individuals who can attest to the creation and accuracy of a document. In the case of AI-generated outputs, there is no such direct human source, making it difficult to establish accountability and to subject the evidence to conventional forms of cross-examination.

3.4 THE BLACK BOX PROBLEM (LACK OF EXPLAINABILITY)

One of the most significant challenges associated with AI-generated evidence is the **lack of explainability**, often referred to as the “black box” problem. Many AI systems, particularly those based on deep learning, operate through complex computational processes that are not easily interpretable.

This opacity undermines the ability of courts and opposing parties to scrutinize the reasoning behind a particular output. In adversarial proceedings, where the right to challenge evidence is fundamental, the inability to understand how evidence was generated raises serious concerns about fairness and transparency.

3.5 RISK OF DEEPFAKES AND SYNTHETIC MANIPULATION

The emergence of AI-generated synthetic media presents a direct threat to the **authenticity and integrity of evidence**. Advanced AI systems can generate highly realistic audio, video, and images that are difficult to distinguish from genuine recordings.

Such capabilities increase the risk of fabricated evidence being introduced in legal proceedings. Traditional methods of verification may no longer be sufficient, requiring courts to adopt more sophisticated techniques and a heightened level of scrutiny when dealing with such material.

3.6 DATA BIAS AND RELIABILITY CONCERNS

AI systems are inherently dependent on the data used for their training. If this data is biased, incomplete, or unrepresentative, the resulting outputs may reflect these deficiencies. This introduces significant concerns regarding the **reliability and neutrality of AI-generated evidence**.

Unlike human witnesses, whose credibility can be assessed through cross-examination, biases embedded within AI systems may remain hidden and difficult to detect. This creates the risk of systemic errors influencing judicial outcomes, particularly in cases where AI evidence is given substantial weight.

3.7 VULNERABILITY TO MANIPULATION AND SYSTEMIC RISKS

AI systems are also susceptible to **manipulation and external interference**, including adversarial attacks and data tampering. Such vulnerabilities can compromise the integrity of the generated output without leaving obvious traces.

Additionally, the **dynamic nature of AI systems**, which may evolve through continuous learning, raises concerns about consistency and reproducibility. The same system may produce different outputs under similar conditions over time, complicating the process of verification and undermining evidentiary certainty.

3.8 IMPLICATIONS FOR EVIDENTIARY LAW

The combined effect of these characteristics and challenges highlights the **inadequacy of traditional evidentiary assumptions** when applied to AI-generated evidence. Issues such as lack of authorship, opacity, bias, and susceptibility to manipulation require a re-evaluation of existing legal principles relating to admissibility, authentication, and evidentiary value.

Recognizing AI-generated evidence as a distinct category—rather than merely a subset of electronic records—allows for a more nuanced and effective legal response. This integrated understanding of both its nature and challenges provides the foundation for analysing its treatment under statutory and judicial frameworks in the subsequent sections.

4. DISTINCTION: AI-GENERATED VS AI-ASSISTED

A critical analytical step in understanding AI evidence lies in distinguishing between **AI-generated** and **AI-assisted** outputs. While both involve the use of artificial intelligence, their legal implications differ significantly in terms of authorship, accountability, admissibility, and evidentiary weight. This distinction is essential for courts to determine the appropriate standards of proof and scrutiny.

4.1 CONCEPT OF AI-ASSISTED EVIDENCE

AI-assisted evidence refers to situations where artificial intelligence functions as a **tool aiding human decision-making or documentation**, rather than independently producing the final output. In such cases, a human actor remains actively involved in generating, reviewing, or validating the evidence. Examples include the use of AI for document analysis, transcription, facial recognition assistance, or legal research outputs that are subsequently verified by a person.

From a legal standpoint, AI-assisted evidence largely retains the characteristics of traditional evidence. The presence of human oversight ensures that there is an identifiable author or custodian who can testify to its authenticity and accuracy. This aligns comfortably with the framework under the **Bharatiya Sakshya Adhinyam, 2023**, where evidence is typically linked to a human source capable of being examined in court. Consequently, issues of admissibility are less complex, as the AI component is treated as a supporting mechanism rather than an independent evidentiary source.

4.2 CONCEPT OF AI-GENERATED EVIDENCE

In contrast, AI-generated evidence refers to outputs that are **produced autonomously by AI systems with minimal or no direct human intervention at the stage of creation**. These outputs may include chatbot responses, automated decision-making reports, predictive analytics, or synthetic media such as deepfakes. Here, the AI system is not merely assisting but is effectively acting as the primary “creator” of the content.

This raises fundamental legal concerns. Unlike human-generated or AI-assisted evidence, there is no direct human author who can attest to the creation or accuracy of the output. The absence of a human intermediary complicates issues of attribution, as well as the ability to test the evidence through cross-

examination. As a result, AI-generated evidence poses greater challenges in satisfying traditional requirements of authenticity and reliability.

4.3 KEY POINTS OF DISTINCTION

The distinction between AI-assisted and AI-generated evidence can be understood through three primary dimensions: **human involvement, control, and accountability**. In AI-assisted scenarios, human involvement remains central, and the AI operates within a controlled framework. In AI-generated scenarios, the system operates autonomously, and human control may be limited to the initial design or deployment phase.

This distinction directly affects evidentiary evaluation. AI-assisted evidence can be treated similarly to conventional electronic records, as the human element provides a basis for verification. AI-generated evidence, however, requires additional scrutiny, as its reliability depends on factors such as the design of the algorithm, the quality of training data, and the integrity of the system. Courts must therefore adopt differentiated standards when dealing with these two categories.

4.4 IMPLICATIONS FOR ADMISSIBILITY AND BURDEN OF PROOF

The classification of evidence as AI-assisted or AI-generated has significant implications for admissibility and the burden of proof. In the case of AI-assisted evidence, the burden typically lies on the party producing the evidence to establish its authenticity through conventional means, such as witness testimony or documentary proof.

However, for AI-generated evidence, the burden becomes more complex. It may require demonstrating not only the integrity of the output but also the reliability of the underlying AI system. This could involve technical validation, expert testimony, and disclosure of algorithmic processes. The absence of explicit statutory guidance under the **Bharatiya Sakshya Adhiniyam, 2023** further complicates this process, leaving much to judicial interpretation.

4.5 NEED FOR DOCTRINAL RECOGNITION OF THE DISTINCTION

Despite its importance, the distinction between AI-assisted and AI-generated evidence is not explicitly recognized in existing evidentiary statutes. This creates a risk of treating fundamentally different forms of evidence under a uniform legal framework, potentially leading to inconsistent or unjust outcomes.

Recognizing this distinction at a doctrinal level would enable courts to apply tailored standards of admissibility and evaluation. It would also provide greater clarity to litigants regarding the evidentiary requirements applicable to different types of AI involvement. As AI continues to evolve, incorporating this distinction into legal reasoning becomes essential for maintaining both fairness and technological relevance in evidentiary law.

5. ADMISSIBILITY UNDER BSA (SECTIONS 61–63)

With the conceptual and analytical distinctions in place, the core question now arises: **how does the law treat AI-generated outputs at the stage of admissibility?** This requires a close examination of the statutory framework governing electronic evidence under the **Bharatiya Sakshya Adhiniyam, 2023**, particularly Sections 61 to 63, which form the backbone of admissibility for electronic and digital records.

5.1 STATUTORY RECOGNITION OF ELECTRONIC AND DIGITAL RECORDS

Sections 61 to 63 of the **Bharatiya Sakshya Adhiniyam, 2023** collectively establish that **electronic and digital records are admissible as evidence**, subject to compliance with prescribed conditions. This marks a significant departure from earlier evidentiary regimes that treated electronic material with caution or required special certification. The statutory recognition reflects an acknowledgment of the pervasive role of digital technology in modern communication and record-keeping.

At a prima facie level, AI-generated outputs—being stored or transmitted electronically—can fall within the category of “electronic records.” Whether it is a chatbot transcript, an automated report, or AI-generated multimedia content, such material satisfies the basic requirement of being recorded in a digital form capable of being produced before the Court. Thus, from a purely classificatory perspective, AI-generated evidence is not excluded from admissibility.

5.2 CONDITIONS GOVERNING ADMISSIBILITY

While the statute recognizes electronic records, admissibility is not automatic. Sections 61 to 63 impose **conditions aimed at ensuring the integrity, authenticity, and reliability of such records**. These conditions typically relate to the manner in which the electronic record was created, stored, and produced, as well as safeguards against tampering or manipulation.

In the context of AI-generated evidence, these conditions become particularly significant. Unlike traditional electronic records, which often have identifiable sources and traceable histories, AI outputs may be generated dynamically based on real-time inputs and complex algorithms. Establishing the integrity of such records may therefore require demonstrating the reliability of the underlying AI system, the accuracy of the data used, and the absence of external interference. The statutory conditions, while broad, do not explicitly account for these additional layers of complexity.

5.3 APPLICABILITY TO AI-GENERATED EVIDENCE

The application of Sections 61 to 63 to AI-generated evidence raises interpretative challenges. On one hand, the inclusive language of the statute allows AI outputs to be treated as electronic records. On the other hand, the provisions appear to be designed with **human-generated digital content in mind**, where authorship and control can be clearly established.

In cases involving AI-generated evidence, the absence of a human “maker” complicates compliance with admissibility requirements. For instance, questions may arise as to who is responsible for certifying the record—the developer of the AI system, the user who deployed it, or the entity that relied on its output. Additionally, the dynamic and adaptive nature of AI systems may make it difficult to reproduce the exact conditions under which the output was generated, thereby affecting the evidentiary process.

5.4 JUDICIAL DISCRETION AND INTERPRETATIVE FLEXIBILITY

Given the lack of explicit provisions addressing AI-generated evidence, courts are likely to rely on **judicial discretion and interpretative flexibility** in applying Sections 61 to 63. Judges may adopt a pragmatic approach, focusing on the reliability and relevance of the evidence rather than its source alone.

However, this flexibility also introduces the risk of inconsistency, as different courts may adopt varying standards when dealing with AI-generated material. Some may take a liberal approach, admitting such evidence subject to weight, while others may adopt a stricter stance, requiring rigorous proof of authenticity and reliability. This underscores the need for clearer doctrinal guidance to ensure uniformity in judicial practice.

5.5 LIMITATIONS OF THE EXISTING FRAMEWORK

While Sections 61 to 63 provide a robust foundation for the admissibility of electronic records, they exhibit **limitations when applied to AI-generated evidence**. The provisions do not explicitly address issues such as algorithmic transparency, data bias, or the autonomous nature of AI systems. As a result, they may be insufficient to fully capture the complexities associated with AI-generated outputs.

This limitation highlights a broader structural issue: the law has evolved to accommodate digital evidence but has not yet fully adapted to the realities of artificial intelligence. Consequently, while AI-generated evidence may be admissible in principle, its treatment under the existing framework remains uncertain and heavily dependent on judicial interpretation.

5.6 PROPOSED STANDARD FOR ADMISSIBILITY OF AI-GENERATED EVIDENCE

In order to address the limitations of the existing framework, a structured standard for admissibility of AI-generated evidence may be developed. Such evidence should be considered admissible where the following conditions are satisfied: (i) the integrity of the electronic record is established in accordance with statutory requirements; (ii) the reliability of the AI system is demonstrated through technical documentation or expert testimony; (iii) the data inputs used in generating the output are shown to be accurate and free from material bias; and (iv) the process by which the output was generated is sufficiently transparent to permit judicial scrutiny.

This approach shifts the focus from mere formal admissibility to system-level reliability, thereby aligning evidentiary standards with the unique characteristics of AI-generated material.

6. AUTHENTICATION & PROOF

Once admissibility is established, the next critical stage in the evidentiary process is **authentication and proof**. These requirements ensure that the evidence presented before the Court is genuine, unaltered, and derived from a reliable source. In the context of AI-generated electronic evidence, authentication becomes significantly more demanding due to the technical nature of such systems and the absence of conventional indicators of origin.

6.1 TRADITIONAL PRINCIPLES OF AUTHENTICATION

Under classical evidence law, authentication involves establishing that a document is what it purports to be. This is typically achieved through proof of authorship, signatures, handwriting, or witness testimony. A person associated with the creation or transmission of the document can be examined to confirm its authenticity.

This human-centric model is embedded within the **Bharatiya Sakshya Adhiniyam, 2023**, where evidentiary credibility is often linked to identifiable individuals. However, this approach encounters limitations when applied to AI-generated outputs, which lack direct human authorship at the point of creation.

6.2 ELECTRONIC AUTHENTICATION UNDER THE STATUTORY FRAMEWORK

The statute provides mechanisms for authenticating electronic records, including electronic signatures, certification processes, and verification through system-generated records. These tools are designed to ensure integrity and traceability.

For conventional electronic evidence, such as emails or digitally signed documents, authentication can be established through **digital certificates, audit trails, and system logs**, which link the record to a verifiable source. In contrast, AI-generated outputs may not consistently carry such traceable identifiers, particularly when generated dynamically or outside formal certification environments.

6.3 LIMITS OF TRADITIONAL AUTHENTICATION IN AI CONTEXT

The primary difficulty in authenticating AI-generated evidence lies in the **absence of a direct evidentiary link between the output and a verifiable human source**. Traditional methods—such as witness testimony or signature verification—become insufficient.

Further, authentication cannot be confined to the output alone. Questions arise as to whether the system functioned correctly, whether the input data was reliable, and whether the process remained free from interference. These concerns expose the inadequacy of conventional authentication standards when applied to AI-generated material.

6.4 SHIFT TO SYSTEM-LEVEL PROOF AND INTEGRITY

Given these limitations, authentication in the AI context must shift from document-centric proof to **system-level verification**. This involves demonstrating that:

- the system was functioning properly at the relevant time,
- the data inputs were accurate and untampered, and
- the output was generated through a reliable and consistent process.

Such proof may require **technical documentation, audit records, and expert analysis**, focusing on the integrity of the entire system rather than merely the final output. This represents a transition from static authentication to a more **process-oriented evidentiary approach**.

6.5 EVOLVING STANDARDS OF PROOF

The challenges associated with AI-generated evidence necessitate the development of **evolving standards of authentication and proof**. While the **Bharatiya Sakshya Adhiniyam, 2023** provides a foundational framework, it does not fully address system-driven evidence.

Courts may need to adopt flexible approaches, including **greater reliance on expert testimony, acceptance of technical validation methods, and insistence on system transparency where feasible**. In the absence of explicit statutory guidance, judicial interpretation will play a central role in adapting evidentiary standards to the realities of AI.

7. PRESUMPTIONS & RELIABILITY

Following authentication, the evidentiary framework relies on **presumptions** to streamline judicial decision-making. Presumptions allow courts to accept certain facts as established unless disproved, thereby reducing the burden of proof. However, in the context of AI-generated electronic evidence, the application of such presumptions becomes uncertain due to questions surrounding **reliability and system-based outputs**.

7.1 STATUTORY PRESUMPTIONS RELATING TO ELECTRONIC RECORDS

The **Bharatiya Sakshya Adhiniyam, 2023** incorporates presumptions relating to electronic records, including those concerning electronic agreements, digital signatures, and secure electronic communications. These presumptions are intended to facilitate efficiency by treating certain categories of electronic evidence as reliable unless challenged.

In conventional contexts, such presumptions operate effectively because electronic records are typically traceable to identifiable sources and generated through standardized processes.

7.2 LIMITS OF PRESUMPTIONS IN AI CONTEXT

The extension of these presumptions to AI-generated evidence is problematic. Traditional presumptions are based on assumptions of **traceability, stability, and predictable functioning**, which may not hold true for AI systems.

AI-generated outputs are the result of data-driven processes that may not always be transparent or easily verifiable. As a result, applying statutory presumptions without scrutiny may risk accepting outputs whose reliability has not been adequately established.

7.3 RELIABILITY AS THE CORE CONCERN

In the context of AI-generated evidence, **reliability becomes the central issue** governing the application of presumptions. Unlike conventional records, where reliability is inferred from the method of creation, AI outputs require an assessment of the system's performance and consistency.

Courts must therefore consider whether the system producing the evidence can be regarded as dependable, and whether its outputs can be safely relied upon in a legal setting. This shifts the focus from formal compliance to substantive trustworthiness.

7.4 JUDICIAL APPROACH: CAUTION OVER AUTOMATIC PRESUMPTION

Given these limitations, courts are likely to adopt a **cautious approach** rather than applying presumptions automatically. Instead of treating AI-generated evidence as inherently reliable, judges may require **additional corroboration or supporting material** before accepting it.

AI-generated evidence may thus be treated as prima facie admissible but subjected to closer scrutiny at the stage of evaluation. This ensures that efficiency is not achieved at the cost of accuracy or fairness.

7.5 RETHINKING PRESUMPTIVE FRAMEWORKS

The challenges posed by AI-generated evidence indicate the need to **reconsider existing presumptive frameworks**. Presumptions designed for conventional electronic records may not adequately address system-generated outputs.

A more appropriate approach may involve **conditional or qualified presumptions**, where reliability is linked to demonstrable factors such as system validation or transparency. Until such adaptations are formally developed, the application of presumptions to AI evidence will remain limited and context-dependent.

8. ROLE OF EXPERTS

With the increasing use of AI-generated evidence, expert testimony assumes a **central and indispensable role** in judicial proceedings. Courts are required to engage with technically complex systems whose functioning is not readily understandable through ordinary reasoning. In this context, experts act as a bridge between **technical processes and legal evaluation**, enabling courts to meaningfully assess such evidence.

8.1 NECESSITY OF EXPERT INVOLVEMENT IN AI EVIDENCE

Under the **Bharatiya Sakshya Adhiniyam, 2023**, expert opinion becomes relevant when the Court must form conclusions on matters requiring specialized knowledge. In the case of AI-generated evidence, such reliance is not merely supportive but often essential.

Experts may be required to explain **how the AI system operates, whether it functioned reliably at the relevant time, and whether the output produced can be trusted**. Without such technical interpretation, courts would be unable to properly evaluate the evidentiary significance of AI-generated material.

8.2 SCOPE OF EXPERT ANALYSIS IN AI CONTEXT

The role of experts in AI-related cases extends beyond simple verification. It includes examining:

- the functioning and design of the system,
- the reliability of the data inputs, and
- the consistency and validity of the output generated.

In contested cases, expert testimony may become the **primary basis for assessing authenticity and reliability**, particularly where the evidence cannot be directly verified through conventional means.

8.3 LIMITATIONS AND RISKS OF EXPERT DEPENDENCE

Despite their importance, reliance on experts presents certain limitations. AI systems—especially advanced or proprietary ones—may not be fully accessible or explainable even to specialists. As a result, expert conclusions may be based on **partial visibility or inferred understanding** of the system.

There is also a risk of **over-reliance on expert authority**, where courts may accept technical opinions without sufficient scrutiny. In cases involving conflicting expert views, the evaluation becomes even more complex, potentially affecting the consistency of judicial outcomes.

8.4 NEED FOR CAREFUL JUDICIAL EVALUATION

Given these limitations, courts must adopt a **critical and structured approach** when assessing expert testimony. This includes examining the **basis of the expert’s opinion, the data relied upon, and the coherence of the conclusions drawn.**

Rather than treating expert evidence as determinative, courts should view it as **assistance in evaluation**, ensuring that final conclusions remain grounded in judicial reasoning. A balanced approach—recognizing both the necessity and the limits of expert input—is essential for the proper integration of AI-generated evidence into legal proceedings.

9. EVIDENTIARY VALUE VS ADMISSIBILITY

In evidentiary law, a fundamental yet often misunderstood distinction exists between **admissibility** and **evidentiary value (or weight)**. While admissibility determines whether a piece of evidence can be considered by the Court, evidentiary value determines the extent to which that evidence is persuasive in proving a fact in issue. This distinction becomes particularly significant in the context of AI-generated evidence, where material may be technically admissible but substantively unreliable.

9.1 CONCEPTUAL DISTINCTION BETWEEN ADMISSIBILITY AND WEIGHT

Admissibility is governed by statutory rules that determine whether evidence meets the threshold requirements for being presented before the Court. These rules focus on aspects such as relevance, form, and compliance with procedural conditions. Once admitted, however, the evidence is subject to judicial evaluation, where the Court determines its credibility, reliability, and probative value.

Evidentiary value, therefore, operates at a different stage of the judicial process. It is not dictated solely by statutory provisions but is shaped by **judicial discretion, logical reasoning, and the overall context of the case**. This distinction ensures that even admissible evidence is not accepted uncritically but is assessed on its merits.

9.2 APPLICATION TO AI-GENERATED EVIDENCE

In the case of AI-generated evidence, this distinction assumes heightened importance. As discussed earlier, such evidence may satisfy the formal requirements of admissibility under the **Bharatiya Sakshya Adhiniyam, 2023**, particularly as it falls within the category of electronic records. However, admissibility does not automatically confer reliability or credibility.

AI-generated outputs may be influenced by factors such as biased training data, flawed algorithms, or incomplete datasets. As a result, even if such evidence is admitted, its evidentiary value may be limited. Courts must therefore exercise caution in assigning weight to AI-generated material, ensuring that it is corroborated by other evidence where necessary.

9.3 FACTORS AFFECTING EVIDENTIARY VALUE OF AI EVIDENCE

Several factors influence the evidentiary value of AI-generated evidence. These include the **transparency of the algorithm, the quality and source of training data, the consistency of outputs, and the presence of independent verification mechanisms**. Evidence generated by a well-documented and validated system may carry greater weight than that produced by an opaque or untested model.

Additionally, the context in which the evidence is used plays a crucial role. For instance, AI-generated evidence used for corroborative purposes may be more readily accepted than when it forms the sole basis for a judicial finding. The degree of reliance placed on such evidence must be proportionate to its demonstrated reliability.

9.4 JUDICIAL DISCRETION IN ASSESSING WEIGHT

The assessment of evidentiary value ultimately lies within the **discretion of the Court**. Judges are required to evaluate the credibility of evidence in light of all surrounding circumstances, including the nature of the evidence, the manner in which it was obtained, and its consistency with other material on record.

In cases involving AI-generated evidence, judicial discretion becomes even more critical. Courts must balance the potential benefits of technological efficiency with the risks associated with opacity and bias. This may involve adopting a cautious approach, where AI-generated evidence is treated as supplementary rather than determinative, unless its reliability is clearly established.

9.5 NEED FOR DIFFERENTIATED EVIDENTIARY STANDARDS

The unique characteristics of AI-generated evidence suggest the need for **differentiated standards in assessing evidentiary value**. Treating such evidence on par with traditional documentary evidence may overlook its inherent limitations, while excessive skepticism may hinder the effective use of technology in legal proceedings.

A balanced approach would involve recognizing the admissibility of AI-generated evidence while subjecting it to **heightened scrutiny at the stage of evaluation**. This could include requiring corroboration, expert validation, and transparency regarding the functioning of the AI system. Such an approach ensures that the distinction between admissibility and evidentiary value is meaningfully applied in the context of emerging technologies.

10. AI-SPECIFIC CHALLENGES

While the existing evidentiary framework provides a foundation for dealing with electronic records, AI-generated evidence introduces **novel and complex challenges** that extend beyond traditional legal doctrines. These challenges stem from the unique characteristics of artificial intelligence, including autonomy, opacity, and dependence on data. Addressing these issues is essential for ensuring that the use of AI in legal proceedings does not compromise fairness, accuracy, or accountability.

10.1 THE BLACK BOX PROBLEM (LACK OF EXPLAINABILITY)

One of the most significant challenges associated with AI-generated evidence is the **“black box” nature** of many AI systems. Advanced models, particularly those based on deep learning, often operate through complex layers of computation that are not easily interpretable. As a result, even the developers of such systems may not be able to fully explain how a particular output was generated.

This lack of explainability poses serious concerns in a legal context. Evidence must be open to scrutiny and challenge, especially in adversarial proceedings where parties have the right to question the basis of evidence presented against them. If the reasoning behind an AI-generated output cannot be explained, it undermines the ability of the opposing party to effectively contest it, thereby affecting procedural fairness.

10.2 DEEPFAKES AND SYNTHETIC MEDIA

The rise of AI-generated synthetic media, commonly referred to as **deepfakes**, presents a direct threat to the integrity of evidence. AI systems can now generate highly realistic audio, video, and images that are difficult to distinguish from authentic recordings. Such material can be used to fabricate events, misrepresent facts, or falsely implicate individuals.

In the evidentiary context, this raises concerns about **authenticity and manipulation**. Traditional methods of verifying audiovisual evidence may no longer be sufficient, as AI-generated content can bypass conventional detection techniques. Courts must therefore adopt more sophisticated methods of verification and remain cautious in accepting such evidence without rigorous scrutiny.

For instance, in a criminal trial, a video recording generated through AI may depict an accused individual committing an offence with a high degree of realism. While such material may appear authentic, its evidentiary value would depend on the ability to establish that it has not been synthetically generated or manipulated. In the absence of reliable verification mechanisms, reliance on such evidence could result in wrongful attribution of liability.

10.3 DATA BIAS AND ALGORITHMIC ERRORS

AI systems are heavily dependent on the data used for training. If the training data is biased, incomplete, or unrepresentative, the outputs generated by the system may reflect those biases. This can lead to **systematic errors** that affect the reliability of the evidence.

For example, an AI system used for predictive analysis may produce skewed results if it is trained on biased datasets. In legal proceedings, such biased outputs can have serious consequences, particularly in criminal cases where the stakes are high. The challenge lies in identifying and mitigating these biases, which may not always be apparent at first glance.

10.4 ISSUES OF AUTHORSHIP AND ACCOUNTABILITY

AI-generated evidence raises fundamental questions about **authorship and responsibility**. In traditional evidence law, documents are attributed to identifiable individuals who can be held

accountable for their contents. In the case of AI-generated outputs, however, the “creator” is an algorithm, which lacks legal personality and accountability.

This creates ambiguity regarding who should be responsible for the evidence—the developer of the AI system, the entity that deployed it, or the party relying on its output. The absence of clear attribution complicates both the process of authentication and the assignment of liability in cases where the evidence is found to be flawed or misleading.

10.5 VULNERABILITY TO MANIPULATION AND TAMPERING

AI systems are not immune to external interference. They may be susceptible to **adversarial attacks**, data poisoning, or unauthorized modifications, all of which can compromise the integrity of the generated output. Unlike traditional documents, where tampering may leave visible traces, manipulation of AI systems can occur at a deeper, less detectable level.

This vulnerability raises concerns about the trustworthiness of AI-generated evidence. Establishing that an AI system has not been compromised becomes a critical aspect of proving the reliability of its outputs. This adds an additional layer of complexity to the evidentiary process, requiring technical safeguards and verification mechanisms.

10.6 DYNAMIC AND EVOLVING NATURE OF AI SYSTEMS

Another challenge lies in the **dynamic nature of AI systems**, which may evolve over time through continuous learning and updates. This means that the same system may produce different outputs under similar conditions at different points in time.

From an evidentiary perspective, this lack of consistency complicates the process of verification and reproduction. Courts often rely on the ability to reproduce evidence or verify its origin under similar conditions. With evolving AI systems, achieving such reproducibility may be difficult, thereby affecting the reliability and credibility of the evidence.

10.7 NEED FOR LEGAL ADAPTATION

The challenges outlined above demonstrate that AI-generated evidence cannot be seamlessly integrated into existing evidentiary frameworks without adaptation. While the **Bharatiya Sakshya Adhiniyam, 2023** provides a foundation for electronic evidence, it does not fully address the complexities introduced by AI technologies.

There is a pressing need for **legal innovation and doctrinal evolution** to address these challenges. This may involve developing new standards for authentication, establishing guidelines for the use of AI in legal proceedings, and creating mechanisms to ensure transparency and accountability. Without such adaptations, the integration of AI into the evidentiary process may lead to uncertainty and potential injustice.

11. COMPARATIVE ANALYSIS

A comparative perspective highlights how different jurisdictions are adapting evidentiary principles to address the challenges posed by AI-generated material. While approaches vary, common themes of **reliability, transparency, and judicial scrutiny** emerge.

11.1 UNITED STATES

Under the **Federal Rules of Evidence**, AI-generated evidence is assessed through existing doctrines of authentication and expert testimony. Courts rely heavily on **methodological reliability and expert validation**, particularly under standards such as *Daubert*, to determine admissibility.

11.2 EUROPEAN UNION

The **EU AI Act** adopts a **risk-based regulatory approach**, imposing strict requirements on high-risk AI systems, including transparency, documentation, and human oversight. While not directly evidentiary, it strengthens the **traceability and accountability** of AI outputs used in legal contexts.

11.3 UNITED KINGDOM

The UK addresses AI evidence within the broader framework of digital and expert evidence, emphasizing **reliability, transparency, and forensic validation**. Courts adopt a cautious approach, requiring parties to demonstrate the **credibility of the underlying system** through expert support.

11.4 INDIA

In contrast, the framework under the **Bharatiya Sakshya Adhiniyam, 2023** remains **technology-neutral**, treating AI-generated material as part of electronic evidence without specific provisions. This allows flexibility but creates **uncertainty in standards of authentication and reliability**.

Indian courts are therefore likely to rely on **existing principles of admissibility, expert testimony, and judicial discretion**, while adopting a cautious approach similar to other jurisdictions. The absence of explicit guidelines highlights the need for **gradual doctrinal development**, either through judicial interpretation or targeted legislative refinement.

12. CASE LAW ANALYSIS

Judicial interpretation plays a crucial role in shaping the admissibility of electronic evidence. Although direct jurisprudence on AI-generated evidence remains limited, principles developed under earlier law continue to guide courts in dealing with technologically derived material. In this context, two landmark decisions of the Supreme Court provide the foundational framework.

12.1 ANVAR P.V. V. P.K. BASHEER

In *Anvar P.V.*, the Supreme Court clarified the admissibility of electronic records by emphasizing the **mandatory nature of procedural compliance**, particularly the requirement of certification for electronic evidence. The Court held that electronic records must satisfy specific statutory conditions to be admissible, thereby shifting away from earlier, more flexible approaches.

This decision underscores the importance of **authenticity and integrity** in electronic evidence. In the context of AI-generated material, the principle implies that mere production of an output is insufficient; there must be **reliable assurance regarding the manner in which the evidence was generated and preserved**.

12.2 ARJUN PANDITRAO KHOTKAR V. KAILASH KUSHANRAO GORANTYAL

In *Arjun Panditrao Khotkar*, the Supreme Court reaffirmed the principles laid down in *Anvar P.V.*, holding that certification requirements are **mandatory unless the original electronic device is produced before the Court**. The judgment further clarified procedural ambiguities and reinforced the need for strict compliance in order to ensure the reliability of electronic evidence.

This ruling strengthens the evidentiary threshold by insisting on **formal safeguards against tampering and manipulation**. When applied to AI-generated evidence, it highlights the necessity of establishing not only the existence of the output but also the **credibility of the system and process through which it was produced**.

While these decisions establish a rigorous framework for electronic evidence, their application to AI-generated material reveals certain structural limitations. The certification requirement, as emphasized in *Anvar P.V.* and reaffirmed in *Arjun Panditrao Khotkar*, presupposes the existence of a stable and identifiable source of the electronic record. In the case of AI-generated outputs, however, the “source” is not a static device or document but a dynamic system operating through complex algorithms and data inputs.

Accordingly, compliance with certification requirements alone may not sufficiently guarantee reliability, thereby necessitating a broader evidentiary inquiry into the functioning of the underlying AI system.

12.3 RELEVANCE TO AI-GENERATED EVIDENCE

Together, these decisions establish that admissibility of electronic evidence depends on **procedural rigor and demonstrable reliability**. However, their application to AI-generated evidence reveals certain limitations. While certification may ensure the integrity of a conventional electronic record, it does not fully address the **system-driven nature of AI outputs**, where reliability depends on underlying algorithms and data processes.

These cases therefore provide a **foundational but incomplete framework**. Courts dealing with AI-generated evidence are likely to extend these principles by requiring **enhanced scrutiny, technical validation, and possibly expert support** to satisfy evidentiary standards.

13. CONCLUSION

The increasing integration of artificial intelligence into digital ecosystems has significantly altered the nature and scope of evidence in legal proceedings. This research has examined the admissibility of AI-generated electronic evidence within the framework of the Bharatiya Sakshya Adhiniyam, 2023, highlighting both the capacity and the limits of existing evidentiary principles in addressing technological developments.

13.1 SUMMARY OF KEY FINDINGS

This study establishes that AI-generated evidence can, in principle, be accommodated within the existing statutory framework as a form of electronic record. Provisions relating to admissibility, authentication, presumptions, and expert opinion provide a foundational structure for its inclusion. However, these provisions were developed in the context of human-generated material, and their application to AI-generated outputs exposes doctrinal limitations.

The analysis identifies key concerns relating to the absence of identifiable authorship, limited transparency of algorithmic processes, the influence of data bias, and vulnerability to manipulation. These factors complicate the processes of authentication and proof, and affect both admissibility and evidentiary weight.

13.2 STRUCTURAL LIMITATIONS OF THE EXISTING FRAMEWORK

The statutory framework governing electronic evidence does not explicitly address the distinctive features of AI systems. The absence of specific guidance results in interpretative uncertainty and increased reliance on judicial discretion. This creates the possibility of inconsistent evidentiary standards.

These challenges place pressure on established assumptions of evidence law, particularly those relating to traceability and the ability to test evidence through cross-examination. As a result, traditional doctrinal structures do not fully align with the nature of system-generated outputs.

13.3 A SYSTEM-CENTRIC APPROACH TO ADMISSIBILITY

The admissibility of AI-generated evidence cannot be determined solely on the basis of its classification as an electronic record. It requires an evaluative approach that focuses on the reliability of the system that produces the output.

This approach involves assessing the integrity of the AI system, the quality of data inputs, and the consistency of outputs. By shifting attention from the form of the record to the process of its generation, evidentiary analysis remains connected to substantive reliability.

13.4 ROLE OF COURTS AND EXPERT EVIDENCE

Courts play a central role in adapting evidentiary principles to the challenges posed by AI-generated material. A cautious and structured approach is necessary, one that subjects such evidence to appropriate scrutiny while remaining responsive to technological developments.

Expert testimony is essential in assisting courts to understand the functioning of AI systems. At the same time, judicial evaluation must remain independent, ensuring that expert opinion informs but does not determine the outcome.

13.5 NEED FOR LEGISLATIVE DEVELOPMENT

Doctrinal adaptation through judicial interpretation has limits. Legislative clarification can provide greater certainty by defining standards for authentication, reliability, and accountability in relation to AI-generated evidence.

Such development should focus on establishing clear evidentiary thresholds, particularly in contexts where the consequences of error are significant. A structured framework would reduce ambiguity and promote consistency in evidentiary practice.

13.6 FINAL OBSERVATIONS AND WAY FORWARD

The evolution of evidentiary law reflects broader technological change, and artificial intelligence represents a significant stage in this progression. Its integration into legal processes offers advantages in efficiency and analytical capability, but also requires careful regulation.

A coherent legal response must ensure that AI-generated evidence is evaluated on the basis of demonstrable system reliability and procedural fairness. Courts should require transparency in the functioning of relevant systems, encourage technical validation through expert evidence, and rely on corroboration where necessary.

The future development of evidentiary law must remain grounded in the principle that credibility depends on verifiable processes. A system-oriented model of proof, based on transparency, validation, and accountability, provides a principled foundation for the treatment of AI-generated evidence.