ADMISSIBILITY OF AI-REVIEWED DIGITAL EVIDENCE IN LEGAL INVESTIGATIONS

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ABSTRACT

With the increasing volume of digital information, contemporary legal investigations increasingly rely on the examination of terabytes of electronic data. It is not only time-consuming and expensive but also prone to missing out on relevant evidence to depend entirely on human reviewers. To counter these challenges, Artificial Intelligence (AI) technologies—specifically predictive coding—are being utilized to automate document review. This article discusses the application of predictive coding in legal investigations, specifically in terms of its admissibility under Indian law.

It discusses how predictive coding operates, the procedural protections employed to guarantee accuracy, and how AI-checked outputs engage with the evidentiary demands of the Indian Evidence Act, 1872[1] (now superseded by the Bharatiya Sakshya Adhiniyam, 2023[2]). It also addresses ethical and legal issues, including explainability, bias, and chain of custody, as well as new developments in Generative AI (GenAI) and their possible application in legal proceedings.

Based on Indian and global case studies, the article brings out judicial receptivity to AI tools while calling for human monitoring, certification, and legislative certainty. It concludes by suggesting procedural rules, legal amendments, and capacity-building to enable the admissibility and ethical use of AI in the Indian justice system.

Keywords: Technology-Assisted Review, TAR, Document Review, Indian Evidence Act, Predictive coding, Bharatiya Sakshya Adhiniyam, Generative AI, CAL

[1] Indian Evidence Act, 1872: https://www.indiacode.nic.in/bitstream/123456789/15351/1/iea_1872.pdf
[2] Bharatiya Sakshya Adhiniyam, 2023: https://www.indiacode.nic.in/bitstream/123456789/20063/1/a2023-47.pdf

1. Introduction

With the accelerating digitalization of business, government, and communication, legal investigations now entail sifting through enormous amounts of electronic information. This has made it necessary to implement sophisticated review technologies—most significantly, predictive coding, or Technology-Assisted Review (TAR)—to assist internal investigations, regulatory requests, and pre-trial discovery.

Predictive coding employs AI algorithms that have been trained on a subset of human-checked documents to find potentially relevant material in a larger set of documents. It is especially useful in corporate investigations, white-collar crime investigations, competition law compliance, and cross-border litigation with electronic discovery (e-discovery). Although these tools greatly enhance speed and efficiency, they also pose difficult questions of legal admissibility under Indian law.

Compared to the U.S. and U.K. jurisdictions, which have seen acceptance of AI-assisted document review outputs in regulatory and civil matters, the Indian legal system lags behind regarding explicit recognition of such AI-reviews as part of evidence. As law firms, forensic teams, and compliance professionals in India increasingly adopt predictive coding, it is crucial to assess whether and how AI-processed outputs can be lawfully introduced and relied upon in court.

This paper addresses AI in legal investigation and document review— distinct from AI in judicial decision-making or sentencing—and evaluates its admissibility through the lens of the Indian Evidence Act, 1872, emerging government policies, and comparative legal practices.

2. Predictive Coding: Legal Technology and its Mechanism

Predictive coding is a multi-step process that starts with human experts examining a training set of documents to determine whether they are responsive or not. The AI model (also called a classifier) then applies these classifications to learn patterns, detect features, and assign probability scores to the rest of the documents.

Key Performance Metrics:

- Recall: The percentage of truly responsive documents correctly identified.

- Precision: The percentage of documents labeled responsive that are genuinely responsive.

There is an inherent trade-off—improving recall may reduce precision and vice versa. In practice, legal teams may target a recall of 70% or higher to ensure comprehensive review.

Process Summary:

1. Training and Classification: AI analyzes tokens and metadata in documents, assigns feature weights, and generates probability scores (0–1). The initial "training set" consists of documents manually reviewed by legal experts to teach the AI what is relevant. A separate "control set" is used later to measure the model's accuracy, ensuring the AI's classifications are statistically reliable and not overfitted to the training data.

2. Sampling and Validation: Random samples (Validation Samples) are tested to evaluate the model's recall and precision, which determine readiness for wider application. Note that recall scores indicate accuracy only within the particular population from which the sample is taken. For example, if keyword filtering has already been performed to reduce the dataset, then the resulting recall metric applies only to that keyword-filtered subset, not to the full document collection. Moreover, when two or more review layers—such as keyword filtering, predictive coding, and human review—are successively applied, each step leads to an aggregate decrease in end recall. For instance, if each step performs 90% effectively, then the aggregate yield would be substantially lower. Also, recall estimates have to be read in conjunction with the margin of error. A recall of 70%, at a confidence level of 99% with a margin of error of 5%, means there is a 99% chance that the true recall would fall between 65% and 75%.

3. Foreign Language Support: Multilingual documents can also be used to train AI models that recognize significant features across languages, reducing segregation requirements.

4. Disagreement Review: Documents where AI scores and human coding disagree are re-reviewed to improve training quality.

5. Final Review and Production: Documents scored as non-responsive may be excluded from review, while responsive families are subject to potential production and additional human quality control.

This approach ensures not just efficiency but statistical accountability, and it is consistent with best practices employed worldwide in big-ticket litigation and investigations. In other jurisdictions, such as the United States, particularly in time-sensitive antitrust and competition matters, predictive coding outputs—specifically responsive document families that do not contain sensitive terms, privileged content, or Personally Identifiable Information (PII)—can be directly produced to the court without further manual review.

3. Legal Framework for Admissibility under Indian Law

a. The Indian Evidence Act, 1872

The admissibility of electronic records in India is regulated primarily by Section 65B of the Indian Evidence Act. It mandates that digital evidence must be:

- Produced by a reliable computer system,
- Supported by a Section 65B(4) certificate, attesting to the authenticity and source.

In the seminal judgment Anvar P.V. v. P.K. Basheer (2014)[3], the Supreme Court held that digital evidence would be inadmissible in the absence of a valid certificate under Section 65B. This judgment established a stringent precedent, subsequently softened in Arjun Panditrao Khotkar v. Kailash Kushanrao Gorantyal (2020)[4], permitting certificates to be furnished later in specific situations.

But AI-checked outputs, like class scores, create a grey area. The issue is: are they just "processed insights" or independent digital records? If the predictive coding software classifies a document as relevant, is it an admissible decision, or does it need a human certification?

[3] Anvar P.V. v. P.K. Basheer (2014): https://digiscr.sci.gov.in/view_judgment?id=MzU0NTI=
[4] Arjun Panditrao Khotkar v. Kailash Kushanrao Gorantyal (2020): https://digiscr.sci.gov.in/view_judgment?id=MTA2MjI=

4. Legal and Ethical Challenges in the Indian Context

a. Explainability and Transparency:

Courts may be skeptical of AI outputs that operate as "black boxes." The lack of transparency in decision-making erodes the credibility of the evidence.

b. Bias and Consistency:

Predictive coding is dependent on initial human-reviewed sets. If the training set is biased or inconsistent, the AI model can reproduce these defects. This has implications for fairness and reliability.

c. Chain of Custody:

It becomes more challenging to keep the chain of custody intact when AI tools are brought into the picture. It is important to prove that the digital data was not changed while being reviewed.

d. Judicial Literacy:

Indian courts may require capacity-building to understand and evaluate AI tools, as the use of predictive coding is still in the beginning stages in the country.

5. Technological Advancements and Future Potential

With continuous development in AI, several developments have great potential for enhancing its use in legal investigation use:

- **Natural Language Processing (NLP)** can improve the ability of AI to understand and categorize complex legal documents with increasing accuracy.
- **Explainable AI (XAI)** is working towards transparency challenges by making the outputs more explainable, which can make AI-reviewed evidence acceptable in a court of law.
- **Multilingual AI Models**: Given India's multilingual legal environment, AI models that can examine documents of different languages without the necessity of translation are

gaining a crucial importance. Such models minimize the chance of context loss and enhance consistency in multilingual investigations.

- **Early Case Assessment (ECA)**: New AI tools are being designed to help legal teams in Early Case Assessment by identifying critical facts, key players, and timelines early in the litigation or investigation cycle. This allows for more effective planning and resource management.

- **Continuous Active Learning (CAL)**: Unlike traditional TAR models that require periodic retraining, CAL allows AI models to learn continuously from constant human input. This interactive feedback loop gets better with time and is particularly helpful in prolonged or dynamic investigations.

- **Integration with Blockchain for Evidence Integrity**: New frameworks are investigating how blockchain can be used to integrate AI to provide tamper-proof document version tracking and review histories. This integration may enhance the chain of custody and the reliability of AI-reviewed evidence.

These emerging technologies, with the right legal frameworks and judicial awareness, have the potential to greatly enhance the efficiency, accuracy, and admissibility of AI-reviewed digital evidence in Indian court proceedings.

6. AI and Data Privacy Concerns

The use of AI applications in legal searches must be compliant with existing data protection legislation to allow ethical and lawful management of personal information.

- The Digital Personal Data Protection Act (DPDP), 2023[5] mandates that all processing operations of data—whether conducted using AI-facilitated review tools or otherwise— must be based on valid user consent, be for a legitimate purpose, and be performed with accountability by the appointed data fiduciaries.

- In this regard, AI models need to ensure that sensitive personal information is properly anonymized or redacted and that access controls are established to avoid unauthorized

[5] The Digital Personal Data Protection Act (DPDP), 2023: https://www.meity.gov.in/static/uploads/2024/06/2bf1f0e9f04e6fb4f8fef35e82c42aa5.pdf

disclosure. Utilization of cloud-based or foreign-hosted platforms can also create cross-border data transfer issues, highlighting the importance of privacy-by-design practices and strong compliance measures throughout the AI-assisted review process.

7. Cross-Border Investigations and AI Integration

With the international scope of contemporary legal investigations, technologies such as predictive coding can help improve the productivity of cross-border investigations. The technologies assist in overcoming issues around data transfer, jurisdictional questions, and observance of global laws such as the EU-U.S. Data Privacy Framework. AI can facilitate multi-jurisdictional investigations, particularly of international fraud, corporate abuse, and intellectual property infringement.

8. Reducing Bias in Legal Investigations with AI

AI models, if well trained and calibrated, can potentially curb the influence of human bias on legal investigations. Yet, AI models too pick up biases from the data with which they are trained. There has to be a balanced process to minimize human and algorithmic biases.

9. Public Perception and Trust in AI

As AI becomes increasingly involved in legal proceedings, public perception and trust are paramount. Ethical issues surrounding AI accountability, transparency, and the right to a fair trial must be addressed. Making AI tools explainable, auditable, and subject to strict regulatory control will be essential in building public trust.

10. Indian Legal Developments and Case Studies

While no Indian court has yet ruled directly on the admissibility of predictive coding outputs, developments in legal practice and judicial commentary suggest a growing openness toward the adoption of advanced technologies in the legal domain.

In *Swapnil Tripathi v. Supreme Court of India* (2018)[6], the Supreme Court endorsed the use of live-streaming in court proceedings, signaling a willingness to embrace transparency and

[6] Swapnil Tripathi v. Supreme Court of India (2018): https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1941269

technological reform within the justice system. Although this case did not involve AI-based tools directly, it illustrated the judiciary's evolving attitude toward integrating technology into procedural law.

Several Indian law firms have begun employing predictive coding and Technology-Assisted Review (TAR) tools in commercial litigation, regulatory second requests, and arbitration proceedings. However, AI-reviewed documents are typically still submitted to courts through conventional affidavits and human certifications, in accordance with Section 65B of the Indian Evidence Act. The judiciary has yet to issue binding precedent on whether classification outputs or relevance scores produced by predictive coding systems can be considered standalone admissible evidence.

By contrast, jurisdictions such as the United States and the United Kingdom have formally recognized the use of predictive coding in litigation. In *Da Silva Moore v. Publicis Groupe*, the U.S. courts became the first to approve TAR in e-discovery. Similarly, the U.K. decision in *Pyrrho Investments Ltd v. MWB Property Ltd* endorsed predictive coding for its efficiency and cost-effectiveness. In these jurisdictions, particularly in time-sensitive antitrust and competition matters, AI-reviewed outputs—specifically responsive document families that do not contain sensitive terms, privileged content, or Personally Identifiable Information (PII)—may even be produced directly to the court without further manual review.

Emergence of Generative AI in Legal Practice:

Apart from predictive coding, the increasing adoption of Generative AI (GenAI) tools has brought new abilities and challenges to the legal industry. GenAI tools are being tested for applications like summarizing legal documents, preparing notices and pleadings, translating multilingual content, and creating case timelines. Some Indian law firms and legal tech platforms have started using GenAI internally for enhanced efficiency in early-stage document analysis and knowledge management.

GenAI tools are vastly different from predictive coding. While predictive coding identifies existing documents, GenAI creates new content following language patterns. Therefore, the legal admissibility of GenAI outputs is questionable. With existing law, especially Section 65B of the Indian Evidence Act, these outputs might fail admissibility requirements. The courts

have not yet established whether GenAI-produced summaries or drafts can be offered as evidence, and thus it is an evolving field in need of judicial and legislative clarification.

A significant case in this regard is Jaswinder Singh v. State of Punjab (2023)[7], wherein the Punjab and Haryana High Court mentioned ChatGPT in granting a bail application based on a charge of alleged cruelty. Justice Anoop Chitkara made it clear that the AI tool was merely utilized to analyze wider angles of bail jurisprudence and had no influence on the ultimate order. This is an early judicial recognition of AI as an ancillary research tool, but one that reiterates human reasoning as core to adjudication.

11. Recommendations and the Way Forward

To ensure proper admissibility of AI-reviewed evidence, India may consider the following:

- Procedural Guidelines for submitting AI-processed evidence.
- Expert Certification to authenticate AI decision-making mechanisms and audit workflows.
- AI and Legal Education to make the legal community technology-literate.
- Law Reform to revise the Indian Evidence Act or establish technology-specific rules of procedure.

12. Conclusion

AI tools, particularly predictive coding, has significant benefits in examining and handling digital evidence, particularly as Indian litigation becomes increasingly data-driven. Yet, for such AI-reviewed evidence to be accepted by Indian courts, it needs to meet statutory standards under the Indian Evidence Act, backed by transparency, certification, and strict human monitoring.

As courts start to deal with AI-supported legal procedures, establishing legal and technical frameworks for their regulation will be imperative to ensure justice, equality, and uniformity

[7] Jaswinder Singh v. State of Punjab (2023): https://digiscr.sci.gov.in/view_judgment?id=Mjk5NTA=

in a digital-first world.

Government Policies and Legal Readiness in India

The Government of India has initiated a number of steps to encourage the responsible use of new technologies, including Artificial Intelligence and Blockchain. Initiatives such as the National Strategy on Artificial Intelligence (NSAI)[8] and the Digital India Programme promote the ethical use of AI, but legal measures to deal with concerns such as AI-reviewed evidence and algorithmic transparency are yet to be developed.

[8] NITI Aayog, National Strategy for Artificial Intelligence #AIforAll (2018), available at https://niti.gov.in