

Value Of Material Evidence in the Digital Age.

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Abstract

Within the ever-changing environment of Criminal Law, the evidentiary content and even evidentiary foundation are continually experiencing substantial changes. With respect to material evidence, which is understood to be the facts or issues of a case that govern a case's outcome. Historically, almost exclusively, material evidence was based on tangible items or physical records, now the increasing reliance on digital records and electronic records, and forensic technologies, opens up material evidence to a wholly new domain. The shift necessitates for courts to modify traditional evidentiary principles to new forms of technological change. The paper discusses about the evolving value of material evidence in the digital age, its important contributions, challenges and the effects on the administration of justice.

Keywords: Material Evidence, Digital Evidence, Corpus Delicti, Chain of Custody, Electronic Records, Admissibility of Evidence.

1. INTRODUCTION:

Evidence, being the pillar of Judicial Proceedings, basically means ‘the facts, signs or objects that make you believe that something is true’¹. In the Indian Criminal Law, the Bharatiya Sakshya Adhiniyam, 2023 (BSA, 2023; previously known as the Indian Evidence Act, 1872) governs the broad field of evidence for fair trial. This legislation consolidates and provides the general rules and principles of evidence.

The establishment of facts in the judicial process has always been based upon the available material evidence, marking itself as a tangible means. Material evidence is, thus, any fact, document, statement, object, or item having a close connection to the main fact in issue. Conventionally, such evidence included physical objects, documents, etc., which were directly connected to the main fact in issue. But with the rapid advancements of technology, the scope and nature of the material evidence have been reshaped. Now, electronic records, metadata, electronic signatures, CCTV footage, etc., have aided or even replaced the conventional forms of proof.

In the Indian Criminal Law system, this transition, from physical to electronic material evidence, has been validly approved, and changes have been made. The BSA, 2023 provides the definition of evidence under section 2(e), which includes electronic or digital records.

Section 2(e) "evidence" means and includes—

- (i) all statements including statements given electronically which the Court permits or requires to be made before it by witnesses in relation to matters of fact under inquiry and such statements are called oral evidence;
- (ii) all documents including electronic or digital records produced for the inspection of the Court and such

¹ Oxford English Dictionary, “Evidence”, *Oxford University Press*, (Online Edition). Available at: <https://www.oed.com>

documents are called documentary evidence;²

Further, the Bharatiya Sakshya Adhiniyam, 2023 has provisions, i.e., Section 62 and Section 63, which deal with the admissibility of electronic records. These new adaptations embark on the acknowledgment thus shown by the Indian Legal System of the evolving changes that have occurred due to technological advancements, while it simultaneously imposes conditions to ensure the authenticity and reliability of such electronic records.

One of the key concepts in criminal law, ‘corpus delicti’, which basically means “the body of the crime,” also upholds the value and the necessity of material evidence in the court proceedings. The concept of corpus delicti underlines the fundamental principle that before accusing someone of the commission of a crime, there must be proof of such commission. This principle aims to safeguard the wrongly accused persons, solely based on oral statements or any unsupported accusations. Corpus delicti traditionally entails two elements: first, that harm or loss has occurred (e.g., a death, injury, or loss of property), and second, that the harm resulted from a criminal act.³

Corpus delicti not only demands evidence but also ensures that the presented evidence is relevant to the same subject matter. In the practical world, material evidence supplies the body of the crime, such as a victim’s body, a broken lock indicating burglary, or a burned structure showing arson, CCTV footage showing the commission of the offence. Thus, there is a correlation between the necessities of material evidence and the acquittal of the accused. In criminal proceedings, the courts need to rigorously examine whether the available evidence, taken as a whole, satisfies the corpus delicti standard. It is well-settled that a conviction based on circumstantial evidence requires a “complete chain of evidence” leading to guilt beyond a reasonable doubt.

In *Karnataka vs. M. V. Mahesh*⁴ and *Pirithi vs. State of Haryana*⁵, the Supreme Court held that even in the absence of the victim’s body, it is possible to establish an appropriate case about the commission of murder by relying on a compelling chain of material evidence available to the court beyond a reasonable doubt. In *State of Goa vs. Sanjay Thakran and Anr*⁶, the court held that in the absence of any corroborative piece of evidence to complete the chain of circumstances. The court cannot fasten the guilt on the accused solely based on solitary evidence or circumstances. These cases illustrate that Indian jurisprudence demands robust confirming facts, i.e., material evidence; mere electronic data or untested assertions cannot stand alone.

Despite the presence of the frameworks, modern challenges thrive in reconciling physical (tangible) and digital (intangible) evidence. Physical evidence, though, is concrete, can be easily contaminated or lost, whereas digital evidence, though plentiful, raises questions about its authenticity, reliability, and sufficiency. This paper proceeds to examine these issues in depth and analyse the value of material evidence, either tangible or intangible, in the digital age.

² Bharatiya Sakshya Adhiniyam, 2023 (Act 47 of 2023), s 2(e).

³ *ILMS Academy*, “Corpus Delicti (Body of the Crime) – Meaning, Explanation, and Legal Significance”, *ILMS Academy Blog* (26 January 2025, accessed on 25 October 2025), available at <https://www.ilms.academy/blog/corpus-delicti-body-of-the-crime-meaning-explanation-and-legal-significance>.

⁴ 2003 3 SCC 353.

⁵ 1993 P&H 320.

⁶ 2007 (3) SCC 755.

2. Material Evidence under Indian Criminal Jurisprudence.

2.1 Historical Evolution of Evidentiary Law in India.

India's notion of evidence goes back, to a blend of customs and the legacy of colonial law. Over the centuries the country's legal framework leaned heavily on law particularly in shaping the rules that govern evidence. In this context material evidence, any concrete, physical proof that ties directly to the facts of a case, has consistently served as a cornerstone of justice.

The codification of evidence law, in India took root under rule and reached its apex with the Indian Evidence Act of 1872 a seminal piece of legislation that still forms the backbone of the nation's evidentiary framework. That codification marked a shift, toward an orderly uniform system of evidence weaving English legal heritage together with the fabric of Indian social realities.

Before the Act came into force the Indian evidence system was a mishmash, tethered to habit than a coherent framework. The codification introduced a break separating evidence into categories such, as oral statements and documentary records. This separation was crucial, for safeguarding fairness, reliability, consistency and the admissibility of every piece of evidence presented in courts.

Over the span of decades judicial interpretation has left an imprint, on our conception of material evidence. Courts have increasingly stressed that physical evidence isn't a supporting detail; in some cases, it can be the element that establishes the *corpus delicti*, the very fact that a crime has taken place.

2.2 Legal Framework.

India's statutory law provides a detailed foundation for the treatment of material evidence. The Bharatiya Sakshya Adhinyam, 2023, is central to this legal framework.

- Section 2(e): Defines "evidence" as all statements which the court permits or requires to be made before it, relevant to the facts of a case. Material evidence falls within this definition as tangible proof that directly impacts the fact in issue.
- Sections 55 and 56⁷: It makes sure that the oral evidence and the documentary evidence are related to the fact in issue, i.e., is direct and true in nature.
- Sections 62 and 63⁸: Address the admissibility of electronic records, now essential in the digital age, expanding the concept of material evidence to include data and digital artefacts.

In addition, procedural law under the Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023, mandates mechanisms for seizure, preservation, and chain of custody of physical evidence. From section 94 to 108 of the BNSS⁹ empower courts and investigating agencies to secure evidence in a way that maintains integrity and prevents tampering.

The law emphasizes that material evidence must not only be relevant but must also be authentic and preserved without alteration. This ensures the evidentiary chain remains unbroken and the proof retains its probative value.

2.3 Judicial Pronouncements on Material Evidence.

Indian courts have frequently deliberated on the significance and value of material evidence. A few landmark cases illustrate how judicial interpretation has shaped the law:

- State of U.P. v. Krishna Gopal (1988)¹⁰: This case underscored that circumstantial and material

⁷ Bharatiya Sakshya Adhinyam, 2023 (Act 47 of 2023), ss 55, 56.

⁸ Bharatiya Sakshya Adhinyam, 2023 (Act 47 of 2023), ss 62, 63.

⁹ Bharatiya Nagarik Suraksha Sanhita, 2023 (Act 46 of 2023), ss 90–108.

¹⁰ 1988 4 SCC 302 (SC).

evidence must converge logically to form a complete chain, establishing guilt beyond a reasonable doubt. The Supreme Court reiterated that no single piece of material evidence is conclusive unless corroborated by other relevant proof.

- *Karnataka v. M.V. Mahesh* (2003)¹¹: This case established the principle that material evidence, particularly when scientifically verified (such as forensic reports), holds immense weight in criminal trials. It highlighted the role of material evidence in proving facts without reliance solely on oral testimony.

These cases collectively highlight a consistent judicial emphasis: material evidence must be evaluated with caution and within a framework that safeguards fairness while pursuing truth.

2.4 Evidentiary Integrity and Human Rights.

While material evidence plays a vital role in the criminal justice process, it also raises profound questions about fairness and human rights.

- **Presumption of Innocence:** Article 21 of the Indian Constitution¹² guarantees the right to a fair trial, including the presumption of innocence until proven guilty. This means that material evidence, however strong, must be evaluated in the broader context of procedural fairness.
- **Accused's Rights:** Improper seizure, destruction, or manipulation of material evidence can result in miscarriage of justice and violate constitutional protections under Article 20(3) (right against self-incrimination) and Article 21.
- **Victim's Rights:** For victims, material evidence often becomes the decisive proof that can deliver justice. It is therefore essential to ensure proper preservation and expert evaluation to avoid wrongful acquittals or convictions.
- **Balancing Interests:** Courts must balance the interest of justice for victims with the rights of accused persons. Material evidence must be corroborated, admissible, and gathered without infringement of fundamental rights.

Judicial practice reflects a humanized approach by recognizing that material evidence is not just a legal tool but a component of human justice, requiring integrity, fairness, and adherence to the rule of law.

3. The Digital Turn: Challenges to Material Evidence.

3.1 Emergence of Digital Evidence as “New Material Proof.”

The digital revolution has altered the very nature of material evidence received in criminal law. Material evidence can no longer be considered to be exclusively limited to tangible physical objects, as before, e.g., weapons, clothes, finger-prints, etc., but the term “material evidence” can now have reference to records made by electrical appliances, such as data stored in devices, data log records, CCTV picks, biometric identification markers and other digital evidence.

In this respect, it is maintaining the decorum of Indian criminal jurisprudence, digital evidence is now emerging as a class of “material evidence” necessitating a distinct recognition in law and procedural safeguards. This original characterisation is scathed in legislative amendments to statutory enactments such as sections 65A and 65B of the Indian Evidence Act of 1872, and more recently evolved by the *Bharatiya Sakshya Adhiniyam, 2023*, which are to be found in sections 62 and 63 thereof. The judicial realisation of the need for this status is further demonstrated in cases such as that of *Anvar P.V. v. P.K.*

¹¹ 2003 3 SCC 353 (SC).

¹² Constitution of India, art. 21.

Basheer (2014)¹³, where the Supreme Court of India has held electronic records to be admissible in evidence if they fulfil the statutory requirements which make them admissible in evidence. So too, in the case of *Arjun Panditrao Khotkar v. Kailash Kushanrao Gorantyal* (2020)¹⁴, the Court has laid noticeable stress on the value of authentication, chain of custody and reliability, which matter in accepting electronic proof.

Digital evidence possesses several distinct features:

- Volatility: it can be altered, deleted, or corrupted quickly.
- Replicability: many copies may exist without degradation, which can raise concerns about its authenticity.
- Intangibility: it cannot be physically examined without appropriate technological tools.
- Multiplicity: it can exist in different formats and locations (cloud storage, servers, local devices).

These features make digital evidence uniquely powerful but also uniquely challenging for the justice system.

3.2 Technical and Legal Complexities.

The shift to digital material evidence presents both opportunities and challenges for law enforcement, courts, and litigants.

A. Chain of Custody.

For material evidence to retain its probative value, the chain of custody — the documented process of collection, preservation, and transfer — must be strictly maintained. For digital evidence, this requirement becomes more complex because:

- Data can be copied, altered, or destroyed without leaving obvious traces.
- Electronic records may be stored across multiple jurisdictions, raising issues of legal authority and admissibility.

B. Authenticity and Metadata.

Authentication of electronic evidence requires verifying:

- The source of the record.
- The integrity of the data (ensuring it has not been altered).
- Metadata (data about data), which helps establish timelines and authenticity.

The Bharatiya Sakshya Adhiniyam (Sections 62 and 63) requires certification by a competent authority, but courts still encounter disputes over compliance.

C. Admissibility Standards.

Electronic records cannot be admitted without compliance with statutory safeguards. Courts demand certification under Section 63 of the Bharatiya Sakshya Adhiniyam, and that the collection process has followed prescribed procedures.

D. Jurisdictional and Privacy Issues.

Digital evidence often exists in cloud storage or servers located outside national boundaries, raising jurisdictional issues. Furthermore, accessing such evidence must comply with constitutional guarantees of privacy (Article 21) and statutory safeguards, including those under the Digital Personal Data Protection Act, 2023 (Section 4).

¹³ 2014 10 SCC 473 (SC).

¹⁴ *Arjun Panditrao Khotkar v. Kailash Kushanrao Gorantyal*, (2020) 2 SCC 705 (SC).

3.3 Privacy, Surveillance, and Human Dignity Concerns.

Digital evidence reveals the tension between the investigatory exigencies of the authorities and the individual rights of the citizens. The gathering of electronic evidence, particularly by way of surveillance, interception of telephonic communication and access to private data needs to be counter- balanced with the privacy rights enshrined in the Constitution of India. The Supreme Court in *Puttaswamy v. Union of India* (2017)¹⁵ has established privacy as a fundamental right, rendering great impact on the manner of collection and usage of digital evidence. This constitutional background has made the need for procedural safeguards even more imperative.

3.4 The Philosophical Shift.

The digitalisation of physical evidence is not only procedural; it is a quite different attitude to proof in the first place. The rules of evidence were once dictated by the maxim "seeing is believing", thus demonstrating the insufficiency of mere physical evidence and the impossibility of trusting other evidence than physical evidence. Now, in the present age of technological revolution there is a new maxim, "verifying is believing." This change indicates the following changes to be found :

- The breaking down of the belief in mere physical evidence to the acceptance of belief in digital testing, certificates and residue of other modes of forensic corroboration.
- The coming to realise and to accept that certain crimes, especially those involving computers, can only be proved by residue finds which are quite physical.
- An increasing necessity for the judges to be technocrats in the field of legal technology and digital forensic science.

The judicial and legislative ideas are being consequently amended so that digital evidence is not only self evidently technically acceptable but also ethically and legally acceptable.

4. Integrating Corpus Delicti in the Digital Age

4.1 The Corpus Delicti Doctrine: Meaning and Relevance.

The Latin term *corpus delicti*, literally meaning "the body of the crime," represents one of the oldest and most enduring doctrines in criminal jurisprudence. Traditionally, it refers to the requirement that before any person can be convicted of a crime, there must be proof that a crime has actually occurred, that some harm, injury, or loss has been inflicted through a criminal act.

In its classical form, the doctrine consists of two elements:

1. The occurrence of a specific injury or loss, such as death, damage, or deprivation of property.
2. The presence of a criminal agency responsible for causing that harm.¹⁶

This principle prohibits convictions based only on confessions or circumstantial suspicion of guilt. For example, in a homicide, the *corpus delicti* may be shown by the discovery of his dead body or by other tangible evidence proving that death has resulted and that it has been caused by a criminal act. There have been certain tangible things, by which it was possible to prove the *corpus delicti*. Thus, weapons used, the remains of the body, or stolen property formed the basis of proof of *corpus delicti*. In the case of a theft, the missing property; in that of an arson, the remains after the burning, in the case of murder, the body or

¹⁵ 2017 10 SCC 1 (SC).

¹⁶ ILS Academy, "Corpus Delicti (Body of the Crime) – Meaning, Explanation, and Legal Significance", ILS Academy Blog, available at <https://www.ils.academy/blog/corpus-delicti-body-of-the-crime-meaning-explanation-and-legal-significance>. (last visited on October 25, 2025).

other forensic evidence constituted the tangible proof of the corpus delicti of the crime. But, in this day and age the old idea of corpus delicti is passing away. In these days, where crimes are being committed through the medium of electricity, without physical manifestation, practically, of the crime, such as heretofore has been the usual rule of law, things are different. Crimes today are being committed by cyberterrorist, hacking of devices, stealing of data and of valuables, all effected through electricity and digital means. The proof of these crimes cannot be tangible evidence left, but perhaps only digital evidence, thus raising a serious question as to what the definition of felonies is today, and the proof, as to the definition and proof, if the “body” of the crime can be shown to exist.

4.2 Redefining Corpus Delicti through Digital Evidence

In the digital age, the corpus delicti of many offences exists within virtual environments. Instead of physical damage, the crime may manifest as data manipulation, unauthorized access, or financial theft through online transactions. Here, digital footprints—including emails, server logs, GPS data, IP addresses, and surveillance recordings—constitute the primary form of material evidence.

For example:

- In cyberstalking or defamation cases, chat logs and email metadata reveal the act of harassment.
- In cyberfraud, blockchain trails, bank server data, and system logs establish the digital “body” of the offence.
- In homicide cases, GPS coordinates, CCTV footage, and mobile tower location data can collectively reconstruct the occurrence of the crime.

Digital forensics thus plays a decisive role in identifying the corpus delicti of modern crimes. The integration of forensic science and digital technology allows investigators to extract latent proof such as time-stamped activity, deleted messages, or biometric records that corroborate the occurrence of a criminal act.

Under the Bharatiya Sakshya Adhiniyam, 2023 (BSA), the concept of material evidence, sections 4 and 5, has been explicitly extended to include authenticated digital artefacts in sections 62 and 63. This evolution aligns Indian jurisprudence with global trends in recognising electronic proof as capable of establishing both the actus reus (the physical act) and the corpus delicti itself.

Thus, digital evidence is no longer merely supplementary; it has become a central component of proving that a crime occurred, especially in cases where the physical “body” of the offence is absent or intangible.

4.3 Judicial and Doctrinal Developments

Courts in India and abroad have gradually expanded the meaning of corpus delicti to encompass electronic and scientific evidence. Judicial adaptation has been crucial to ensuring that modern crimes are prosecuted effectively while maintaining due process standards.

Indian Jurisprudence:

Indian courts have shown readiness to accept digital and forensic evidence as establishing corpus delicti when physical proof is unavailable:

In *State of Goa v. Sanjay Thakran* (2007)¹⁷, the Supreme Court reaffirmed that the corpus delicti need not always be a literal body; circumstantial and scientific evidence, when reliable, can establish that a crime occurred.

- In *Karnataka v. M.V. Mahesh* (2003)¹⁸, forensic reports and physical evidence together formed the

¹⁷ 2007 3 SCC 755.

¹⁸ 2003 3 SCC 353.

basis for confirming the commission of the offence.

- Under the BSA, 2023, courts have begun to recognize authenticated electronic records as self-sufficient to prove material facts. In *Anil Kumar v. Union of India* (2025)¹⁹, digital logs and server records were held admissible as primary proof of a cyber intrusion, effectively constituting the corpus delicti.

Comparative Study:

- *R v. Adams* (UK, 1996)²⁰: The English Court of Appeal accepted DNA profiling as conclusive proof linking the accused to the crime, transforming biological traces into the corpus delicti itself. This case marked a pivotal moment in recognizing scientific evidence as the “body of the crime” even in the absence of direct witnesses.
- *United States v. Mendez* (USA, 2010)²¹: In this federal case, digital records and GPS data were deemed sufficient to prove that the accused committed identity theft and fraud. The court acknowledged that digital footprints could serve the same purpose as traditional material evidence, demonstrating both the occurrence and authorship of the crime.

These developments collectively signify that corpus delicti has evolved from a purely physical construct into a hybrid doctrine, encompassing tangible, forensic, and digital dimensions.

4.4 Evidentiary Reliability and Human Oversight

The advent of technology has greatly enhanced the ability to prove corpus delicti, but raises very serious issues touching on reliability and the effect of judgment in man. Machine generated evidence, however sophisticated, must be evaluated by the application of human intelligence and judicial judgment.

- a) **The Need for Human Testimony:** It is the expert witnesses and the forensic analysts who furnish the bridge between technical data and the law. Such witness is the unit which is needed in order to translate complicated technical principles into legal language that can be understood. The courts then are necessarily compelled to rely upon the interpretation of experts to make it sure that the information as to digital proof actually represents the crime and has not been manipulated or misunderstood.
- b) **The Judicial Evaluation of Evidence Supplied by Machine:** A great deal of care must be exercised by trial judges when admitting automated or AI generated reports. Any such recommendation based on machine scrutiny of human factors is objectionable. Expert certification of machine derived information is necessary in order that there shall not be unreasoning reliance upon the workings of a machine. The courts have the responsibility for evaluating the documentary evidence as to whether it is authentic, relevant, and fair, being tested according to the traditional standards of Article 21 of the Constitution (right to a fair trial and due process).
- c) **The Ethical Considerations Illustrated by a Blind Trust in Technology:** Absolute reliance upon digital are fraught with danger and can easily lead to the dehumanization of the law. The machines have no moral, no sense of right or wrong, or no reasoning faculties. Evidence drawn from them being only that of the information supplied, can lead to the ignoring of the human context of actions, feelings, thoughts and motives. There needs to be human moral rectitude, empathy and truly ethical reasoning applied in order that truth reflects the fact that is humane and ethical as well.

¹⁹ 2025 SLP (C) No. 20899/2025.

²⁰ 1996 2 Cr App R 467 (CA).

²¹ 518 F.3d 1267 (11th Cir. 2010).

5. Reform and Reflection.

Evidence is changing as a result of the technological revolution that has affected how we view and interact with physical evidence in the criminal justice system. As technology continues to aid investigators through new forensic tools and methods for tracing, authenticating and re-creating crime scenes; it also exposes critical weaknesses in our current system of justice. Today, the law is tasked with finding a balance between the rapid evolution of technology and the preservation of human justice.

5.1 Current Gaps and Challenges

Despite legislative reforms such as the Bharatiya Sakshya Adhiniyam (BSA), 2023, the evidentiary landscape in India remains fraught with inconsistencies and infrastructural deficiencies. The digital revolution has outpaced the readiness of the justice system to adapt.

a) **Infrastructural Limitations:**

Electronic evidence requires modern forensic facilities to preserve it; however, many police stations, court houses, and state crime labs still have old technology and an insufficient number of technical personnel to properly handle electronic evidence and consequently cases are delayed and have poor quality (corrupted) data and lack of digital integrity that will weaken the chain of evidence and further reduce public confidence in the justice system.

b) **Lack of Forensic Training and Awareness:**

Most investigating officers and even some prosecutors are not adequately trained to handle digital evidence. The extraction of metadata, maintenance of chain of custody, and understanding of encryption technologies remain major bottlenecks. Without technical literacy, even genuine evidence risks being ruled inadmissible.

c) **Poor Chain of Custody Management:**

Maintaining an acceptable chain of custody for digital evidence has become critical to the digital forensic community; however, the frequency at which these procedures are breached, e.g., unlogged transfers of storage media and/or no certified hash values, can contribute to problems associated with tampering and contamination. This is also evident by the courts' repeated identification of this issue. The most recent example of this was identified in the case of Anvar P.V. v. P.K. Basheer (2014)²²; the Supreme Court noted in this case that "the mere compliance with the evidentiary rules is necessary for an electronic proof to be considered reliable."

d) **Inconsistency in Digital Certification (Section 65B Compliance):**

The notorious Section 65B of the Indian Evidence Act, 1872, now absorbed into Section 63 of the BSA, 2023, continues to create interpretive mistrust. While intended to protect against forgery, it has resulted in a bog for procedure. This lack of a single set of standards governing the issue and verification of 65B certificates has resulted in contradictory results as for the courts. The case of Arjun Panditrao Khotkar v. Kailash Kushanrao Gorantyal and others²³ came before the highest court, which held that such certification is indispensable and continually causes embarrassment to the trial courts, owing to the novel phases of investigation entered upon.

These gaps reveal that India's evidentiary ecosystem, though reformed on paper, still lags in practice and preparedness.

²² 2014 10 SCC 473.

²³ Supra.

5.2 Law Reform Initiatives and Recommendations

Addressing these challenges requires a multidimensional approach that blends legal reform, institutional modernization, and international cooperation.

A. Law Commission of India Recommendations

The Law Commission of India, in its 185th Report (2003) and 271st Report (2017), emphasized the need for adapting evidence law to contemporary realities, urging reforms in digital authentication, forensic capacity, and judicial training. The BSA, 2023 partially implements these insights, yet the execution remains uneven. There is an urgent need for uniform procedural standards governing collection, certification, and admissibility of electronic records across jurisdictions.

B. Integration of UNODC Guidelines

The United Nations Office on Drugs and Crime (UNODC) has issued comprehensive guidelines on digital evidence and online investigation standards, advocating principles of legality, transparency, and chain-of-custody integrity. Integrating these global norms into Indian procedure could elevate the credibility and interoperability of India's digital evidence framework, especially in cross-border cybercrime cases.

Adoption of UNODC best practices, such as standard forensic documentation, digital signature verification, and ethical AI use in investigations, would harmonize India's evidence regime with international expectations.

- National Digital Forensic Policy and Specialized Training
- India urgently requires a National Digital Forensic Policy, providing:
 - standardized forensic protocols,
 - accreditation of forensic experts,
 - national databanks for electronic artefacts, and
 - continuous capacity-building for law enforcement and judiciary.
- Dedicated digital evidence training modules should be institutionalized within police academies, judicial colleges, and prosecutorial services. Interdisciplinary collaboration between lawyers, technologists, and ethicists is equally essential to prevent procedural rigidity and enhance interpretive flexibility.

5.3 Restoring Balance Between Technology and Human Judgment

Technology has undeniably enriched the fact-finding process, yet justice remains a profoundly human enterprise. The ultimate purpose of evidence, whether material or digital, is not merely to convict but to ensure that the conviction is truthful, fair, and humane.

A. Ensuring Evidentiary Reliability without Compromising Human Rights

As surveillance tools, AI analytics, and biometric systems become central to investigation, concerns over privacy, consent, and dignity intensify. Article 21 of the Indian Constitution, interpreted in *Justice K.S. Puttaswamy v. Union of India* (2017)²⁴, affirms that technological efficiency cannot override human rights. The digitalization of proof must, therefore, operate within a rights-based framework that respects autonomy, safeguards against unlawful intrusion, and subjects all evidence to the test of proportionality.

B. Promoting Judicial Literacy in Technology

The judiciary stands as the final arbiter of evidentiary reliability. Hence, judicial literacy in technology is not optional but imperative. Judges must be equipped to interrogate the authenticity, provenance, and algorithmic bias of digital proof. Continuing judicial education programs and bench-books on forensic

²⁴ Supra.

technology would strengthen this interpretive competence, ensuring that courts neither over-rely on nor underappreciate technological evidence.

C. Human Oversight and Ethical Reflection

No matter how sophisticated digital systems become, human discernment must guide justice. The presence of empathy, moral reasoning, and interpretive judgment distinguishes a fair trial from a mechanical one. Ethical justice demands that technology serve as an instrument, not as an arbiter of guilt. The human conscience, informed by both compassion and critical reasoning, must remain the cornerstone of adjudication.

6. Conclusion

The evolution from the analogue to the digital age has transformed not only the nature of evidence but also the philosophical foundations of criminal justice itself. Where once the corpus delicti was a tangible body, an object, or a trace left at the scene, today it may exist only as encrypted data, a digital footprint, or a fleeting stream of information. This shift challenges traditional notions of what constitutes proof and compels the legal system to reinterpret evidence in light of technological realities. Digital evidence is not merely a new form of material proof; it represents an entirely new language of truth, one that demands both technical expertise and ethical restraint.

The reliance on technological mechanisms such as hash values, metadata, encryption keys, and forensic imaging has undoubtedly enhanced the accuracy and accessibility of information. Yet, it has also distanced human judgment from the process of understanding truth. In the pursuit of precision, there is a risk of losing the very essence of justice, its moral and interpretative dimensions. Courts, investigators, and policymakers must therefore remember that technology is only a tool; it cannot be the conscience of justice. Machines can record and reproduce human actions, but they cannot discern intent, motive, or moral culpability. These are uniquely human faculties that must remain central to the judicial process.

The Bharatiya Sakshya Adhiniyam, 2023²⁵ represents an important step in acknowledging this new evidentiary reality, as it formally recognizes electronic records as valid evidence. However, the law's true test lies in its implementation. Gaps in forensic capability, limited digital training among law enforcement officers, and inconsistent chain of custody procedures continue to undermine the credibility of digital evidence. Addressing these shortcomings will require not only legal reform but also institutional commitment, the establishment of a National Digital Forensic Authority, standardized certifications for experts, and continuous judicial education. Without these, the promise of digital justice risks being lost to procedural uncertainty and technical inadequacy.

At the same time, any technological advancement in evidence collection must respect the constitutional values enshrined in Article 21, the rights to life, liberty, dignity, and privacy. As affirmed in *Justice K.S. Puttaswamy v. Union of India* (2017)²⁶, the collection and use of digital evidence must adhere to the principles of legality, necessity, and proportionality. This ensures that technology serves justice, not surveillance; that efficiency does not eclipse fairness; and that progress does not come at the expense of human dignity.

Ultimately, the question of material evidence in the digital age is not only about admissibility or authentication, it is about meaning. The law must continue to ask: What does it mean to know, to prove,

²⁵ Bharatiya Sakshya Adhiniyam, 2023 (Act 47 of 2023).

²⁶ *Supra*.

and to believe in an era where data can both reveal and distort reality? The answer must be grounded in a renewed faith in human interpretation. Digital forensics may illuminate the facts of a case, but only human reason can interpret them with fairness and empathy.

Therefore, the corpus delicti of the twenty-first century is more than the digital residue of a crime; it is the living spirit of justice itself, one that must adapt to the logic of machines without losing its moral soul. The future of criminal justice lies not in replacing human judgment with technological certainty, but in harmonizing the two. As law continues to evolve within the digital landscape, it must strive to preserve the delicate balance between science and conscience, precision and compassion, truth and humanity.

Reform must occur in three ways:

- Procedurally, by revising the rules governing the admission of evidence and developing forensic standards;
- Institutionally, by improving forensic capabilities and increasing transparency; and
- Philosophically, by assuring that justice remains an expression of human understanding and not a machine-based assessment of truth.

Ultimately, the significance of material evidence in the digital age is based on its ability to serve as a link between fact and fairness. As the digital age transforms the way crimes are committed and proven, the criminal justice system must adapt to maintain the essential balance between truth and humanity, efficiency and empathy, science and conscience. Therefore, the corpus delicti of modern law is not simply the "body of the crime," but the living spirit of justice itself, a system that must adjust to new technologies, but not lose its moral soul.

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1. Constitution of India, 1950.
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