



# Cyber Crime and Data Protection: A Critical Analysis of the Indian Legal Framework

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## Abstract

The advent of the digital era has revolutionised communication, commerce, and governance, but it has also created fertile ground for new forms of criminality. Cybercrimes ranging from identity theft, financial fraud, ransomware attacks, cyberstalking, and phishing scams to large-scale breaches of personal data pose severe challenges to national security and individual rights. India, with over 800 million internet users, is particularly vulnerable to cyber threats, making robust legal protections essential. This paper undertakes a critical examination of India's evolving cybercrime and data protection legal framework. It analyses the Information Technology Act, 2000; the Digital Personal Data Protection Act, 2023 (DPDP Act); and relevant provisions of the Bharatiya Nyaya Sanhita, 2023 (BNS), alongside landmark judicial pronouncements such as *Shreya Singhal v. Union of India* and *Anvar P.V. v. P.K. Basheer*. Using doctrinal analysis and secondary data, including NCRB crime statistics, the study highlights legal strengths, enforcement weaknesses, evidentiary hurdles, and the tension between privacy rights and state surveillance. It concludes with concrete recommendations for harmonisation of statutes, improved forensic capacity, and rights-protective but effective cybercrime governance.

## Keywords

Cybercrime, Data Protection, Digital Personal Data Protection Act 2023, Information Technology Act 2000, Bharatiya Nyaya Sanhita 2023, intermediary liability, privacy, electronic evidence.

## Introduction

Digitalisation has become an indispensable part of modern life in India. The widespread adoption of smartphones, fintech platforms, and digital governance initiatives such as Aadhaar and UPI has accelerated the use of cyberspace. However, these developments have simultaneously exposed citizens to a parallel rise in cybercrime. Fraudulent investment schemes, phishing attacks, ransomware, online extortion, and the misuse of personal data have created new forms of victimisation. Unlike conventional crimes, cyber offences are borderless, technologically complex, and often anonymous.

India's legal system has sought to respond through statutory enactments and judicial interventions. The Information Technology Act, 2000 (IT Act) was the first major step, aimed at legitimising electronic records and addressing cyber offences. Over time, the inadequacy of the IT Act to address emerging challenges prompted judicial activism and the evolution of complementary legal instruments. Most recently, the Digital Personal Data Protection Act, 2023 has been

enacted to provide a dedicated statutory framework for personal data rights, while the Bharatiya Nyaya Sanhita, 2023 modernises the criminal law framework to recognise new forms of harm.

Yet, cybercrimes continue to proliferate. NCRB reports show year-on-year increases, with financial frauds forming a dominant share of reported incidents. Meanwhile, victims face barriers in securing justice — slow investigations, evidentiary hurdles, jurisdictional complexities, and weak compensation mechanisms.

This paper therefore critically analyses the adequacy of India's current laws in combating cybercrime and protecting personal data, focusing on statutory frameworks, judicial interpretations, empirical data, and systemic challenges.

## Research Problem, Objectives and Questions

**Research Problem:** India faces a widening gap between the scale of cybercrime and the capacity of its legal framework to effectively prevent, investigate, and punish offences, while simultaneously safeguarding citizens' privacy and data rights.

### Objectives:

1. To map India's statutory and judicial framework on cybercrime and data protection.
2. To analyse the scope and limitations of the DPDP Act 2023 in safeguarding personal data.
3. To evaluate landmark case law shaping intermediary liability, free expression, and admissibility of electronic evidence.
4. To review NCRB data and identify empirical patterns in cybercrime.
5. To propose recommendations for bridging legal and enforcement gaps.

### Research Questions:

1. How adequate are India's current laws in tackling diverse categories of cybercrime?
2. What role does the DPDP Act 2023 play in strengthening personal data protection?
3. How have courts balanced free speech, privacy, and state interests in cyber regulation?
4. What do NCRB data reveal about the prevalence and nature of cybercrime in India?
5. What reforms are necessary to build a more effective cyber-legal ecosystem?

### Methodology

This paper adopts a **doctrinal legal research methodology**. Statutory texts including the IT Act 2000, DPDP Act 2023, and Bharatiya Nyaya Sanhita 2023 were studied, along with secondary literature such as government reports, law commission reports, journal articles, and legal commentaries.

Judicial pronouncements including *Shreya Singhal v. Union of India*, *K.S. Puttaswamy v. Union of India*, and *Anvar P.V. v. P.K. Basheer* were analysed for their jurisprudential significance.

For empirical grounding, data from the **National Crime Records Bureau (NCRB)** and media summaries were reviewed. NCRB's "Crime in India" reports for 2021–2023 provide statistics on registered cybercrime cases, their categories, and trends.

This combination of doctrinal and empirical approaches ensures a comprehensive analysis of both the legal framework and its practical operation.

## Literature Review

Scholarly writing on cyber law and data protection in India can be grouped into several thematic strands:

### 1. Adequacy of the IT Act, 2000:

Commentators argue that while the IT Act was pioneering, it was primarily designed for electronic commerce and authentication rather than for sophisticated cybercrimes. Provisions on hacking, unauthorised access, and identity theft exist, but enforcement remains limited due to definitional vagueness and technological gaps.

### 2. Privacy and Data Protection:

The landmark *Puttaswamy* judgment (2017) recognised privacy as a fundamental right under Article 21, compelling legislative action on data protection. Academic and policy debates centred on consent-based processing, surveillance exceptions, and data fiduciary obligations. The DPDP Act 2023 has been analysed as India's answer to GDPR-like regimes, but critiques highlight its broad state exemptions.

### 3. Intermediary Liability and Free Speech:

The striking down of Section 66A in *Shreya Singhal* (2015) has been widely studied as a victory for free speech. However, literature also notes the persistent challenge of regulating harmful online content while maintaining platform immunity under Section 79 of the IT Act.

### 4. Evidentiary Issues:

Scholars stress the importance of *Anvar P.V.* in clarifying Section 65B of the Evidence Act, mandating certificates for electronic evidence. While doctrinal clarity was achieved, practical enforcement remains problematic, especially for victims lacking technical expertise.

### 5. Cybercrime Trends and Policing:

Policy reports emphasise the rise of cyber financial frauds and the limited success of law enforcement in preventing monetary losses. Studies show that state cyber cells are under-equipped, leading to delays and low conviction rates.

## Legal Framework: Statutes & Rules

### 1. Information Technology Act, 2000

- Provides definitions of cyber offences such as hacking (Sec. 66), identity theft (Sec. 66C), and cheating by impersonation (Sec. 66D).
- Section 79 grants conditional immunity to intermediaries, provided they observe due diligence.
- Section 66A (criminalising offensive messages) was struck down in *Shreya Singhal* for violating free speech.

### 2. Digital Personal Data Protection Act, 2023

- Applies to processing of digital personal data.
- Grants rights to data principals: access, correction, erasure, and grievance redressal.

- Imposes duties on data fiduciaries, including purpose limitation and data minimisation.
- Establishes a Data Protection Board for adjudication.
- Contains significant exemptions for state functions, raising concerns of surveillance overreach.

### 3. Bharatiya Nyaya Sanhita, 2023

- Modernises the penal law framework.
- Includes provisions on electronic evidence, cyber-enabled financial fraud, and identity crimes.
- Aligns with IT Act provisions but needs harmonisation to avoid overlap.

### 4. Evidence Act (Sections 65A and 65B)

- Provides special rules for admissibility of electronic records.
- Requires a Section 65B certificate for electronic evidence to be admitted.
- *Anvar P.V.* clarified strict compliance, complicating prosecutions in cybercrime cases.

### Leading Case Law

#### 1. *Shreya Singhal v. Union of India* (2015)

- Section 66A of the IT Act was struck down as unconstitutional.
- Established that vague restrictions on online speech violate Article 19(1)(a).
- Read down Section 79, clarifying intermediary liability.

#### 2. *Anvar P.V. v. P.K. Basheer* (2014)

- Held that electronic evidence requires Section 65B certification.
- Shifted Indian evidentiary law from flexible admissibility to strict compliance.

#### 3. *K.S. Puttaswamy v. Union of India* (2017)

- Recognised privacy as a fundamental right.
- Paved the way for data protection legislation.

### 4. Other Relevant Rulings

- *Justice K.S. Puttaswamy (Aadhaar) v. Union of India* (2018) – upheld Aadhaar but imposed limits on data use.
- *Facebook v. Union of India* (2020) – addressed questions of intermediary obligations in aiding law enforcement.

### Data & Trends: What the Numbers Say

- NCRB reported **65,893 cybercrime cases in 2022**, up from 52,974 in 2021 — a 24% increase.
- Most common offences: financial frauds (nearly 60%), followed by sexual exploitation and extortion.
- Rate of cybercrime in 2023: **129 cases per lakh population nationally**, with Delhi reporting **755 per lakh**.
- States such as Telangana, Karnataka, and Uttar Pradesh consistently report the highest number of cases.

- Despite high reporting, conviction rates remain low due to evidentiary challenges and investigative delays.

### Gaps, Challenges and Critical Issues

1. **Fragmentation of Laws:** Overlap between IT Act, BNS, and DPDP Act causes confusion.
2. **Enforcement Weakness:** Cyber cells are understaffed and lack forensic capacity.
3. **Evidentiary Hurdles:** Strict Section 65B requirements impede prosecutions.
4. **Cross-border Jurisdiction:** International cooperation remains slow under MLAT frameworks.
5. **Privacy vs. State Powers:** DPDP exemptions risk diluting privacy safeguards.
6. **Victim Compensation:** Mechanisms for financial restitution remain weak.

### Recommendations

1. **Harmonisation of Statutes:** Issue comprehensive rules clarifying the interface between IT Act, BNS, and DPDP.
2. **Evidence Reform:** Introduce pragmatic standards for electronic records to ease admissibility.
3. **Strengthen Forensic Infrastructure:** Establish a national cyber forensic grid with trained experts.
4. **Improve Cross-Border Cooperation:** Negotiate faster protocols for evidence sharing with other jurisdictions.
5. **Empower Data Protection Board:** Ensure independence and adequate funding for effective enforcement.
6. **Awareness & Training:** Conduct nationwide campaigns on digital hygiene and train police/judges in cyber law.

### Conclusion

The trajectory of cybercrime in India illustrates a complex interplay between rapid technological growth and evolving legal frameworks. On one hand, the Information Technology Act, 2000 laid the foundation for regulating electronic communication, protecting digital signatures, and criminalising core cyber offences. On the other, landmark judicial decisions such as *Shreya Singhal v. Union of India* reshaped the balance between state control and individual freedoms by striking down vague provisions that curtailed free expression online. The Digital Personal Data Protection Act, 2023 further strengthens the architecture by introducing a rights-based framework for protecting personal information and imposing accountability on data fiduciaries. Together with the Bharatiya Nyaya Sanhita, 2023, these measures show India's intent to modernise its criminal justice system in response to cyber threats.

Yet, this architecture remains incomplete. The persistence of large-scale phishing scams, financial fraud, cyberstalking, ransomware attacks, and cross-border cyber terrorism underscores that statutory reforms alone are not sufficient. Jurisdictional challenges, delays in digital forensic examination, and the lack of skilled investigators remain significant hurdles. Courts often grapple with evidentiary questions regarding electronic records, chain of custody, and admissibility — issues that are exacerbated by inconsistent enforcement practices across states. Similarly, while the DPDP Act aims to empower individuals, the creation of a Data Protection Board and its actual enforcement capacity remains to be tested.

Another dimension is international cooperation. Cybercrimes transcend national boundaries, yet India lacks comprehensive bilateral treaties on cyber forensics and evidence sharing with many jurisdictions. The Budapest Convention on Cybercrime, though widely adopted, remains outside India's treaty network due to concerns of sovereignty.

This weakens the ability of Indian agencies to secure timely access to foreign-stored data, leaving many cyber offences unresolved.

Furthermore, balancing the **right to privacy** recognised in *Justice K.S. Puttaswamy v. Union of India* with the legitimate needs of law enforcement presents an ongoing tension. Unchecked surveillance mechanisms risk violating constitutional safeguards, while overly rigid privacy protections may hinder criminal investigation. The path forward lies in nuanced, proportional regulation that ensures transparency, judicial oversight, and accountability in cyber investigations.

Therefore, India's response to cybercrime and data protection must evolve from being **reactive and fragmented** to **holistic and anticipatory**. This requires:

- **Legislative clarity** in defining offences and harmonising overlapping provisions between IT Act, BNS, and DPDP Act.
- **Capacity building** through specialised cyber cells, forensic labs, and trained prosecutors.
- **Judicial innovation** in developing evidentiary doctrines tailored to digital records.
- **International engagement** to create effective data-sharing mechanisms without undermining sovereignty.
- **Public awareness** campaigns to strengthen digital literacy and prevention mechanisms.

Ultimately, the future of India's digital economy and democratic governance depends on a legal framework that not only deters cybercrime but also fosters trust, innovation, and protection of fundamental rights. The law must act not merely as a punitive tool but as a **guarantor of digital justice**, ensuring that the promise of technology is not undermined by the peril of its misuse.

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