

# **SILENT TERRITORY: THE UNSPOKEN CHALLENGES OF DIGITAL ASSETS AND VIRTUAL IDENTITY IN INDIAN IP LAW**

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## **Abstract**

The era of the digital age has brought new challenges for intellectual property rights (IPR) in India, and it is needed to have a thorough re-evaluation of the current legal frameworks. This abstract discusses the complex issues that the Indian legal system is facing in order to protect intellectual property in the digital age. From online piracy and digital copyright issues to the rise of artificial intelligence and the effects it has on patent law, these abstract addresses the significant areas in which Indian IPR law needs to adapt and innovate. It also delves into ethical implications of new technologies and how there is a necessity to harmonize international standards with the peculiar socio-cultural context of India. Through a close examination of case law and legal precedents, this abstract offers insightful information regarding the issues posed by the digital era and proposes possible strategies to protect intellectual property rights in India<sup>1</sup>.

## **Introduction**

Rise of the digital age has completely transformed the intellectual property landscape in India, and with it comes complicated issues that must be urgently tackled by policymakers, legal scholars, and practitioners. One of the fundamental issues facing Indian IPR law in the digital age is the indiscriminate prevalence of piracy and infringement of copyrights on the internet. The ease with which content can be replicated, disseminated, and distributed across the globe is a significant threat to innovators and creators.

Additionally, artificial intelligence (AI) has brought in new challenges in patent law, where human innovation begins to resemble machine-produced works. Moreover, there are questions of ethics surrounding data privacy, open-source software, and the use of AI algorithms. Indian

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<sup>1</sup> Prasanna S & Lavanya P, *Navigating the Digital Age: Challenges in Indian Intellectual Property Rights Law*, ILE Lawletter, vol 1, no 1, 34–44 (2023).

IPR law must find a balance between fostering innovation and protecting personal privacy interests. Furthermore, international standards and global treaties often take a contradictory view to India's peculiar socio-cultural context, and thus an extremely cautious approach is needed in harmonization so that international best practices are made conformant to the nation's legal tradition and societal values<sup>2</sup>.

### Key Challenges<sup>3</sup>:

- Offshore Trading and VPN Bypasses

The penny-pinching tax system has fallen short of sending trading business offshore inadvertently. Indians have offloaded over ₹1.03 trillion VDAs on non-compliant platforms from July 2022 to December 2023, with only 9% of the estimated ₹1.12 trillion in VDAs remaining on domestic exchanges. This resulted in uncollected VDA tax revenue of ₹2,488 crore. Much more concerning, volume traded on such offshore platforms during the period between December 2023 and October 2024 stood at ₹2.63 trillion, with over ₹60 billion in uncollected TDS. Attempts at preventing access to non-compliant platforms have been dismally unsuccessful. After initial blocking of URLs, volumes traded on such exchanges soon bounced back, with web traffic increasing by 57%. Customers easily circumvent restrictions via virtual private networks (VPNs), mirror websites, and other non-conformant exchanges. Popular VPN providers like Nord VPN, Express VPN, and Surfshark responded to Indian regulations by relocating servers beyond India without ceasing to serve Indian customers.

- Non-compliance of Schedule VDA in ITRs

The punitive 30% capital gains tax and 1% TDS, absent regulatory clarity, have driven substantial capital outflow. Over 90% of VDA trading volume, amounting to approximately ₹600,000 crore, now occurs outside India's tax jurisdiction. This situation mirrors historical examples where high customs duties on gold imports fueled smuggling and resulted in significant tax losses.

- Cybersecurity Risks and Exchange Hacks

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<sup>2</sup> ID 1

<sup>3</sup> Ayush Rawat & Anil Kumar Dixit, *Virtual Digital Assets in India: From Gray Area to Regulated Reality*, 6 Int'l J. Rsch. Publication & Rev. 6645, 6645–48 (June 2025)

Indian crypto infrastructure was forcibly brought to light as being under threat during 2024 when hackers stole INR 19407.50 million from a leading Indian exchange. Crypto funds illicitly acquired increased by 21.07% year on year in 2024 and reached INR 185.64 billion. Indian exchanges upgraded cybersecurity levels and established insurance funds in order to protect against subsequent attacks in response. Yet the absence of enforceable cybersecurity guidelines and grievance redressal against investors still exposes consumers to theft, scams, and market unpredictability. The cyberspace surrounding cryptocurrencies has transformed the cyber threat landscape by enabling money laundering support services and fund anonymization without leaving traceable trails<sup>4</sup>.

### Emerging Solutions and the way forward<sup>5</sup>:

IP protection needs to be in tune with emerging threats and challenges; thus, there will be some rules on the future of digital intellectual property protection.

#### 1. Blockchain for IP Security

The blockchain network offers un-hackable ledgers for trademarks and copyrights that offer secure ownership authentication. With smart royalty contracts, digital content delivery will do away with unauthorized use and piracy.

#### 2. AI-Powered IP Monitoring

AI software will facilitate real-time detection of copyright infringement and deepfake frauds as well as plagiarism violation tracking. The technology empowers businesses and creators to easily identify and eliminate unauthorized content present on digital platforms.

#### 3. Toughest Global Laws

With international collaboration, governments will adopt cooperative IP policies that will facilitate it to increase ease in handling cross-border enforcement. Internet piracy and online tracking of pirated goods and brand piracy will be confronted with an even stronger check under such a policy.

#### 4. New Digital Rights Management (DRM)

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<sup>4</sup> ID 3

<sup>5</sup> Digital Intellectual Property: Challenges, Best Practices & Future Trends, *The Legal School* (May — 2025), <https://thelegalschool.in/blog/digital-intellectual-property>

Advanced DRM technologies will integrate artificial intelligence and encryption methods to stop piracy and unauthorized copying and sharing of content. Their application by content owners will enable them to maintain more control over tracking usage and limiting access.

#### 5. Enhancements in cybersecurity

Security solutions based on artificial intelligence will protect virtual intellectual assets from cyberattacks as well as data hacking and intrusion. Businesses will invest in the implementation of sophisticated encryption methods to protect their confidential data and business secrets.

### Conclusion

The new economy founded on intellectual property is based on digital intellectual property as an important asset. To protect their interests in an ever-evolving digital environment, individuals and companies need to employ legal protection in combination with cybersecurity services and digital rights management technologies in order to address new challenges created by digital innovation. The innovators can protect their innovation from economic losses and facilitate fair digital intellectual property utilization by employing active means and keeping themselves informed about global IP regulations.