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Streaming Fragmentation and the Resurgence of Digital Piracy: A Contemporary Analysis

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Abstract

The phenomenon of digital piracy, once perceived to be in decline owing to the proliferation of streaming platforms, is witnessing a disturbing resurgence. This trend is increasingly attributed to the fragmentation of streaming services, escalating subscription costs, regional content restrictions, and declining user experience. This article explores how these systemic service failures are fostering renewed engagement with piracy, examining international contexts and focusing on India's response. Through the lens of recent data and legal measures, the study offers insights into the causes and consequences of this piracy revival, and proposes a reoriented policy and enforcement framework to address the modern piracy landscape.

Keywords: Digital piracy, streaming fragmentation, user experience, streaming services, India, enforcement, service failure, policy response.

1. Introduction

Piracy in the Streaming Era: A Resurgent Challenge

For much of the last decade, the proliferation of digital streaming platforms was hailed as a decisive blow to online piracy. Services such as Netflix, Amazon Prime, Disney+, Spotify, and Apple Music appeared to have cracked the consumer preference dilemma by providing affordable and convenient access to high-quality content. Indeed, reports from the mid-2010s revealed a sharp global decline in torrent downloads and illegal streaming, suggesting that consumers were willing to

pay for accessibility if platforms met expectations of affordability and user experience. Yet, the optimism surrounding this apparent decline was short-lived. By 2023–2025, data collected by cybersecurity firms and global research agencies documented a significant rebound in piracy rates across both developed and emerging economies. This shift marks an important transformation: piracy today is no longer only about cost evasion but is also a consumer reaction to fragmented services, geo-restrictions, intrusive advertising, and subscription fatigue.

The fragmentation of streaming services has been one of the most significant catalysts for this resurgence. With the exclusive licensing model gaining dominance, popular shows and films are dispersed across multiple platforms, often requiring viewers to subscribe to three or more services to access their preferred content. For example, a household may require separate subscriptions for Netflix (international cinema), Disney+ (Marvel and Pixar), Amazon Prime (regional and Bollywood content in India), and Apple TV+ (niche series). In Western economies such as the

United States and the United Kingdom, this atomisation is compounded by rising subscription prices, which have increased by an average of 20–30% since 2020. In India, where per capita income is significantly lower, the monthly subscription burden is disproportionately high, driving audiences to pirate content as a cost-avoidance strategy. What emerges is a paradox: the very abundance of platforms, initially designed to curb piracy, has inadvertently created fertile ground for its resurgence.

The evolving consumer behaviour also reflects a growing frustration with advertising saturation and regional locks. Free or partially free platforms such as YouTube, Spotify (freemium version), and regional OTT services are increasingly loaded with unskippable advertisements, degrading user experience. This saturation has pushed users to prefer illegal platforms, which often offer ad-free, high-definition content at no cost. Simultaneously, the persistence of geo-restrictions—where content available in the United States may not be legally accessed in India or Southeast Asia—has driven audiences toward piracy as a

method of circumventing artificial territorial barriers. Reports from The Guardian in 2024 underline how audiences in countries like India, Brazil, and South Africa routinely resort to piracy not merely for free access but to secure access itself. The nature of piracy has therefore evolved: it is no longer the shadow economy of those unwilling to pay, but rather a quasi-legitimate alternative system where consumers reclaim control over fragmented access.

Legal and regulatory responses to this resurgent piracy remain uneven and reactive. In countries such as the United States and the United Kingdom, authorities have deployed site-blocking orders and enhanced penalties for operators, but these measures often result in a game of digital whack-a-mole, with new mirror sites emerging overnight. China has adopted a more aggressive enforcement model, leveraging state surveillance capacities to dismantle piracy networks, yet its ecosystem of grey-market streaming remains resilient. In India, recent amendments under the Cinematograph (Amendment) Act 2023 have criminalised unauthorised film recording and

introduced stricter penalties for piracy circulation. However, enforcement continues to face limitations due to jurisdictional complexities and technological agility of piracy networks. The pressing challenge for policymakers is therefore not merely to strengthen punitive mechanisms but to rethink the legal-regulatory ecosystem to align with consumer expectations. This may require fostering more cooperative licensing models, encouraging affordability strategies for multi-platform subscriptions, and recalibrating copyright law to address the new contours of digital consumption. Unless such recalibration occurs, piracy will persist as both a cultural response and a technological inevitability in the global media landscape.

2. The Streaming Fragmentation Paradox

The optimism that digital streaming platforms would finally curb piracy has given way to a far more complex reality. While services such as Netflix, Amazon Prime, Disney+, and Spotify initially offered consolidated, affordable access to diverse catalogues, the

industry has now fractured into multiple siloed platforms, each competing for exclusivity. Instead of replacing the old cable bundle with a more efficient model, the proliferation of streaming services has replicated and even intensified consumer frustration. In many regions, users face the dilemma of subscribing to numerous platforms at once—or seeking unauthorised alternatives that aggregate the same content without cost. The rapid rise in illicit site visits from 130 billion in 2020 to 216 billion in 2024 underscores the extent to which convenience, rather than just affordability, drives consumer behaviour (The Guardian).

From a structural perspective, this fragmentation has inadvertently recreated the very conditions that piracy thrives upon. The era of a single dominant service, where audiences could easily access global content, has been replaced by exclusivity wars. Flagship shows are locked to individual platforms, sporting rights are dispersed, and regional availability varies dramatically. This has not only undermined the value proposition of legal streaming but also fuelled resentment among consumers who perceive a

deliberate withholding of content. Piracy, therefore, becomes not only a cheaper option but often the more convenient and comprehensive one. Legal streaming platforms are, paradoxically, competing not only against one another but also against a shadow ecosystem that consolidates everything under one digital roof.

In India, the paradox assumes even sharper contours. Despite being one of the most price-sensitive markets in the world, and despite platforms offering subscriptions at rates substantially lower than their Western counterparts, piracy usage remains staggeringly high. According to CSI Magazine, 55 per cent of Indian users access pirated content, with nearly one-quarter (23 per cent) doing so daily. These figures highlight that the issue is not merely economic affordability but systemic design. Indian audiences, accustomed to a vast array of free-to-air television and inexpensive digital bundles, expect accessibility rather than fragmentation. When denied this, they instinctively turn to piracy networks, which continue to thrive with localised

language offerings, live sports streams, and instant availability of global releases.

The streaming fragmentation paradox thus reveals a fundamental misalignment between industry strategy and consumer behaviour. Instead of discouraging piracy, the splintering of services has restored its legitimacy in the eyes of many users. Policymakers and industry leaders must recognise that consumer frustration is not rooted in unwillingness to pay but in the inefficiency of fragmented access. Any regulatory or legal strategy must therefore engage with structural reform, encouraging either greater interoperability between services, transparent licensing regimes, or innovative bundled models. Without such recalibration, the fight against piracy risks becoming a perpetual stalemate—where every advance in enforcement is undermined by the industry’s own failure to align with the realities of user demand.

3. India’s Streaming and Piracy Landscape

India represents both one of the fastest-growing streaming markets and one of the largest piracy hubs worldwide.

Industry reports suggest that in 2023 alone, the Indian economy lost an estimated ₹22,400 crore (approximately US \$2.7 billion) due to piracy, with online streaming platforms accounting for nearly ₹8,700 crore of these losses—representing 43 per cent of the total (EY–IAMA Report). These figures highlight that piracy is no longer an ancillary or marginal concern; rather, it has become an entrenched part of India’s digital consumption economy. The disproportionate impact on OTT platforms reflects a shift in consumer behaviour, where unauthorised access is increasingly linked not just to affordability concerns but also to access convenience, catalogue limitations, and subscription fatigue.

A 2023 *Times of India* survey found that more than half of Indian consumers engage with pirated media, with 23 per cent admitting to using pirated streaming services daily. This scale of engagement underscores the systemic nature of the problem, raising questions about the effectiveness of existing legal and regulatory frameworks in deterring illicit consumption. Despite efforts such as blocking thousands of piracy websites and

enhancing cyber enforcement cells, users are able to circumvent these barriers with VPNs, mirror sites, and Telegram channels. The persistence of piracy despite relatively low subscription prices in India points to a deeper structural challenge: an ecosystem where convenience, accessibility, and availability continue to outweigh legality in shaping consumer choices.

The piracy landscape also has profound implications for India's creative economy. Local film producers, who increasingly rely on OTT platforms for monetisation, face sharp revenue erosion due to early leaks of theatrical releases and simultaneous unauthorised distribution of exclusive streaming content. For global players like Netflix, Amazon Prime, and Disney+ Hotstar, India remains a double-edged market: attractive due to its expanding user base but financially risky due to systemic piracy. The resulting tension has already prompted platforms to experiment with hybrid release models, regional pricing strategies, and enhanced digital rights management (DRM) technologies, though none have proven fully effective.

At the policy level, India has attempted to address piracy through measures such as the Cinematograph (Amendment) Act, 2023, which criminalises camcording in cinemas, and through provisions of the Information Technology Act and Copyright Act that empower authorities to block infringing sites. However, these legal responses have yet to yield transformative outcomes, as enforcement remains inconsistent and judicial redress is often delayed. The gap between law and practice creates a permissive environment, allowing piracy networks to operate with relative impunity. As streaming platforms become more central to India's cultural and entertainment fabric, bridging this gap will require not just stricter enforcement but also market strategies that align with consumer expectations of convenience and value.

4. Global Context: Streaming Disintegration Fuels Piracy

The global trajectory of piracy underscores that the phenomenon is not confined to developing markets but is increasingly symptomatic of systemic

fractures in the streaming economy. In countries like Sweden—once considered a success story for anti-piracy campaigns—the resurgence of illicit consumption has been directly linked to the aggressive pursuit of exclusivity by major streaming providers. Content that was once consolidated and easily accessible is now dispersed across multiple platforms, often requiring households to maintain a costly array of subscriptions. Reports indicate that Swedish households may spend as much as €700 annually on various streaming services, a sum that makes piracy appear not only cost-efficient but also a practical alternative for users fatigued by service fragmentation.

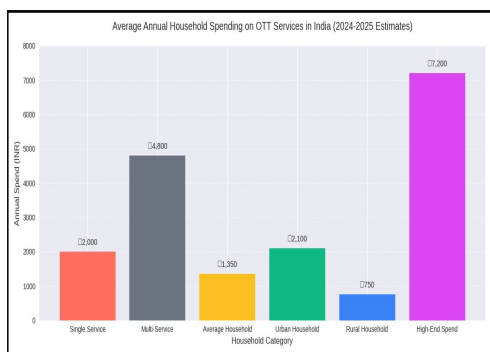
This disintegration of access models has produced a paradox: while the legal streaming market continues to expand, the incentive to pirate content grows in parallel. The Guardian reports that unlicensed streaming accounts for an overwhelming share of piracy, with global piracy site visits rising from 130 billion in 2020 to 216 billion in 2024. Such figures dismantle the earlier assumption that affordability alone could suppress piracy. Instead, convenience, comprehensiveness,

and user experience are emerging as the decisive factors in shaping consumer behaviour.

The rise of exclusivity-driven licensing deals has contributed to regional inequality in content access. For example, titles available on platforms in North America may not be accessible in Asia or Europe due to geo-blocking and staggered release schedules. This geographical dissonance incentivises users to circumvent restrictions through pirated channels, as the digital ecosystem normalises borderless consumption. Global piracy, therefore, becomes less a matter of criminal deviance and more an expression of consumer resistance to artificial scarcity.

The international picture makes clear that the resurgence of piracy cannot be addressed merely through enforcement or punitive legal responses. Instead, it calls for a recalibration of distribution models that balance profitability with accessibility. The current trajectory suggests that without harmonised licensing practices and affordable bundling strategies, the

global streaming economy risks fuelling the very piracy it once helped suppress.



5. Legal and Enforcement Implications

The renewed wave of digital piracy presents an urgent legal and regulatory challenge, particularly as existing mechanisms of enforcement appear increasingly inadequate. Conventional tools—such as criminal penalties, content takedown notices, and judicial site-blocking—are struggling to keep pace with the evolving nature of digital piracy. Dynamic injunctions, often hailed as a modern remedy, can temporarily block access to piracy portals, but mirror websites, VPNs, and encrypted peer-to-peer networks have substantially weakened their effectiveness. Moreover, enforcement agencies face difficulties in monitoring the sheer scale of consumption, with billions of piracy pageviews recorded

globally. For India, where internet penetration is expanding rapidly and digital literacy remains uneven, the scale of illicit access is proportionately higher, making enforcement more resource-intensive and complex.

In recognition of these difficulties, the Indian government has begun recalibrating its legal and institutional frameworks to address the problem. In 2023, a specialised task force was constituted to deal with piracy losses estimated at over **US \$2.5 billion annually** (Economic Times). This initiative emphasises coordinated intelligence-sharing between enforcement agencies, industry stakeholders, and internet service providers. Yet, critics argue that enforcement still leans too heavily on punitive deterrence rather than service innovation. Courts, while issuing dynamic injunctions against rogue websites, continue to confront challenges in balancing intellectual property protection with freedom of expression and user rights. The effectiveness of these measures remains contested, especially when measured against the sheer resilience and adaptability of piracy networks.

Globally, the legal landscape reflects similar struggles. Countries like the United States and the United Kingdom deploy stringent anti-piracy statutes and employ advanced tracking systems in collaboration with entertainment industries, yet illicit consumption persists. In Sweden, where piracy was once in steep decline, restrictive licensing and increased platform atomisation have reignited demand for unlicensed access. Enforcement-heavy strategies are proving insufficient without parallel reforms to streaming models. This aligns with the argument advanced by Valve’s co-founder Gabe Newell, who observed that “piracy is almost always a service issue, not a pricing issue” (The Guardian). His insight reflects the broader truth that consumers are often driven to piracy not by refusal to pay, but by the absence of a seamless, accessible, and consolidated service ecosystem.

Thus, the trajectory of piracy control appears to demand a hybrid response. Law and enforcement remain essential pillars, but they cannot exist in isolation. For India and other markets, the way forward lies in supplementing enforcement frameworks with service-

oriented solutions that address the root causes of piracy—fragmentation, exclusivity, and user inconvenience. Regulatory bodies may need to nudge platforms towards cooperative licensing models, enhanced interoperability, and more user-centric pricing. Without such a shift, piracy will continue to expose the limitations of enforcement-heavy regimes, highlighting the need for a regulatory strategy that combines deterrence with innovation in the streaming ecosystem.

6. Recommendations for a Multi-Pronged Strategy

Focus Area	Key Recommendation
Access & Aggregation	Promote bundled, affordable access across multiple platforms; reduce fragmentation.
User Interface & Experience	Reduce ad intrusion; ensure consistent streaming quality; expand content availability.
Legal & Industrial	Strengthen task force efforts with real-time takedown protocols and

Focus Area	Key Recommendation
Enforcement	stakeholder coordination.
Audience Education & Partnerships	Empower creators and platforms to collaborate on anti-piracy campaigns and public awareness.
Policy Innovation	Amend regulations for adaptive licensing, platform interoperability, and safe harbor clarity.

violation but as a symptom of market dysfunction. India's recent strides in task force formation and enforcement improvement must now be complemented by user-centric policy and service innovations. Addressing the “why” behind piracy—as much as the “how”—is essential for sustainable protection of digital content.

The global surge in digital piracy, particularly through streaming platforms, underscores a reality that transcends mere criminality. In most cases, piracy emerges less from a deliberate intent to defraud and more from systemic service gaps that leave consumers underserved. Fragmented access, inconsistent quality of service, and rigid licensing regimes create conditions in which unauthorised alternatives become not only attractive but, in many instances, inevitable. Thus, piracy must be recognised not only as a breach of law but also as an indicator of structural inefficiencies within the digital content ecosystem.



7. Conclusion

As digital piracy surges globally, especially through streaming platforms, it is clear that consumers are driven more by systemic service failures than by criminal intent. Service providers and regulators must perceive piracy not just as a legal

India's recent initiatives, including the establishment of specialised task forces and the strengthening of industrial

enforcement mechanisms, reflect commendable progress in responding to piracy. However, these enforcement measures, while necessary, remain insufficient in isolation. A parallel focus on consumer experience, regulatory adaptability, and collaborative industry practices is essential to address the underlying drivers of piracy.

The sustainability of digital content protection depends upon balancing deterrence with innovation. Service providers must reimagine access models to make legitimate consumption more affordable and frictionless. Regulators, in turn, need to design frameworks that enable adaptive licensing, interoperability, and platform accountability, while ensuring creators are adequately safeguarded. Importantly, public awareness and educational initiatives must reposition piracy as an ethical issue linked to creators' livelihoods rather than a victimless act.

The Indian experience provides a valuable reference point for other jurisdictions. It illustrates how enforcement gains traction when supported by user-centric reforms and collaborative governance. As piracy adapts to technological shifts, so too must the legal and commercial responses evolve beyond punitive measures. Protecting digital content in a meaningful and enduring manner requires addressing not just *how* piracy operates, but also *why* it persists. Only through such a comprehensive and integrated approach can the global fight against digital piracy hope to achieve long-term success.