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DIGITAL AUTONOMY OR REGULATORY OVERREACH? A CRITICAL ANALYSIS OF INDIA'S BROADCASTING SERVICES (REGULATION) BILL

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Abstract

The regulation of online platforms and broadcasting services lies at the heart of contemporary debates on democratic governance, free expression, and state control. While the independence of digital broadcasting is often framed as essential to fostering an informed citizenry and safeguarding pluralism, the rapid expansion of online content and the growing influence of digital media have intensified calls for regulatory intervention. Governments worldwide face the challenge of maintaining this equilibrium—curbing misinformation and harmful content while preserving the foundational principles of free speech. This article critically examines India's Broadcasting Services (Regulation) Bill, 2024, situating it within broader legal and policy frameworks governing digital media. It analyses how the Bill navigates the competing imperatives of content regulation and freedom of expression, assessing its implications for social media platforms and Over-The-Top (OTT) services. The article further investigates whether the Bill constitutes a measured response to the challenges of the digital age or an overreach that risks constraining independent media and online discourse. It offers a broader reflection on the evolving nature of digital governance in India and its alignment with constitutional and international standards.

Keywords: Broadcasting Services (Regulation) Bill, Online Content Regulation, Freedom of Speech and Expression, Censorship, Addressing harmful content

1. Introduction

The evolution of digital broadcasting in India has been nothing short of transformative. The rise[1] of Direct-to-Home (DTH) services, Internet Protocol Television (IPTV), and Over-The-Top (OTT) platforms have radically altered the dissemination of information and entertainment, eroding traditional regulatory boundaries and challenging long-established legal frameworks. In an era where digital media increasingly shapes public discourse, the governance of online broadcasting has emerged as a critical fault line between state control and

[1] Mr. Neeraj Soni, *Broadcasting Services (Regulation) Bill, 2024,* (Aug. 9, 2024), https://www.cyberpeace.org/resources/blogs/broadcasting-services-regulation-bill-2024

the constitutional imperative of free expression[2]. While technological advancements have expanded access to information, they have also introduced complex regulatory dilemmas concerning content moderation, misinformation, and platform liability[3].

India's broadcasting and digital media landscape is governed by a fragmented and, in many respects, outdated regulatory framework. The Cable Television Networks (Regulation) Act[4], 1995, administered by the Ministry of Information and Broadcasting (MIB), primarily governs television channels and cable operators, supplemented by the Cable Television Networks Rules[5], 1994, which outlines content restrictions and advertising standards. Digital content regulation falls under Part III of the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules[6], 2021, establishing a Code of Ethics for online news, current affairs, and curated audiovisual content. The Prasar Bharati (Broadcasting Corporation of India) Act[7], 1990 mandates public broadcasters such as Doordarshan and All India Radio to maintain editorial independence while fulfilling public service obligations. The Cinematograph Act[8], 1952 grants the Central Board of Film Certification (CBFC) authority over film classification, while the Information Technology (IT) Act[9], 2000, alongside the 2021 IT Rules, imposes intermediary liability and prescribes content moderation obligations for digital platforms. Additional regulatory instruments, including the Digital Personal Data Protection Act[10], 2023, the Advertising Standards Council of India (ASCI) Code, the Indecent Representation of Women (Prohibition) Act[11], 1986, and the Sports Broadcasting Signals (Mandatory Sharing with Prasar Bharati) Act[12], 2007, further delineates the legal contours of India's media governance regime.

Despite this extensive regulatory apparatus, the existing framework is neither cohesive nor adequately equipped to address the realities of a rapidly evolving digital ecosystem. Regulatory inconsistencies, overlapping mandates, and the absence of a comprehensive legal structure for

[2] PETER LUNT & SONIA LIVINGSTONE, MEDIA REGULATION: GOVERNANCE AND THE INTERESTS OF CITIZENS AND CONSUMERS. 1-232 (2011)
[3] *Resolving content moderation dilemmas between free speech and harmful misinformation*, PubMed (Feb. 7, 2023), https://pubmed.ncbi.nlm.nih.gov/36749721/
[4] The Cable Television Networks (Regulation) Act, 1995, No. 7, Acts of Parliament, 1995 (India).
[5] The Cable Television Networks Rules, 1994 (India).
[6] Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 (India).
[7] The Prasar Bharati (Broadcasting Corporation of India) Act, 1990, No. 25, Acts of Parliament, 1990 (India).
[8] The Cinematograph Act, 1952, No. 37, Acts of Parliament, 1952 (India).
[9] The Information Technology Act, 2000, No. 21, Acts of Parliament, 2000 (India).
[10] Digital Personal Data Protection Act, 2023, No. 22, Acts of Parliament, 2023 (India).
[11] Indecent Representation of Women (Prohibition) Act, 1986, No. 60, Acts of Parliament, 1986 (India).
[12] Sports Broadcasting Signals (Mandatory Sharing with Prasar Bharati) Act, 2007, No. 11, Acts of Parliament, 2007 (India).

digital broadcasting have exposed significant governance gaps, necessitating legislative reform. The Broadcasting Services (Regulation) Bill, 2023, was introduced to consolidate and modernise India's broadcasting regulatory framework. However, the Bill attracted immediate scrutiny from industry stakeholders, legal scholars, and civil society, who raised concerns over its potential impact on free speech, editorial independence, and the autonomy of digital platforms[13]. In response to widespread criticism, the Ministry of Information and Broadcasting (MIB) discreetly circulated a revised draft of the Broadcasting Services (Regulation) Bill, 2024 to a select group of stakeholders, each copy uniquely watermarked to prevent unauthorised dissemination. Despite these precautions, unofficial versions of the Bill swiftly emerged online, fuelling renewed scrutiny of the government's regulatory ambitions and broader implications for digital governance. The decision to limit consultations to a closed group of stakeholders rather than engaging in a transparent and inclusive process, has only deepened concerns regarding the legitimacy of the reform effort and the extent to which a narrow set of interests is shaping regulatory interventions[14].

The 2024 Bill introduces modifications, most notably an expanded regulatory ambit, which will be examined later in this paper. The revised framework imposes new compliance obligations, including penalties for failure to register with the government or establish a Content Evaluation Committee, reinforcing the state's authority over digital content regulation. However, beyond these procedural adjustments, the substantive provisions of the Bill remain largely unaltered, raising important questions as to whether these revisions constitute a genuine response to the criticisms levelled at the 2023 draft or whether they merely reflect an effort to consolidate state control through more refined regulatory mechanisms. The absence of a significant shift in Bill's underlying philosophy suggests that while the government has been compelled to recalibrate its strategy, it has not fundamentally reconsidered the nature or necessity of its intervention in the digital broadcasting space.

This paper critically analyses the Broadcasting Services (Regulation) Bill, 2024, evaluating whether it constitutes a necessary digital media governance recalibration or an undue state regulatory power expansion. It investigates whether the Bill strikes a constitutionally defensible balance between curbing misinformation and protecting freedom of expression or,

[13] *The Bill That Never Was: The Comeback, Resistance, and Downfall of the Broadcasting Bill*, (Aug. 30, 2024), https://internetfreedom.in/a-broadcasting-summary/.

[14]Akanksha Nagar, *I&B Ministry 'suspends' work on Draft Broadcasting Bill*, (Oct. 24, 2024), https://www.storyboard18.com/how-it-works/ib-ministry-suspends-work-on-draft-broadcasting-bill-45857.htm.

conversely, whether it imposes excessive state control at the expense of media independence. The paper first examines the legislative intent behind the 2023 Bill before scrutinising the substantive changes reflected in the 2024 iteration. We have analysed the Bill within the broader constitutional and legal landscape to assess its implications for the future of digital broadcasting regulation in India.

2. Purpose and Intent of Broadcasting Services (Regulation) Bill, 2023

Unlike traditional television broadcasters, which have long been subject to statutory licensing, content restrictions, and direct state oversight, digital streaming platforms have, until now, operated in a largely unregulated and ambiguous legal environment. This lack of a sui generis legal framework for OTT platforms has resulted in significant regulatory asymmetry, with legacy broadcasters subjected to stringent compliance obligations. In contrast, digital platforms remain free from comparable constraints. The Broadcasting Services (Regulation) Bill, 2023 was introduced as a legislative response to this imbalance, seeking to bring all forms of broadcasting—television, digital streaming, and online news—within a unified regulatory framework.

The Bill's stated objective was not just to replace the Cable Television Networks (Regulation) Act 1995 but to modernise India's broadcasting laws in a manner reflective of contemporary technological realities. The Explanatory Note[15] to the Bill emphasised the need to streamline, consolidate, and update existing regulations, ensuring they remained adaptive, consistent, and responsive to the transformations within the broadcasting sector. By establishing a common set of regulatory obligations, the Bill aimed to provide greater legal clarity, reduce compliance burdens, and level the playing field between traditional and digital media entities.

A fundamental rationale for the Broadcasting Services (Regulation) Bill was the government's assertion that it sought to correct the regulatory asymmetry between conventional broadcasters and OTT platforms. Under the pre-existing legal framework, television networks have long been required to comply with licensing requirements, content classification obligations, and government-mandated broadcasting standards, whereas digital platforms have remained largely unregulated despite their exponential expansion and growing influence. The government justified this intervention as necessary to safeguard consumer interests, ensure content accountability, and mitigate risks associated with misinformation, hate speech, and

[15] Explanatory Note to the Broadcasting Services (Regulation) Bill, 2023 (India).

unlawful material. The proposed regulatory extension aimed to subject all media services to equivalent scrutiny, aligning with broader global trends in platform governance and digital content regulation.

In addition to addressing regulatory disparity, the Bill was positioned to stimulate investment, enhance market predictability, and foster innovation in India's digital media sector. The government argued that a more structured and transparent regulatory environment would provide legal certainty for both domestic and international investors, reinforcing India's ambition to position itself as a global centre for digital content production and distribution. The codification of compliance obligations was presented as an effort to replace the existing fragmented and inconsistent regulatory landscape with a more coherent and forward-looking framework that would ostensibly balance industry growth with consumer protection and media accountability.

Despite these ostensible policy objectives, the Bill provoked considerable opposition, particularly regarding the breadth of state intervention in digital content regulation. While a harmonised legal regime may, in principle, provide clarity and regulatory coherence, critics maintained that the Bill would substantially expand governmental oversight over digital platforms in ways that could undermine media independence and editorial autonomy. Of particular concern was the Bill's extension of regulatory obligations beyond entertainment content to digital news platforms, raising profound questions about press freedom, content moderation, and the role of the state in shaping online discourse. The absence of robust institutional safeguards against regulatory overreach only reinforced fears that the Bill could serve as a mechanism for state control over digital narratives rather than as a genuine attempt to modernise media regulation. The lack of transparency in the legislative process and the absence of meaningful consultation with stakeholders further eroded confidence in the Bill's purported objectives.

The extent to which the Bill would have empowered regulators to dictate or influence platform policies remained one of the most contentious aspects of its proposed legal framework. Concerns regarding vague regulatory mandates, the discretionary power vested in executive authorities, and the potential chilling effect on digital speech ultimately led to the withdrawal of the Bill in August 2024. Its failure to address fundamental issues of media pluralism, independent content governance, and the risks of centralised regulatory control underscores the broader challenge of reconciling digital governance with democratic principles. This challenge

will undoubtedly persist as India navigates the evolving complexities of digital media regulation.

3. Stakeholders' Interpretation of The Intent Behind the Bill

The Broadcasting Services (Regulation) Bill has provoked a robust and, at times, contentious debate among stakeholders[16], many of whom have expressed deep reservations about its potential to reconfigure the regulatory landscape for digital media in ways that could erode fundamental freedoms and entrench state control[17]. A key concern is the Bill's expansive scope, which extends beyond traditional broadcasting to encompass digital content creators, social media accounts, and online news platforms, thereby blurring the lines between mass media regulation and individual speech rights in the digital domain.

Perhaps the most controversial aspect of the revised draft[18] is its apparent reclassification of social media accounts as "Digital News Broadcasters"[19], a move that would subject individuals—including those who post videos, host podcasts, or write about current affairs online—to statutory broadcasting regulations. Under this framework, YouTubers, independent journalists, and other digital content creators monetising their presence through advertising or sponsorships could be compelled to adhere to the same content and advertising codes as established digital news entities[20]. This conflation of individual expression with institutionalised news broadcasting has raised profound concerns about freedom of expression under Article 1921 of the Indian Constitution, particularly given the risk that such a regime could deter independent reporting and incentivise self-censorship.

[16] Stakeholders are all entities with an interest in the regulations and operations of the broadcasting industry, whether directly or indirectly affected. This includes broadcasters, cable operators, content creators, online streaming platforms, media advocacy groups, consumer organisations, and civil society, which address concerns related to content quality, diversity, and ethical standards. Government authorities shape policy and oversight, while technology providers influence the regulatory framework through innovation.

[17] Harry Lock, *Why Broadcasting Bill has provoked fears of censorship in India,* Public Media Alliance (Aug. 7, 2024), https://www.publicmediaalliance.org/why-broadcasting-bill-has-provoked-fears-of-censorship-in-india/.

[18] Mr. Neeraj Soni, *Broadcasting Services (Regulation) Bill, 2024,* (Aug. 9, 2024), https://www.cyberpeace.org/resources/blogs/broadcasting-services-regulation-bill-2024

[19] A. Agrawal , *New Draft of Broadcasting Bill: News Influencers May Be Classified as Broadcasters*, Hindustan Times (July 26, 2024), https://www.hindustantimes.com/india-news/new-draft-of-broadcasting-bill-news-influencers-may-be-classified-as-broadcasters-101721961764666.html.

[20] Mr. Neeraj Soni, *Broadcasting Services (Regulation) Bill, 2024,* (Aug. 9, 2024), https://www.cyberpeace.org/resources/blogs/broadcasting-services-regulation-bill-2024

[21] INDIA CONST. art. 19

The Bill's categorisation[22] of certain content creators as "OTT Broadcasters" based on their volume of output, has similarly drawn criticism. Stakeholders argue[23] that the imposition of uniform regulations on internet-based programmes disregards the fundamental structural differences between OTT services and traditional broadcasting[24]. By broadly defining "broadcasting networks" and "broadcasting network operators" and including OTT platforms within its ambit, the Bill has been accused of failing to account for digital content dissemination's decentralised, interactive, and globalised nature. Many industry[25] voices have urged a differentiated regulatory approach, cautioning that a one-size-fits-all model could stifle innovation and restrict access to diverse perspectives, undermining the open, participatory nature of the Internet.

Beyond its expansive reach, the 2023 Bill's provisions on content regulation have fuelled concerns about editorial independence and press freedom[26]. The requirement that all broadcast content be certified by internal Content Evaluation Committees (CECs) has been described as tantamount to pre-publication censorship, with the potential to delay timely news coverage and discourage reporting on politically sensitive issues. The prospect of government-mandated compliance committees within digital news organisations has been met with widespread opposition, with critics arguing that such mechanisms compromise editorial autonomy and introduce indirect state influence over journalistic content.

Equally problematic is the 2023 Bill's substantial regulatory overlap with the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 (IT Rules, 2021). Given that OTT platforms and digital broadcasters are already subject to content classification and self-regulation under the IT Rules, stakeholders have questioned the necessity of duplicating compliance obligations. The Bill's definition of "OTT Broadcasting Service" mirrors the IT Rules, creating ambiguity about whether platforms will be subject to

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[22] *Regular Social Media Participants Are 'Digital News Broadcasters' Under Draft Bill*, The Wire, https://thewire.in/media/social-media-videos-text-digital-news-broadcasting-bill.

[23] *Deepstrat Recommendations on Broadcasting Services (Regulation) Bill 2023*, *Google Docs*, https://drive.google.com/file/d/1D8SESER7itE8pmaoRDIYixqvT0vc4C0w/view?ref=static.internetfreedom.in.

[24] Jyoti Panday, OTT Regulation in India: Turf Wars & Definitional Ambiguities, Internet Governance Project (Sep. 26, 2024), https://www.internetgovernance.org/2024/09/26/ott-regulation-in-india-turf-wars-definitional-ambiguities/.

[25] *Access Now Submission – Broadcasting Services Bill – January 2024*, BB, 2023 Consultation Responses (*GoogleDrive*), https://drive.google.com/drive/folders/1ZviJmkiHQgDhwj7B0HbJXHbJ5ybGUtZe?ref=static.internetfreedom.in.

[26] *IAMAI Submission on the Draft "Broadcasting Services (Regulation) Bill, 2023*, (*Google Drive*), https://drive.google.com/drive/folders/1ZviJmkiHQgDhwj7B0HbJXHbJ5ybGUtZe?ref=static.internetfreedom.in.

two parallel and potentially conflicting regulatory regimes. Introducing a three-tier oversight structure, including Self-Regulatory Organisations (SROs), further complicates matters, as it replicates the IT Rules' existing framework. The Bill's use of the term "self-regulatory organisation", in contrast to the IT Rules' "self-regulatory body", has led to uncertainty over jurisdictional overlaps, particularly for OTT platforms already compliant with existing content governance obligations.

Moreover, the Bill imposes additional compliance requirements without providing sufficient regulatory clarity. For example, while OTT platforms are already required to classify content and ensure adherence to national integrity and religious sensitivity norms under the IT Rules, the Bill mandates further compliance with yet-to-be-defined Programme and Advertisement Codes. Unlike the Cable Television Networks (Regulation) Act, 1995, which explicitly delineates the parameters of these codes, the Bill leaves their substantive content undefined, raising concerns that future rulemaking could be leveraged to impose vague, overbroad, or politically motivated restrictions.

Perhaps most alarmingly, the 2023 Bill vests significant discretionary authority in the executive, particularly through establishing the Broadcast Advisory Council (BAC). Under the Bill, the Central Government is empowered to bypass lower-tier grievance redressal mechanisms and directly refer cases to the BAC, a power widely viewed as disproportionate and vulnerable to misuse[27]. The composition of the BAC itself has drawn scrutiny, with stakeholders arguing that Clause 27[28] fails to ensure a balanced representation of independent voices, thereby undermining its credibility as an impartial adjudicatory body[29]. The opacity surrounding the appointment process has raised significant concerns that the BAC may operate not as a neutral adjudicatory body but as a conduit for governmental influence over digital media regulation. The absence of clear safeguards to ensure its independence has only deepened apprehensions that its mandate could extend beyond content dispute resolution to the broader regulation of media narratives in ways that align with state interests. The Bill's

[27] *Summary of Stakeholder Comments Received by MIB on the Broadcasting Bill, 2023*, *Internet Freedom Foundation* (August 6, 2024), https://internetfreedom.in/summary-of-stakeholder-comments-on-the-broadcasting-bill-2023/.

[28] Broadcasting Services (Regulation) Bill, 2023, s 27 (India).

[29] Shriya, *DeepStrat Recommendations on Broadcasting Services (Regulation) Bill 2023*, (Jan. 5, 2024), https://deepstrat.in/2024/01/05/deepstrat-recommendations-on-broadcasting-services-regulation-bill-2023/?ref=static.internetfreedom.in.

approach to online news portals has similarly raised concerns[30]. Clause 20(1)[31] exempts newspapers and e-paper publishers from Programme Code compliance yet fails to clarify whether digital news portals operated by newspaper publishers fall within this exemption. Since online news articles are often identical to their print counterparts, stakeholders have called for explicit legislative clarity to prevent arbitrary regulatory distinctions between print and digital journalism.

Beyond its substantive provisions, the procedural opacity surrounding the Bill's consultation process has been a persistent point of contention. The explanatory note[32] and draft Bill were released exclusively in English, limiting meaningful engagement from non-English-speaking stakeholders. Calls for a more inclusive and transparent process—including public disclosure of stakeholder submissions, counter-comment opportunities, and clearer guidelines for future rule-making—have largely gone unaddressed. The exclusion of independent media organisations and civil society voices from substantive decision-making has reinforced perceptions that the Bill's development was driven by regulatory expedience rather than participatory consensus-building.

Finally, stakeholders[33] have warned that the Bill's broad and ambiguous definitions could enable selective enforcement, particularly against independent journalists and commentators whose reporting challenges state narratives. The expansive regulatory powers conferred upon the BAC and CEC, coupled with the government's significant role in oversight, have heightened concerns that the Bill could function as a tool for indirect censorship. Clause 2734, which governs the BAC's membership, lacks safeguards to ensure independent representation, reinforcing fears that regulatory decisions could be subject to political influence. The proposed Self-Regulatory Organisations (SROs) under Clause 2635 similarly lack mechanisms to ensure institutional independence, raising doubts about their ability to function as effective, impartial oversight bodies.

[30] T Panjiar, *Summary of Stakeholder Comments Received by MIB on the Broadcasting Bill, 2023*, Internet Freedom Foundation (August 6, 2024), https://internetfreedom.in/summary-of-stakeholder-comments-on-the-broadcasting-bill-2023/.
[31] Broadcasting Services (Regulation) Bill, 2023, s 20(1) (India).
[32] Explanatory Note to the Broadcasting Services (Regulation) Bill, 2023 (India).
[33] Krishaank Jugiani, CUTS Comments on Broadcasting Services (Regulation) Bill, 2023'
[34] Broadcasting Services (Regulation) Bill, 2023 (India).
[35] Broadcasting Services (Regulation) Bill, 2023, s 26

In response to these concerns, some stakeholders[36] have proposed that the Inter-Departmental Committee[37] (IDC), under the IT Rules, 2021, remain the primary regulatory body for digital media, arguing that the Bill's provisions introduce unnecessary bureaucratic duplication. Others have called for harmonisation between the penalties prescribed under the Bill and existing laws, ensuring greater legal consistency and predictability for digital platforms.

4. Provisions of the Bill Raising Concerns of Government Overreach and Indirect Censorship

Censorship of online content and broadcasting services remains a deeply contested issue, particularly where regulatory interventions encroach upon fundamental rights of expression. The ability to create and disseminate content is central to the exercise of free speech, and any regulatory framework that imposes excessive constraints risks undermining individual liberties and the broader democratic imperative of an open and pluralistic public sphere. While the government justifies the regulatory measures necessary for maintaining social order, safeguarding national security, and preventing the spread of hate speech, such justifications must be scrutinised against the constitutional commitment to free expression. The delicate balance between regulation and fundamental rights cannot be dictated solely by the state but must be grounded in principles of necessity, proportionality, and judicial oversight.

The Bill has triggered significant debate over its potential to facilitate government overreach. The broad and ambiguous language used in defining prohibited content—particularly terms such as "harmful" or "offensive"—raises concerns about subjective interpretation and discretionary enforcement. Vaguely defined categories of restricted content open the door to arbitrary takedowns, enabling authorities to target dissenting voices while maintaining public order. The absence of clear statutory guidelines to determine the scope of these prohibitions creates a regulatory environment where content creators are left uncertain about the boundaries of permissible expression. Such uncertainty fosters a chilling effect, as creators may engage in self-censorship to preemptively avoid punitive action.

The Bill's provision requiring conformity with a Programme Code and an Advertisement Code exacerbates these concerns, as it vests exclusive power in the Central Government to prescribe the substantive content of these Codes without providing any predefined guidelines. This leaves

[36] T. Panjiar, *Summary of Stakeholder Comments Received by MIB on the Broadcasting Bill, 2023*, Internet Freedom Foundation (August 6, 2024), https://internetfreedom.in/summary-of-stakeholder-comments-on-the-broadcasting-bill-2023/.

[37] Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, Rl 14 (India).

the standards governing digital content subject to opaque and discretionary rule-making by the executive. The ability of the state to retrospectively define violations, absent explicit statutory benchmarks, grants authorities significant latitude to invoke regulatory provisions selectively against particular content, especially in politically sensitive contexts. Such unchecked regulatory discretion is incompatible with legal certainty and due process principles.

Perhaps the most troubling aspect of the Bill is the broad powers granted to government authorities to immediately remove content on the grounds of public order, morality, or national security without requiring judicial oversight or independent review. Concentrating regulatory authority within government-controlled bodies eliminates meaningful institutional checks and balances, rendering content moderation decisions susceptible to political considerations rather than objective legal principles. The absence of an independent appellate mechanism further compounds the risk of biased or arbitrary enforcement, as affected individuals and entities have no recourse to challenge executive actions. A regulatory regime in which the government acts as both the rule-maker and the adjudicator of compliance undermines the fundamental principle of separation of powers, which remains a cornerstone of any constitutional democracy.

The executive's monopoly over content regulation also creates an environment of systemic pliancy within the broadcasting and digital media. Fearful of regulatory repercussions, media outlets and digital content creators may adopt a deferential stance toward state narratives, eroding the independence of journalism and public discourse. The mere possibility of legal sanctions for content deemed undesirable by the ruling government fosters a culture of deference in which the press and digital media exercise self-censorship to avoid confrontation with state authorities. The Bill thus risks institutionalising a media landscape in which regulatory compliance is dictated not by clear legal norms but by the shifting political prerogatives of those in power.

The pre-censorship mechanisms embedded in the Bill, which require certain categories of content to obtain prior approval before dissemination, further reinforce the perception that the regulatory framework is geared toward control rather than accountability. Imposing bureaucratic hurdles on content creators stifles journalistic and creative expression, particularly in politically sensitive or socially controversial areas. In any democratic society, prior restraints on speech must be subject to the highest level of judicial scrutiny, as they represent one of the most extreme forms of censorship.

The Bill also introduces financial disincentives for non-compliance, imposing significant fines on social media platforms and individual content creators who fail to adhere to government directives. While ostensibly framed as a deterrent against disseminating harmful content, imposing such penalties further incentivises self-censorship, as individuals and digital platforms would seek to preemptively align their content with state-imposed constraints to avoid financial liability. The economic burden of compliance, particularly for independent journalists and smaller digital media entities, risks entrenching a system in which only well-resourced entities can afford to contest regulatory decisions, further marginalising dissenting voices.

The Bill's extension of regulatory oversight to OTT platforms and digital news services, effectively subjecting them to the same content moderation requirements as traditional broadcasters, raises pressing concerns regarding press freedom and online discourse. The fundamental distinction between linear broadcasting and on-demand digital media necessitates a differentiated regulatory approach, yet the Bill fails to recognise this divergence. Digital platforms, unlike traditional broadcasters, operate within a decentralised and interactive information ecosystem, and the application of legacy regulatory frameworks to such platforms risks curbing the openness and dynamism that characterise online media[38]. Collapsing these distinct categories under a single regulatory umbrella disregards the fundamental shifts in how information is produced, disseminated, and consumed in the digital era.

India's judicial approach to censorship has varied, reflecting the broader tensions between state interests and individual freedoms[39]. Courts have sometimes upheld state-imposed restrictions on content, citing concerns of public morality and national security. However, judicial precedent also affirms that censorship must not be imposed arbitrarily and that restrictions must be narrowly tailored to serve a legitimate public purpose[40]. The determination of whether content warrants censorship must be grounded in a clear and objective legal framework rather than left to the discretionary assessments of executive authorities[41]. The jurisprudence

38 Poell, Thomas, David B. Nieborg, and Brooke Erin Duffy, *Platforms and cultural production*. John Wiley & Sons, 2021.

39 Basu, S., & Sen, S. (2023). *Silenced voices: unravelling India's dissent crisis through historical and contemporary analysis of free speech and suppression*, Information & Communications Technology Law, *33*(1), 42–65, https://doi.org/10.1080/13600834.2023.2249780.

40 Basu, S., & Sen, S. (2023). *Silenced voices: unravelling India's dissent crisis through historical and contemporary analysis of free speech and suppression*, Information & Communications Technology Law, *33*(1), 42–65, https://doi.org/10.1080/13600834.2023.2249780.

41 Gautam Bhatia, *Offend, shock, or disturb: Free speech under the Indian Constitution*, Oxford University Press, (2016)

surrounding content regulation has recognised that the necessity of censorship is inherently context-dependent, with the judiciary intervening only where a clear and demonstrable harm is established.[42] In its current form, the Bill fails to incorporate these constitutional safeguards, raising serious concerns about the unchecked expansion of state power in regulating digital media.

The underlying issue is not just regulatory oversight but democratic legitimacy. A regulatory regime consolidating unilateral authority within the executive, lacking independent review mechanisms, and imposing vaguely defined content restrictions is inherently incompatible with the principles of free expression enshrined in constitutional and international human rights law. The lack of procedural safeguards against misuse of regulatory provisions creates an environment where the state assumes an outsized role in shaping public discourse, undermining the foundational democratic principle that the marketplace of ideas must remain free from excessive state interference. The Bill, rather than providing a balanced regulatory framework, appears to entrench mechanisms that could be used to suppress dissent, control narratives, and restrict media autonomy.

The regulatory measures proposed in the Bill must be subjected to rigorous scrutiny regarding their legal validity and broader implications for democratic governance. We argue that a content regulation regime that fails to provide institutional safeguards against abuse, lacks meaningful judicial oversight, and centralises discretionary power within the executive is unlikely to achieve its stated objectives without undermining the very freedoms it purports to protect. If regulation is to serve the interests of democracy rather than state control, it must be transparent, proportionate, and insulated from political interference. A failure to ensure these principles risks transforming content regulation from a legitimate tool of public interest governance into an instrument of censorship and coercion.

The close relationship of digital platforms with state authority in India[43] underscores the increasingly precarious balance between public-private cooperation and governmental influence over the digital sphere. While these platforms serve as conduits for state-led

[42] Basu, S., & Sen, S. (2023). *Silenced voices: unravelling India's dissent crisis through historical and contemporary analysis of free speech and suppression*, Information & Communications Technology Law, 33(1), 42–65, https://doi.org/10.1080/13600834.2023.2249780.

[43] *Regulation or Repression? Government Influence on Political Content Moderation in India and Thailand*, Carnegie Endowment for International Peace, https://carnegieendowment.org/research/2024/07/india-thailand-social-media-moderation?lang=en.

initiatives, particularly in electoral engagement and public policy dissemination, their proximity to the government exposes them to implicit and explicit political pressure. The extent to which platforms are compelled to align their content moderation policies with state preferences raises critical concerns about the erosion of digital autonomy. A regulatory environment in which digital intermediaries must either comply with state directives or face punitive action fundamentally alters the role of these platforms from neutral hosts of information to instruments of political influence. The consolidation of governmental authority over the digital domain—whether through direct regulation or coercive partnerships—must be examined regarding its legal validity and broader implications for the integrity of public discourse.

The regulation of film and digital broadcasting, particularly in the Indian context, implicates long-standing tensions between state interests, public morality, and individual creative freedom. Few mediums influence public perception as profoundly as visual media, particularly in an era where digital platforms shape cultural narratives and political discourse. The necessity of a regulatory framework that governs potentially harmful content is undisputed. Yet, the contours of such regulation require far greater precision than what is often reflected in broad legislative mandates. The claim that content regulation is essential to maintaining public decency, morality, and social order cannot serve as an unqualified justification for expansive state control. The invocation of such justifications without robust procedural safeguards risks establishing a regime in which the boundaries of permissible expression are dictated not by neutral legal principles but by the imperatives of political expediency.

The jurisprudence of pre-censorship in India reveals the intricate balancing act between the imperatives of state regulation and the foundational commitment to free expression in a constitutional democracy. Indian courts have long wrestled with this paradox, recognising that prior restraints on speech do not constitute a violation of constitutional guarantees. However, they have repeatedly cautioned that strict standards of necessity, precision, and proportionality must justify such restrictions. In *D.C. Saxena (Dr.) v. The Hon'ble Chief Justice of India*[44], the Supreme Court articulated a critical democratic tension: while free speech is indispensable to the functioning of democracy, a democratic society must also possess the authority to impose reasonable limits on expression to preserve public order, protect individual dignity, and safeguard collective interests.

[44] D. C. Saxena (Dr.) v. The Hon’ble Chief Justice of India, (1996) 5 SCC 216 (India).

This dual obligation—to protect and regulate speech—demands a jurisprudence that moves beyond abstract rights-based discourse and engages with the contextual realities in which speech occurs. An expression cannot be assessed in isolation; its legality and legitimacy are contingent upon a constellation of factors, including the speaker's position, the nature of the audience, the intended objective of the speech, the reaction it provokes, and the forum in which it is exercised. The Court further affirmed that the State has a legitimate, albeit limited, role in regulating speech—not simply to curb defamation or libel but to uphold the broader principle that the exercise of liberty must not encroach upon the rights of others.

Yet, at the heart of this legal inquiry lies an unavoidable reality: what constitutes permissible speech is inherently subjective and susceptible to interpretative variance. While content moderation may be justified in narrow and exceptional circumstances, it cannot be entrusted to unchecked bureaucratic discretion. In the absence of clearly defined statutory thresholds, the power to censor risks degenerating into an instrument of state control rather than a safeguard of democratic accountability. Nowhere is this tension more acute than in the regulation of violent or explicit content—particularly in the context of protecting vulnerable populations such as children. However, the necessity of such regulation must be carefully balanced against the ever-present danger of a legal regime that facilitates the suppression of dissent under the guise of public interest.

The distinction between regulation in the public interest and state censorship is not merely a question of legal semantics but a fundamental issue of democratic governance. The constitutional recognition that free speech is not absolute does not license the state to impose restrictions that exceed the narrow scope of legitimate limitations. The argument that unrestricted content creation vests excessive power in media entities is equally applicable to a regulatory structure that places discretionary control in the hands of the executive. A legal framework that enables preemptive intervention in content dissemination demands stringent oversight, for the consequences of overreach extend beyond the immediate suppression of particular forms of expression to the broader deterrent effect on artistic and journalistic freedom. The mere existence of a regulatory mechanism is insufficient to justify its legitimacy; the specificity of its application, the transparency of its procedures, and the independence of its adjudication determine whether it serves as a legitimate constraint or a means of suppressing dissent.

The argument that digital and broadcast media differ from traditional forms of expression in their immediacy and reach cannot be used to justify an undifferentiated approach to regulation. The assumption that digital content requires heightened scrutiny must be accompanied by recognising that the characteristics that make these platforms powerful also render them susceptible to government overreach. A regulatory architecture prioritising state control over independent oversight subverts the principles that distinguish democratic governance from authoritarian regulation. The constitutional imperative is not merely to regulate content in the interest of public welfare but to do so in a manner that ensures the state does not become the arbiter of permissible discourse.

A discussion of content regulation that fails to engage with the potential for abuse is inherently incomplete. The exercise of state power in this domain must be structured to prevent the imposition of ideological conformity under the guise of legal compliance. The challenge is not simply to prevent harmful content but to do so without enabling a system in which political considerations dictate what may be expressed. A legal regime that imposes pre-censorship without judicial oversight, vests discretionary authority in the executive, and lacks independent review mechanisms is not merely inadequate but fundamentally incompatible with the principles of constitutional democracy. The balance between public interest and individual freedom is not achieved through the unchecked expansion of state power but through a legal framework that is precise, proportionate, and resistant to political manipulation. Any failure to incorporate these principles risks transforming content regulation from a legitimate function of governance into an instrument of coercion, with consequences that extend far beyond the media landscape to the broader erosion of civil liberties.

5. Balancing Content Regulation Without Undermining Freedom of Expression

Regulating digital content within a democratic framework necessitates a careful equilibrium between state intervention and the fundamental right to free expression. The Broadcasting Services (Regulation) Bill introduces a sweeping framework that seeks to govern digital and traditional broadcasters alike. However, its regulatory ambitions raise concerns about whether it unduly infringes upon media autonomy and the right to free speech. While the Bill purports to address misinformation, hate speech, and public order issues, its scope must be assessed against constitutional protections, established jurisprudence, and comparative legal developments.

The jurisprudence of free expression, both in India and internationally, has long acknowledged that the ability to speak freely is not merely an individual right but an essential condition for a functioning democracy. Justice Cardozo famously articulated in *Palko v. Connecticut*[45] that free expression is the "matrix, the indispensable condition" of other liberties. This foundational principle resonates strongly within the Indian constitutional scheme, where Article 19(1)(a) guarantees the right to free speech, subject only to reasonable restrictions outlined in Article 19(2). However, as courts have repeatedly held, restrictions on speech must be reasonable in form and proportionate in substance, a principle reaffirmed in S. Rangarajan v. P. Jagjivan Ram[46] and later jurisprudence. The Supreme Court's decision in *The Secretary, Ministry of Information and Broadcasting v. Cricket Association of Bengal*[47] further underscored the imperative of pluralism in media governance, holding that monopolisation—whether by the state or private entities—runs counter to the democratic imperative of ensuring diverse viewpoints and broad access to information. In the digital era, where social media and OTT platforms function as primary vehicles for discourse, the state's role must be facilitation rather than control, ensuring a framework that promotes accountability without chilling expression.

Including digital content creators within the Bill's regulatory framework has raised concerns about its impact on independent journalism and online discourse. The broad categorisation of social media users as "Digital News Broadcasters" is particularly problematic, as it risks imposing the same compliance burdens on individual commentators as on institutional news organisations. This conflation expands the state's regulatory reach and threatens to stifle independent voices, as individuals may find themselves subject to administrative obligations disproportionate to their role in the media landscape. The government's justification—that digital media wields significant influence and must be subject to oversight—does not warrant a one-size-fits-all regulatory approach. The distinction between institutional and individual expression is not merely formal but foundational, and any attempt to erase this boundary risks overreach. While it is true that digital misinformation poses new regulatory challenges, the response must be precise, carefully tailored, and consistent with constitutional guarantees rather than an indiscriminate expansion of state control over digital spaces.

[45] Palco v. Connecticut, 302 U.S. 319 (1937) (India).
[46] S. Rangarajan v. P. Jagjivan Ram & Ors., 1989 (2) SCC 574 (India).
[47] The Secretary, Ministry of Information and Broadcasting v. Cricket Association of Bengal, [1995] 1 S.C.R. 1036 (India).

The requirement for content pre-certification by government-mandated Content Evaluation Committees (CECs) represents another area where the Bill's provisions appear to encroach upon constitutionally protected expression—the Supreme Court, in *K.A. Abbas v. Union of India*[48] recognised the legitimacy of content regulation in certain contexts, such as film certification, but also cautioned against the dangers of vague, discretionary standards that can be applied arbitrarily. The present Bill provides for regulatory mechanisms that, while ostensibly aimed at curbing harmful content, grant broad discretionary powers to state-appointed bodies without clear procedural safeguards. The chilling effect of pre-publication scrutiny is well documented, and the risk of administrative censorship must not be dismissed as a mere procedural requirement. Any regulatory framework governing digital expression must be narrowly tailored to target specific harms, ensuring that it does not impose undue restrictions on legitimate speech.

A further concern arises from the Bill's overlap with the IT Rules, 2021, particularly concerning platform liability, content moderation, and self-regulatory structures. The IT Rules already establish a tiered framework for content governance, including a self-regulatory mechanism for digital platforms, and the Bill's introduction of additional oversight bodies and compliance requirements creates regulatory duplication that risks legal uncertainty and administrative inefficiency. There is little justification for introducing parallel oversight mechanisms when existing structures, if properly implemented, already provide for content regulation in the digital space. The fact that the Bill mandates compliance with yet-to-be-defined Programme and Advertisement Codes without articulating substantive criteria exacerbates this uncertainty, leaving digital broadcasters vulnerable to shifting regulatory interpretations. Regulatory frameworks must be transparent, predictable, and aligned with established principles of legality rather than dependent on vague and discretionary rule-making processes.

The Bill's vesting of discretionary powers in the executive, particularly through the Broadcast Advisory Council, raises additional concerns regarding the potential politicisation of content governance. The ability of the government to bypass lower-tier grievance mechanisms and refer cases directly to the BAC introduces a troubling dimension of direct state intervention in content oversight. The composition of the BAC, which lacks clear safeguards to ensure independent representation, further heightens fears of regulatory capture. The risk of executive overreach is not merely hypothetical; past interventions in digital media regulation demonstrate

[48] K. A. Abbas v. The Union of India & Anr., [1971] 2 S.C.R. 446 (India).

the tendency of governments to weaponise content laws for political ends, particularly in electoral contexts. Without institutional safeguards ensuring independence, transparency, and procedural fairness, such regulatory bodies may function less as neutral adjudicators and more as instruments of state control over media narratives.

The necessity of fact-checking mechanisms to combat misinformation is widely acknowledged, yet the question of who controls these mechanisms remains central to any discussion on content regulation. The increasing trend of state-controlled fact-checking bodies raises critical concerns about government influence over the classification of news content. The distinction between deliberate falsehoods and legitimate dissent is often blurred in politically charged environments, and any regulatory intervention in this space must be grounded in principles of independence, procedural fairness, and oversight. Internationally, models such as the European Union's Digital Services Act and the United Kingdom's Online Safety Act offer alternative approaches that balance platform accountability with free expression without centralising fact-checking authority within the state. A co-regulatory model, where digital platforms engage in self-regulation under an independent statutory framework, may provide a more effective and balanced approach.

A recent controversy has ignited widespread backlash and national outrage following remarks made by Ranveer Allahbadia, popularly known as BeerBiceps, during an appearance on Samay Raina's show, India's Got Latent[49].The Supreme Court has categorically condemned his remarks as "disgusting," "filthy," and "insulting," with the Bench pointedly observing that "there is something very dirty in his mind that has been vomited by way of this program." This judicial rebuke underscores a deeper societal dilemma: where should the boundary be drawn between the right to free expression and the obligation to maintain a standard of public decency?

The Court's expressed intent to address this issue through regulatory intervention raises concerns that such measures may serve as a pretext to expand the reach of broadcasting regulations into digital spaces. His comments—widely perceived as offensive and obscene—have triggered a wave of legal complaints across multiple jurisdictions, subjecting him to intense legal scrutiny. The magnitude of this response reflects broader anxieties about the limits

[49] Economic Times, *Why BeerBiceps' Ranveer Allahbadia Is Facing Backlash for His Comment on Parents in Samay Raina's Show—What Did He Say*, The Economic Times (Feb. 10, 2025), https://economictimes.indiatimes.com/news/new-updates/why-beerbiceps-ranveer-allahbadia-is-facing-backlash-for-his-comment-on-parents-in-samay-rainas-showwhat-did-he-say/articleshow/118105129.cms?from=mdr.

of permissible discourse in public media and the evolving responsibilities of content creators in shaping societal narratives. While it is undeniable that creative spaces often flourish through satire, irreverence, and controversial discourse, there remains a critical distinction between content that provokes meaningful debate and expression that descends into obscenity or moral degradation. The question is not merely whether certain speech should be censured but rather how a democratic society reconciles the imperative of free expression with the need to safeguard public sensibilities. Any regulatory response must be measured, principled, and resistant to the overreach that risks chilling legitimate speech under the guise of protecting societal values.

These recent incidents underscore the urgency of ensuring regulatory safeguards against state overreach. The blocking of OTT platforms[50] under the IT Act in March 2024 and the Election Commission's directive to Twitter[51] to remove political content ahead of the 2024 Indian general elections reflect a broader pattern of increased state intervention in digital content regulation. While governments often invoke public order, morality, or misinformation concerns to justify-content restrictions, the risk remains that such interventions are applied selectively, particularly against dissenting voices. A regulatory framework that enables arbitrary or politically motivated censorship undermines the democratic function of free speech and creates an environment of self-censorship and regulatory fear.

6. Legal Ambiguities and Provisions Under Heightened Scrutiny

In 2006, the government introduced a Broadcasting Services (Regulation) Bill, which was on similar lines, although there were marked distinctions compared to the present Bill. The Bill similarly sought repeal of the CTN Act, provided for the replacement of the Programme Code stipulated under Rule 6[52] and Advertising Code prescribed under Rule 7[53] of the CTN Rules, 1994, by new guidelines being a 'Content Code'. The Bill also clarified that broadcasting services would be required to be operated only after obtaining the desired license. There were provisions for suspension or revocation of licenses, although the terms' public interest' and 'communal harmony' remained vague and open for subjective interpretations. It also introduced

[50] *Ministry of I&B Takes Action against Obscene Content on OTT Platforms*, https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2014477.
[51] The Hindu Bureau, *X Takes down Four Posts by Leaders of BJP, AAP, YSR Congress*, TDP on Election Commission of India Order (April 17, 2024), https://www.thehindu.com/news/national/x-takes-down-four-posts-by-leaders-of-bjp-aap-ysr-congress-tdp-on-election-commission-of-india-order/article68073285.ece.
[52] The Cable Television Networks Rules, 1994, Rl 6 (India).
[53] The Cable Television Networks Rules, 1994, Rl 7 (India).

Digital Addressable Systems[54] (DASs) and established an independent regulatory authority, the Broadcast Regulatory Authority, to regulate and facilitate the development of broadcasting services.

The present Bill has reignited debates over how the government should regulate digital platforms and whether such interventions are necessary given existing frameworks. The Information Technology Rules 2021, as amended, already impose compliance obligations on intermediaries, mandate due diligence measures, and provide for grievance redressal mechanisms concerning online content. The additional layers of oversight introduced by the Broadcasting Services (Regulation) Bill appear redundant in some respects and unduly expansive in others, particularly where they extend beyond traditional media to include Over-the-Top (OTT) platforms and independent digital content creators. The assumption that all forms of digital media should be subject to a uniform regulatory framework, irrespective of their functional and structural differences, disregards the nuances of how digital content operates and how users engage with it.

The distinction between push-based and pull-based media models is particularly relevant in this context. Traditional broadcasting, which operates on a push-based model, delivers content to audiences without active user selection, necessitating regulatory oversight to ensure content appropriateness. In contrast, OTT platforms function on a pull-based model, where users deliberately choose what to consume, affording them greater control over their media exposure. This fundamental difference challenges the rationale for subjecting OTT services to the same degree of regulatory scrutiny as traditional broadcasters, particularly when existing laws already address content-related concerns, such as obscenity, misinformation, and national security threats. The Bill's failure to distinguish between these models raises concerns that OTT platforms are being brought under its ambit not due to a demonstrated regulatory necessity but as part of a broader effort to consolidate governmental control over digital media.

The implications extend beyond structural overreach and regulatory duplication to the risk of selective enforcement. The vague language employed in key provisions, particularly those governing permissible content, national security, and public morality, leaves significant room for discretionary application. Journalists, independent media organisations, and critics of the government fear that such provisions could be leveraged to suppress dissent, restrict investigative journalism, and penalise those who challenge dominant political narratives. The

[54] The Cable Television Networks (Regulation) Act, 1995, s 4A, No. 7, Acts of Parliament, 1995 (India).

potential for misuse is not speculative; it reflects broader concerns raised in response to the IT Rules, 2021, which were similarly criticised for their lack of transparency, excessive executive control, and chilling effect on free speech. The extension of comparable provisions in the present Bill, with even broader definitions of regulated entities, exacerbates these concerns and underscores the necessity of clearly defined safeguards against arbitrary enforcement.

The result is a regulatory environment where small creators, unable to meet compliance costs or navigate complex legal frameworks, may either self-censor or exit the space altogether, diminishing the diversity of perspectives available to the public. The opacity surrounding the drafting and consultation process has further undermined confidence in the Bill. The government's decision to circulate drafts selectively among chosen stakeholders rather than engaging in an inclusive consultation process has reinforced concerns about regulatory overreach. The exclusion of key players from substantive discussions, particularly independent media organisations and civil society representatives, suggests a deliberate attempt to curtail meaningful critique and expedite the passage of a framework that lacks broad-based legitimacy. The absence of transparency weakens the legislative process's credibility and raises questions about whose interests the Bill ultimately serves. A regulatory model conceived without public trust, procedural fairness, or institutional accountability is inherently flawed and unlikely to withstand legal and democratic scrutiny.

The potential impact on minority communities and marginalised groups has also emerged as a pressing concern. Critics argue that the Bill's vague definitional criteria and discretionary enforcement mechanisms may be weaponised to suppress the representation of certain identities, cultures, or perspectives that do not conform to majoritarian sensibilities. The risk of content regulation being employed as a means of erasure rather than protection is heightened in an environment where state institutions have historically shaped dominant narratives. The absence of safeguards to ensure that regulatory interventions do not disproportionately affect underrepresented voices raises serious questions about the Bill's compatibility with the principles of pluralism, inclusivity, and democratic discourse.

Beyond concerns over speech and representation, the Bill also threatens to impose excessive financial and administrative burdens on digital platforms, which may, in turn, affect content diversity, increase costs for consumers, and stifle innovation in media production and distribution. The imposition of licensing fees, compliance costs, and mandatory content evaluation procedures could render smaller and independent platforms less competitive,

reinforcing market dominance by established players that can afford regulatory compliance. The net effect of such a framework would be to concentrate control over digital media in the hands of a few, diminishing competition, limiting consumer choice, and constraining creative experimentation. While the Bill is ostensibly framed as a progressive step toward modernising digital content regulation, its broad scope, ambiguous provisions, and potential for misuse highlight the urgent need for a more nuanced and balanced approach. Content governance must be structured to protect societal interests without encroaching upon constitutional freedoms or enabling regulatory overreach. The principles of transparency, proportionality, and independent oversight must form the cornerstone of any regulatory initiative, ensuring that governance mechanisms serve public interest objectives rather than political imperatives. The next phase of this discussion must focus on how a recalibrated regulatory framework can achieve legitimate policy aims while preserving the integrity of digital expression and safeguarding media independence.

7. The Future of OTT Regulation: Lessons from the Withdrawal and the Road Ahead

Ensuring that content regulation reflects contemporary challenges without undermining fundamental freedoms requires a legal framework that is both precise and adaptable. Legislation must establish a level playing field across media platforms while recognising the technological transformations that distinguish digital content from traditional broadcasting. A well-crafted regulatory framework must balance free expression, innovation, and public interest protection without becoming a tool for government overreach or selective enforcement. Any regulatory intervention must be subject to clear procedural safeguards, independent oversight, and well-defined legal standards, preventing the arbitrary application of state power.

The scope of media rights differs significantly from individual rights due to the scale of impact, audience reach, and the broader public interest implications involved. Clear delineation of broadcaster categories is necessary to ensure that independent content creators who do not operate as formal news organisations are not subjected to the same compliance obligations as large-scale broadcasters. Legal ambiguity fosters uncertainty, self-censorship, and the potential for discretionary enforcement, making legislative clarity an essential prerequisite for any content regulation framework. Undefined statutory provisions create the conditions for misuse, allowing for regulatory interventions that lack consistency and predictability.

An independent and autonomous Media Regulatory Authority representing journalists, broadcasters, consumer rights groups, legal experts, and government officials would enhance

transparency, fairness, and institutional credibility[55]. Excessive executive control over content moderation risks undermining regulatory neutrality, making it imperative that enforcement mechanisms operate independently of political influence. A regulatory authority structured with diverse stakeholder representation would be far more effective in ensuring compliance, addressing grievances, and fostering a balanced approach to media governance. Inclusive consultations that engage independent content creators, civil society organisations, and representatives from marginalised communities would further strengthen the legitimacy of the regulatory process, ensuring that legislative provisions reflect broad-based concerns rather than the interests of a select few.

Safeguarding plurality in media representation remains a critical issue, particularly concerning concerns that vaguely defined regulatory provisions could be weaponised to silence dissenting voices or suppress minority perspectives.[56] The absence of concrete safeguards against the selective application of content restrictions increases the risk that regulatory measures could be used to entrench majoritarian narratives at the expense of media diversity. Strengthening legal protections for independent journalism and cultural representation would help prevent state-imposed erasure or marginalisation of certain viewpoints under the pretext of regulatory compliance.

The inclusion of OTT platforms within the same regulatory framework as traditional broadcasters raises fundamental concerns regarding the distinct nature of digital content consumption. The assumption that the same legal requirements should govern OTT services as linear television broadcasting fails to acknowledge the fundamental shift in media engagement brought about by digital platforms. A regulatory approach that fails to distinguish between push-based and pull-based media models imposes unnecessary constraints on platforms that rely on user-driven content selection. A tailored, light-touch regulatory framework designed

[55] See EU's Media Freedom Act. The Media Freedom Act seeks to harmonise the fragmented regulatory landscape governing media freedom, pluralism, and editorial independence across EU member states. By creating a more cohesive legal framework, the Act enhances the functioning of the internal market for media services while preventing regulatory barriers that could hinder cross-border operations of media service providers within the European Union. Serving as a complementary measure to the Digital Services Act (DSA) and the Digital Markets Act (DMA), the Media Freedom Act addresses sector-specific challenges that remain unaddressed by these broader legislative instruments. While the DSA and DMA establish harmonised rules for online platforms and digital markets, the Media Freedom Act focuses on the unique regulatory needs of the media sector, ensuring that issues related to press freedom, editorial autonomy, and media plurality receive the legal protections necessary to safeguard democratic discourse in the digital age. https://www.media-freedom-act.com/

[56] Basu, S., & Sen, S. (2023), *Silenced voices: unravelling India's dissent crisis through historical and contemporary analysis of free speech and suppression*, Information & Communications Technology Law, 33(1), 42–65. https://doi.org/10.1080/13600834.2023.2249780.

specifically for OTT services would allow for greater flexibility in content governance while ensuring appropriate safeguards for issues such as data protection, piracy, and responsible advertising.

A structured content classification system akin to the Cinematograph Act[57] would effectively ensure content governance without excessive state intervention. A regulatory model that includes clear rating categories such as Universal (U), Parental Guidance (U/A), Adult (A), and Specialised (S) classifications would provide adequate consumer information while preserving artistic and journalistic freedom. A regulatory framework that emphasises transparency in content classification rather than direct intervention in content creation, would strike a far more appropriate balance between regulatory oversight and expressive freedoms.

Imposing severe financial penalties or legal restrictions without a proportionate and graded compliance mechanism increases the risk of deterring independent content production. A graduated penalty system that distinguishes between minor infractions and serious violations would ensure that enforcement measures remain fair, proportionate, and aligned with fundamental principles of justice. Judicial oversight over content takedown requests, regulatory sanctions, and licensing disputes must be integral to any enforcement mechanism, preventing state overreach and ensuring due process.

Regulatory frameworks must also evolve in response to technological advancements rather than becoming static instruments that fail to accommodate digital content creation and distribution changes. A pilot-based approach, where regulatory provisions are tested regionally before full implementation, would provide valuable insights into the practical challenges of enforcement and allow for necessary refinements before nationwide rollout. Alignment with global standards in digital governance would further ensure that domestic regulations do not isolate India's digital ecosystem from international best practices.

Public trust in content regulation depends significantly on the transparency and inclusivity of the legislative process. Establishing mechanisms for public consultation, stakeholder engagement, and periodic review would ensure that media regulation remains accountable to the communities it serves rather than a top-down imposition dictated by state authorities. The introduction of open hearings, digital feedback platforms, and public commentary periods

[57] The Cinematograph Act, 1952, s 5A, No. 37, Acts of Parliament, 1952 (India).

would enhance the legitimacy of policy decisions while fostering greater civic participation in digital governance.

Licensing frameworks for broadcasters must be simplified, transparent, and free from bureaucratic inefficiencies, ensuring that regulatory compliance does not become an undue barrier to market entry or innovation. Community and regional broadcasters should be provided with specific regulatory carve-outs that encourage local media diversity, ensuring that the concentration of media ownership does not undermine content plurality. Jurisdictional issues concerning internationally based digital platforms must also be addressed through coherent regulatory mechanisms that account for the cross-border nature of digital content distribution.

The growing concentration of media ownership poses a significant risk to democratic discourse and competition within the sector. Stronger anti-monopoly measures, restrictions on cross-media ownership, and transparency requirements for media acquisitions would foster a more competitive and diverse content environment. The risks associated with corporate consolidation of media power necessitate structural interventions to prevent a handful of dominant players from controlling the digital and broadcast narrative.

A well-defined regulatory framework must protect creative and journalistic independence while ensuring responsible broadcasting practices. The emphasis must remain on preventing hate speech, misinformation, and content that incites violence rather than enabling state control over narrative formation. Strengthening self-regulatory bodies and co-regulation models would provide a more sustainable approach to content governance, ensuring platforms operate within established ethical guidelines without direct government interference.

Digital literacy and counter-speech initiatives should play a central role in content governance strategies, ensuring that regulatory interventions do not substitute civic engagement and public discourse. The long-term objective should be to build a digital ecosystem where content moderation serves the public interest rather than reinforcing state control over expression. Regulatory models that disproportionately burden smaller platforms while allowing powerful entities to dominate the space must be restructured to ensure market fairness.

A content governance framework must remain distinct from moral policing or political censorship. Platforms should not be weaponised as tools for silencing dissent or enforcing ideological conformity. The role of regulation should be to preserve open discourse while addressing legitimate concerns about content accountability. An approach prioritising state intervention over market-driven transparency risks reducing digital platforms to instruments of

political propaganda rather than spaces for genuine creative and journalistic expression. A legal framework that balances media accountability and expressive freedom ensures that neither the state nor powerful private entities wield disproportionate influence over the narratives that shape public opinion.

8. Conclusion

The Broadcasting Services (Regulation) Bill represents an ambitious, albeit contentious, attempt by the Indian government to modernise the regulatory framework in response to the shifting paradigms of media consumption. As we have examined, the Bill seeks to address the growing influence of digital platforms and individual content creators, bringing them within a structured legal framework. However, its approach raises fundamental questions about the balance between state oversight, media independence, and preserving democratic freedoms. A regulatory model that fails to reflect these competing interests with clarity and precision risks becoming an instrument of control rather than a mechanism for ensuring accountability.

The necessity of revisiting the Bill is evident. Any effort to regulate the digital media landscape must be predicated upon transparent and inclusive consultations that engage all relevant stakeholders, including journalists, content creators, civil society organisations, and independent media bodies. A constructive dialogue between regulators and those directly affected by these provisions is not simply advisable but essential to legitimising the regulatory process and preventing the perception of unilateral state control. A regulatory framework lacking broad input and democratic legitimacy is unlikely to withstand legal scrutiny or gain public trust.

Drawing from comparative regulatory experiences across jurisdictions, India has the opportunity to establish a balanced and forward-looking framework that accommodates innovation while ensuring responsible digital governance.[58]The lessons from global best practices underscore the importance of proportionality, accountability, and institutional safeguards in designing content regulation policies that neither stifle creativity nor allow

[58] European Union adopts a structured regulatory approach. The Audiovisual Media Services Directive (AVMSD) mandates that OTT platforms adhere to specific content standards, ensuring the protection of minors and the prevention of hate speech. See CARLINI, Roberta, Matteo TREVISAN, and Elda BROGI. *Monitoring media pluralism in the digital era: application of the Media Pluralism Monitor in the European Union, Albania, Montenegro, the Republic of North Macedonia, Serbia and Turkey in the year 2022. Country report: Italy*. European University Institute, 2023. See also Chawla, Ms Gunjan, and Nidhi Buch. *Regulation Of Web-Based Entertainment In India: Evaluating Self-Regulation Over Censorship As A Mechanism For Regulating Ott Platforms,* Journal of Namibian Studies: History Politics Culture 36 (2023): 134-155.

unregulated harm. A regulatory model prioritising transparency and legal precision over ambiguity and executive discretion is a legal and democratic imperative.

The challenge ahead is not simply one of drafting new legislation but of ensuring that regulation enhances, rather than diminishes, the role of digital media as a platform for diverse expression, public engagement, and critical discourse. The law must facilitate innovation and democratic deliberation rather than a barrier to independent media operations. If India is to develop a robust, future-proof regulatory framework, it must resist the temptation of over-centralisation and opaque rule-making. Instead, the emphasis must remain on safeguarding the foundational principles of free speech, plurality, and an open digital ecosystem that serves both the interests of the public and the demands of a rapidly evolving media landscape.

AN INCONVENIENT TRUTH FOR INTERNATIONAL TRADE: THE BHOPAL CASE REVISITED, THE CONTRIBUTION FROM INDIA TO INTERNATIONAL PRIVATE LAW

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Abstract

This paper primarily analyses the contribution of the Indian legal system for international law and the doctrine of forum non conveniens, which is a piece of American legislation mostly utilised to fend off accountability of faulty management governance from American companies. We look into the historical background of multilateral organisations, the Indian legislation to remediate the unfairness to the local communities affected by the Bhopal disaster, and particularly to the lawsuit brought in the Southern District of New York by the government of India to explain the legal argument of this doctrine applied to transnational lawsuits. We conclude that the doctrine of forum non conveniens is a judicial retrogression for legal remedies involving the protection of the national and international environment, local ecosystems, human health and the unborn. As a result, Bhopal local communities experienced injustice, inequality and health insecurity in a century of sustainable practices thus far. The Bhopal tragedy and that dismissed transnational litigation in the American jurisdiction illustrated that we all have a fiduciary and custodianship role to secure health and environment safety for future generations. Thus, we argue that the doctrine of forum non conveniens may have no place in the present times of transnational corporate liability and misconduct against the local and global environment. The Indian government being defeated by a defunct doctrine in the mid-80s illustrates forum non conveniens as a doctrine of anachronistic nature in the times of climate change.

Keywords: Bhopal Case, doctrine of forum non conveniens, transnational litigation, American jurisdiction

1. Introduction

The main query of this article is to ask why the doctrine of *foreign non conveniens* is still alive and well. In the study of legal systems evolution, India as a young democracy forging new jurisprudence and law policy after decolonisation is relevant. In the past, Indian emergent regulatory frameworks for environmental law towards domestic industrialisation are a point of inflection in international law, particularly in the aftermath of the Bhopal disaster on 3rd of December in 1984. The Bhopal gas leaking accident was a horrendous event that generated international attention from developing and developed nations policymakers to address corporate mismanagement in transnational companies against duty of care towards local communities, especially in developing States.

Historically India has influenced international law since the family of nations created the League of the Nations[1], the Havana Charter[2], the Bretton Woods[3] financial architecture, in the United Nations creation and further has been an important jurisdiction for many multilateral organizations, being an important founding member. The Conference in 1947, a collection of three meetings in distinctive nations was the first attempt to a multilateral trade system that culminated with the World Trade Organization.

Back in the Havana Charter times, India was one of the newly independent countries to enter in the international trade and commerce among many other developing nations, burying an era of mercantilism and colonialism behind the curtain of the most favourable nation principle (MFN).[4] The MFN principle has recently been tarnished by obsolete trade policies of nationalism, albeit treating other nations equally is still alive. Everyone is equal before the law, and the economic development of all jurisdictions is necessary to harmonise and facilitate cooperation in a multilateral concerted effort for everyone's wellbeing. In being a permanent member of the United Nations and a founding member of the current highly influential intergovernmental organisation called BRICS[5], India cements its role as a multilateral nation.

In an inclusive international law framework leading to a transformative multilateral relationship for developing and less developed countries, the international legal framework is fundamental for relationships. In an interconnected world, international private law became more transparent towards events that affect local populations, bringing awareness to host States receiving foreign investment. The advent of environmental governance reflects the climate

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[1] India is a founding member. See, The United Nations Office at Geneva, The Covenant of the League of Nations, Original Covenant, UNITED NATIONS OFFICE AT GENEVA (n.d.), https://www.ungeneva.org/en/about/league-of-nations/covenant.

[2] India was an active negotiator of the Havana Charter also called Havana Charter for an International Trade Organization. See United Nations Conference on Trade and Employment, Final Act and Related Documents, Interim Commission for the International Trade Organization, Lake Success, N.Y., Apr. 1948, https://www.wto.org/.

[3] India and my native Brazil were founding members. See, World Bank Group, Explore History, Exhibits, Bretton Woods and the Birth of the World Bank, WORLD BANK (n.d.), https://www.worldbank.org/en/archive/history/exhibits/Bretton-Woods-and-the-Birth-of-the-World-Bank.

[4] See World Trade Organization, Understanding the WTO: Basics, Principles of the Trading System, Trade Without Discrimination, WTO (n.d.), https://www.wto.org/english/thewto_e/whatis_e/tif_e/fact2_e.htm.

[5] BRICS is an acronym coined by Jim O'Neill in 2001, an economist, for the founding emerging economies that created a bloc for trade, finance and development among other nations that have joined this intergovernmental organization coined by Jim O'Neill. There is also an associated bank created in 2015 called New Development Bank, as a multilateral development bank. See BRICS, https://infobrics.org/ (last visited March 27, 2025).

change times we are all experiencing with natural hazards or by direct human intervention of past trade practices. India's legislative action after the Bhopal's methyl isocyanate leak illustrates exploitation of natural and human injury as poor accountability shielded by obsolete laws.

This is the case *In re Union Carbide Corporation Gas Plant Disaster* at Bhopal in 1984, which was adjudicated against India in the United States District Court of Southern District of New York in 1986.

This dispute involves one of the most consequential international environmental tragedies for humankind, with permanent emotional, health, and financial costs for the local population exposed to lethal pesticides and slow death after the gas leaked to the environment. The exercise of judicial discretion to weight in favour of American interests, a legal strategy that offered deference to the interests of invested capital and less attention to the environment and human rights is highlighted in this paper. As a landmark international lawsuit, it exemplifies a lack of fairness and justice for the local victims affected by the global corporations' interests even though evidence indicated that human lives were endangered by safety procedures maintained by foreign business practices before the disaster occurred.

It transpires that the American management at the Indian plant was unmotivated to prevent chemical disasters, so the Indian legislative enacted the *Bhopal Gas Leak Disaster Act*, an act to vest the Indian government in the legal and sole representative of individuals affected by this tragedy. Bhopal had a population for an equitable and speed compensation in the international proceedings that followed in the United States.

Regrettably, the surprising element of this horrific gas leak was unveiled by an absence of accountability in international law for a disaster that still persists in the abandoned Bhopal's pesticide plant site. Samples collected a decade ago indicate that the vicinity and surrounding areas including groundwater are still highly poisoned for the working class communities to survive. The financial and legal responsibility as these toxins and other organic pollutants persist in the local environment seem insignificant to the past management at the Union Carbide Corporation. Regardless of the current ownership of Bhopal's chemical plant, the former owner managed to avoid a domestic lawsuit in the United States due to the doctrine of *forum non conveniens*. This paper aims to shed some light in this doctrine of remote utility for today's environmental disasters produced by the hand of humans.

The doctrine of *forum non conveniens* is an ancient judicial test which aims to insulate domestic companies from accountability and enables a suggested double standard in international law. In times of climate change, to authorize domestic laws to avoid lawsuits and abandoned governance on poisonous sites, allowing hazardous chemical to contaminate surrounding areas and waterbodies is against the *United Nations Sustainable Development Goals*[6], particularly 10, 12 and 15, inter alia, for Reducing Inequalities and Responsible Consumption and Production of goods and materials; for Protection, Restoration, and Promote sustainable Use of terrestrial ecosystems, respectively. Moreover, a *forum non conveniens* doctrine applied to dangerous leaking of chemicals, heavy metals and other pollutants in waterbodies weakens the UNEP *Global Mercury Partnership*[7] to eliminate the worst management practices.

The doctrine of forum non conveniens codified in the American legislation represents a disregard to the interconnected world we live in by perpetuating inequality and non-sustainable practices outside investors' jurisdictions. Therefore, *In Re Union Carbide*, the Indian test of *forum non conveniens* on American courts is a constant reminder of why the doctrine should not survive in international law practice, particularly in cases involving foreign direct investment agreements.

This article deals with international public law and international private law to highlight the contribution of Indian jurisprudence to the development of international human rights, revealing the challenges to international trade and accountability of foreign direct investors in the decade of 1980s. It also reviews the double standard allowed by the 1980s theory of *forum non conveniens* to decline jurisdiction by American courts. This doctrine insulates international class actions claims against American financial interests and appears as a chosen American defendant strategy to repeal compensation in transnational lawsuits. Also, defendant's argument as forum shopping for international plaintiffs, it achieves insulation for American foreign investment. The efficiency of such legal argument would work in a world without global commons scarcity, without climate change mitigation policies to alleviate global warming, for the benefit of all humanity. Hence, revisiting *In Re Union Carbide* teaches us to avoid another age of calamity and support multilateralism.

[6] This is the 2030 Agenda for Sustainable Development, adopted by all United Nations members in 2015. See, United Nations, Department of Economic and Social Affairs, Sustainable Development: The 17 Goals, UNITED NATIONS (n.d.), https://sdgs.un.org/goals.

[7] See UNEP Global Mercury Partnership, available at https://www.unep.org/globalmercurypartnership/ (last visited Jan 15, 2025).

In a sense, the Bhopal tragedy portraited *In Re Union Carbide* paved the way to advocate for the extinction of *forum non conveniens* use altogether. To argue for an exceptional Indian contribution to international law, we review *forum non conveniens* through the test in the Bhopal litigation in New York. This article looks into the background of *forum non conveniens* use by courts in the United States, the application of this doctrine that is codified in other developed countries[8], focusing on the American jurisdiction, the shortcomings of such doctrine for international commerce, including the trade-related aspects of intellectual property, shaping future policies for new technologies.

One of the reasons for a revisited analysis of the *forum non conveniens* doctrine is to test the perception rather accurate of an applied double standard to circumvent liability for a multinational company that overlooked environmental governance risks. We will delve into this concept from the perspective of public interest and judicial comity, which is the test more suitable and akin to the doctrine of forum non conveniens.

This article is divided into a historical factual analysis of the locality of Bhopal, the international public law analysis with the United Nations Charter and international organisations in the multilateral system, focusing then to the international private law doctrine of *forum non conveniens* as a legal strategic tool to select distribution of justice for victims at the Bhopal tragedy. Thus, into international private law, this article reviews judicial comity in opposition to the referred doctrine to suggest an argument that the doctrine may not be revitalised in the present climate change society era. We conclude that the plaintiff's claim in the *In Re Union Carbide* is a transnational claim, in a sense, that it involves the local risks just and fair compensation as well as the punitive damages and mismanagement that is accountable at local level. However, the leaking of a lethal gas to the atmosphere is also a global commons manifest liable act. *In Re Union Carbide*, India succeeded to illustrate the use of the doctrine of *forum non conveniens* for the solely convenience of the foreign investor, so the argument of a more convenient jurisdiction was claimed and accepted as valid in an opportunist way.

2. Bhopal, a place in Madhya Pradesh

[8] The doctrine of *forum non conveniens* is found in Australia, in the United Kingdom, and Canada, mostly Commonwealth countries, albeit the United States is not a member of this intergovernmental organization. See, The Commonwealth, About Us, available at https://thecommonwealth.org/about-us#:~:text=The%20international%20headquarters%20of%20the,on%20Pall%20Mall%20in%20London (last visited Dec. 19, 2024).

Bhopal is the capital of the state of Madhya Pradesh, located in the central part of India, a country with more than 200 languages, diverse in ethnical practices and with a rich cultural history. In 1984, Bhopal was a town with 850,000, which today has multiplied to a metropolitan area is of 2,629,000 habitants.[9] Bhopal was the site of the Union Carbide India Limited (UCIL), which was owned by Union Carbide (UCC), based in New York, in the United States by majority of shares. The factory produced Sevin and Temik pesticides that leaked by argued negligence to American management, who controlled the Indian plant and its governance according to the guidance of Union Carbide Corporation, in New York. The chemical disaster that decimated up to 20,000 individuals with a cloud of toxic gas exposure to the local population10, mercury lodged in the groundwater of the vicinity[11] as of today and left half a million survivors with blindness, respiratory malaises and eye irritation for the rest of their lives.[12]

The Bhopal industrial disaster is the worst accident involving multinational companies, with one of the highest numbers of victims suffering permanent injuries and high morbidity.[13] It is also observed the pollution of water bodies and genetic mutations in future generations exposed to the leaked gas, which was around 41 tonnes of lethal methylisocyanate trimmer (MICT), dimethylisocyanurate (DMI), Chloride, Trimethyl amine (TMA), Dione, Dimethyl, Dimethyl amine (DMA), Trimethyl urea (TMU), Dimethyl urea (DMU), Monomethyl amine (MMA), Trimethyl biuret (TMB), Tetramethyl biuret (TRMB) along with metallic ions and other chemical compounds detected at Union Carbide plant such as Ammonium chloride and others.[14] Therefore future generations were victims of the abnormal local environment before birth. Equally the ecological disaster for the planet's ecosystem should be stressed.

[9] See, Population Census, Home, Madhya Pradesh, Bhopal District, Bhopal UA, Bhopal City, Bhopal Population 2025, available at https://www.census2011.co.in/census/city/302-bhopal.html (last visited Jan. 14, 2025).

[10] See, Hannah Ellis-Petersen, 'Bhopal's tragedy has not stopped': the urban disaster still claiming lives 35 years on, The Guardian (Dec. 8, 2019), available at https://www.theguardian.com/cities/2019/dec/08/bhopals-tragedy-has-not-stopped-the-urban-disaster-still-claiming-lives-35-years-on (last visited Feb. 27, 2025).

[11] See Aniqah Majid, Why Bhopal Remains Toxic 40 Years On, The Chemical Engineer (Dec. 12, 2024), available at https://www.thechemicalengineer.com/features/why-bhopal-remains-toxic-40-years-on/ (last visited Apr. 3, 2025).

[12] See Harvard T.H. Chan School of Public Health, Environment & Climate Health, 40 Years After Bhopal Toxic Gas Leak, Suffering Continues (Sept. 25, 2024), available at https://hsph.harvard.edu/news/40-years-after-bhopal-toxic-gas-leak-suffering-continues/ (last visited Feb. 9, 2025).

[13] Other disaster such as Chernobyl nuclear plant had a high number of causalities however, Bhopal stands as the worse, because also alive and unborn individuals suffered from the gas leakage. See Rhitu Chatterjee, The World's Industrial Disaster Harmed People Even Before They Were Born, NPR News, National Library of Medicine, available at https://www.ncbi.nlm.nih.gov/search/research-news/19117 (last visited Mar. 20, 2025).

[14] For a full list of the chemical leaked in the Bhopal industrial accident and the complete analysis of core samples from one of the tanks 610. See J.P. Gupta, Bhopal and the Global Movement on Process Safety, available at https://www.icheme.org/media/9887/xviii-paper-02.pdf (last visited Jan. 30, 2025).

The aftermath of this horrific tragedy indicated a movement on corporative governance to improve international standards for environmental risks. Most countries revisited and enforced including preventive management of industrial accidents, albeit chemical accidents still occur. However, in the side of administration of justice, the enactment of laws to enforce industrial safety management are still pale when foreign investors are included in the equation of subsidiaries of transnational companies.

The Bhopal tragedy and the subsequent failed American litigation illustrated the necessity for a strict rule on absolute liability for polluters affecting human health in a continuous cycle of diseases. In spite of this, the doctrine of *forum non conveniens* applied against the Bhopal victims stands as a denial of the precautionary principle applied to international human rights. This international litigation illustrated a rebuttal of social welfare rights and equal rights for all individuals to a health environment, which should be guaranteed by domestic and foreign justice to the most vulnerable people.

3. International Human Rights and shopping for justice

The doctrine of *forum non conveniens* is a principle applicable in the domestic law of Anglo-Saxon nations and aims to curb forum shopping and choice of law for plaintiffs. The link with international human rights is almost not detected. What human rights would have to do with plaintiff's choice of jurisdiction? If human rights protect the right to life and to work among other inherent rights, that is also included the right to be treated without discrimination to ethnicity, race and status. The evolution of human rights encompasses protection to persons with disabilities and other vulnerable groups to physical and mental well-being.[15] Protecting the economic, social and cultural rights of the Bhopal population is a universal right, an international human rights regardless of nationality and locality.

Therefore, the guarantee of international human rights for people in Bhopal, living in their dwellings or residing in towns around such chemical plants must have been established by Union Carbide management via an environmental governance framework to protect wetlands, rivers and oceans from chemicals discharge.[16] The right to safe food, which drinking water is

[15] See United Nations, Peace, Dignity and Equality on a Healthy Planet, Global Issues, Human Rights, What Are Human Rights?, available at https://www.un.org/en/global-issues/human-rights (last visited Apr. 12, 2025).

[16] The American company was located in the state of New York, which had environmental law protection in 1982 by the Clean Water Act (CWA) which was enacted as the Federal Water Pollution Control Act amended in 1977, 1982 and 1987, setting water quality standards,See, U.S. Environmental Protection Agency, Summary of the Clean Water Act, available at https://www.epa.gov/laws-regulations/summary-clean-water-act (last visited Mar. 3, 2025).

the subsistence of life, is an international human right.[17] Polluted water, especially on rivers in any nation because of negligent foreign investment should have *forum conveniens* anywhere in the planet. It is the protection of global commons, that is the right to be highlighted.

The plaintiff's right to sue should be accommodated where foreign companies have their major capital and profits located in wealthy regions, which generally enjoy high standards for environmental protection. The reason for such a drastic measure to chase capital is economic: this is where shareholders and other beneficiaries will be able to accrue profits from the foreign operation.

A suggested test to the Judiciary, when *forum non conveniens* is argued should be updated and connected to the right to a clean, healthy and sustainable environment for all individuals. An environmental protection for intangible assets such as water and air are justified because these are also international human rights as declared in 2022 by the United Nations Assembly.[18] Then we could address environmental injustices worldwide with fairness to future generations. Such pitiful results in the administration of justice in developed countries should be avoided. Consequently, the doctrine of *forum non conveniens* should be abolished because it is also perceived as an instrument of colonisation and perpetuation of inequality among vulnerable populations around the globe.

Fortunately, environmental governance on hazardous industries has improved worldwide albeit some avoidable chemical accidents are still inevitable which aggravates the pollution of rivers and oceans.[19] These tragedies compromise the marine ecosystem everywhere, not only locally. Equally, international human rights are also food safety, which water is the most important

[17] See, United Nations, Department of Economic and Social Affairs, Safe Drinking Water, Sanitation, Are 'Basic Human Rights': New UN Water Development Report, available at https://www.un.org/tr/desa/safe-drinking-water-sanitation-are-%E2%80%98basic-human-rights%E2%80%99-new-un-water-development (last visited Feb. 18, 2025).

[18] In 28thof July, 2022, the United Nations General Assembly formally recognised the right to a clean, healthy, and sustainable environment a fundamental right, which around 150 countries recognized this right in their Constitutions, national laws and on ratification of international instruments. Nonetheless, the interdepend t relationship between environmental protection and human rights has been recognised in international law since 1972, in the Report of the United Nations Conference on the Human Environment, namely Stockholm Declaration. See United Nations Digital Library, Report of the United Nations Conference on the Human Environment, Stockholm, 5-16 June 1972, available at https://digitallibrary.un.org/record/523249?ln=en&v=pdf (last visited Apr. 7, 2025).

[19] I refer to the United Kingdom North Sea. See Madeleine Cuff, in Major ship collision in UK waters sparks fears of toxic chemical leak, Madeleine Cuff, Major Ship Collision in UK Waters Sparks Fears of Toxic Chemical Leak, New Scientist (Mar. 11, 2025), available at https://www.newscientist.com/article/2471549-major-ship-collision-in-uk-waters-sparks-fears-of-toxic-chemical-leak/?utm_campaign=RSS%7CNSNS&utm_source=NSNS&utm_medium=RSS&utm_content=currents (last visited Feb. 5, 2025).

ingredient, essential for our body to work properly. Therefore, the environment is closely related with international human rights.

Again, the *forum non conveniens*, as a defendant's argument (commonly used by companies using foreign investment in developing countries) denying ecological rights and fair compensation to victims is nefarious. In the case of Bhopal, the American multinational company utilised *forum non conveniens* to curb claims of defective management and under satisfactory safety measures allowed the worse tragic chemical accident to occur. After, the Bhopal tragedy, laws and regulations have improved on domestic law as well as in development for the protection of environmental rights. Nonetheless, *forum non conveniens* is still alive and applicable in American courts and other Commonwealth nations.

4. The Charter of the United Nations

The public international law delineates the basic of international economic cooperation among all members of the Union Nations family. To examine the argument of denial of justice in transnational lawsuits involving the environment, it is imperative to look in the United Nations Charter, focusing on the relationship of international organisations and United Nations members, the interrelation of environment and human rights, so that we could then focus on private international law and then municipal law.

In the United Nations Charter, Chapter IX[20], stability and welfare are highlighted for achieving friendly relations among nations.[21] An important emphasis to higher standards of living, including food and access to drinking water along with full employment22 should be aimed for social progress and development for local populations. In the United Nations Charter, the cooperation among nations aims to provide solutions of international economic, social and health problems aligned with cultural and educational cooperation.[23] In the Charter's article 55

[20] See United Nations Charter, Chapter IX International Economic and Social Co-Operation, available at https://www.un.org/en/about-us/un-charter (last visited Jan. 8, 2025).
[21] See United Nations Charter, Chapter IX International Economic and Social Co-Operation, available at https://www.un.org/en/about-us/un-charter/chapter-9 (last visited Apr. 1, 2025).
[22] United Nations Charter, Chapter IX International Economic and Social Co-Operation, available at https://www.un.org/en/about-us/un-charter/chapter-9 (last visited Feb. 25, 2025).
[23] See United Nations Charter, Chapter IX International Economic and Social Co-Operation, art. 55, available at https://www.un.org/en/about-us/un-charter/chapter-9 (last visited Mar. 18, 2025)

is stated that the United Nations family of multilateral organisations or specialised agencies[24] should promote universal respect and observance of human rights among members.[25]

In the Bhopal tragedy, the outcome of the accident was disproportionally treated as solely a private international law matter. Undoubtedly, the Bhopal chemical leakage was harmful to the population and adjacent waters with irreversible consequences. It unveiled the unsatisfactory management framework practised by foreign corporations at the time, which defective corporate governance threatened the environment with immense environmental risk as part of the business strategy. Foreign companies must, as part of their portfolios of investment assess environment risk and sustainability issues for supply and chain operations overseas. Any company that trades must shield its reputation and trustworthy enterprise from disrepute, so that industrial activities may secure and attract future capital easier. Moreover, international insurance favours good governance for predictability of actions for legal certainty.

Until the Bhopal litigation in New York, there was a disharmony of good practices in management and on human rights for chemical industries mismanagement of chemical production in developing countries. Nonetheless, chemical companies leaking gases and other hazardous elements still occur in India and elsewhere.[26] In India, in spite of the strong criminal legislation in place, the contamination of the river and surroundings areas by LG Chem Korean owned plant[27], located near Visakhapatnam, an ancient port city from the Roman times located in Andhra Pradesh state occurred on the 7 of May in 2020.[28] This accident resulted in criminal charges against the corporate body of LG Chem Korean and a relocation from the site.

Recently, in the North Sea, another chemical accident involving two cargo ships potentially leaked oil fuel to the local marine biodiversity and probable another chemical of unknown hazardous levels, which is worrisome. A stationary oil tanker ship carrying an American flag, and a Portuguese ship container collided in the North Sea. At the time, twelve people died and more than one thousand felt sick because of the chemical exposure.[29] Many industries are slow

[24] See, United Nations Charter, Chapter IX International Economic and Social Co-Operation, art. 57, available at https://www.un.org/en/about-us/un-charter/chapter-9 (last visited Jan. 27, 2025).
[25] See, United Nations, Chapter IX International Economic and Social Co-Operation, art. 55(c), available at https://www.un.org/en/about-us/un-charter/chapter-9 (last visited Apr. 10, 2025).
[26] See recent North Sea spilling footnote above.
[27] See Woo-Sub Kim, Chemical Industry, LG Chem Promises Extra $14.4 Million in Aid Over Indian Gas Leak, The Korea Economic Daily (July 10, 2024), available at https://www.kedglobal.com/chemical-industry/newsView/ked202407100013 (last visited Feb. 15, 2025).
[28] Ibid.
[29] See United Nations, UN News Global Perspective, available at https://news.un.org/en/story/2020/05/1064092 (last visited Mar. 12, 2025).

in adopting good governance, nonetheless, the chemical sector is deliberately unhurried to embrace climate risks.[30] The chemical industry, especially pesticides and alike, are resistant to change.[31] The sector consistently dismisses the United Nations guidance on business practices and their risk operations are still polluting oceans and waterways around the world with minimal responsibility towards the environment and human lives affected by their actions.[32]

[30] It is argued that polluter industries are located in low income communities, including in the United States. See Jill Johnston & Lara Cushing, Chemical Exposures, Health and Environmental Justice in Communities Living on the Fence of Industry, in Synthetic Chemicals and Health, Springer Nature, Jan. 22, 2020, vol. 7, at 48–57, available at https://pmc.ncbi.nlm.nih.gov/articles/PMC7035204/ (last visited Feb. 22, 2025).

[31] In a newsletter for investors, a well-known French investment company publishes an allocation of high-end technologies to address climate change, nonetheless, the report suggests that hazardous substances can be fully contained and anticipated, which even current events may confront investors with the reality of potential environmental release, which will be a key driver of biodiversity loss. See UN Environment Programme Finance Initiative, Sectoral Risk Briefings: Insights for Financial Institutions, at 12, 13, 15, 22, 23, 28, available at https://www.unepfi.org/wordpress/wp-content/uploads/2023/04/Climate-Risks-in-the-Industrials-Sector.pdf (last visited Jan. 17, 2025).

[32] In this sector, high carbon schemes can lead to less profits and add indirect cost for foreign businesses impacting operational costs, albeit the campaign to reach net zero by 2050 is progressing for chemicals, which will impact greatly this sector. India will be impacted on prices for ammonia production. See page 23, note 31.

In the United Nations Guiding Principles Business Human Rights[33], the Corporate Responsibility to respect human rights completely ignored from corporative management.[34] In the UN corporate responsibility document, one finds an important deference to municipal law, which suggests that human and environmental tragedies such as in the Bhopal-Union Carbide were not fully addressed as a transnational lawsuit by international law. Thus, a recent declaration adopted by some members at the Organization for Economic Co-operation and Development (OECD) for a planet free of harm from chemicals and waste, appeared to have been the first step towards the correct direction, albeit India, South Africa and Indonesia appeared to have missed the opportunity.[35]

[33] In the general principles, we have human rights, as a main norm: "These Guiding Principles are grounded in recognition of: (a) States' existing obligations to respect, protect and fulfil human rights and fundamental freedoms; (b) The role of business enterprises as specialized organs of society performing specialized functions, required to comply with all applicable laws and to respect human rights; (c) The need for rights and obligations to be matched to appropriate and effective remedies when breached. These Guiding Principles apply to all States and to all business enterprises, both transnational and others, regardless of their size, sector, location, ownership and structure." In the privatization of human rights such a foundation principle is suggested to advocate for municipal law: "States must protect against human rights abuse within their territory and/or jurisdiction by third parties, including business enterprises. This requires taking appropriate steps to prevent, investigate, punish and redress such abuse through effective policies, legislation, regulations and adjudication." In the commentary, the principle of predictability is present: "There are strong policy reasons for home States to set out clearly the expectation that businesses respect human rights abroad, especially where the State itself is involved in or supports those businesses. The reasons include ensuring predictability for business enterprises by providing coherent and consistent messages, and preserving the State's own reputation. States have adopted a range of approaches in this regard. Some are domestic measures with extraterritorial implications. Examples include requirements on "parent" companies to report on the global operations of the entire enterprise; multilateral soft-law instruments such as the Guidelines for Multinational Enterprises of the Organisation for Economic Co-operation and Development; and performance standards required by institutions that support overseas investments. Other approaches amount to direct extraterritorial legislation and enforcement. This includes criminal regimes that allow for prosecutions based on the nationality of the perpetrator no matter where the offence occurs. Various factors may contribute to the perceived and actual reasonableness of States' actions, for example whether they are grounded in multilateral agreement." This mean that multilateral and bilateral treaties play a role in supporting international human rights locally. Moreover, in the corporate responsibility: " Business enterprises should respect human rights. This means that they should avoid infringing on the human rights of others and should address adverse human rights impacts with which they are involved. Commentary The responsibility to respect human rights is a global standard of expected conduct for all business enterprises wherever they operate. It exists independently of States' abilities and/or willingness to fulfil their own human rights obligations, and does not diminish those obligations. And it exists over and above compliance with national laws and regulations protecting human rights. Addressing adverse human rights impacts requires taking adequate measures for their prevention, mitigation and, where appropriate, remediation." See UN Guiding Principles on Business and Human Rights, The Corporate Responsibility to Respect Human Rights, available at https://www.ohchr.org/sites/default/files/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf (last visited Mar. 25, 2025).

[34] This can be noted also by the future agenda for the chemical industry in which circular economy is showcased, with no mention to hazardous chemicals at the World Forum, World Economic Forum, Chemicals Industry Low-Carbon Economy, available at https://www.weforum.org/stories/2023/03/chemicals-industry-low-carbon-economy/ (last visited Apr. 8, 2025).

[35] Indonesia had suffered a dreadful chemical accident recently with several people burned with caustic soda in Cimahi, Indonesia. See Algi Muhamad Gifari, Over 100 People Suffer Burns from Caustic Soda Spills in Cimahi, available at https://jakartaglobe.id/news/over-100-people-suffer-burns-from-caustic-soda-spills-in-cimahi (last visited Feb. 12, 2025). See also OECD Legal Instruments, Declaration on Supporting the Achievement of the

Therefore, this inaction by the chemical sector creates a space for domestic courts to be an appropriate venue for compensatory claims in relation to the health and environmental accidents. As a result, human right violations should be also tested by courts in international environmental litigations. The enforcement of human rights has evolved concerning such industrial accidents and international liability for transnational corporations.

One recent lawsuit is worth noting is the 2015 Mariana disaster in Minas Gerais, in Brazil, which has led to a massive class action with considerable damages to be claimed. It was commenced by the Municipality of Mariana in Minas Gerais, Brazil against BHP Group in the United Kingdom.[36] One could argue that to resort to foreign domestic courts for just compensation is one avenue that can backfire in Anglo-Saxon jurisdictions as the Bhopal-Union Carbide case illustrated with a transnational litigation initiated in New York.[37]

Since the Bhopal-Union Carbide accident followed by Chernobyl and other industrial accidents, a number of international agreements, treaties and covenants are listed for protection of human rights in the context of businesses practices, environmental local instruments.38 This paper suggests that the reason for this gap to be unsealed is due to the opportunistic defendant's argument of doctrine of *forum non conveniens*.

5. The doctrine of *forum non conveniens*

Strategic Objectives and Targets of the Global Framework on Chemicals – For a Planet Free of Harm from Chemicals and Waste, adopted May 3, 2024, available at https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0502 (last visited Jan. 24, 2025).

[36] The case is Municipio de Mariana & Ors v BHP Group UK Limited and Anor (2022) , a class action rejected partially in 2018 and considered under appeal two years after. The death toll is up to nineteen people, and the survivors of this accident are cancer and diabetes cases are soaring due to the exposure of toxic waste from SAMARCO. Also, the river Doce pollution with toxicity for human consumption is of incalculable value, because it affected local communities and Indigenous groups in the area curtailing their cultural rights with the River Doce. The international liability is shared by SAMARCO, a joint venture between a Brazilian mining firm called Vale and the Anglo-Australia BHP, namely Broken Hill Proprietary Company Limited, originally from New South Wales, Australia. BHP is currently the biggest mining company by market value. See The Guardian, Mothers Demand Justice as London Case Over Brazil Dam Collapse Concludes, available at https://www.theguardian.com/business/2025/mar/13/mothers-demand-justice-as-london-case-over-brazil-dam-collapse-concludes (last visited Mar. 6, 2025).

[37] See *In re Union Carbide Corp. Gas Plant Disaster at Bhopal, India in December, 1984*, 634 F. Supp. 842 (S.D.N.Y. 1986), available at https://law.justia.com/cases/federal/district-courts/FSupp/634/842/1885973/ (last visited Dec. 21, 2024).

[38] For this paper, I will stress that the Stockholm Convention on persistent Organic Pollutants in force since 2004 but see all treaties concerning chemical safety and the environment at the International Labour Organization website. See International Labour Organization, International Agreements in the Field of Chemical Safety and the Environment (Nov. 8, 2013), available at https://www.ilo.org/resource/international-agreements-field-chemical-safety-and-environment (last visited Mar. 29, 2025).

The concept of the doctrine of *forum non conveniens* was born in Scotland.[39] The theory is controversially connected to an ancient doctrine which is *forum non competens* also decided by a Scottish court in the case *Vernor v Elvies* 6 Diet, of Dec. 4788 (1610).[40]

The main purpose of the doctrine is to provide courts with the ability to grant a *discretionary stay* in the court proceedings which might have been beneficial to one of the parties, to protect a private interest from financial loss.[41] Other scholars attributed the popularity of the doctrine as a barrier for *forum shopping* by the plaintiff, which is an argument that gained traction particularly in American courts.[42] *Forum shopping* has also the ability to nullify enforcement of foreign decisions, which scholars claim that may be discriminatory to argue of no connection to the facts or company to the event.[43]

Back in the XVI and XVII centuries, the Scottish judges did not focus on the strategy to modify court or stay proceedings for the sake of economic reasons.[44] *Forum non conveniens* is then connected to procedures, witnesses and evidence. The preoccupation was whether the parties could be summoned to the jurisdiction in a reasonable time. This concern to the procedures illustrates that the transactional approach is due to a recent American interpretation of economic power competing among nations for trade and investment interests.

[39] See Ardavan Arzandeh, The Origins of the Scottish Forum Non Conveniens Doctrine, 13 J. Priv. Int'l L. 130, 130–51 (2017), available at https://doi.org/10.1080/17441048.2017.1303044 (last visited Jan. 11, 2025).

[40] Most scholars cite secondary sources, so I went to search for this old case law. I have to be grateful to Rachel Prior, from the National Library of Australia, for finding this case. See Scottish Court of Session, Decision, available at https://www.bailii.org/scot/cases/ScotCS/1610/Mor1204788-005.pdf (last visited Mar. 14, 2025).

[41] See Ardavan Arzandeh, The Origins of the Scottish Forum Non Conveniens Doctrine, 13 J. Priv. Int'l L. 130 (2017), available at https://doi.org/10.1080/17441048.2017.1303044 (last visited Apr. 6, 2025).

[42] See Zanifa McDowell, Forum Non Conveniens: The Caribbean and Its Response to Xenophobia in American Courts, 49 Int'l & Comp. L.Q. 108 (2000), available at https://www.cambridge.org/core/journals/international-and-comparative-law-quarterly/article/forum-non-conveniens-the-caribbean-and-its-response-to-xenophobia-in-american-courts/F536EFB1DC8CCF4F77D2A9E7488DA38F (last visited Feb. 19, 2025).

[43] See Humphrey et al. v. Jolly Rogers Cruises Inc., No. 61 (High Ct. Barb. 1998). See Zanifa McDowell, Forum Non Conveniens: The Caribbean and Its Response to Xenophobia in American Courts, 49 Int'l & Comp. L.Q. 108 (2000), available at https://www.cambridge.org/core/journals/international-and-comparative-law-quarterly/article/forum-non-conveniens-the-caribbean-and-its-response-to-xenophobia-in-american-courts/F536EFB1DC8CCF4F77D2A9E7488DA38F (last visited Mar. 3, 2025).

[44] The doctrine of *forum non competens* is linked to the origins of *forum non conveniens*, however, there are other scholars that oppose this argument. See Ardavan Arzandeh, The Origins of the Scottish Forum Non Conveniens Doctrine, 13 J. Priv. Int'l L. 130 (2017), available at https://doi.org/10.1080/17441048.2017.1303044 (last visited Jan. 26, 2025). "(…) the seventeenth- and eighteenth-century forum non competens cases makes it difficult to accept that they were the conceptual predecessors of (what we now characterize as) forum non conveniens. More significantly, further support for this conclusion can be found following a close analysis of the case law within the forum competens heading in the Dictionary. As the forthcoming analysis seeks to illustrate, in none of these cases did the parties' submissions (and, in turn, the reasoning adopted by the judges) appear to require an assessment of the question of whether the Scottish proceedings should be stayed, through the exercise of a discretionary power, in favour of the appropriate foreign forum. Instead, in the forum non competens cases, the litigants' (and the judges') only preoccupation was merely to find whether the defenders could be summoned. (…)"

Moreover, early cases of *forum non conveniens* are deeply rooted in admiralty caselaw.[45] The discretionary staying-of-proceedings practice is present in *M'Morine v Cowie* in 1845.[46] Arguably, the popularity of *forum non conveniens* may have skyrocketed after the British decision of *Spiliada Maritime Corporation v Cansulex Ltd* in 1987.[47] Before *Spiliada*, it is very well documented the use of the doctrine as *Sim v Robinow* in 1892[48] can attest. In reality, one could argue that both *forum non conveniens* and *forum non competens* may have merged in the past so a retrospective study of both doctrines may show more evidence of the usage of these legal strategies to pursuing more convenient courts somewhere else, which is traced back to the XVI century.[49]

The doctrine of *forum non conveniens* is unsurprisingly convenient to private interests in international private law, mainly to common law countries. Basically, parties test the courts on whether the connection with the chosen jurisdiction is suitable and whether private interests are protected and better served by another court's adjudication in the pursuit of justice. In our interconnected world, in which everything travels via submarine cables and digital platforms that appears an obsolete argument.

Another important point, *forum non conveniens* is arguably a double edge sword test, because it is well known that transnational corporations have the bulk of their profits retained by foreign capital, where profits flow from invested capital. Generally, subsidiaries have headquarters located in developed countries, where *forum non conveniens* has been adopted as the doctrine of safe foreign investment. Consequently, the result of the application of *forum non conveniens* does not transfer equality and justice among stakeholders. However, *forum non conveniens* works with efficacy if the parties have an economic imbalance.

[45] See William S. Dodge, Maggie Gardner & Christopher Whytocks, The Many States Doctrines of Forum Non Conveniens, 72 Duke L.J. 1166, 1166 n.10 (2023) (last visited Feb. 14, 2025).

[46] A case of a testament of an English captain, who died in India. See M'Morine v. Cowie, Docket No. 48, Ct. Sess. (Inner House–First Div.), Ld. Robertson N., available at https://vlex.co.uk/vid/m-morine-v-cowie-803610985 (last visited Mar. 20, 2025).

[47] A case of shipping, cargo and damages and where shall the plaintiff litigate. See Spiliada Maritime Corp. v. Cansulex Ltd., (1987), available at https://vlex.co.uk/vid/spiliada-maritime-corporation-v-793567649 (last visited Apr. 4, 2025).

[48] A case in which parties had entered into a joint adventure to explore South African mines, when payments were not paid at the time, then parties returned to Scotland and England, their place of residence. Importantly, the accounting books and witnesses were located in South Africa. See Sim v. Robinow, Docket No. 123, Ct. Sess. (First Div. 1892), available at https://vlex.co.uk/vid/sim-v-robinow-807542285 (last visited Mar. 31, 2025).

[49] See contra infra footnotes 9, 13.

Parties with similar economic power have a neutral advantage before courts. For instance, the appeal in *Samsung Electronics v LG Display* [2022][50] brought to the High Court of Justice in the United Kingdom is an example of the *forum non conveniens* neutrality when two parties have the means to pursue a long costly litigation. In *Samsung*, both parties are two transnational corporations (TNC), with operations and sales networks worldwide, highly profitable in the electronics sector, in which economic power between the two parties is counterbalanced by LG. Like Samsung, LG is a transnational corporation (TNC) in electronics, chemicals, and telecommunications. Both are South Korean TNCs, with a global presence, holding power to litigate for indeterminate time anywhere in the world, with an unlimited financial resources.

As previously stated, where the defendant's economic power is abundant against a vulnerable plaintiff or in a class action, neutrality is inexistent. A chosen legal system that is costly, weakens the plaintiff, that eventually may desist of pursuing such expensive lawsuit.

In such circumstances, applying the doctrine of *forum non conveniens* is a negative factor for the public interest and is an example of justice not served. Thus, the role of administrator of justice when *forum non conveniens* doctrine is applied to a decision does not ensure that everyone is treated equally under the law.

The test of litigation connected with the matter and acceptable evidence does not consider the broader interest to maintain fair justice among all stakeholders. Some may argue to admit a foreign claim may be a waste of time and taxpayers' moneys, so the reasoning for *a stay* in the transnational case is justified, to avoid the burden on the court system. However, the doctrine of *forum non conveniens* is tested in discretionary manner by common law judges. Generally, the applicability of *forum non conveniens* involves a subtle argument of protection of economic interests from a defendant, who is generally resident in the chosen jurisdiction.

It is reasonable to argue that *forum non conveniens* is a doctrine for defendant's use to protect economic interests. Consequently, an abandonment of responsibility and international liability against a whole community injured and in the process of suffering permanent injuries. That is the result of the continuous harm inflicted to vulnerable communities, as the Bhopal-Union Carbide case illustrates.

[50] See *Samsung Electronics Co. Ltd., Samsung Electronics Taiwan Co. Ltd., Samsung Electronics (UK) Ltd., Samsung Semiconductor Europe Ltd., Samsung Display Co. Ltd. v. LG Display Co. Ltd., LG Display Taiwan Co. Ltd.,* [2022] EWCA Civ 423, Case No. CA-2021-000656 (Ct. App. Civ. Div. 2022), available at https://www.judiciary.uk/wp-content/uploads/2022/07/Samsung-Electronics-v-LG-Display-Judgment.pdf (last visited Feb. 27, 2025).

In the New York decision of In *re Union Carbide Corporation Gas Plant Disaster at Bhopal, India (1984)*[51]*,* hereinafter *In Re Union Carbide*, there is a strong argument for a denial of justice for Indian plaintiffs, victims of debilitating health and permanent environmental harm. Unfortunately, a test for denial of justice was never intended to be investigated by the Panel of Judges and is absent on the doctrine of *forum non conveniens*. This can be illustrated by the interpretation of the doctrine codified in the American legal system.

The result on the *In Re Union Carbide*, delivered by the New York court represented a nefarious result of binding jurisprudence for future American caselaw. The *stay* decided by the United States District Court for the Southern District of New York allowed a possibility to establish precedent for future cases involving risky American interests overseas. *In re Union Carbide,* 145 actions filed in the same lawsuit brought in New York under the Judicial Panel for Multidistrict Litigation's order the decision was unjust and appalling for plaintiffs. The Judicial Panel offered some comments regarding adequacy of alternative forum that may be considered a revision of some colonialism narrative unacceptable even at the time it was decided, having a possible interpretation of passive discrimination of cultures and races.[52]

Such poor understanding of justice administration in an international dispute resolution context is not surprising. The codification of *forum non conveniens* and subsequent test application *In Re Union Carbide* was discretionary and fulfilled national interests' protection. A shield for financial stability is not uncommon in transactional jurisdictions, from which jurisprudence on *forum non conveniens* is widely acceptable as fair and just. *In Re Union Carbide*, *amicus curiae,* the argument of bringing about a lawsuit in New York for a just recovery of compensatory damages to Indian families was obscured by the argument that Indian law was applicable to the accident and mismanagement was excused from a foreign multinational company controlling its subsidiary in India since 1934.[53]

An unexpected argument against the legal interpretation of Indian law in a New York court was reinforced by the judges' decision on whether there was an alternative forum to interpret Indian

[51] See In re Carbide Corp. Gas Plant Disaster at Bhopal, India, 634 F. Supp. 842 (S.D.N.Y. 1986), available at https://law.justia.com/cases/federal/district-courts/FSupp/634/842/1885973/ (last visited Apr. 11, 2025).
[52] See In Re Union Carbide, this quote: "No doubt Indian citizens, many of whom barely are acquainted with their American lawyers, will find the case more accessible if it is tried "in their view" in India.
[53] The factory was built in the 1970s, however, there are some reports that claim Union Carbide's discharging highly toxic waste prior to the Bhopal disaster. See Judah Passow & Tim Edwards, The Long Dark Shadow of Bhopal: Still Waiting for Justice, Four Decades On, The Guardian (June 14, 2023), available at https://www.theguardian.com/global-development/2023/jun/14/bhopal-toxic-gas-leak-chemical-environmental-disaster-waiting-for-justice-union-carbide-dow (last visited Apr. 3, 2025).

law. Following this logic, it is natural it should have been Indian courts. However, this excludes any compensation for foreign mismanagement of a highly toxic chemical production and disposal by a subsidiary completely controlled by its headquarters located in foreign soil, under another law. Moreover, the fact that the lawsuit was lodged in New York jurisdiction where the multinational was headquartered was never an element of interest for the judges. The Justice Panel solely focused their attention to evidence, witnesses roll, language barrier, and the fact that class actions are better addressed in the defendant's jurisdiction. The fact that Indian legal framework possessed no mechanisms for entertaining class action lawsuits was never contemplated by the American district court, so *forum non conveniens* was applied.

Another element was the test of forum shopping applied to *In Re Union Carbide* case. Hence, the lawsuit dismissal was accepted because the judges objected to the plaintiff's right to choose the New York forum for the case. Generally, plaintiffs should have the option to choose a court, however, the view of American judges against foreign plaintiffs is solely considered under the *forum non conveniens*. So, the best choice of law against an American defendant is any jurisdiction but the American courts. Arguably, the efficient administration of American justice is always to protect American economic interests instead of entertaining an international litigation in the American courts.[54]

Purposedly, the New Yorker Judicial Panel did not entertain the question of fair and just financial compensation to the victims from mismanagement. That should have been in the public interest test for any judgement prior to declining jurisdiction. It may be suggested that the public interest test would have been applied for avoiding punishing American taxpayers and the use of American courts by foreigners. What *In Re Union Carbide* litigation teaches us is limited international liability and rare accountability for mismanagement acts from such subsidiaries.

Therefore, victims cannot reach the host investors' jurisdiction for financial compensation, as per forum shopping, which is unacceptable in times of climate change, in which environmental disasters contribute to global warming and inefficient carbon trapping to reduce CO2

[54] See In Re Union Carbide, this quote: "Thus, this Court, sitting over a multidistrict litigation, must apply the various choice of law rules of the states in which the actions now consolidated before it were brought. Rather than undertake the task of evaluating the choice of law rules of each state separately, the Court will treat the choice of law doctrine *in toto*. The "governmental interest" analysis, employed by many jurisdictions, requires a court to look to the question of which state has the most compelling Interest in the outcome of the case. India's interest in the outcome of the litigation exceeds America's."

emissions.[55] Further, insulation of bad corporate practices destroying other jurisdiction's environment, destroying local biodiversity and access to safe food as well as contributing to rivers and oceans pollution is an outdated and obsolete legal test. Today we need domestic law to look into the effect of domestic business actions for the benefit of all.

Generally, domestic laws are meaningful to local governance until climate change disasters are taken into the equation of intergenerational wellbeing and sustainability goals for other generations. We are custodians of this planet that we live on. The future of the ones that are not borne is the right to pursue an economic, social, mental and cultural development in equal terms as anyone else that lived before them, regardless of borders, which is extraterritorial.[56] That is the global commons experience of living together.

It is undeniable that *forum non conveniens* is applicable for supporting economic sovereignty, expanding a control of natural and human resources in foreign land. If one observes that the multinational Union Carbide Corporation was the main shareholder and a global company earning the majority of profits from its Indian subsidiary, then the equation is clarified towards the defendant's best argument for choosing the New Yorker jurisdiction.

It is indisputable that being a multinational company headquartered in New York, with a strong currency for Union Carbide shareholders would generate a better financial ability to support the Bhopal victims. When we look at similar current disasters the compensation would have been substantial as in the Mariana litigation case.[57]

The transactional nature of the doctrine of *forum non conveniens* favoured a legal policy to perpetuate more risky operations and more dangerous international liabilities initiated by multinational companies. *In re Union Carbide,* the result is a lost opportunity to provide a sustainable precedent for future caselaw involving environment, climate change, human rights and access to safe food as it was obliterated.

Another aspect reiterated by the New Yorker Judicial Panel was that the Indian jurisdiction was vindicated by the use of the doctrine of *forum non conveniens*. The argument was that the right to pursue the claims in their own legal system would advocate for a recognition of the

[55] These are the Sustainable Development Goals for 2030. See United Nations, Department of Economic and Social Affairs, Sustainable Development: The 17 Goals | Sustainable Development Goals, available at https://sdgs.un.org/goals (last visited Mar. 12, 2025).
[56] Declaration on Principles of International Law Concerning Friendly Relations and Co-Operation Among States in Accordance with the Charter of the United Nations, Preamble, available at https://digitallibrary.un.org/record/202170?ln=en&v=pdf (last visited Apr. 9, 2025).
[57] See, *Supra* note 36.

Indian independence and Indian values of a developing nation, recognised as the proper forum for the Bhopal litigation. This is the reversal of the fortune here, because it is exactly the opposite that the Judicial Panel accomplished. By not allowing the class action to prosper in US soil, they actually invalidate these values and the independence of Indian legislation to choose their best option of a court to litigate on behalf of their citizens.

Curiously this *proper forum* argument is unmatched by the act of the State of India. The nation instituted a codification of the Bhopal Claims in the Indian legislation, which bestowed the State of India, as representative for the Indian victims to pursue the litigation in the American jurisdiction demonstrating clearly to be the representative of their peoples' wishes for justice.

Unequivocally, a *proper forum* was established in New York. It was rebuked by the New Yorker Judicial Panel. One could also suggest that there was just little interest to offer an argument for compensation in American dollars for a suggested inexistent duty of care in Indian soil. Concerning evidence and witnesses heard in their native language, this would have been easily accommodated by translation services.

Even if oral evidence was a challenge, a photograph would have depicted the scenario after the tragic accident. It would have been considered sufficient to establish the tragic event and the link with the chemical company. Medical documentation could have been translated easily to English. Consequently, these arguments about relevant information to decide the litigation in New York would have been successfully contested.

So, to decide a judgment under the *forum non conveniens* was a *convenience* to defer to a Justice Panel the discretionary power to protect American companies, as a private interest test. Equally, there is an incentive to attract companies to establish headquarters in different American states.[58] Thus, the doctrine of *forum non conveniens* is proving very *convenient* to

[58] The New York application of *forum non conveniens* is alive and well in 2024. See Bangladesh Bank v. Rizal Commercial Banking Corp., No. 2023-00324 (N.Y. App. Div. 1st Dep't Feb. 29, 2024) (Pitt-Burke, J.), available at https://www.nycourts.gov/courts/ad1/calendar/List_Word/2024/02_Feb/29/PDF/Bangladesh%20Bank%20%20v%20%20Rizal%20Commercial%20(2023-00324%20OPN.).pdf (last visited Mar. 15, 2025). on appeal holding that a case of international fraud and money laundering scheme performed by alleged hackers to transfer money from the bank located in New York was dismissed without abuse of discretion, even though the victim's account was located in New York, the transfer albeit digital misappropriated the plaintiff's banking account, so the situs of injury was New York, however, the plaintiff failed to demonstrate that the defendants were subject to the New York jurisdiction.

keep American financial domestic matters safe from alien lawsuits and out-of-jurisdiction claims.[59]

Whether the Indian environmental legal framework was defective at the time of the Bhopal accident or the mechanisms for class actions were inexistent, these are secondary to the decision-making process to secure safely the Bhopal chemical plant. The management governance was solely under American management. At the time, the majority of blue collar employees at the Indian Union Carbide were of Indian nationality, except for the corporate management and the Chairman and Chief Executive Officer, Warren Anderson.[60]

The monetary compensation in a developing country is directly linked to the value tendered by the national money value, so that another element missing in the New Yorker Justice Panel for fair compensation. A strong currency may have compensated fairly and just for continuous poor health and environment issues unleashed by a company's sloppy management. Consideration to the exchange rate applicable to the victims' compensation had the forum being found convenient might have illustrated the monetary gap of what should have been the financial outcome for victims.

It is suggested that *In Re Union Carbide* decision in the American court did not seek to deliver justice. However, it presented an opportunity to vulnerable parties to be represented by a State. It also demonstrates an obsolete appropriation of the environmental and public health for economic gain.

6. Codification of the Forum Non Conveniens, from origins to legislative considerations

As stated before, a dismissal or a transfer of litigation to foreign courts, namely in diversity cases, in which lawsuits involve non-residents and domestic corporations located within these American states is legal.[61]

[59] See, William S. Dodge, Maggie Gardner & Christopher Whytocks, The Many States Doctrines of Forum Non Conveniens, 72 Duke L.J. 1166 (Mar. 2023) (last visited Apr. 21, 2025)., which reads: "Considerations of political economy may also have contributed to New York's and Delaware's competition-induced rejection of the alternative forum requirement. A large number of businesses are incorporated or have their principal places of business in these states and are therefore subject to personal jurisdiction in them. Eliminating the alternative forum requirement makes it easier for these in-state businesses to obtain a forum non conveniens dismissal when sued in their home-state courts,…)"

[60] Warren Anderson never faced charges from the Bhopal litigation in India. See Warren Anderson, 92, Dies; Faced Indian Plant Disaster, N.Y. Times (Oct. 30, 2014), available at https://www.nytimes.com/2014/10/31/business/w-m-anderson-92-dies-led-union-carbide-in-80s-.html?smid=nytcore-android-share (last visited Mar. 6, 2025).

[61] See Richard H. Fallon, Daniel J. Meltzer & David Shapiro, The Federal Courts and the Federal System 1608–15 (Foundation Press 1996) (original work published 1963).

Similarly to the *In Re Union Carbide*, a litigation involving human health was brought by Costa Rican workers intoxicated and contaminated by pesticides against Dole, a company incorporated in Texas, at the Supreme Court of Texas. In *Dow Chem. Co. v. Castro Alfaro* (1990),[62] the Texan legislature moved fast to approve a law to deter such lawsuits moved by foreign plaintiffs seeking justice against absent due diligence and duty of care.

In *Dow Chemical Co. and Shell Oil Co. v Castro Alfaro, et al*. (1990)[63], both companies failed to remove the case to a federal court. In this decision, Justice Ray decided what was already a factual trend for the utility of the doctrine.[64]

This interpretation is supported by other past American cases such as *Irish National Ins. Co v Aer Lingus Teoranta* (1984)[65], in which the district judge confirmed " the real purpose for bringing this action in New York does not appear to be to vindicate this forum's interest in improving New York as a point of entry, but rather to avoid the possibility that application of Irish law will result in a smaller recovery for plaintiff as a result of law in that forum with respect to the limitation of liability provision of the Warsaw Convention".[66]

Back to *Alfaro*, the applied test to the doctrine *forum non conveniens* illustrates the monetary power behind its use against the Costa Rican workers "In fact, the doctrine is favored by multinationals defendants because a *forum non conveniens* dismissal is often outcome-determinative, effectively defeating the claim and denying the plaintiff recovery."[67] That suggests the discretionary and negative effect when the doctrine is applied to human and health issues or even to death.

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[62] See *Dow Chem. Co. v. Castro Alfaro*, 786 S.W.2d 674, 681 (Tex. 1990), available at https://case-law.vlex.com/vid/alfaro-v-dow-chemical-888781349 (last visited Feb. 18, 2025). See also William S. Dodge, Maggie Gardner & Christopher Whytock, *The Many States Doctrines of Forum Non Conveniens*, 72 Duke L.J. 1166, 1193 (Mar. 2023). *Compare Castillo v. Newmont Mining Corp*., No. 02CA1772, 2003 WL 22677806 (Colo. App. Nov. 13, 2003).See William S. Dodge, Maggie Gardner & Christopher Whytock, *The Many States Doctrines of Forum Non Conveniens*, 72 Duke L.J. 1166, 1195, 1213 (Mar. 2023).

[63] See *Dow Chem. Co. & Shell Oil Co. v. Castro Alfaro*, 786 S.W.2d 674 (Tex. 1990), available at https://case-law.vlex.com/vid/alfaro-v-dow-chemical-888781349 (last visited Mar. 16, 2025).

[64] See, Ibid.

[65] This case is a classic example of neutrality between parties. Ireland and the United States ratified multilateral treaties on equal judicial treatment, so the test of a proper court is in a deadlock. Choosing between American or Irish courts is not a productive exercise of justice administration, because both country's courts have the same weight to decide the litigation due to the Convention for the Unification of Certain Rules Relating to International Transportation by Air (Warsaw Convention), article 28 (1). See *Irish Nat'l Ins. Co. v. Aer Lingus Teoranta*, 739 F.2d 90 (2d Cir. 1984), available at https://law.resource.org/pub/us/case/reporter/F2/739/739.F2d.90.84-7140.1172.html (last visited Feb. 12, 2025).

[66] See, Ibid.

[67] See Ibid.

Gulf Oil Corporation v Gilbert decided in 1947[68] is a good precedent still in current decisions when *forum non conveniens* is the test.[69] In fact, the doctrine was tested under the denial of justice test in *Gardner v Thomas* 1887[70] in New York, the same state that dismissed the *In Re Union Carbide* case centuries after. Gardner was dismissed in the New York's, because it was a dispute between a British sailor and a British master regarding a claim that arose in the high seas involving assault and battery.[71] Important to mention that the court rejected the matter and send the parties to address the matter back home.

Notwithstanding the refusal to hear the dispute, the New York court cautioned that the rule was then clearly described as foreign stakeholders in a foreign court should not be always dismissed because the alien court may produce a decision denying justice to parties. So, it illustrates some discretionary power maintained by the judge to hear or not such diversity claims therefore the test survived in *Union Carbide Corporation* centuries later.[72]

Back in the 50s, an American plaintiff may have not enjoyed a stronger consideration for forum shopping even if a present danger of being subject to race discrimination was a reality. For instance, the test to be applied *Gore v U.S. Steel Corporation* (1954)[73] is illustrative of racism. That was a litigation involving a widow of an African-American worker in Alabama. She went *forum shopping* in New Jersey searching for a neutral decision, as she was aware of Alabama's non-neutral decisions towards African Americans. It also implied that an imposed economic disadvantage for the African American workers' family was not a cause of concern for the administration of justice. By refusing *Gore*, and transferring the case to the Alabama court, unfairness and injustice were established by refusal of plaintiff's choice of jurisdiction.

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[68] See *Gulf Oil Corp. v. Gilbert*, 330 U.S. 501 (1947), available at https://supreme.justia.com/cases/federal/us/330/501/ (last visited Dec. 19, 2024).

[69] See, Ibid. But Massachusetts and New York have adopted the doctrine of forum non conveniens earlier than 1947. See, William S. Dodge, Maggie Gardner & Christopher Whytock, *The Many States Doctrine of Forum Non Conveniens*, 72 Duke L.J. 1165 (Mar. 2023), available at https://scholarship.law.duke.edu/dlj/vol72/iss6/1 (last visited Mar. 7, 2025).

[70] See *Gardner v. Thomas*, 14 Johns. 134, 7 Am. Dec. 445 (N.Y. 1817), available at https://www.courtlistener.com/opinion/5628711/gardner-v-thomas/ (last visited Jan. 23, 2025).

[71] See, *Supra* note 68 at 1178.

[72] But see that the connection with the state of residence of one of the parties could alter this logic and the test application. "To be clear, the state courts were only considering declining jurisdiction in cases that had no in-state party and no in-state cause of action. As New York's high court emphasized around the time of Gulf Oil case, "Our courts are bound to try an action for a foreign tort when either the plaintiff or the defendant is a resident of this State." Thus, the court summarized, "It is only when an action is brought by one non-resident against another for a tort committed outside the State that our courts may refuse to take cognizance of the controversy." See *Id.*at 1180.

[73] See *Gore v. U.S. Steel Corp.*, N.J. 1954, available at https://case-law.vlex.com/vid/gore-v-u-s-887767127 (last visited Apr. 5, 2025).

Arguably, the doctrine of *forum non conveniens* had in *Piper Aircraft Co v Reyno*[74] (1981) another clear denial of justice when it overlooked a perceived negligence corporate responsibility. *Piper* is a case where two Scottish nationals sued a Pennsylvania aircraft and an Ohio propeller manufacturers, as liable for a Scottish aircraft accident involving both suppliers. After *Piper's* decision, American corporations were insulated from international torts in domestic state courts.[75]

The application of *forum non conveniens* when allocated to state courts may have a different outcome than when applied to federal courts. Indeed, the competition among American states to retain capital has been the *motto* for adopting the doctrine of *forum non conveniens* and distinctive decisions to accompany the doctrine.[76]

We may learn from *In Re Union Carbide* dismissed litigation that the doctrine of *forum non conveniens* is a legal mechanism for an exclusion of alien rights and international human rights, *inter alia*, by these selected American cases.[77]

7. The public interest

Generally public interest is understood as the management of the administration of justice at the local level, for instance, jury selection, trial and time devoted to the litigation. This is a test applied since the case of *Gulf Oil Corporation* in 1947.[78] In *Gulf Oil Corporation*, there was no legal space to argue for fairness and convenience (unless the convenience was for the domestic defendant).

Another relevant factor was discretionary power to decide for the use of the doctrine. The discretionary power of the New Yorker Panel judges to accept the doctrine of *forum non conveniens* was based on evidence located in India, which is an obsolete element today. Audio and video conferencing are digital resources widely available to any locality in the planet, so

[74] See *Piper Aircraft Co. v. Reyno*, 454 U.S. 235 (1981), available at https://supreme.justia.com/cases/federal/us/454/235/ (last visited Jan. 17, 2025).
[75] See *Ibid*. See also William S. Dodge, Maggie Gardner & Christopher Whytock, *The Many States Doctrine of Forum Non Conveniens*, 72 Duke L.J. 1165, 1190 (Mar. 2023), available at https://scholarship.law.duke.edu/dlj/vol72/iss6/1 (last visited Apr. 3, 2025). But see the comments about residence connection in Kinney case, which is an aberration for Florida residents also. See *Id.* at 1191-1192.
[76] See *Id.* at 1222.
[77] Al these cases showed a consistent tendency to uphold the doctrine as the ultimate discretionary judge's power. See, *Supra* note 62.
[78] See, Catherine Cervone, *Recalibrating the Forum Non Conveniens Analysis: The Effects of Technology of Transporting Evidence*, 18 Nw. J. Tech. & Intell. Prop. 1 (Nov. 2020), available at https://scholarlycommons.law.northwestern.edu/njtip/vol18/iss1/ (last visited Feb. 14, 2025).

this technological element is dead letter for applying *forum non conveniens* doctrine.[79] Recent examples of evidence evolution on the technological factor are described in the Federal Rules of Civil Procedure, particularly Rules 32(a)(3)(B) and 43 for witnesses outside of the jurisdiction plus the Hague Evidence Convention to cite some developments in this area.[80]

8. Planet Not Convenient: Climate change

One may suggest that multinationals take advantage of weak environmental laws overseas, having a blind eye for actions of impact on the health of the local population, and other activities that increase climate change for the planet. What has changed since *In Re Union Carbide* case is the scope of environmental treaties and the insidious forgotten actor called climate change provoked by human activity destroying the planet. That affects everyone globally in weather patterns, in water pollution, so that an international cooperation for mitigating these factors is vital, including a policy in response to industrial chemical disasters affecting Nature. Climate change is a *global commons* problem.

Similarly, deforestation impacts climate locally and internationally as well as other dramatic weather events such as typhoons, flooding, and tsunamis. Therefore, deforestation increases the occurrence of weather calamities. So, courts that use their power to curb environmental disaster lawsuits under *forum non conveniens* are acting in opposition to the Sustainability Development Goals (SDGs). Judgments pro-pollutant defendants constitute a barrier for climate change mitigation policies nationally and internationally.

The theory of *forum non conveniens* when utilised for private interests and economic advantage ensures a *convenient forum* where insulation of further tort and criminal liability is ensured. One wonders whether the interest of substantial justice is really the intent of the application of the *inconvenient forum*.[81]

[79] " A cyber court, which only exists virtually, is extreme in its integration of technological advancements. A more modest embrace of technology might include the use of information sharing systems such as email, audio and video conferencing, and e-documents or scanned and uploaded images of physical pieces of evidence. Today, "the ease of access to documents," has greatly increased because of the ability to access electronically stored documents remotely—that is, from a place other than the offices of the law firm in which they are located." See *Id.* at 96-100.

[80] "For example, if the defendant can demonstrate that it will not be able to obtain an essential witness because the witness is unwilling and resides in a country that is not a party to the Hague Evidence Convention, then the case should be dismissed because the defendant will likely have to relitigate the issue in the future in a forum where it has access to all its witnesses." See *Id.* at 100- 102.

[81] But the situation may have a different approach when a banking institution is losing money. if a New York bank is a victim of hacking to steal money from one of their banking accounts. See, In Bangladesh Bank v Rizal Commercial Banking Corporation et al. and Maia Santos Deguito, Appeal n. 1165, 2023 at the Supreme Court of the State of New York, Appellate Division, First Judicial Department, the appeals was regarding US$ 101 million

9. An inconvenient BREXIT

In recent times, *forum non conveniens* has been rejuvenated in the post-Brexit United Kingdom.[82] The United Kingdom has embraced the doctrine again. This doctrine had been banned from the European Union members domestic laws, so the restored doctrine of *forum non conveniens* returned to the English courts.[83]

Notwithstanding this resurrected doctrine, a recent case that evokes the environmental tragedy of Bhopal has been recently accepted in the English jurisdiction to accommodate Brazilian victims of the Mariana dam disaster.[84] SAMARCO, BHP's subsidiary, argued for a dismissal under the *forum non conveniens*, which was rejected on appeal. As the litigation proceedings developed, the defendant suspended payments for the victims, a lower financial reparation in the local currency, considerably unfair and short of a just compensation for families. Concerns on evidence and language are irrelevant in the age of e-discovery and the digital world.[85]

Nonetheless, in *Tomomi Umeda, et al, v Tesla Inc.,* (2020) case number 20-cv-02926-SVK[86], the United States District Court Northern District of California for an *Order Granting Defendant's Motion to Dismiss on Ground of Forum Non Conveniens*, shielding Tesla investments from compensation and evidence. The plaintiffs had chosen the Californian

dollars that were stolen via SWIFT transactions aided by a Philippines bank and some employees, the court found New York jurisdiction competent because: "The court also considered the location of the witnesses and documentary evidence and found that this factor favoured New York because of the critical evidence of the fraudulent payment orders and the movement of the stolen funds into and out of the four correspondents accounts in New York". This case seems to be a conflict of personal jurisdiction and *forum non conveniens* application. See *Bangladesh Bank v. Rizal Commercial Banking Corp.*, No. 2023-00324 OPN, App. Div. 1st Dep't (N.Y. Feb. 29, 2024), available at https://www.nycourts.gov/courts/ad1/calendar/List_Word/2024/02_Feb/29/PDF/Bangladesh%20Bank%20%20v%20%20Rizal%20Commercial%20(2023-00324%20OPN.).pdf (last visited Apr. 18, 2025).

[82] See, Government of Netherlands, *What is BREXIT?*, available at https://www.government.nl/topics/european-union/question-and-answer/what-is-brexit (last visited Mar. 10, 2025).

[83] That does explain the reluctance to accept the class action from Municipio de Mariana against BHP. See Norton Rose Fulbright, in Back to the future – forum non conveniens and Spiliada after Brexit, published on May 16, 2022, considering that the analysis of the doctrine will be utilised in a non-predictable fashion according to the application's date for the claims (whether the Brussels regulation will be applicable or not) in the period after the Brexit transition, Norton Rose Fulbright, *Back to the Future – Forum Non Conveniens and Spiliada after Brexit* (May 16, 2022), available at https://www.nortonrosefulbright.com/en/inside-disputes/blog/202205-back-to-the-future-forum-non-conveniens-and-spiliada-after-brexit (last visited Apr. 3, 2025).

[84] See *Supra* note 36 and 57.

[85] "Adding a specificity requirement would modernize the forum non conveniens by incorporating the changes that have occurred in technology to the Federal Rules of Civil Procedure and to international treaties. The defendant should have to prove why the evidence it is seeking is not available through these channels." See *Supra* note 68 at 103.

[86] See Tomomi Umeda et al. v. Tesla Inc., No. 5:20-cv-02926 (N.D. Cal. 2020), available at https://www.govinfo.gov/content/pkg/USCOURTS-cand-5_20-cv-02926/pdf/USCOURTS-cand-5_20-cv-02926-1.pdf (last visited Feb. 12, 2025).

jurisdiction because Tesla headquarters were then located in that State.[87] As the defective designs were created in the American jurisdiction, including the faulty Tesla auto-pilot that killed a pedestrian in Japan.

The dramatic situation occurred when the Tesla auto-pilot did not recognise a person in front of its path and barged into the victim. In the absence of human judgment as the Tesla automobile was unassisted by a sleepy driver the horrific fatal accident took place. As a result, a young father perished with the crash leaving a widow and a family behind. The Californian judge in balancing the public and private interests decided that the criminal evidence was only accessible in Japan. In spite of the Japanese court proceedings lack of discovery and jury selection for a case involving design and software malfunction manufactured by Tesla, in California, the decision dismissed defective design of that automobile components. It looked like *déjà vu* of *In Re Union Carbide* again.

Interestingly, former employees from Tesla California were not deposed for supporting the plaintiffs when the litigation was initiated in Japan. So, one may expect that in the balance of private and public interest on transactional tests the lessons of *In Re Union Carbide* case are still relevant. Consider that to avoid injustices and lower financial compensation, countries adopting *forum non conveniens* will not constitute a safe harbour.

In other sectors of industry and technology, we must consider that *forum non conveniens* is an inherently dangerous legal tool that will probably produce more injustice than reparation for automation consumers, potential victims in these cybernetic times of artificial intelligence use in automobiles, computers and other algorithm apparatus we will probably use in the future.

10. Conclusion

The horrific industrial accident at the subsidiary of Union Carbide plant in Bhopal shed light at the doctrine of *forum non conveniens* widely applicable to American court to shield domestic corporations operating in foreign countries. It unveiled the *modus operandi* utilized for unsatisfactory accountability for their actions towards people and the local environment. American courts were faced with delivering efficient administration of justice against misconduct from their domestic multinational companies, which the doctrine once codified in American law helped to dismiss cases as forum shopping to protect the economic interest of investors' stakeholders. In Indian, nationals received a legal protection with the codification of

[87] Now Tesla is located in Austin, Texas since 2021, the *forum non conveniens* state.

the class action for healthcare problems faced with the leaking of lethal pesticides in the soil and surrounding areas. However, time to re-litigate the matter was lost and financial injustice was allowed to prevail. The economy protection test triumphs in transnational litigations with this doctrine. This is against public policy and a denial of justice towards the victims that were otherwise unable to advocate for their rights to be treated as humans.

In Re Union Carbide litigation, the test of public policy application on corporate irresponsibility and risky foreign investment is confronted by an unashamedly preference for a competitive edge on products and services to widen profits to the headquarters outside India, in spite of health, economic and human rights violations for victims. Their suffer is a continuous injustice to their next generation affected by exposure of such chemicals. Moreover, the degradation of the local and surrounding environment at Bhopal persists to this day, perpetuating more injustice, which the doctrine of *forum non conveniens* conveniently embraced.

[IN] ADEQUACY OF THE DPDP ACT VIS-À-VIS RIGHT TO PRIVACY AT WORKPLACE

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Abstract

The world is witnessing a digital revolution. Algorithms are steadily sneaking into all aspects of our lives influencing our day to day affairs. The steady increase in datafication of the small mundane realities of life makes one fear about the rise of surveillance not only by the state but private entities as well. In India, though the Puttaswamy Judgment recognised the right to privacy particularly informational privacy as part of Article 21, the enforcement of the Digital Personal Data Protection Act ["DPDP Act" or "the Act"] is still awaited. The DPDP Act, as per its Preamble tries to strike a balance between the right to privacy and the right to process data. However, the Act does not define 'privacy'. This raises the suspicion- whether the act is adequately equipped to protect privacy? India's privacy framework will be applicable on myriad sectors such as healthcare, digital governance, compliance by corporate houses et cetera. This paper is an attempt to investigate into the aspect of how far the DPDP secures the right to privacy especially informational privacy at workplace. This investigation is significant not only in the background of rise in the use of monitoring tools but also because of skewed employee-employer power dynamic. This paper tries to understand the potency of the Indian data protection law in the background of employee privacy by firstly understanding various provisions that affect privacy at workplace in general and thereafter shift the focus to Section 7(i) of the Act. We delve into the history of the provision in this regard and do a comparative analysis with the similarly placed provision in the General Data Protection Regulation and Personal Data Protection Act, Singapore. Thereafter, we shall offer some suggestions on how data privacy can be better protected at workplace by making suitable amendments to the certain provisions in the Act and thereafter provide a conclusion.

Keywords: Digital Personal Data Protection Act, employee's privacy, informational privacy, legitimate interest, employment purpose, workplace surveillance.

1. Introduction

Technology has opened doors to better standards of living however it has also facilitated the entry of unwanted gaze over our lives. There exist multiple tools to surveillance people in general as they go about their lives.[1] The same is true for persons under any form of employment are at the risk of constant monitoring by their employers through various tools

[1] Luciano Floridi, *On human dignity as a foundation for the Right to Privacy*, 29 PHILOS. TECHNOL., 4 (2017) https://dx.doi.org/10.2139/ssrn.3839298.

such as *Bossware* and *Workpuls*.[2] Such kind of software gives unbridled access to the data such as browsing history, emails to the employers. The collection of biometric data is also quite common at workplace.[3] Though in such cases, the employees are aware of the data being taken, there are two important concerns. Firstly, about the legitimacy of consent of the employees given that the employers always have an upper hand over the employee due to the power asymmetry and secondly, about the risk of data breach.[4] The latter concern is exacerbated by a number of instances of data breaches.[5]

In a number of studies carried out, it has been revealed the surveillance at workplace is becoming pervasive.[6] The technologies are making it possible for employer to not only track efficiency but also movement, behavior et cetera. The use of this kind of monitoring is more rampant in work from home settings.[7] Concerns have also been raised about the future of privacy at workplace in light of various emerging technologies and their capability to monitor employees engaged in a variety of activities sometimes also blurring the lines between personal and professional information.[8] In India too it has been reported by various organisations that workplace surveillance is gaining traction.[9] Concerns have also been raised about privacy of

[2] Jeevan Hariharan & Hadassa Noorda, *Imprisoned at Work: The Impact of Employee Monitoring on Physical Privacy and Individual Liberty*, 88(2) MOD. L. REV., 333, 333-365 (2024); Henry Parkes, *Watching me, watching you: Worker surveillance in the UK after the pandemic*, IPPR (Mar. 2023), https://ippr-org.files.svdcdn.com/production/Downloads/worker-surveillance-mar23.pdf ;
Aiha Nguyen, *The Constant Boss: Work under Digital Surveillance*, DATA & SOCIETY (May 2021), https://datasociety.net/wp-content/uploads/2021/05/The_Constant_Boss.pdf ; Zoe Corbyn *'Bossware is coming for almost every worker': The software you might not realize is watching you,* THE GUARDIAN (Apr. 27, 2022, 09:30 AM) https://www.theguardian.com/technology/2022/apr/27/remote-work-software-home-surveillance-computer-monitoring-pandemic ; Julia Gray, *The Bossware Boom is upon us: A look inside the employee monitoring software Market,* THE BUSINESS TO BUSINESS (Oct. 2, 2021, 6:30PM) https://www.businessofbusiness.com/articles/employee-monitoring-softwareproductivity-activtrak-hubstaff-covid.

[3] Kirstie Ball, *Electronic Monitoring and Surveillance in the Workplace*, PUBLICATION OFFICE OF THE EUROPEAN UNION 23 (2021), https://publications.jrc.ec.europa.eu/repository/handle/JRC125716

[4] Guidelines 05/2020 on consent under Regulation 2016/679, European Data Protection Board, Cl.21 May 4, 2020, https://www.edpb.europa.eu/sites/default/files/files/file1/edpb_guidelines_202005_consent_en.pdf.

[5] Mardav Jain, *The Aadhaar Card: Cybersecurity Issues with India's Biometric Experiment*, THE HENRY M. JACKSON SCHOOL OF INTERNATIONAL STUDIES (Jan. 24, 2025, 9:30 PM) https://jsis.washington.edu/news/the-aadhaar-card-cybersecurity-issues-with-indias-biometric-experiment/

[6] Jeevan Hariharan & Hadassa Noorda, *Imprisoned at Work: The Impact of Employee Monitoring on Physical Privacy and Individual Liberty*, 88(2) Mod. L. Rev., 333, 333-365 (2024).

[7] *Id*.

[8] Devasheesh P. Bhave, Laurel H. Teo, & Reeshad S. Dalal, *Privacy at Work: A Review and a Research Agenda for a Contested Terrain*, 46(1) JOURNAL OF MANAGEMENT, 127-164 https://doi.org/10.1177/0149206319878254

[9] Shweta Mohandas & Deepika Nandagudi Srinivasa, *The Boss will see you now – the growth of workplace surveillance in India, Is Data Protection legislation the answer?,* THE CENTRE FOR INTERNET & SOCIETY (JAN.24, 2025, 10:30 PM) https://cisindia.org/internet-governance/blog/the-boss-will-see-you-now-the-growth-of.;
Deeksha Malik and Shreya Sukhtankar, *Employee surveillance and data privacy: peeping into the legal considerations,* THE ECONOMIC TIMES (Jan. 25, 2025, 6:00 AM) https://hr.economictimes.indiatimes.com/news/workplace-4-0/employee-surveillance-and-data-privacy-peeping-into-the-legal-considerations/114651181.

those engaged in platform work especially when Indian labour law framework does not cover platform work.[10]

Given that privacy is not an abstract concept rather it is the very basis of all the rights which individuals are endowed with, securing informational privacy at workplace therefore becomes a major concern for all of us.[11] Privacy has been recognized by the Indian Supreme Court as an intrinsic part of Article 21 of the Constitution.[12] As per the judgment privacy is integral to human dignity and autonomy. It covers vital aspects of our life such disclosure or non-disclosure of personal information and freedom of choice. Since privacy is a fundamental right, the state has a constitutional duty to protect it. The State is thus under a positive and a negative obligation to protect people from monitoring at workplace. The positive obligation has to be discharged by the state by not taking any step which impinges on privacy and the negative obligation is to prevent other actors to do the same. 13 While, in pursuance of the first obligation the State can enact laws, for the latter obligation the State has to ensure that non-state actors do not infringe upon this right.

The government has enacted the DPDP fulfilling its positive obligation however; it needs to be examined whether the Act in the context of employment adequately protects individuals from infringement of their right to privacy.

This paper including the introduction shall consist of five parts. In the introduction, the authors will try to bring to fore the concerns related to privacy amidst the increasing use of digital tools to surveil employees. Part II we shall firstly understand various provisions that affect privacy at workplace in general and thereafter discuss Section 7(i) of the Act along with discussing the brief history of the provision relating to collection of employees data shall be discussed. In Part III, a comparative analysis with the similarly placed provisions General Data Protection Regulation (hereinafter 'GDPR') and Personal Data Protection Act of Singapore (hereinafter

[10] Ankit Kapoor and Karthik Rai, *Gig economy: a tale of algorithmic control and privacy invasion*, NLSIR ONLINE (Mar. 23, 2023), https://www.nlsir.com/post/gig-economy-a-tale-of-algorithmic-control-and-privacy-invasion; Shobhit S., *India's data protection law: underminining labour rights in the gig economy,* INDIAN JOURNAL OF LAW AND TECHNOLOGY (Sept. 21, 2024) https://www.ijlt.in/post/india-s-data-protection-law-undermining-labour-rights-in-the-digital-economy ; Dev Mittal and Amritansh Sharma, *Need for legislative action to protect India's gig workers*, BAR AND BENCH, Oct. 29, 2024, 7:37 PM) https://www.barandbench.com/columns/need-for-legislative-action-to-protect-indias-gig-workers

[11] K.S Puttaswamy v. Union of India, (2019) 1 SCC 1, ¶81.

[12] Justice K.S. Puttaswamy (Retd.) & Another. v. Union of India and Others, AIR 2017 SC 4161.

[13] *Id*.

'PDP Act') shall be made.[14] Through Part IV of the article we shall try provide suggestions and Part V will provide a conclusion for the article.

2. The DPDP Act and Privacy at Workplace

This part of the paper shall firstly through Part A, study the broader framework of the Act to understand how it affects privacy at workplace and thereafter in Part B try to delve deeper into Section 7(i) of the Act which deals with processing in the context of employment.

A. Examining India's Data Protection Framework in the Context of Employment

The DPDP Act allows for the processing of data by the data fiduciary in following cases: firstly, consent-based processing, secondly, legitimate use-based processing and thirdly, through exemptions for processing (when the data is processed invoking the second and third ground, consent of the data principal is not required).[15] As mentioned earlier, a unique relationship exists between the employer and the employee, collecting data through consent becomes onerous for the employer.[16] It also becomes a futile exercise because of the power asymmetry between the employer and employee and in most cases, the employee's consent cannot be said to be free consent.[17]

Thus, the DPDP Act, to process employees' data takes the route of using legitimate use as a ground for processing.[18] The relevant section in the Act calls for processing under "*employment purpose*" or "those related to safeguarding the employer from loss or liability, such as prevention of corporate espionage, maintenance of confidentiality of trade secrets, intellectual property, classified information or provision of any service or benefit sought by a Data Principal who is an employee." While the latter part of the section suggests that data processing should be done when it secures the vital interest of the employer or when the employee himself/herself seeks some benefit, the former part of "employment purpose" remains undefined in the Act.[19] The absence of any guidance on the connotation of this term makes the provision prone to misuse.

[14] Regulation (EU) 2016/ 679 of the European Parliament and of the Council of 27 April 2016; The Personal Data Protection Act, 2012, No. 12, Acts of Parliament, 2012 (Singapore).
[15] The Digital Personal Data Protection Act, 2023, § 4(1)(a), § 7(2), § 17, No. 22, Acts of Parliament, 2023 (India).
[16] BN Srikrishna Committee Report, A Free and Fair Digital Economy: Protecting Privacy and Empowering Indians, 116 (2014).
[17] *id.*
[18] *Supra* note 15, § 7(i).
[19] *Id.*

However, before we delve into the issue of "employment purpose" in sub-part B of this section, it would be pertinent to understand other issues in the Act from the perspective of processing employees' data.

Section 5(1)(i) of the Act mandates that before a data fiduciary processes the data under Section 6, he/she has to give notice to the data principal stating the data being collected and the purpose of such collection.[20] Such data collection and purpose specification requirement is thus not applicable to the processing of data of a person at the workplace. Furthermore, as per Section 11 (1) and 12(1), only those data fiduciaries who's consent has been obtained either as per Section 4(1)(a) or 7(a) would be entitled to know what data has been collected, with whom (other data fiduciaries and processors) the data is being shared and can request the correction of the data.[21] Additionally, Section 8(7) states that data of an employee can be retained till the time it is assumed by the employer to be reasonable.[22] This is unlike the case of other data principals who have given consent and can withdraw it or request the erasure of data. The aforementioned provisions thus do not follow the well recognised privacy principals of collection limitation, data quality, and purpose specification and use limitation.[23] It is noteworthy that the B.N. Srikrishna Committee Report focused on data minimization, consent, storage limitation and purpose specification and the same was reflected in the 2018 and 2019 Draft Bills.[24] The Puttaswamy Judgment too focused on these aspects, drawing from other jurisdictions especially the General Data Protection Regulation (hereinafter 'GDPR').[25] However, these principles are unfortunately missing from the Act.

Another important aspect that the Act does not deal with is the use of automated decision making. Though the act describes what it means by automated decision making, it does not regulate it to the extent that it allows processing and decision making with regard to any benefit, scheme et cetera solely on its basis.[26] This is in stark contrast to other legislations like the UK, EU, and Kenya wherein this has been regulated.[27] This regulation is much needed in light of

[20] *Supra* note 15, §5, §6.
[21] *Id*., § 11(1), § 12(1), § 4(1)(a), § 7(a).
[22] *Id*., §8(7).
[23] OCED Privacy Principals, APEC Principals, Convention 108+.
[24] BN Srikrishna Committee Report, A Free and Fair Digital Economy: Protecting Privacy and Empowering Indians, 116 (2014). Data Protection Bill 2018, Data Protection Bill, 2019, Bill No. 373 of 2019 (India).
[25] Justice K.S. Puttaswamy and Another v. Union of India, 10 SCC 1 2017; Regulation (EU) 2016/679 {hereinafter "EU GDPR"}.
[26] The DPDP Act, *supra* note 15, § 2(b).
[27] EU GDPR, Art. 22; UK GDPR, Art. 22(1); The Data Protection Act, 2019, § 35 (Kenya).

the concerns raised by scholars regarding algorithmic control, bias and the opaque nature of such systems, especially concerning people engaged in platform work.[28]

Another crucial aspect that the Act does not address is the question of who is an employee or employer. This is significant because a large amount of data is processed not only of those people who are working in strict sense but also those who may have applied for jobs, interns, persons who may have left one establishment for another, persons on probation, various applicants for a competitive exam for government service and platform workers. All such people in the absence of a definition are at risk of not being covered under the data protection legislation.

The Act unlike its other counterparts across nations does not provide for additional safeguards for collection and processing of 'sensitive personal data' which in some countries is referred to as 'special data'. Such kind of data as the name suggests pertains to individual's sensitive information such as race, ethnicity, sexual orientation, genetic data, biometric data and health data. Other jurisdictions such as the European Union have restricted the processing of such data. The processing is allowed only if additional safeguards have been provided.[29]

B. Tracing the roots of Section 7(i) of the DPDP Act

While the DPDP Act is soon going to be enforced, it is crucial to understand how and why the present provision stands so. The precursor to the legislative framework on data protection law in India was the Report drafted by the Committee headed by Justice B.N. Srikrishna.30 The report discussed various aspects of the data protection law along with global practices and suggestion for future draft of the Act. The present Act has been passed by the Parliament after three drafts/bills of the Act were rejected. At the same time a Joint Parliamentary Committee was formed to discuss the second draft of the bill.

This part shall firstly discuss the recommendation of the B N Srikrishna Committee (hereinafter 'the committee') and thereafter discuss the various changes introduced in the consecutive drafts

[28] Kavya Bharadkar, Kaveri Medappa, Mohan Mani, Pradyumna Taduri, & Sachin Tiwari, *Is Platform Work Decent Work? A case of Food Delivery workers in Karnataka*, 10 CENTRE FOR LABOUR STUDIES 9 (2020), https://www.nls.ac.in/wp-content/uploads/2021/09/OCCASIONAL-PAPER-SERIES-10-final.pdf; HENRY, *supra* note 2 ; SHOBHIT, *supra* note 10 ; ANKIT & KARTHIK, *supra* note 10.
[29] EU GDPR, Art. 4(13), 14, 15, 9, Recital no. 51, 56.
[30] BN Srikrishna Committee Report, A Free and Fair Digital Economy: Protecting Privacy and Empowering Indians, 116 (2014).

of the provision on collection of data related to employment along with the Joint Parliamentary Committee's (hereinafter 'JPC Report') analysis of the 2019 Bill.[31]

The Committee recognized that collection of employer's data is required for the employers. Pursuant to the same it suggested inclusion of some situations for non-consensual collection of data. It also recommended collection of data for "*any other activity relating to the assessment of the performance of the employee*". However, this ground was qualified by demonstration of the fact that the consensual collection of such is extremely burdensome for the employer or due to the unique relationship between the employer and employee taking consent becomes a futile exercise.[32]

Section 16 of the 2018 Draft Bill delineated certain situations in which non-consent based data could be taken however this was qualified by two things.[33] Firstly, the use of the term 'necessary' in sub-section (1) and sub-section (2) that allows such collection in extremely onerous situations or where seeking consent involves disproportionate effort on the part of the employer. In the 2019 Draft Bill, Section 13 began with a non-obstante clause which states that this section shall not be subjected to the limitations under Section 11 of the Bill. But sub-section 13 (2) retains the qualification which was incorporated in section 16 of the 2018 draft bill.[34] In the 2022 Draft of the Bill, the concept of 'Deemed Consent' was used.[35] This would mean that under some circumstances, it would be assumed that the consent requirement has been met. Section 8 (7) of the 2022 Bill enlists various situations wherein data can be collect sans consent. However, these situations are non-exhaustive and the sub-section uses the term 'including'. It is pertinent to note here that this Section uses the word 'necessary' with regard to the collection of data. This means that non-consensual processing data is contingent on the necessity of the situation. If the situation does not warrant the same then such collection would not be permitted.

[31] Joint Parliamentary Committee on the Personal Data Protection Bill, Report of the Joint Committee on the Personal Data Protection Bill, 2019, (Lok Sabha Secretariat, 17th Lok Sabha, December, 2021) https://eparlib.nic.in/bitstream/123456789/835465/1/17_Joint_Committee_on_the_Personal_Data_Protection_Bill_2019_1.pdf.

[32] BN Srikrishna Committee Report, A Free and Fair Digital Economy: Protecting Privacy and Empowering Indians, 116 (2014).

[33] Draft Personal Data Protection Bill, 2018, http://meity.gov.in/writereaddata/files/Personal_Data_Protection_Bill%2C2018_0.pdf

[34] Draft Data Privacy and Protection Bill, 2019, Bill no. 341 of 2019, https://sansad.in/getFile/BillsTexts/LSBillTexts/Asintroduced/341%20of%202019As%20Int....pdf?source=legislation

[35] Draft Digital Personal Data Protection Bill, 2022, https://prsindia.org/billtrack/draft-the-digital-personal-data-protection-bill-2022.

In the latest 2023 Act, Section 7(i) deals with collection of data of the employers. Unlike the previous drafts wherein data collection was qualified through the use of the terms 'necessary' and 'disproportionate effort' this sub-section gives the employer a free hand. This issue is further exacerbated by the vagueness of the term *'employment purposes'* in sub-section 7(i).

Thus, we note that the Act lacks on several counts along with the nebulous wording of Section 7(i) and does not provide adequate protection from privacy harms at the workplace. This is in striking contrast to other jurisdictions such as the European Union and Singapore which have extensive provisions securing the right to informational privacy at workplace to a great extent.

3. Comparative analysis of the DPDP act with GDPR and PDP Act

The DPDP Act being India's First data privacy legislation has taken inspiration from the GDPR and Singapore Data Privacy legislation which is the PDP Act.[36] The DPDP Act, GDPR and PDP Act stand as three of the most extensive data protection legislations globally.

The rationale for comparing these three legislations is that the term *'certain legitimate uses'* has been used under section 2(d) of DPDP Act, Section 4(1)(b) of DPDP Act recognizes '*certain legitimate uses'* as a lawful ground which is an exception to consent. Similarly, EU's GDPR and Singapore's PDP Act have used the term *'legitimate interest'* as a ground for data to be collected without seeking the consent of the data fiduciary. Hence, it is important to look into how European Union's GDPR and Singapore Data Privacy legislation PDP Act has interpreted the term *'legitimate interest'* in the context of the employer and employee relationship.

A. Comparison between DPDP Act with the GDPR in the context of "Certain Legitimate Use" v. "Legitimate Interest"

Under the DPDP Act, the employer can access the data of the employee without its consent by invoking section 4 (1)(b)[37] of the DPDP Act which talks about *'certain legitimate use'* under the DPDP Act which is one of the lawful ground to access the data of the employees. In the EU's GDPR one of the lawful grounds to process data is laid down under Article 6(1)(f)[38] it

[36] Arun Prabhu, Arpita Sengupta & Anoushka Soni, *India's New Data Protection Law: How Does it Differ from GDPR and What Does that Mean for International Businesses?,* CYRIL AMARCHAND MANGALDAS BLOGS (Jan. 28, 2025, 8:30 PM) https://corporate.cyrilamarchandblogs.com/2023/10/indias-new-data-protection-law-how-does-it-differ-from-gdpr-and-what-does-that-mean-for-international-businesses/; *Common Concepts in the Data Protection Laws of India and Singapore,* HERBERT SMITH FREEHILLS (Sept. 07, 2023) https://www.herbertsmithfreehills.com/notes/data/2023-09/common-concepts-in-the-data-protection-laws-of-india-and-singapore.

[37] MARDAV, *supra* note 5.

[38] EU GDPR, Art. 6(1)(f).

states that there must be a necessity and purpose for the legitimate interest ground to be invoked by the controller except in those situations where such extraction of the personal data will hamper the fundamental interest of the data subject which in our case is the employee or where such data subject is the child.[39] Herein, under the GDPR legitimate interest ground acts as an exception to consent. There is also a proviso to Article 6(1)(f)[40] which incorporates that the data which is been processed on the ground of legitimate interest cannot be invoke by the public authorities to access the personal data of the individual.

However, there are certain tests and guidelines laid down to invoke *'legitimate interest'* ground under Article 6(1)(f)[41] GDPR. The regulation incorporates under its ambit the three-part test which encompasses of *purpose test, necessity test* and *balancing test* which should be complied by the employer when invoking the exception of legitimate interest ground. *Firstly*, the purpose test states that the employer processing the data of the employees should have a valid purpose behind processing of the data for example to check whether the employee has committed any fraud or not earlier etc. *Secondly*, the necessity test here the necessity can be checked through two things together: first, if using the data helps reach the goal effectively, and second, if using the data affects employee's rights less than other ways to achieve the same goal. *Lastly*, the balancing test needs to be carried out which involves comparing the legitimate interests of the data controller (employer) and what will be the impact on the privacy rights of the data subject's (employees). By examining both sides, a tentative balance has to be determined and maintained.

It is noteworthy that whenever the employer is invoking the ground of legitimate interest under the GDPR even though the consent is not required to be taken for processing the personal data, there is an essential transparency mechanism put in place.[42] As per Article 13(1) (d)[43] of GDPR in cases where the personal data is being accessed by the data principal the information regarding the same must be provided to the employees and under Article 14 Paragraph 2 (b)[44] of GDPR where the information needs to be provided to the employees where such information regarding their personal data is not been obtained from them must be communicated to such

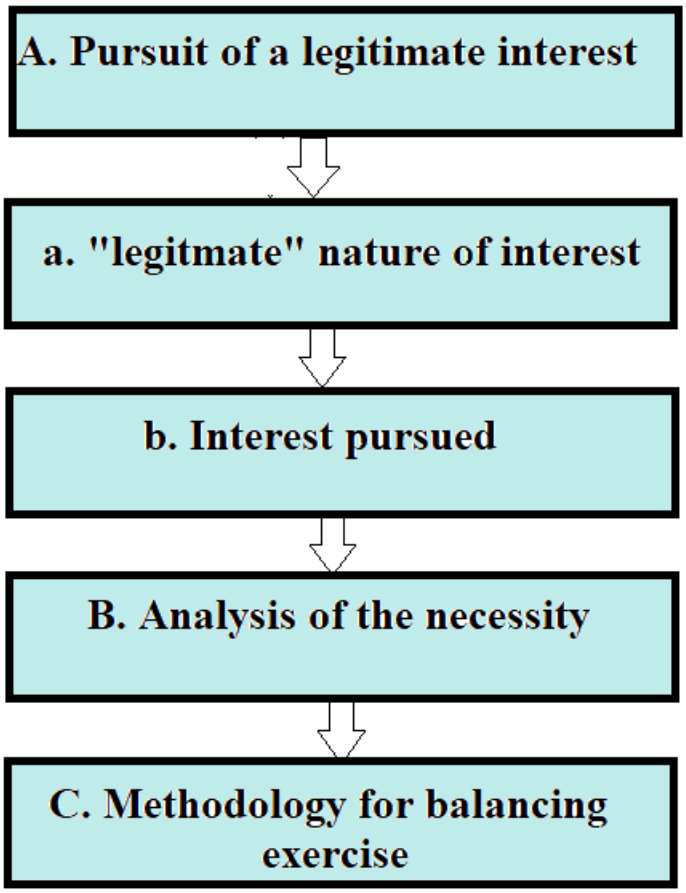
[39] Gabriela Zanfir-Fortuna & Teresa Troester-Falk, *Processing Personal Data on the Basis of Legitimate Interests under the GDPR*, THE FUTURE OF PRIVACY FORUM (2018) https://fpf.org/wp-content/uploads/2018/04/20180413-Legitimate-Interest_FPF_Nymity-2018.pdf
[40] Supra note 4.
[41] Supra note 4.
[42] Guidelines 1/2024 on processing of personal data based on Article 6(1)(f) GDPR Version 1.0 (October 8, 2024), https://www.edpb.europa.eu/system/files/2024-10/edpb_guidelines_202401_legitimateinterest_en.pdf.
[43] EU GDPR, Art. 13(1)(d).
[44] EU GDPR, Art. 14(2)(b).

employees so to adhere to transparency and fairness procedure.[45] Also, it was stated in one of the case that *"the data subject has the right to object at any time on compelling legitimate grounds related to his particular situation to the processing of data (based on Article 14 of the Directive)."* Article 29 of the Working Party[46] states that, *"Legitimate interest"* pursued by the controller must be "*real, current, and related to ongoing activities or immediate future benefits."*

The interest should be clearly defined so that it can be weighed against the rights of the employees who are the data subject. The term legitimate means that it must be lawful and should be allowed by EU and its national law. Further on Article 29 Working Party[47] states that the first step is to carry out the balancing test here the balancing test is in furtherance to the objective which the employer wants to achieve by accessing the data of the employees and in the process the fundamental rights to have data privacy should not be hampered.

Thus, the balance has to be maintained with the objective to be achieved with the fundamental rights of the employee then only the employer can access the data of the employee by using the ground of legitimate interest. For invoking the ground of legitimate interest, all the three tests must be satisfied. If any one of these three tests is not met the threshold for invoking legitimate interest will not be sufficient and thus cannot be invoked.[48]

[45] DPDP Act, *supra* note 21.
[46] Article 29 Working Party, "Opinion 6/2014 on the notion of legitimate interests of the data controller under Article 7 of Directive 95/46 April 9, 2014, p. 13."
[47] *Id*.
[48] CJEU-C-13/16- Rigas satiksme, ECLI:EU:C:2017:336.



Graphical representation of "Elements to be taken into consideration when assessing the applicability of Article 6(1)(f)[49]

Furthermore, Article 8(2)[50] of the Charter of Fundamental Rights of the EU states that *"on the basis of the consent of the person concerned or some other legitimate basis laid down by law"* that the data can be processed.

The EU GDPR has enacted a provision for special personal data which takes care of special category of personal data of employees. Article 9[51] talks about processing of special category of personal data where it states under Article 9(1)[52] that *"Processing of personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, and the processing of genetic data, biometric data for the purpose of uniquely*

[49] Guidelines 1/2024 on processing of personal data based on Article 6(1)(f) GDPR Version 1.0 Adopted on 8 October 2024, https://www.edpb.europa.eu/system/files/2024-10/edpb_guidelines_202401_legitimateinterest_en.pdf.
[50] Article 8(2) of the Charter of Fundamental Rights of the European Union.
[51] EU GDPR, Art. 9.
[52] EU GDPR, Art. 9(1).

identifying a natural person, data concerning health or data concerning a natural person's sex life or sexual orientation shall be prohibited." As a general rule under Article 9 Paragraph 1[53] accessing special category of personal data of employee is impermissible but there are few exceptions carved out to the general rule of not accessing such special category of personal data under Article 9 Paragraph 2[54]. Further on Article 9 Paragraph 2 (b)[55] states that such personal data of the special category of the personal data can be accessed by employer on grounds of *"employment, social security and social protection law."*

In addition to Article 9 of GDPR Article 88 of GDPR[56] specifically talks about *"processing in context of employment"* it states that the member states may allow by way of agreement to ensure protection of the freedom and rights of the employees with respect to processing of their personal data in context of employment which may include performance of contract of employment, recruitment, management, planning, health and safety at workplace etc. It also states that there should be suitable and specific measures which should be adopted to safeguard the human dignity, legitimate interest and fundamental rights of employees about transferring and processing of their personal data.

Thus, it can be stated that under EU's GDPR has a special framework laid down for accessing the data of the employees by the employer as it can be clearly seen that the law out there has specifically cull out that what all data can be accessed by the employer of the employee under Article 9 and Article 88 for employment purposes and if some category of data which is not been mentioned under Article 9 and if the employer wants to access such data then he can invoke the ground of legitimate interest under Section 6(1)(f)[57] for which he has to fulfil all the three threshold i.e., necessity, purpose and balancing test. Such mechanism is absent in the DPDP Act as there is no test or guidelines which are in place to deal with the ambiguity of the term for *'employment purpose'* in the DPDP Act.

B. Comparison between DPDP Act with the PDP Act in the context of "Certain Legitimate Use" v. "Legitimate Interest"

The PDP Act has incorporated 'Legitimate interest' exception in the year 2020 through a Personal Data Protection (Amendment) Act 202058 (hereinafter as "Amendment Act"). On

[53] *Supra* note 17.
[54] EU GDPR, Art. 9(2).
[55] EU GDPR, Art. 9(2)(b).
[56] EU GDPR, Art. 88.
[57] *Supra* note 4.
[58] The Personal Data Protection (Amendment) Act, 2020, No. 40, Acts of Parliament, 2020 (Singapore).

2nd November 2020 the Amendment Act, was passed and has incorporated number of amendments. One of the amendments made were regarding the introduction of exception legitimate interest which came into effect on 1 February 2021[59] before that legitimate interest was not a ground of exception to consent under PDP Act. [60] In PDP Act legitimate interest can be found under paragraphs 2 to 10 under Part 3 of the First Schedule of the PDP Act 2012.[61]

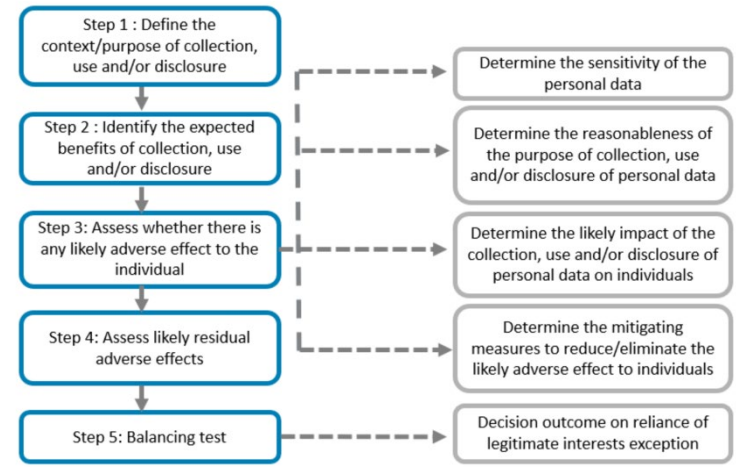
The term ***"****Legitimate interests"* exception generally refers to any lawful interests of an organization or other person (including other organizations). The exception is usually invoked by the employer to access the data of its employees without taking their consent *"where it is in the legitimate interests of the organization and the benefit to the public is greater than any adverse effect on the individual."*[62] For an organization to take the benefit of the legitimate interest exception laid down under Paragraph 1 of the Part 3 of the First Schedule[63] of the PDP Act 2012 the organization must adhere to the same[64] which lays down two condition. The first requirement is that, *"the collection, use or disclosure of an individual's personal data must be done in pursuance of the legitimate interests of the organization."*[65] The second requirement is that the organization must balance its legitimate interests for accessing the data against the interests of the individuals.[66] Also, the organization has to conduct a Data Protection Impact Assessment as per Paragraph 1(2)(a) of Part 3 of the First Schedule[67] of the PDPA which states that there must be an assessment carried out prior to *"collecting, using or disclosing the data to the third party"* here the assessment must meet the threshold laid down under Paragraph 1(1) of Part 3 of the First Schedule[68] of the PDPA. Further it also states that the individual must be given reasonable access to the information of why the organization is collecting such data.

With respect to the Data Protection Impact Assessment which the organization must carry out and which must encompass the four things essentially which is laid down under the Annex-C

[59] Wilson Ang, Jeremy Lua, Terence De Silva, *Relying on the Legitimate Interests Exception under the Personal Data Protection Act 2012*, NORTON ROSE FULBRIGHT (Mar. 28, 2023) https://www.dataprotectionreport.com/2023/03/relying-on-the-legitimate-interests-exception-under-the-personal-data-protection-act-2012/ .
[60] *Id*.
[61] The Personal Data Protection Act, 2012, Part 3 of First Schedule, Para 2-10 (Singapore).
[62] Nicole Leong, *A Practical Round-Up of Singapore Data Protection Developments In 2021*, REED SMITH (Dec.13, 2021) https://www.reedsmith.com/en/perspectives/2021/12/a-practical-round-up-of-singapore
[63] The Personal Data Protection Act, 2012, Part 3 of First Schedule, Para 1 (Singapore).
[64] The Personal Data Protection Act, 2012, Part 3 of First Schedule, Para 1(1) (Singapore).
[65] *Supra* note 27.
[66] *Id*.
[67] The Personal Data Protection Act 2012, Part 3 of First Schedule, Para 1(2)(a) (Singapore).
[68] KAVYA, *supra* note 28.

Assessment Checklist for Legitimate Interests Exception[69] where the first thing to check is the purpose, second being the reasonableness of purpose, third whether the benefits of the legitimate interests clearly outweighs any adverse effect to the individual, lastly the final decision outcome of the assessment.

Figure 1: The flow for conducting legitimate interests exception assessment



The flow chart has been taken from ***"Annexure C of Assessment Checklist for Legitimate Interests Exception 2021."*** [70]

Instance where the legitimate interest may apply is for the *"investigation relates to company employees and if the collection, use or disclosure of the personal data is reasonable for the purpose of managing or terminating the employment relationship with the individual".*[71] Paragraph 1(10) of Part 3 of the First Schedule[72] of the PDP Act has carved out an exception for employment purposes where the collection, use and disclosing the data of the individual by the organization will be termed as reasonable for the purpose of entering into an employment relationship with the individual[73] managing or terminating the employment relationship with or appointment of the individual.[74] It is thus stated that the test which is involved to invoke the legitimate interest under the PDP Act is that it must fulfil the condition like first it must check

[69]Annex-C Assessment Checklist for Legitimate Interests Exception, https://www.pdpc.gov.sg/-/media/Files/PDPC/PDF-Files/Advisory-Guidelines/AG-on-Key-Concepts/Annex-C--Assessment-Checklist-for-Legitimate-Interests-Exception-1-Feb-2021.
[70] *Id*.
[71] Farhana Sharmeen, Esther C. Franks, Gen Huong Tans, *GIR Know How Data Privacy & Transfer Investigations*, LATHAM & WATKINS LLP 4 (2021) https://www.lw.com/admin/upload/SiteAttachments/GIR_Data%20Privacy%20-%20Transfer%20in%20Investigations_SP.pdf
[72] *Supra* note 64, Para 1(10).
[73] *Id*., Para 1(10)(a).
[74] *Id*., Para 1(10)(b).

what is the necessity for the employer to access the personal data of the employee, second whether the collection of the data of the employee would have any adverse effect on the employee, third to identify reasonable measure which can mitigate the adverse effect, lastly to check whether the employer interest supersede the interest of the employee even though the necessary steps were taken.[75] Such mechanism is absent in the DPDP Act as there is no test or guidelines which are in place to deal with the ambiguity of the term for *'employment purpose'* in the DPDP Act.

Thus, it can be concluded by stating that when comparing the DPDP Act with the two most important legislation on data privacy of the world i.e., GDPR and the PDP Act. It is clear that how the term "legitimate interest" has been interpreted in the context of employment purpose. There are set of regulations and tests which are laid down to determine the threshold of the term legitimate interest but on the contrary under the DPDP Act there is no threshold laid down for the interpretation of the term "certain legitimate use" and "for employment purpose" what all can constitute under the said terms thus makes it ambiguous and vague.

The ambiguity may lead to multiple interpretations of the terms which in turn may lead to violation of Article 14[76] and Article 21[77] of the Constitution of India. Article 14[78] will be violated as in the DPDP Act the sole power is been given to the employer to decide what will classify as employment purposes which will lead to arbitrariness and unbridled power. Simultaneously this will lead to the violation of Article 21[79] because as discussed earlier, the Act does not provide adequate safeguards for protection of employee's data and the DPDP Rules are silent about any procedural requirements for the same.

This is also antithetical to various international instruments such as the ICCPR and UDHR which recognize the right to privacy.[80] The general comment on Article 17 of the ICCPR too talks about the need to discourage arbitrary interference with privacy.[81] The right to privacy has recently been affirmed by the United Nations General Assembly Resolution on Privacy,

[75] RedMart Limited [2023] SGPDPC 1, https://www.pdpc.gov.sg/-/media/Files/PDPC/PDF-Files/Commissions-Decisions/Decision---RedMart-Limited---18012023.pdf
[76] INDIA CONST. Art.14.
[77] INDIA CONST. Art. 21.
[78] *Supra* note 48.
[79] *Supra* note 49.
[80] UN General Assembly, *Universal Declaration of Human Rights*, Article 12, 217 A (III), 10 December 1948, https://www.refworld.org/legal/resolution/unga/1948/en/11563, UN General Assembly, International Covenant on Civil and Political Rights, United Nations, Treaty Series, vol. 999, p. 171, 16 December 1966, https://www.refworld.org/legal/agreements/unga/1966/en/17703.
[81] *Id.*

wherein proportionality of measures interfering with privacy has been discussed.[82] The Indian Supreme Court has often read these international instruments as a part of the domestic law and therefore, the government is under the obligation to abide by them.[83] A data protection legislation which respects employee's privacy is the thus the need of the hour.

4. The Way Forward

Through the elaborate discussion in Part III, it can be said that the data protection legislations in European Union and Singapore have adopted an extensive framework for collection of employee's data. This ensures transparency, and respect for principles for data collection. However, as we have discussed in the article, the same level of protection is lacking in India. Additionally, the relevant section suffers from ambiguity which makes it prone to misuse leading to privacy harms and since right to privacy is a fundamental right there are constitutional repercussions arising out of the same.

While, the authors concur with the observation of B.N. Srikrishna Committte Report that employers need to have provision that provides them with relief from burdensome data processing, this must be done with adequate protection mechanism.

We propose the following measures to be taken by the legislature to protect workers privacy based on our analysis of India's data protection framework and drawing from the recommendations made by various entities such as the International Labour Organisation and Data Security Council of India.[84] We also rely on the guidance provided in other jurisdiction with regards to processing and collection of data at workplace.[85]

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[82] Right to Privacy in the Digital Age, https://digitallibrary.un.org/record/3896430?ln=en&v=pdf.

[83] Navtej Singh Johar v. Union of India, (2018) 1 SCC 791, Indian Young Lawyers Association & Ors. v. The State of Kerela and Ors., 2019 (11) SCC 1.

[84] Frank Hendrickx, *Protection of Workers' personal data: General principles*, INTERNATIONAL LABOUR ORGANIZATION (Jan. 25, 2025, 3:30 PM) https://webapps.ilo.org/static/english/intserv/working-papers/wp062/index.html; Abha Tiwari, *Privacy sat the workplace- A practical guide to Ethical employee data management*, DATA SECURITY COUNCIL OF INDIA, PRIVACY LEADERSHIP FORUM (Jan. 28, 2025, 4:30 PM) https://www.dsci.in/files/content/documents/2024/Privacy-at%20-the-Workplace-DPLF-SIG-paper.pdf; ELECTRONIC PRIVACY INFORMATION CENTER, *Workplace Privacy* https://epic.org/issues/data-protection/workplace-privacy (last visited Jan. 24 2025); Dhruv Somayajula and Ameen Jauhar, *Retaining informational privacy in the age of emerging technology*, VIDHI CENTER FOR LEGAL POLICY (February, 2022) file:///C:/Users/VENDORS/Downloads/20220214_Retaining-informational-privacy-in-the-age-of-emerging-technology.pdf.

[85] Office of the Personal Data Protection Inspector, 'Recommendations regarding personal data protection in labour relations', file:///C:/Users/VENDORS/Downloads/Recommendations-Regarding-Personal-Data-Protection-in-Labor-Relations-.pdf,
Information Commissioner's Office, 'Employment Practices and data protection monitoring workers' https://ico.org.uk/media/for-organisations/uk-gdpr-guidance-and-resources/employment-information/employment-practices-and-data-protection-monitoring-workers-1-0.pdf

Suggestions

a. The Act must incorporate the principles of data processing and collection as recognised by the OCED, APEC and the United Nations, making Indian law compatible with the international framework.

b. The Act must mandate that any data collection and processing must comply with the threefold requirement of necessity, proportionality and legality as upheld in Puttaswamy.

c. Pursuant to the above suggestion, the Act and rules must incorporate a detailed test for pursuing 'legitimate use' like the GDPR as discussed in Part III of this pape.

d. The Act must provide an inclusive description of the term - 'employee'. This description must include platform workers, interns, and persons on probation, former employees, and persons interviewed for job et cetera.

e. The Act must also remove the ambiguity in Section 7(i) by limiting the scope of the term – 'employment purposes'. The scope must be restricted and only cover data collection and processing which is necessary and in consonance with the privacy principals. Such limitation can be incorporated in the Act by following the example of Singapore's data protection law which has prescribed the limited circumstances in which the data can be processed.

f. It is also required that various provisions of the Act as discussed in Part II (A) of this paper are amended to include collection and processing of data under Section 7(i) thus giving the Data Principals the right to know the purpose of collection and the data which is being collected.

g. It also required that the Act provides for the right to erasure of data and limitation on the period of retention of data when being collected and processed pursuant to Section 7(i). The current prescription to retain the data as per the assumption of reasonable use is prone to misuse.

h. The Act must also prescribe a mechanism for data processing impact assessment. This will align India's Privacy law with other leading privacy laws and ensure transparency and accountability.

i. The DPDP Act does not contain a provision for processing of sensitive personal data including biometric data. Other jurisdictions such as the EU, the UK and Singapore have

such provision which in turn prescribes a higher threshold for processing of such kind of data given its impact on the data principal. The same must be incorporated within the DPDP Act.

j. The current legislation also does not regulate the use of automated decision making, leaving data prinicpals to the arbitrary decisions of the artificial intelligence tools without any scope of human oversight.

5. Conclusion

It is true that flow of information is playing and will be instrumental in the growth of our economy however such growth should not disregard the right to privacy. Since privacy is not only a cherished value but it is also integral to human dignity.[86] This is also applicable to the myriad people who engage in one form of employment or the other. The need for livelihood should therefore not result in the breach of privacy by the employer. Use of invasive monitoring not only degrades privacy but also reduces the trust of employees thereby proving counterproductive to the goal of enhancing efficiency of output.[87] Therefore, necessary steps must be taken by the employers made to keep this right intact. The law should also play a crucial role in ensuring that the right to privacy is protected and not breached.

Through this article, the authors have tried to contextualize the need to secure employee's right to privacy amidst the increase in the use of surveillance tools and other invasive technologies. The authors have also tried to highlight the shortcoming of the DPDP Act in this regard by doing and intra and inter-comparative study with the previous Bills and the legal framework of the European Union and Singapore respectively. The authors have particularly emphasised on the significance of laying down a threshold for processing under the ground of 'legitimate interest' and restricting the scope of 'employment purpose under the DPDP Act'. Adopting this measure would curb arbitrary collection and processing of data by the employers. Additionally, the authors have highlighted other gaps in the DPDP Act which may adversely affect the privacy of the employees. Suggestions to this end have been made towards the end of this paper.

[86] LUCIANO, *Supra* note 1, at 311.
[87]Daniel M. Ravid, Jerod C. White, David L., Tara S. Behrend, A meta-analysis of the effects of electronic performance monitoring on work outcomes, Wiley Online Library, (2022), https://doi.org/10.1111/peps.12514; KRISTIE, *supra* note 3.

THE AI-COPYRIGHT CHALLENGE: AUTHORIAL, INFRINGING AND CULPABLE ATTRIBUTES OF AI MODELS

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Abstract

This research article examines the convergence of Artificial Intelligence and copyright law, with particular emphasis on the ramifications thereof on generative AI and text-data mining (TDM). The fundamental objective is to deliver a thorough descriptive, critical, and normative analysis of the intersection between these two domains. The research provides a comprehensive evaluation of legal difficulties by identifying probable grey areas within the current legal framework. The Gen-AI model poses copyright challenges at input and output stages. At the input stage issues that crop up relate as to how the copyright law treats the situation wherein prompts contain reference to copyright protected material; another concern is when copyright protected data is used to train the AI Model; further at the stage of execution, post prompt commands the AI model scanning huge data including copyrighted material and making copies; at what stage infringement occurs and who can be held liable; at the output stage wherein the process culminates into an art, who can be regarded as the author. Should the act of training the model with copyrighted material be exempted? Can the Model be held liable for infringing the material when producing copies? Can it be regarded as an author or joint author for that matter? These are some of the complex and intriguing questions that need urgent attention, arising in the contemporary technological environment at the very centre of which is the fact of AI Model using copyright protected material as a part of training process, wherefrom all the aforementioned issues arise. This paper also examines the practical and theoretical ramifications of these concerns, intending to guide both contemporary and future governance in India. The target audience comprises regulators, policymakers and scholars involved in AI and copyright law, as well as offering significant insights for legal professionals and intellectual property right owners adapting to the changing legal environment. The study aims to propose interpretations that significantly enhance current deliberations and policy debates in this swiftly evolving legal domain.

Keywords: Artificial Intelligence, Intellectual Property, Copyright, fair use, Liability, Copyright Infringement, GenerativeAI, Text and Data Mining.

In a world where code gives birth to art,
Generative AI plays its part.
But who can claim the brush or pen,
When machines create again and again?

Copyright's laws, once clear and bright,
Now wrestle with this digital flight.

Is it the coder, or the AI's mind,
That holds the rights, or leaves them behind?

Authorship, once a human trace,
Now challenges in cyberspace.
Infringement lurks, and courts must try,
To answer who, and what, and why.

As circuits hum and pixels gleam,
Legal theories must chase the dream.
The age of AI, with creative might,
Demands new rules to set things right.

-ChatGPT

1. Introduction

The author of this paper gave ChatGPT, the most sought after Large Language Model (LLM), a prompt to write a poem delineating copyright challenges posed by generative AI. In not more than ten seconds a string of rhyming sentences started to appear on the screen, to the astonishment of this author, who gave the same command three more times only to find a better and finer selection of words by the AI model working in secrecy to aid the author. In yet another instance this author gave prompts in another AI application called *DALL E* retrieving donald duck dancing in Michael Jackson style at illuminated Eiffel Tower (image 1). In yet another attempt in response to relevant prompts, a picture of mickey mouse eating pizza while climbing on the Eiffel Tower with skates on, was obtained (image 2). Does these images pose any copyright challenges?

Image 1

Image 2

The AI models as mentioned above have evolved to perform various tasks including text and image creations. This paper deals particularly with AI models that function as text-to-image creators. The AI Industry in the domain of text-to-image creation platforms is very active. Users have many options to choose from for creating images of their choice in seconds.

However no matter how easy, funny, intriguing and interesting it may seem, the challenges posed are very complex when norms of copyright regime are pitched against the working of these AI models. The challenges are mainly seen at two different stages in the process involving creation of images from texts; the input stage and the output stage (figure no. 1).

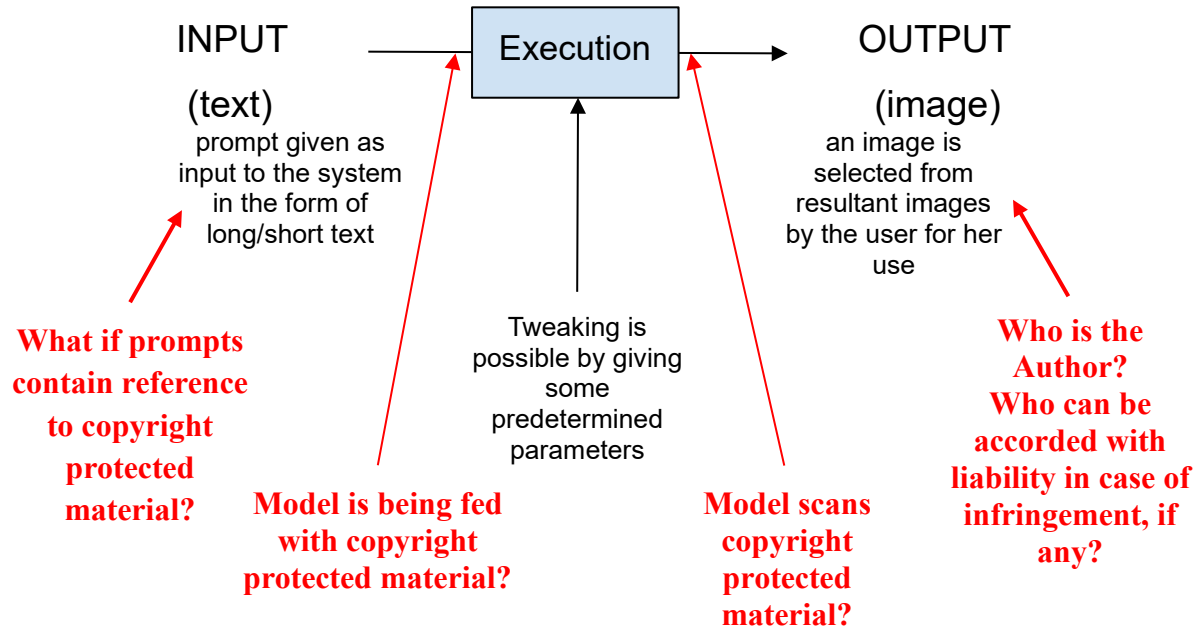

Figure No. 1. Stages in a text-to-image GenAI Model

Source: Author

At the input stage issues that crop up relate as to how the copyright law treats the situation wherein prompts contain reference to copyright protected material[1]; another concern is when copyright protected data is used to train the AI Model; further at the stage of execution, post prompt commands the AI model scanning huge data including copyrighted material and

[1] Andres Guadamuz, *A Scanner Darkly: Copyright Liability and Exceptions in Artificial Intelligence Inputs and Outputs*, 73 GRUR Int. 111 (2024).

making copies; at what stage infringement occurs[2] and who can be held liable; at the output stage wherein the process culminates into an art, who can be regarded as the author[3]. Should the act of training the model with copyrighted material be exempted? Can the Model be held liable for infringing the material when producing copies? Can it be regarded as an author or joint author for that matter?

These are some of the complex and intriguing questions that need urgent attention, arising in the contemporary technological environment at the very centre of which is the fact of AI Model using copyright protected material as a part of training process, wherefrom all the aforementioned issues arise. It is crucial to note that these issues are pertinent not only for academic purposes but also for industry, policy makers, artists, musicians and other stakeholders[4]. The endeavour in this research article is to carefully analyse these issues from the lens of legal theory and also to critically analyse and evaluate the problems in light of the current copyright regime in India. The author also takes note of the developments occurring in the European Union (EU) relating to the aforementioned issues.

2. Structure of the Paper

The paper starts with introducing the concept of interface between copyright law and Generative AI technology. Thereafter the paper apprises the reader of the research objective, relevant research questions and the research methodology incorporated herein the paper. Thereafter the paper is divided into three sections. Section one provides a comprehensive understanding on the modus operandi of a Generative AI model. Section two discusses liability rules with respect to the Gen-AI Model. Section three provides a comprehensive analysis of copyright law vis-a-vis input questions that pose problems in the contemporary technological environment. Finally the paper concludes with some suggestions to comprehend the issues raised by Gen-Ai models in the copyright regime and also suggests areas of future research pertaining to the domain.

3. Research Objective and Methodology

The objective of the research is to critically analyse the input problems, as mentioned above, faced when emerging technology of generative AI is pitted against the current copyright regime. The research endeavors to suggest liability rules that may be taken into consideration at the time of

[2] *Id.*
[3] Mark A Lemley, *HOW GENERATIVE AI TURNS COPYRIGHT UPSIDE DOWN*, 25 Sci. Technol. Law Rev. 21 (2024).
[4] *Id.*

framing policies and regulatory frameworks. Generally the research will be conducted by incorporating a Qualitative Doctrinal approach. The background for the research is made by perusal of books, articles, research papers , news articles and official websites. This analysis seeks to determine the challenges and their possible solutions in the legal environment created at the intersection of copyright law and Generative-AI. The analysis tries to provide solutions conducive for implementation in our country and also ascertain steps that are needed in a direction towards bridging the vacuum created by absence of any regulation to govern Gen-AI issues.

4. Section I

4.1 The Gen-AI Model

Generally, a Gen-AI (Generative Artificial Intelligence) Model works on the principles of *prompt engineering* which thrives on prompt commands by the users. Other technical processes that the model undertakes include *execution* and *tweaking*[5]. The process of tweaking includes human efforts (figure no. 2) that give directions to and guide the process, though on the basis of predetermined standards. The following paragraphs explain the working of a Gen-AI model in detail.

Large Language Models (LLMs) have taken the world by storm. These LLMs are essentially a part of a bigger class of models called *foundational models*[6]. Initially libraries of AI models were fed specific data and the systems were so programmed so as to perform only specific tasks. Later it was predicted that all these task specific models can be combined resulting in a model that can perform various tasks including those specific tasks[7]. Such a model came to be known as a foundational model. Thus such a model with foundational capacity is a combination of specific models[8].

A foundational model is not task specific rather it can be *transferred* to perform any number of tasks. The question that arises is that how is such a model capable of executing multiple tasks and how can it be transferred to any number of tasks? The answer is that the model is being fed and trained on a humongous amount of data. The manner in which the data is fed is largely unsupervised and random, the data itself also being unstructured.

[5] Stefan Feuerriegel et al., *Generative AI*, 66 Bus. Inf. Syst. Eng. 111 (2024).
[6] A team from the University of Stanford coined this term on witnessing confluence of artificial intelligence into a new paradigm. Task specific models were being replaced by new models that could perform various tasks.
[7] Feuerriegel et al., *supra* note 5.
[8] Peter Cohan, *What Is Generative AI?*, 1 *in* Brain Rush: How to Invest and Compete in the Real World of Generative AI 9 (1 ed. 2024), https://link.springer.com/10.1007/979-8-8688-0318-5_2 (last visited Feb 11, 2025).

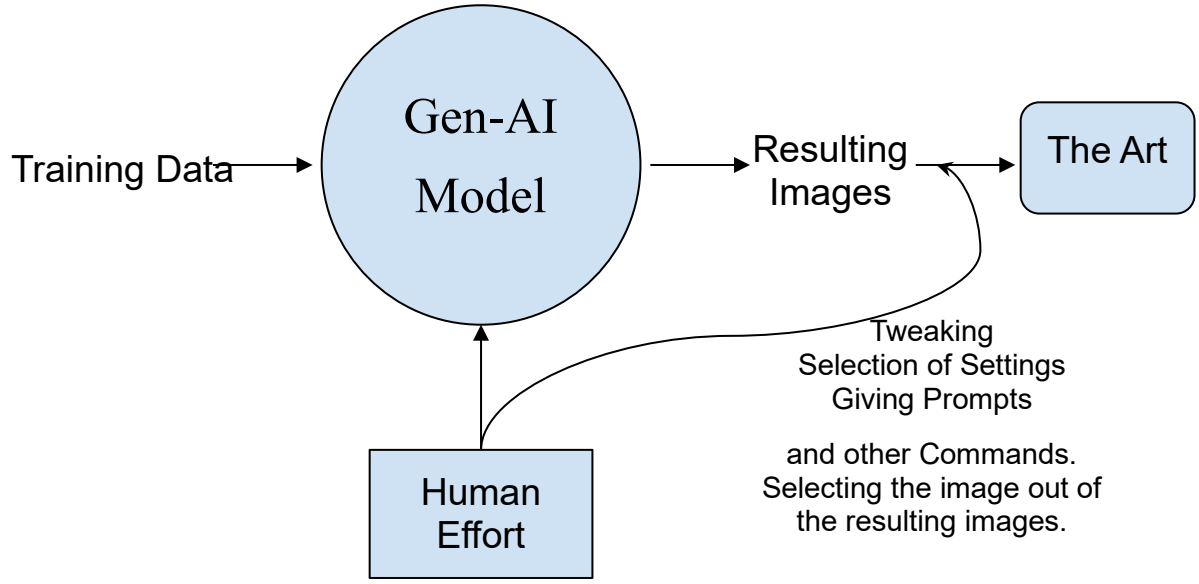

Figure No. 2 The Working of a Generative AI Model

Source: Author

Immense data containing sentences and images running into several terabytes is used to train the model. The trainer who feeds the data to train the system, programs the system and endeavours that, on his input, the model predicts the desired outcome based on all the data the system has seen before. For eg. if a user inputs the phrase

"All the world's a stage and all the men and women are ……....."

Provided the model has read his *Seven Ages of Man,* the system using its generative capacity predicts the remaining words and completes the famous quote from *Shakespeare* as -

"All the world's a stage and all the men and women are merely players"

This generative capacity of the model, predicting and generating on the basis of data the model has seen before, is at the core of the foundational models[9]. Foundational models, as they are generating something, are a part of the field called Generative AI (figure no. 3), which essentially perform generation tasks (eg. predicting the next word in the sentence).

Apart from generation they can be programmed, by the process called tuning, to perform other tasks like classification. Tuning can be done by introducing a small amount of data, resetting

[9] Feuerriegel et al., *supra* note 5.

certain parameters and performing specific language tasks[10]. Further the model can work pretty well even in cases where very few data points are available by the process referred to as prompt engineering.

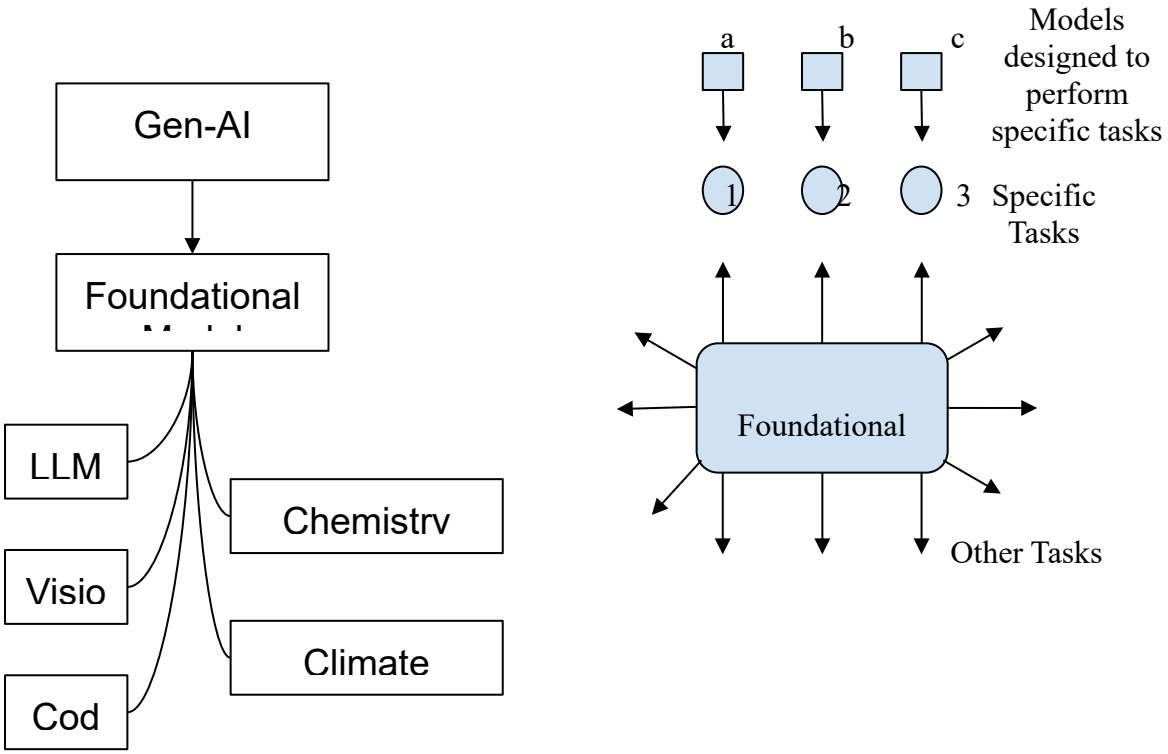

Figure No. 3 Type of Gen-AI Models- Foundational models and Large Language Models

Source: Author

These models come with its pros and cons. The advantages of these models are their efficiency, powerful performance and enhanced productivity. The disadvantages though play a crucial role in impending new companies to venture in the AI field. The *compute costs* of these models are immense. The models are very expensive to train which impedes a small enterprise to have its own model. The hosting, sustaining and functioning of the models is very expensive for big corporations too. The models also suffer from trust and biasness issues, depending upon the quality of data they are trained on.

Generally the data is retrieved from the internet and there is no fool proof mechanism to ensure that the data points are not influenced with biasness, hate speech, toxicity and material unsafe for children. Thus to conclude the Generative AI works on foundational models. These

[10] Cohan, *supra* note 8.

foundational models are not only on the language side (known as LLMs, eg. Chat-GPT) but are also on the visual side (eg. DALL-E), and can also be applied to other domains[11] like coding, chemistry and climate change. This much conceptual understanding about generative AI is sufficient and any further elaboration on the working of these models is outside the scope of this paper.

5. Section II

5.1 Liability

The process involved in image generation via a Gen-AI model involves many actors. Each actor such as programmer, data provider, trainer, operator and user have different roles to play in the said process. The question which emerges, in case of any conflict, is that on whom the liability can be imposed. Who can be held liable,out of these actors, in the wake of any wrong being committed by or through the process? The answer to this question is not at all easy to comprehend provided the complex nature of the technicalities involved along with other pertinent dependent factors such as risk control and risk attribution.

The traditional notion that the computers will do what one tells them to do is categorically challenged in the wake of emergence of disruptive technologies when the foreseeability is diminished and the output from computers is very different[12] from what the users had in mind. The era of diminished foreseeability calls for rethinking of the liability rules, importantly for three major areas of information technology, namely Robotics, Connectivity and Machine Learning (Artificial Intelligence) which have seen rapid advancements. Regulation of these technologies, which essentially means influencing the behaviour with respect to the technology vis-a-vis different stages along which the tech develops namely., the development stage, dissemination and application stage, results and application stage. Different areas of law, such as IP, competition, tort and security law, influence these stages differently.

All these areas function on humongous data, often coming from multiple sources, apart from the technology involved, regulation of which involves additional impediments such as inability to attribute the causation to one single actor. Further the programming coupled with training of the AI had brought forth a paradigm shift in the sense that the machine has evolved to learn on its own thereby interfering with the ability to predict and foresee the whole behaviour of the system. The impediments in foreseeability render the existing risks to undergo certain changes

[11] Feuerriegel et al., *supra* note 5.
[12] Guadamuz, *supra* note 1.

which shifts *risk control*[13] vis-a-vis the actors involved (figure no. 4). For Eg. in case of self driven cars the risk control of *producers* has increased and that of *operators* and *owners* have reduced.

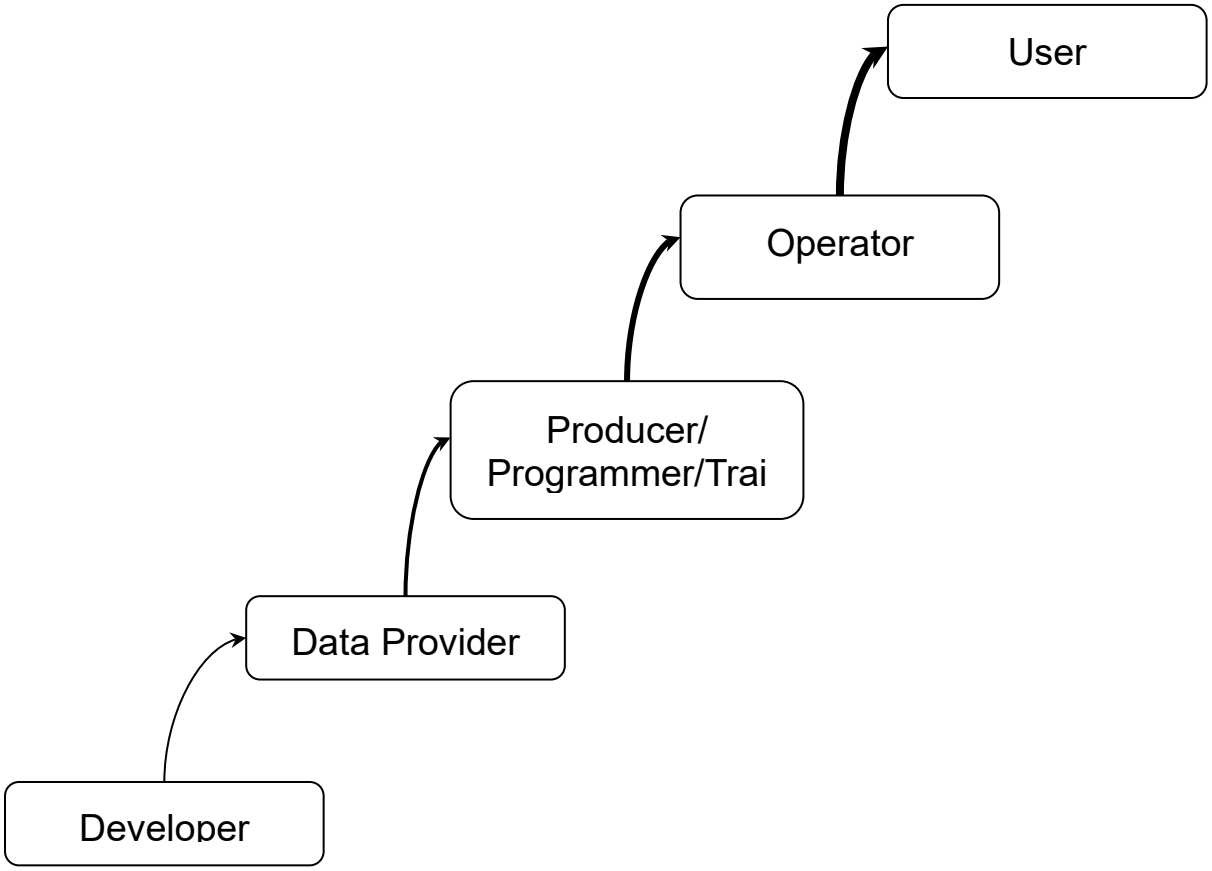

Figure no. 4 The Actors involved in an AI Model.

Regulation of technologies is crucial to mitigate the risks involved, create incentives and address stakes that lie in the development of technology. In order to regulate new technologies jurisdictions have resorted to direct and indirect regulation. Indirect regulation involves the technology to develop freely and be subjected to prevailing market conditions. Intellectual Property Law and Liability Rules[14] are regarded as indirect regulations which come handy in tech regulation and risk mitigation, owing to the insufficient knowledge of the state on how

[13] *Id.*
[14] Magdalena Tulibacka, Product Liability Law in Transition: A Central European Perspective (2016), https://www.taylorfrancis.com/books/mono/10.4324/9781315602318/product-liability-law-transition-magdalena-tulibacka (last visited Feb 11, 2025).

useful or risky the new technology might be, rendering the state unable to come up with a direct regulation.

The IP Law and the Liability rules are two sides of the same coin which function towards complete internalization of externalities. The IP Law particularly the patent law internalizes positive externalities while the liability rules internalize[15] the negative externalities. A harmonised effort to bring these two laws to function in a cohesive manner will help in building up an innovation friendly environment which incentivises people to bring up useful innovations and applications.

The EU AI Act Article 10 is an example of direct regulation which deals with data and data governance. Interestingly the Indian authorities are still on the fence about bringing a statute that exclusively deals with AI training data. However some pertinent laws that are currently in force in India are allegedly sufficient for regulation of the AI ecosystem.

The present liability rules deal with contractual liability, product liability[16], fault based liability, strict liability etc. The contractual liability stems from the contracts for supply of data. The contractual obligation binds the parties to provide data which is ethical, unbiased, clean, non-discriminatory and in accordance with the terms of the contract. In such contracts the transfer of the training data is the main obligation where data is supplied against consideration. Terms may also include providing access to data or data sources rather than providing data as such. These contractual obligations depend on *control* of the data supplier. But does the data supplier have complete control over the data?

On the other hand product liability can come into picture in case data sets are considered to be products. The product liability is enforced when the said products say consumer products turn out to be defective. In cases of infiltration technology if the information is *wrong* then the product may be termed to be defective. However in a leading case[17] it was adjudged that such scenarios attract the question of wrongful service and not defective product. Information products including softwares (AI) thus are out of the purview of the definition of *defective product.*

[15] *Id.*
[16] *Id.*
[17] See *VI v. KRONE - Verlag Gesellschaft mbH & Co KG CJEU C-65/20* wherein the court discussed liability in cases of defective products.

Contractual liability as seen above depends on control and product liability depends on the subject matter being a product. Training data lies midway on the spectrum wherein on one end is information and on the other is control (table no. 01). Thus training data does not does not come completely under the concept of contractual liability owing to lack of control and also not under product liability as training data sets are not products. It becomes crucial to appreciate at this stage the differences between information (simple data), training data and software.

Simple Data	Training Data	Software
Analysed by humans	Used for training AI	Used for controlling computers
Does not control Machines	Indirectly controls machines	Directly controls machines
Causality via human knowledge	No human knowledge involved	No human in the loop
Can be treated as product	No conclusion so far on how to treat training data; as product or service	Comes in the category of service not product

Table no. 01 Differentiating simple data, training data and software

The pertinent question emerges from the discussion above is how to treat the training data. The training data does not completely fit into the water tight compartment categories of product on one hand or software on the other. Therefore calls have been made to develop separate sui generis regimes different from product liability and contractual liability to address the emerging problems. Fault based liability is proposed to be an emerging and new liability rule in cases of AI. fault based liability is liability of negligence. It stems from damage and causation from the breach of a duty. Thus in cases where a duty of care[18] was breached this liability[19] can be imposed. The question to ask here is whether the data supplier had a duty to supply

[18] Donal Nolan & Ken Oliphant, Lunney & Oliphant's Tort Law: Text and Materials (2023), https://books.google.com/books?hl=en&lr=&id=bRSsEAAAQBAJ&oi=fnd&pg=PP1&dq=oliphant+ken+tort+law+2023&ots=qnW5hd5_Cn&sig=VxUNCZsAXJJRd-Ipxg5me8vgX20 (last visited Feb 11, 2025).
[19] *Id.*

immaculate data. If there was such a duty and it was breached, liability can be imposed. Strict Liability can also be imposed in cases of "high risks" AI models.

In conclusion the policy makers may endeavour to carve out sui generis rules to tackle the problem of liability in the cases of training data in AI models. Strict liability rules may be brought in for producers, programmers, trainers and also for suppliers of data particularly in cases of AI where high risk is involved such as in healthcare and education. Certain flexibilities and limitations shall also be incorporated in the rules in order to incentivise the suppliers to generate more data. Thus policies shall take care to balance out incentivisation and development of more immaculate data without stifling the growth of developing technology.

6. Section III

6.1 The Copyright Challenge

The copyright doctrine of fair use provides that there is no copyright infringement when protected works are put to certain uses regarded as fair. When copyright protected data is used for training an AI model, should there be any immunity? The stage of input as noted above brings up the issues that require scrutiny as to whether copyright infringement occurs when the model is being fed with the copyright protected material[20] as a part of its training process. It is also to be looked at whether such use of copyrighted material is exempted, meaning that whether such use will be deemed non-infringing.

At the stage of output the question is regarding the copyrightability of the works generated with the aid of AI. If copyright can be attributed to such work then who can be regarded as the author? In case copyright cannot be granted to such works, can these works be protected by neighbouring rights i.e. if there is no authorial copyright protection can there be a neighbouring right protection[21] to save the work from going into the public domain? Can the definition of "work" cover AI generated works? Can it be commercialised? Can you sell it as your creative output? These questions are interrelated but they have to be treated differently as the tests to check these problems are different. The questions at the stage of input are relatively more important than those at the stage of output and this article focuses on those questions only.

[20] Robert Brauneis, *COPYRIGHT AND THE TRAINING OF HUMAN AUTHORS AND GENERATIVE MACHINES*, 47 Columbia J. Law Arts 58 (2024).
[21] Lemley, *supra* note 3.

Allegedly it is an act of infringement when a copyright protected material goes into the model as a part of the training process[22]. Also, the AI models ardently require data to thrive. They are nothing without data input and require access to human source material. Therefore, on one hand, it becomes essential for the models to use existing copyrighted work for training and on the other hand there are allegations that such use will amount to infringement. Now how to harmonize these conflicting situations which require that technological advancement are not impinged upon and the rights of the copyright owner are also not infringed.

Every single process, from text to image creation, requires individualised scrutiny based on its own merits. The process involves several acts of copying and reproduction at several stages during the process, rendering occurrence of temporary and permanent copies. What, where and when is a copy an infringing copy in the system? The pertinent question to ask is whether all of these copies are infringing copies. Does the law exempt any of the copies? The copies that are fed to train the system are infringing? To answer this it is crucial to understand the principle of "text and data mining".

Machine learning, also known by the name of artificial intelligence, is the technology wherein, principally, the machine learns through data, algorithms and other user inputs and feedback and thereafter the ML mimics human intelligence. producing creative outputs. Analogy can be drawn with how a human learns using various similar methods. AI requires copies of works to learn and get trained to emulate human creativity. The training involves assessing the copies, reading the copies, preparing for reproducing the copies, analysing the copies and mining the copies. Does any of these constitute copyright infringement[23]? Or are there any exceptions to such infringement?

Everything is available on the internet which offers easy access to diverse media including audio visual works, literary dramatic works, cinematographic works etc. Further the models do not scrape everything off the Web. The nature of data sources and the manner in which data is collected are diverse. For extraction of data some methods involve making a permanent copy for use in generating works while some only make a temporary copy of the data. More the data, the better the models and much better the outputs. Training the AI requires accessing, reading, analysing, storing and copying the data to extract information[24]. The steps are collectively

[22] Guadamuz, *supra* note 1.
[23] Carys J. Craig, *The AI-Copyright Trap*, 100 Chic. Kent Law Rev. (2024), https://www.ssrn.com/abstract=4905118 (last visited Feb 11, 2025).
[24] Stefan Feuerriegel et al., *Generative AI*, 66 Bus. Inf. Syst. Eng. 111 (2024).

called data mining and are useful to train an untrained artificial intelligence model. The question here is whether these steps constitute copyright infringement[25] and if it does, do we have any exception or limitation for said text and data mining?

That data which is fed does not completely include only those works which are protected. Unprotected works such as ideas, numbers, stats and facts also form the bulk of the data. These datasets often comprise protected and unprotected works both. The unprotected works will be outside the purview of copyright infringement. Further no question of infringement arises if data is collected with authorisation of the owner or from open access databases or public domain or any other legitimate resources. Thus the trainers can avail data from legitimate and non infringing licensed sources. For an AI model only to rely on these sources makes it inefficient, oldschool and prone to bias towards data not fed to it. Mining and collection of data without permission will in principle infringe copyright and therefore trainers will have to avail the benefit of any exception, if any. In the case of mining and collection of data is the trainer performing acts that are covered under exclusive rights of the owner? Exclusive rights such as those related to exclusive reproduction (copying), distribution, adaptation, dissemination etc. What if the training process does not involve any coping, then obviously the right of reproduction is not infringed. In certain AI models only some attributes, encoded in the form of links, of protected work are scraped off and not the entire work is copied. Further these models in doing so often rely on temporary copies which are not kept or stored in the database. One can also say if such links are made it may be against the right to communicate to the public. However this communication is not regarded as to have been made to public in a strict legal sense. Therefore only links are extracted and copies are not made, hence no infringement of the rights of reproduction and dissemination as seen above. Thus the data set, as such, is not infringing.

Scholars argue that once the data set is used to train the AI it is no longer needed thereafter and the resulting trained model does not contain copies of the data set. Also the data set is essentially in a condensed form of information in a latent space . In a typical model images are taken in training process which are temporary copies and are encoded in a latent space. It is all a kind of lossy and compressed data and no copies of works are made in a legal sense. A question may arise, if in this process the right of adaptation can be said to have been infringed. In a training process what essentially happens is this, take all the things, break apart each thing

[25] Craig, *supra* note 23.

and categorise and situate similar components together. Now this is not a translation as the original work is completely gone. The content of data sets which are put to use for training AI and the content of the trained AI are very different from each other.

Till now the training data steers clear from copyright infringement. There is no copyright infringement in the process. However, still in some cases data collection or training the AI may infringe an exclusive right of the author. In that case the question to ask is whether there is an exception or limitation for such use?

The Infosoc directive of the UK states that copyright is not violated when creating a temporary copy that is transient or incidental[26], provided that this copy is essential to "a technological process, and its sole purpose is to facilitate the transmission of the work or for lawful use, and the temporary copy lacks *independent economic significance*[27]." This provision is a bit problematic. Firstly the term *lawful use* is subject to interpretations. Secondly the individual copy, though temporary, may not have individual economic significance whereas the value of combined accumulated information collected from such individual works is economically very significant. Though the copy is temporary and transient, it is very much essential for scraping of information without which the AI model does not exist. The question arises whether that copy for technological process is a legal use. Also the model is significant in terms of economy unlike single individual copies as aforesaid. It is not the exact work which is significant for the model but accumulated facts and information from the work. This brings up for discussion in future litigation to decide the individual value of work vis-a-vis collected value from accumulated works which essentially depends on hyper technicalities of training the model.

Another exception deals exclusively with collection of data itself, applicable for the training of a machine learning model. This is known as TDM (text and data mining) Exception. There are three models in vogue which provide TDM exemptions. A total exemption of TDM, including for commercial and scientific research, has been tried by jurisdictions[28], which brought with it, grave consequences. A Complete exemption can lead to huge losses in licensing revenues for copyright holders. Another model focuses on exemption for non-commercial research purposes. Here TDM is allowed for research purposes.

[26] Guadamuz, *supra* note 1.
[27] Section 28A CDPA (Infosoc Directive of the UK)
[28] The UK Intellectual Property Office opted for a total exemption for TDM. The notification ordering the said exemption was later called back due to grave repercussions in terms of huge revenue loss.

This exemption however may lead to the problem of *data-laundering,* also known as *academic washing*, discussed later. The third model also known as the hybrid model is a combination of the two wherein commercial purposes are exempted with certain restrictions. Renewed interests have emerged, owing to the emergence of technology, in the scholarly debates, to discern if data mining falls within *fair use.* Gathering the data, for non commercial research purposes, is covered by the exception, by analogy it can also be said to cover training the model as well. Gathering data and training the model are not conspicuously defined as different stages in law. The TDM exception for research has two fold problems, firstly, there is no clear cut legal or judicial opinion/interpretation of the term "research" and secondly, the problem of data laundering. Once the data is used for research, certain rules for the want of authenticity and transparency or for funding obligations may mandate disclosure of the data used in research, rendering the data to come within the public domain. Now the answer to the question whether an entity can use such data for commercial purposes, calming the data to be in the public domain, is not very clear. So far one thing is clear, that in order for training data to fall within fair dealing, there shall either be a temporary copy of the data or there be a TDM exception.

Section 52 of the *Indian Copyright Act 1957* (the Act) deals with copyright exceptions. *Section 52 (1) (a) (i)* and *Section 52 (1) (b) and (c)* are crucial for understanding the scenario in light of the Indian jurisdiction. Copyrighted works can be used for research purposes in accordance with S. 52(1)(a)(i)[29]. Further, explanation[30] appended to this clause clarifies that even storage of a protected work's transient or temporary copy for the research purposes, will not constitute copyright infringement. Clause (b) of the section comes handy in the training AI process. Clause (c) is categorically important in the present case.

We saw above, how links to the data, used for training the AI, are stored, in condensed form. Providing such links, and storage of temporary copies to provide such links, does not constitute copyright infringement. The proviso attached to this clause may be used to solve the problem of data laundering. In the absence of any legislation to deal exclusively with the problems discussed so far leaves the opportunity for the curts to discuss and evolve the jurisprudence related to the intersection of Gen-AI models and Copyright laws. The author is of the view that

[29] *"Copyright Act 1957 Section 52. Certain acts not to be infringement of copyright. (1) The following acts shall not constitute an infringement of copyright, namely,-- (a) a fair dealing with any work, not being a computer programme, for the purpose of– (i) private or personal use, including research;"*

[30] *"Explanation.-- The storing of any work in any electronic medium for the purposes mentioned in this clause, including the incidental storage of any computer programme which is not itself in infringing copy for the said purposes, shall not constitute infringement of copyright."*

the domain calls for a renewed approach to rethink copyright law doctrines in the wake of these emerging technologies. This paper only discussed the input questions laying the foundation for future research pertaining to output questions and also other foundational legal doctrines of copyright regime such as idea expression dichotomy and substantial similarity doctrine to prove infringement.

7. Conclusion

The recent nobel prize recipient, Geoffrey Hinton, expressed grave concerns over his own work which led him winning the coveted prize. His work on Artificial Intelligence and Deep Learning has made him state that he regrets his life's work. Why? Even more so on similar lines Elon Musk, who has also regarded AI as being a risk to humanity, compels one to end up in a cassandra moment. The regulation of AI is an urgent global issue now and India is no exception. The EU AI Act is a groundbreaking piece of legislation that works on a risk based approach which may work as a point of reference and an inspiring model for building a framework here in India. Though, India has already made considerable strides in addressing these issues by its IndiaAI mission but much is yet to be achieved and what a law governing AI in India could look like remains to be seen.

This paper looked at serious policy concerns about copyright law as posed by the Generative AI, revolving around infringement, text data mining exception, bias, concentration, competitiveness and performance. These concerns if not addressed impact various stakeholders including members of art industry, cultural groups, photographers, filmmakers, artists, music industry members, libraries and other private and public entities. As is apparent in the litigation involving disputes related to Gen-AI, mushrooming around the world. The cases predominantly deal with issues related to licensing. This is not surprising as huge investments and other capital are at stake, thus issues pertain largely to money. India has not so far witnessed any significant litigation related to the area. Until that time, it is advised that endeavours are made to flourish the current IndiaAI mission and more and more public consultation and round table conferences are held to build an ethical and responsible AI environment.

The author suggests that a one-size-fits-all approach will be detrimental for regulation of Gen-AI Models. The thread of trust. transparency, inclusivity, collective dialogue and regular deliberations from all stakeholders shall continuously flow through the paradigm of policy and law making regarding the regulation of the Gen-AI models. Necessary provisions relating to flexibilities with respect to emerging technologies shall find place in the laws in order to

encourage the entrepreneurial ecosystem. On the other hand, international harmonization attempts shall be made with respect to the enterprises that are well established. Since the disruptive technologies of today's age are affecting all the sectors in the society, the stakeholders shall ensure adoption of inclusive approach while making legislations and regulations, taking into account the legitimate and required access of users and balancing it with the legitimate interests of the right holders. A proportionate legislation is the need of the hour that can function as a great leveler to balance the conflicting interests emanating from different stakeholders. As is often said with respect to the slow pace of the legislations as compared to that of technology, a regular and continuous assessment of the laws and regulations by calling upon working groups deliberations and round table conferences by diverse members and stakeholders to regularly check upon the developments in the concerned area, keeping in mind inclusivity and transparency.

A TRANSFORMATIONAL APPROACH TOWARDS COLLATERIZATION OF INTELLECTUAL PROPERTY

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Abstract

Almost everyone is familiar with the mortgaging of immoveable property under the Transfer of Property Act and also with pledge and hypothecation of movables but Collaterization of Intellectual Property Rights is a seed which yet to germinate in its full capacity. The author in this Article has therefore dealt with the Collaterization of Intellectual Property Rights delving upon its benefits and challenges. One of the ways of IP financing is through IP backed loans which can be very beneficial for Big Companies which have different Intellectual Property as their assets but there are many challenges faced by Companies in this process of Collaterization primarily being that of Valuation of the IP asset. Lack of expertise in this field like lack of experts in IP Valuation in India poses a major problem. Consequently, if the asset is not valued properly and not given appropriate rating by the Credit rating agencies then investors would be reluctant in investing in such assets of the Intellect. Law in India relating to IP Collaterization is in a nascent stage of development as compared to the law in US, Singapore, Malaysia and Indonesia. In India, though various statutes do make a passing reference to Collaterization of Intellectual Property like the SARFAESI Act, 2002, the Companies Act, 2013 but none of the statutes deal with the intricacies of the subject. In this realm the researcher has mainly focused on the following research questions:

- *What are the challenges faced in the process of IPR Collaterization in India?*
- *What is the Regulatory framework regarding IPR Collaterization?*
- *How has the other jurisdictions dealt with the same?*

Keywords: Collaterization of Intellectual Property Rights, Valuation of the IP asset, SARFAESI Act 2002, Companies Act, 2013.

1. Introduction

Securitization of assets has been used from date back by companies to raise capital and to secure loans. But, in India Securitization of Intellectual Property is in a nascent stage of development. Intellectual Property Securitization also brings with it certain benefits and also challenges which need to be resolved before the same can be frequently used by the rights holders for raising loans or by companies for corporate debts. These complexities vary depending on the type of the asset of the intellect that is being securitized. Lenders also do not like to give loans on Intellectual Property unless the asset is cash flowing and the same could

be treated as a security. [1] Another benefit of Intellectual Property is that its value is increasing day by day and hence its value is becoming more than the real property. [2] In the United States the use of Intellectual Property as collateral have been centuries old [3] but the use of it as collateral in India is not yet statutorily regulated. Using Intellectual Property as a collateral involves transforming innovative ideas into a financial asset for raising capital. [4] There can be various forms of IP financing, one of them is IP backed loans, it takes place when the IP asset is given to the bank as a collateral for raising the loan, another method may involve "IPR Sale and Lease Back". The same involves the selling of the IP asset by the owner of the asset to the bank after payment of the lump sum amount by the bank which is a sale and thereafter leasing back the IP asset by the bank to the owner for a premium/ rent for a fixed period. At the end of the period the lessee has the option of repurchasing the asset. The IP asset is treated as a security for the loan. [5] Another method is IPR backed securities. This method involves the transacting of the different rights over the royalties of the IP asset. The claim over the rights is placed in Special Purpose Vehicles (SPV) that issues the securities. Then the securities are placed in the capital market and traded and thus it also involves rating by the credit agencies.[6]

The constraints involved in IPR collaterisation also involve the banking sector. Banks are reluctant to grant loans to IPR holders as the IP as a collateral because of their past bitter experience in the same. [7] Another challenge in India involves the under developed valuation system of the IPR. If the assets are not valued properly at a proper rate, then it becomes difficult for the bank to grant loans on the IP asset. The IPR Policy of 2016 has but paved way for IPR securitization and collaterization in India and which is also TRIPS compliant. Amongst others the SARFAESI Act deals with intangibles, and is a way forward for IPR collaterization in India but there are still some challenges which needs to be overcome if we take the same in a broader

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[1] Anjanette Raymond, " *Intellectual Property as Collateral in Secured Transactions: Collision of Divergent Approaches"*, 10 Bus. L. INT'l 27 (2009).

[2] Shawn K. Baldwin, *"To Promote the Progress of Science and Useful Arts": A Role for Federal Regulation of Intellectual Property as Collateral",* University of Pennsylvania Law Review , May, 1995, Vol. 143, No. 5 (May, 1995), pp. 1701-1738.

[3] *ibid*

[4] Bibekananda Panda and Sara Joy, " *Intellectual Property Rights-based Debt Financing to Startups: Need for a Changing Role of Indian Banks, VIKALPA- The Journal for Decision Makers"*; 46(3) 145-152, 2021, Sage Publications.

[5] https://metispartners.com/thought-leadership/sale-and-leaseback-a-model-for-increasing-trust-in-ip-assets/#:~:text=In%20simple%20terms%2C%20a%20sale,valuation%2C%20the%20transaction%20takes%20place. (last visited: 05.04.2024)

[6] https://www.wipo.int/sme/en/securing-financing.html (last visited: 05.04.2024)

[7] Bibekananda Panda and Sara Joy, " *Intellectual Property Rights-based Debt Financing to Startups: Need for a Changing Role of Indian Banks, VIKALPA- The Journal for Decision Makers*; " 46(3) 145-152, 2021, Sage Publications.

perspective and try to apply the same in India comparing it with other international jurisdictions. In this Article, the author therefore will try to frame a possible roadmap for India in IPR collaterization.

In the first part of this Article the author has discussed about the assistance that the Intellectual Property Collaterization provides to the owners of the asset and also the hindrances that it faces in such process. In the second part of the Article the author has analysed the current regulatory framework in India and has tried to analyse the statutory laws that provide about IPR Collaterization in India and in the next part of the Article the author has tried to draw a comparative analysis of the present framework of IPR Collaterization in other jurisdictions such as in United States of America, Singapore, Malaysia and Indonesia where the laws relating to IPR Collaterization is more concrete than in India.

2. Benefits and challenges of IPR Collaterization

As already discussed by the Researcher in the Introduction that IP assets can be collaterized in different ways, in this part the researcher will try to discuss about the various benefits and challenges of IP Collaterizaton. Some of the benefits are that the collaterizing the IP asset is very advantageous for its holder. It generates cash flow. [8] Corporate who are the holders of the IP and requires funds can use the same for their businesses by taking loans on such IP assets. The IP holder gets the loan in cheaper financial conditions and constraints. Another benefit is that the banks have a security in the form of IP assets for the loan that they have provided to its holders. In case of default they have the remedy of a suit for foreclosure or they may sue the holder personally for the repayment or they get the right of sale of the IP asset. This mechanism of Collaterization of Intellectual property provides financial support to the less privileged group of IP holders like the craftsmen, artisans, weavers by getting loans from the banks/financial institutions on the security of their IP assets. [9] There are also many benefits of the Securitization method like in this type of method when the asset is transferred to the Special Purpose Vehicle (hereinafter referred to as the "SPV") the originator of the IP asset is able to raise the capital by a little amount of investment. [10] The credit ratings of the SPV is higher than that of the originator hence the loans are given at a lesser interest rate than it would have been in case the

[8] Francis Muhire, *Intellectual Property Rights Monetisation.*
[9] Vishakha Pandey*, " National IPR Policy 2016,"* 3 INT'l J.L. MGMT. & HUMAN. 130 (2020).
[10] Ariel Glasner, "*Making Something out of Nothing: The Trend towards Securitizing Intellectual Property Assets and the Legal Obstacles That Remain*, " 3 J. LEGAL TECH. RISK MGMT. 27 (2008).

same was given to the holder directly.[11] It also provides the originator with other financing sources which would not have been other otherwise available to the holders of the IP asset. Because, the same is through the SPVs and there is a chance of higher security the financing options would also be diverse. From the investor's point of view securitization is beneficial because the investors then have a fixed rate of income from the same. [12] Also because of an increase in the value of IP it is becoming a major economic asset for the big corporate[13]. In the year of 1982 major physical assets in the United States was 62% but the same has reduced to a whooping 30 by 2000. Companies are increasing their share of IP assets gradually from physical assets for the economic benefits of the IP assets. Similarly, the use of Intellectual Property as a tool for Collaterization is slowing gaining pace for its economic benefits.

3. Challenges of IPR Collaterization:

The primary challenge of using IP as collateral is the issues on Valuation of the IP asset. As Lipton observed:

"*'it is precisely because there are significant practical risks that creditors are often hesitant in accepting information products as loan security, even if they are protected as "property" under patent or copyright laws so that standard finance theory can be applied".* [14]

The valuation of an IP asset is a highly specialized field which involves the practitioners valuating the IP asset to use it as collateral. [15] The nature of the Intellectual Property itself imposes problems in its valuation. [16] Valuation of the Intellectual Property asset can be made in two forms. One is when it is registered /documented and the other is when it is expressed in a tangible form. In the second case when it is expressed in the tangible form there are various methods of its valuation but the problem in valuation arises when it is not yet expressed in the tangible form. [17] The valuation of an IP asset involves three broad approaches as elucidated by the International Chamber of Commerce in its Handbook of IP Valuation. [18] The valuation

[11] Ariel Glasner, "*Making Something out of Nothing: The Trend towards Securitizing Intellectual Property Assets and the Legal Obstacles That Remain"*, 3 J. LEGAL TECH. RISK MGMT. 27 (2008).
[12] ibid
[13] Kamil Idris, *Intellectual Property: A Power Tool for Economic Growth,* WIPO
[14] Jacqueline Lipton, *'Security Over Australian Intellectual Property' (1999) Journal of International Banking Law,* 385 .
[15] John Sykes and Kelvin King, "*Valuation and Exploitation of Intellectual Property and Intangible Assets"* (Sweet and Maxwell 2004).
[16] Sudipta De Sarakar and N.L. Mitra, *Secured Lending on Intellectual Property Rights in India- Issues on Valuation*, Asian Journal of Legal Education, 10(2) 217-242, 2023, Sage Publications.
[17] *Ibid*
[18] See https://iccwbo.org/news-publications/policies-reports/icc-handbook-valuation-intellectual-property-assets/#:~:text=This%20ICC%20handbook%20provides%20a,involved%20in%20the%20valuation%20process.

methods of an IP asset are the cost approach, the income approach and the market approach. The problems which arise in the case of the valuation of the IP asset are because of the limitations in the IP asset such as severability, Valuation Accounting Standards, etc. For example, as already discussed the IP rights such as copyright and patent can be in the form of intangible but the problem arises when the same manifests in the form of tangibles as the products may be in the form of tangibles. When a tangible asset is transferred nothing remains in the hands of the owner but when the intangible asset is licensed all the rights of the same is not transferred to the licensee. [19] A question always remains that can a licensor of a patent mortgage the same and can the financier restrict the use of such tangible product because it has been mortgaged. Then what will be the value of a "Cornetto" ice-cream if the same cannot be used as a "brand" because the same has been mortgaged to a financer.

Another challenge which arises is the Accounting Standard for Valuation as the same is different for tangible and intangible assets. Thus, the challenge in the valuation of the IP asset has proved to be a major challenge for IPR Collaterization in India.

Another disadvantage is because the IPR loses its commercial value over time. IPR protection are limited in duration of time and also limited in its scope. Hence, they tend to lose their commercial value over a period of time. Inspite of there being a statutory period for the protection of the IPR, it tends to lose its commercial value over the time. [20] Also, some IPRs only confer negative rights which involve restricting others from using the IP rights. IP collaterization involves various risks which are associated with these rights. Another challenge of IPR Collaterization involves structuring issues. Structuring of the agreement by which the loans are given by the banks involves careful drafting. Banks are generally used to providing loans on tangible assets and hence they tend to use the same documents for giving loans on intangible assets also which can be unfavourable for the IP assets holders. Hence, the structuring of the agreements must be done carefully. There has been a well-known case in the US *The Clorox Co v Chemical Bank* [21] which arose due to non-structuring of the loan agreement.

(last visited: 15.04.2024)

[19] Sudipta De Sarakar and N.L. Mitra, *Secured Lending on Intellectual Property Rights in India- Issues on Valuation*, Asian Journal of Legal Education, 10(2) 217-242, 2023, Sage Publications.

[20] Ariel Glasner, *Making Something Out of Nothing: the Trend towards Securitizing Intellectual Property Assets and the Legal Obstacles that Remain, 3. J. LEGAL TECH. RISK MGMT. 27 (2008).*

[21] 40 USPQ2d 1098, 1996

Further, the laws which are there for registration only speak about the registration of IPR creation and it does not speak anything about the registration of the security interests that are required to be registered if they are created.[22] Without registration of security interests that are being created of the IP asset the subsequent dealers of the same would not be aware of the presence of the security interests in the IP asset.

Also, the laws relating to the creation of security interests is still now in a nascent stage of development in India. IP is evolving and the law relating to it is also evolving day-by-day. The law is different for different jurisdictions and the same is applicable to the law that deals with the collaterization of the Intellectual Property Rights. Though the law in respect of IPR Collaterization is developed in other jurisdictions such as in USA, China, Sweden, UK, Ireland for example India is yet to concretize the law relating to the same. Hence, such uncertainty and inconsistency of the law faces a challenge to IPR collaterization. Inspite of the predominant use of Intellectual Property as collateral in the United States, one of the primary reasons for the less use of Intellectual Property as collateral in India also involves the lack of awareness of the holders of the Intellectual Property. The holders/proprietors of the Intellectual Property are unaware of the value of the same and that it can be used as collateral for getting loans. [23]

4. Current Regulatory framework of IPR Collaterization in India:

The World Intellectual Property Organisation (WIPO) and the Trade Related Aspects of Intellectual Property Rights (TRIPS) are the two international Organization and Agreement that mainly provides the protection of the Intellectual Property Rights. But, one needs to be its members to be bound by such agreement. Therefore, there must be some domestic laws also which shall be governing the scope of this field. In India, the laws that currently provide some kind of statutory protection of collaterization of Intellectual Property Rights are dealt with hereunder in this section by the author.

The same are the UNCITRAL Model Law on Secured transactions, the Securitisation and Reconstruction of Financial Asset and Enforcement of Security Interest Act, 2002, some of the IP legislations itself like the Patents Act, Designs Act, the TradeMarks Act, the Copyrights Act, also the Companies Act, 2013 and the Banking Regulation Act, 1949.

[22] Anjanette Raymond*, Intellectual Property as Collateral in Secured Transactions: Collision of Divergent Approaches*, 10 Bus. L. INT'l 27 (2009).

[23] Standing Committee Reports, Review of the Intellectual Property Rights Regime in India, Presented to Rajya Sabha on 23rd July, 2021.

The UNCITRAL Model Law on Secured Transactions (2016) hereinafter referred to as the "Model Law" deals with security interests in properties which includes movables (tangible and intangible and also Intellectual Property). [24] This law also provides for a model provisions which can be implemented in the domestic laws of its member countries. It also provides for registration of notices of creation of security interests so that other third parties are aware of the same, and for the priority of charges. The UNICITRAL is based on the "United Nations Convention on the Assignment of Receivables in International Trade, the UNCITRAL Legislative Guide on Secured Transactions, the Supplement on Security Interests in Intellectual Property and the UNCITRAL Guide on the Implementation of a Security Rights Registry." [25]

Some of the relevant definitions of the Model Law include Intellectual Property Rights in its ambit. Such as "Acquisition of Security right" means a security right in a tangible asset, or in intellectual property or the rights of a licensee under a licence of intellectual property, which secures an obligation to pay any unpaid portion of the purchase price of an asset, or other credit extended to enable the grantor to acquire rights in the asset to the extent that the credit is used for that purpose".[26]

"Intangible asset**"** means any movable asset other than a tangible asset". [27]

Article 17 of the same is also relevant for creation of security interests in Intellectual Property Rights. It provides that that a security interest created on a tangible asset does not extend to the Intellectual Property asset and vice versa.

Article 99 of "Model Law" specifically deals with creation of security interests in one's Intellectual Property. [28] It provides that the creation, effectiveness of the security interests in the Intellectual Property is either the state where the intellectual property is protected or where the grantor is located. The Model Law has been brought into effect by the United Nations for serving as a guide for the enactment of a law for enforcement of Security Interests.

The SARFAESI Act, 2002 was enacted with the object of regulating the creation of security interests and also for the enforcement procedure in case of the assets becoming Non-Performing assets and also for creation of a Central Registry for the registration of the creation

[24] https://uncitral.un.org/en/texts/securityinterests/modellaw/secured_transactions (last visited: 01.03.2024)
[25] https://uncitral.un.org/en/texts/securityinterests/modellaw/secured_transactions (last visited: 01.03.2024)
[26] Article 2(b) of the UNICITRAL Model Law on Secured Transactions.
[27] Article 2(p) of the UNICITRAL Model Law on Secured Transactions.
[27] *ibid*
[28] https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/19-08779_e_ebook.pdf

of interest. Though this Act has made certain passing remarks about collaterization of Intellectual Property but there are no specific provisions of the same or a chapter dedicated to that specific issue. In this Act "property" has been defined as including movable, immovable and also intangible property such as copyright, patent. Etc. [29] In this Act "Secured Asset" has also been defined as to include Security Interest in any property which also includes intangibles such as Patents, Copyright, Know how or other intellectual Property. [30] In this Act "Financial Asset" has also been defined to include tangible and intangibles referring to "Intellectual Property Rights". This law not only provides for Securitization but also covers Collaterization in its ambit and specifically by including intangibles specifically Intellectual Property Rights, the Act can thus be extended to collaterization of Intellectual Property Rights.[31]

Besides the general Acts which provides for Collaterization of Intellectual Property Rights, there are certain other Acts which are specific for each type of Intellectual Property dealing with the issue. The Specific Acts are dealt with by the author below:

Besides these there also some IP legislations which deal with this issue such as The Trademark Act, 1999[32]. This Act provides for the assignment of registered as well as unregistered Trade Mark[33] but "Assignment" has not been defined in the Act exhaustively. The Act only defines "Assignment" as assignment should be made in writing between the parties concerned. [34] Along with assignment it also provides about transmission of Trade Mark and also registration of the assignment of transmission of a Trade Mark. But, if we go through the Act in its entirety it can be analysed that there are no statutory provisions in the Act which provides for collaterizing or Securitizing Trade Marks. Then there is the Designs Act, 2000 which provides about the mortgaging of Designs under Section 30 of the Act. It gives the power to mortgage to the proprietor of the design. The assignment or creation of a mortgage of the design shall not be valid unless made by a registered instrument.[35] Thus, a plain reading of this Act will reveal that a design can be used as collateral by its proprietor for the purpose of taking a loan. This Act also makes a reference to the creation of a mortgage of the design only through a

[29] Section 2(t) of the Securitisation and Reconstruction of Financial Interests and Enforcement of Security Interest Act, 2002.
[30] Section 2(zc) of the Securitisation and Reconstruction of Financial Interests and Enforcement of Security Interest Act, 2002.
[31] Ahmar Afaq and Rupal Chhaya, *Securitization of Intellectual Property: Legal Recourse in India, Journal of Intellectual Property Rights,* Vol 27, 2022
[32] Trademark Act, 1999, Act no. 47 of 1999
[33] Section 37 of the TradeMark Act, 1999.
[34] Section 2(b) of the TradeMark Act, 1999.
[35] Section 30 of the Designs Act, 2000.

written instrument and same has to be registered by the Controller within specified time limits mentioned in the Act itself. [36]

Similar to the Designs Act, 2000 the Patents Act, 1970 provides about assignment, transmission and mortgaging of the Patents through a written instrument and which also must be registered. [37] The power to deal with Patent has also been granted to the grantee or the proprietor of the Patent by virtue of Section 70 of the Patents Act, 1970. Thus, this Act also by making special reference to the assignment and mortgaging of Patents allowed for collaterizing of Patents in India. Then there is the Copyrights Act, 1957 which also provides for assignment of Copyright by its owner by virtue of Section 18 and 19 of the Act. When the Copyright is assigned, the assignee is also liable to pay royalty or consideration to the assignor of the Copyright and if the same is not exercised by the assignee within a year from assignment, then the assignment shall be considered to have lapsed. [38]

The Geographical Indications of Goods (Registration and Protection) Act, 1999 also provides about the registration and protection of geographical indications relating to the goods. The same has been defined under the Act as including identification of goods relating to its locality and origin and also if certain features of the goods are specific to a region or locality then the same can be registered under this Act as goods which is that region or location specific such as "Sunderban Honey" or Joynagar Moya" in West Bengal, a State in India. This Act unlike the other acts relating to Intellectual Property restricts the assignment, transmission and even collaterization of the Geographical Indications under Section 24. Hence, the rights relating to Geographical Indications cannot be collaterized under this Act.[39] Then amongst the other IP legislations, there is also the Semiconductor Integrated Circuits Layout-Design Act, 2000 which was enacted to protect semiconductor integrated layout designs. The Act allows the assignment and transmission of the rights of the registered proprietors whether with or without the goodwill of the business concerned. [40] The proprietors thus have the authority to assign and transmit their rights relating to this specific Intellectual Property though it does not explicitly provide about mortgaging the same.

[36] Section 30(3) of the Designs Act, 2000.
[37] Sections 68, 69 of the Patents Act, 1970.
[38] See Section 19 of the Copyrights Act, 1957.
[39] Standing Committee Reports, Review of the Intellectual Property Rights Regime in India, Presented to Rajya Sabha on 23rd July, 2021.
[40] See Section 20 of the Semiconductor Integrated Circuits Layout Design Act, 2000.

Among the non IP legislations there is the Banking Regulation Act, 1949, the Income Tax Act, 1961 and the Companies Act, 2013 which also speaks about collaterisation and creation of charges on intangible assets.

The Banking Regulation Act, 1949: This Act has been enforced to regulate Indian banking and the banks. Section 6 of this Act specifies about the different kinds of activities that a Banking company can undertake. Wherein it has been mentioned that banking companies can grant loans on properties and for that purpose has been given the authority to acquire and deal with "properties" which forms part of the security. [41]But, the Act does not define the term "property" and the Act also does not classify "property" into immovable or movable. Hence, if we consider Section 6 of the Act it does not restrict banking companies from granting loans on Intellectual Property though the same has not been specifically included in the term "Property". Further, Section (6)(2) of the Act[42] prohibits the Banking Companies from undertaking any activities which has not been specified under Section 6(1) of the Act. Thus, under this Act Banking Companies are not prevented from granting loans on the security of Intellectual Property.

The Companies Act, 2013: It regulates the incorporation and running of the companies. When referring to Collaterization this Act allows Companies to create Charges on its assets, which includes tangible or "otherwise" meaning intangibles provided the same is registered with the Registrar of Companies. [43] Charge is creating a lien on the assets of the company and the same has been defined under This Act including a mortgage. The Schedule 3 of the Act mentions a list of intangibles which shall include Goodwill, Trade Marks, Copyrights, Patents and other Intellectual Property Rights in its scope.[44] Thus after analysing the aforementioned provisions of the Companies Act, 2013 it can be inferred that the said Act does not prohibit Companies from taking loans on the security of "intangibles" which includes Intellectual Property Right provided the same is registered with the Registrar of Companies.[45]

The Income Tax Act, 1961: This Act has been enacted to provide for the taxability of assets, income and etc. This Act also mentions about getting benefits of one's Intellectual inventions

[41] Section 6(g) of the Banking Regulation Act, 1949
[42] Section 6(2) No banking company shall engage in any form of business other than those referred to in sub-section (1).
[43] Section 77 of the Companies Act, 2013
[44] Schedule III of the Companies Act, 2013
[45] Ahmar Afaq and Rupal Chhaya, Securitization of Intellectual Property: Legal Recourse in India, Journal of Intellectual Property Rights, Vol 27, 2022

by specifying about intangibles such as Intellectual Property Rights under Section 32, 35AB and other sections relating to Deductions under the Act. [46]

In India, though many General laws and also many special Acts relating to Intellectual Property mentions about Collaterizing Intellectual Property, but there is no Single Act providing the mechanism and procedure for mortgaging the Intellectual assets of a person. The use of the same is also not very popular in India as compared to other jurisdictions which have specialized law in this subject. Hence, in the next part of the Article the author has looked into the laws of other jurisdictions dealing with Intellectual Property Rights as Collaterals.

5. Comparative Analysis of Laws of Other Jurisdictions:

- **United States of America**: Secured financing is not novel here. [47] Article 9 of the Uniform Commercial Code (hereinafter referred to as the "UCC") provides about secured financing. The Uniform Commercial Code in the United States regulates all commercial activities in the United States. [48] The Uniform Commercial Code has been adopted by most of the States. Article 9 has been subject to changes several times, because of the requirement in the change of the nature of the security. It has been revised to include within its ambit Intellectual Property Rights as Collaterals. The revision in the said Article has also helped in the reduction of financing costs of the debtors. [49] The primary Article of the entire Code is considered to be Article 9. It speaks of enforcement of security Interests by the creditors, which is by way of sale of the security if the debtor fails to repay the debt. Further, the creditor's remedy under Article 9 is also for bringing an action against the debtor for the payment of the outstanding amount taken as a loan. The other remedy is also of foreclosure. Whereas, the remedies available to the debtor under this Article is limited and somewhat similar to the remedies available to a mortgagor under Indian Property Law. The debtor has the Right of Redemption. The Debtor can redeem the Security till the same has been disposed of by the Creditor. And if the same has been disposed of by the Creditor, i.e. sold by the Creditor, the debtor is entitled to the remaining sale proceeds after the debt of the Creditor has been satisfied. A close look at all these laws will reveal that the same

[46] Standing Committee Reports, Review of the Intellectual Property Rights Regime in India, Presented to Rajya Sabha on 23rd July, 2021.
[47] Xuan-Thao Nguyen, *Collateralizing Intellectual Property,* 42 GA. L. REV. 1 (2007).
[48] https://www.uniformlaws.org/acts/ucc (last visited: 18.04.2024)
[49] Xuan-Thao Nguyen, *Collateralizing Intellectual Property,* 42 GA. L. REV. 1 (2007).

remedies are also there for a mortgagor who has mortgaged his property to a mortgagee. [50] When a patent, copyright, Know how is collaterized to a creditor, a "security agreement" is entered into between the parties which evidences the security interest created in favour of the creditor. [51]

Another relevant law which is worth mentioning when the US laws relating to IP Collaterization is being discussed is the Bankruptcy Code. The definition of "property" under this Code is "all legal or equitable interests of the debtor in property as of the commencement of the case." Hence, if Bankruptcy proceedings is brought against a debtor his "property" would according to the definition include his "Intellectual Property." [52] The term "Intellectual Property" has been defined under the Bankruptcy Code to include almost every asset of the intellect such as invention, trade secret, plant variety, patent applications and also other types of Intellectual Property under its ambit.[53] In the United States it has been seen that Collaterizing of Intellectual Property is frequently in use and also backed by statutory recognition. Some of the reasons for the same could be the awareness of such use by the holders of the IP assets, less issues in Valuation of the same, statutory recognition and other allied factors.

- **Singapore:** For Commercialization of Intellectual Property in Singapore, the Government in Singapore has in 2014 introduced IP backed Financing Scheme which was further amended and revised in the year 2017 for further raising the economy of the country. [54] Later in the year 2021 Singapore has also introduced the Master Hub of Intellectual Property which came to be known as " Singapore IP Strategy, 2030". [55] The banks in Singapore has been very well organized in granting loans on the security of Intellectual Property Rights and as such it is considered to be one of the most important Intellectual Property Hub of the world economy. The risk of non-payment of the dues by the debtors were mostly borne by the Government in Singapore. [56] The major players

[50] Robert S. Bramson, Intellectual Property as Collateral-Patents, Trade Secrets, Trademarks and Copyrights, The Business Lawyer, July 1981, Vol. 36 No. 4. Pp. 1567-1604,Published by American Bar Association.
[51] Xuan-Thao Nguyen & Erik Hille, Patent Aversion: An Empirical Study of Patents Collateral in Bank Lending, 1980-2016, 9 UC IRVINE L. REV. 141 (2018)
[52] Anjanette Raymond, Intellectual Property as Collateral in Secured Transactions: Collision of Divergent Approaches, 10 Bus. L. INT'l 27 (2009).
[53] Article 35 (1) of the US Bankruptcy Code
[54] https://www.wipo.int/wipo_magazine/en/2021/04/article_0001.html (last visited: 20.04.2024)
[55] More commonly referred to as "SIPS 2030".
[56] Ahmar Afaq and Rupal Chhaya, *Securitization of Intellectual Property: Legal Recourse in India, Journal of Intellectual Property Rights*, Vol 27, 2022

in the IP backed debt financing in Singapore and the key players for its development in Singapore are the Government Institutions, Intellectual Property Office of Singapore, Enterprise Singapore, the Economic Development Board, the Financial Institutions, the Banks and the Valuers. [57] The first three key players are mainly Government enterprises that regulate and promote IP development in Singapore. To encourage IP backed financing in Singapore, the Government has shared the burden of loan financing and in case of default in repayment by the holders in order to encourage the banks for providing loans on the security of Intellectual Property. The scheme was started in the year 2014 which allowed only the use of patents as a collateral but with the expansion of the scheme in 2017 also registered TradeMarks, copyrights and other Intellectual Property has been introduced in the said scheme. There have been several cases of IPR backed debt financing in Singapore and the same have been evaluated and submitted in the form of report by Singapore and filed before the "World Intellectual Property Organization" (WIPO). [58] Due to the strong regulatory framework of IP backed debt financing in Singapore many enterprises have benefitted from the same. Another reason for the use of IPR debt financing in Singapore is probably due to the sharing of the loan risk by the Government which has helped to serve as an encouragement for the banks to grant loans on the security of an Intellectual Property.

- **Indonesia:** Intellectual Property Rights in Indonesia is recognized as intangible material rights. [59] The same was known as HKI in Indonesia but presently it is also known as IPR in lines with other countries. Intellectual Property Rights in Indonesia is considered to be related to Property and the laws that are applicable to Property in Indonesia also apply to Intellectual Property rights. [60] Though there is no specific laws that govern the issues relating to Collaterizing Intellectual Property Rights in Indonesia but there are instances of Collaterizing the same as treating it as any other kind of "property" under the law.

[57] See file:///C:/Users/sonam/OneDrive/Desktop/wipo-pub-rn2023-58-en-unlocking-ip-backed-financing-country-perspectives-singapore-s-journey.pdf (downloaded on 23.04.2024).
[58] ibid
[59] Nanda Devi Rizkia, Hardi Fardiansyah*, Intellectual Property as an object of Banking Credit Collateral in the Digital Era*, Jurnal Pendidikan, Bahasa Vol. 10 No. 1: Mei2023.
[60] *ibid*

- **Malaysia:** The impediments which arise in Malaysia for Collaterizing is due to the dual banking system. [61] The Acts that govern banking system in Malaysia are two folds, i.e. the Islamic Banking Act, 1983 and the Banking and Financial Institutions Act, 1989. But, the Prime Minister of Malaysia had introduced a scheme known as MyIPO to augment and promote IPR Collaterization which is also known as the "Intellectual Property Corporation of Malaysia" which was established through the Intellectual Property Corporation of Malaysia Act, 2002. [62]

  It is through this Organization that Malaysia is trying to introduce IPR Monetisation in its jurisdiction. Two specific laws of this country the TradeMarks Act and the Industrial Designs Act have incorporated provisions enabling the Collaterization of the Intellectual Property Rights. Though it is moving towards better codification of laws relating to IPR collaterization but the people are reluctant in going ahead because of the lack of clarity in such laws and also lack of general awareness among its citizen.

6. Conclusion:

IPR Collaterization has been a boon for many for the purposes of economic development. Many Corporate being IPR holders also have an advantage of securing loan by Collaterizing their IP Rights. Loans on intangibles can prove equally effective against loans on tangibles. There are various benefits arising out of IPR Collaterization and there are also challenges involved in the process such as lack of awareness being the primary one and also problems of valuation due to lack of expertise in valuation of IPR in India. This is also due to the fact of less developed infrastructure relating to IPR in India. Banks or financial institutions which are to provide the loans also feel awry about the fact that if the borrower fails to repay the loans then there is no enforcement strategy for the lenders against the borrowers. The Nation therefore needs to come up with new laws to motivate IPR Collaterization in India and take effective steps for raising awareness among its citizens regarding the benefits of the process. This can also be achieved by following the practices of other jurisdictions like USA and Singapore wherein Government in order to boost IPR Collaterisation has undertaken the liability of protecting the banks upto 80% in case of defaults of loans provided on the security of Intellectual Property Rights.

[61] Ida Madieha Azmi, Engku Rabiah Adawiyah Engku Ali, "*Legal Impediments to the Collateralization of Intellectual Property in the Malaysian Dual Banking System*", Volume 2, Issue 1, Asian Journal of Comparative Law, 2007, Article 8.

[62] https://www.wipo.int/edocs/mdocs/treaties/en/wipo_smes_kul_11/wipo_smes_kul_11_ref_theme_08_01.pptx (downloaded on 20.04.24)

UNLOCKING INNOVATION IN RENEWABLE ENERGY: THE ROLE OF INTELLECTUAL PROPERTY IN ADVANCING SOLAR, WIND, AND BIOENERGY TECHNOLOGIES

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Abstract

The present research studies the important role that intellectual property may play in spurring innovation and growth in renewable energy sectors, including bioenergy, wind, & solar energy. In essence, this is to understand how IP regimes might foster technology development, attract investment, or address energy-related issues with a view to a global perspective. This study uses a multidisciplinary approach combining legal research, case studies, and empirical data to analyze the nexus between IP systems and renewable energy technologies. It explores patent trends, licensing practices, and how IP policies affect innovation. The research pointing that strong IP protection spurs innovation because inventors have financial incentives for inventions. Other challenges include cost implications of filing for patents, restrictive licensing, and unequal access to IP. This may affect the technology flow. Some proffered solutions include open-source models of IP and mechanisms for transferring or sharing technology. These findings stand to benefit policymakers and other stakeholders in informing what IP policies may be pursued-"balancing the dynamic between innovation and accessibility," toward a quickened transition to renewable energy across the world. It thereby contrasts the intertwining of intellectual property law with renewable technologies in the context of the scholarly and pragmatic dialogues surrounding sustainable development and energy innovation.

Keywords: Intellectual Property, Renewable Energy, Solar Technology, Wind Technology, Bioenergy Innovation, Patents

1. Introduction

Counteracting climate change, protecting energy security, and reducing dependence on fossil fuels stood as hallmarks for renewable energy to be involved in the energy transition process. As the third largest consumer of energy in the world, India had to integrate renewable energy into its energy mix. India has set ambitious targets under the National Action Plan on Climate

Change (NAPCC) and the Paris Agreement commitments, including acquiring 500GW of non-fossil fuel capacity by 2030, of which solar, wind, and bioenergy remain crucial contributors. Through the National Solar Mission, India has been at the forefront of developing photovoltaic technology, while wind energy, with its vast potential especially from southern and western regions (e.g., Tamil Nadu Pradesh and Gujarat), attracts big investments. Bioenergy, in the form of biogas and biomass power, is doing fairly well since its agriculture co-product and municipal waste are increasingly being used for energy generation. However, the pace towards attaining energy independence and sustainability will depend heavily on innovations and criminalization of social equity in technology access.

IP provides a good incentive for the renewable energy sector to innovate, enabling a multiplicity of investment avenues. It encourages R&D and commercialization. In the era of growing IP regimes, as evidenced in the Patents Act of 1970, India affords protection to innovations in the area of renewable energy, which induces massive investments by the private sector. The past several years have attested to a rise in patent filing activities relating to advanced solar cells and wind turbine designs. In a nutshell, this trend has been indicative of increasing sophistication in the growing indigenous innovation landscape in India. India, however, faces challenges to strike a balance between IP protection and public interest by guaranteeing provision of affordable clean energy technologies. Section 84 of the Patents Act call for a discussion on compulsory licensing as one of the means to dismantle monopoly barriers in essential renewable technologies. Besides, global collaboration and licensing agreements enabled technology transfer to India, but patent thickets and high transaction costs still continue to undermine widespread adaptation. With this paper being one that etches the interplay between IP and renewable energy technologies in India, aspects such as the way IP laws influence innovation and accessibility, criticisms of the problematic existing regulatory environment, and pathways to achieve equitable technology diffusion will be discussed, with a specific focus on the solar, wind, and bio-energy sectors. It provides actionable information to guide policymakers, innovators, and stakeholders in the renewable energy ecosystem in the broader context of India's climate goals and energy policies.

2. Energy Technologies: An Overview

2.1. Evolution of Solar, Wind, and Bioenergy Technologies

Domestic initiatives and global dynamics in clean energy innovation are driving the evolution of renewable energy technologies in India. The year 2010 marked the launch of the Jawaharlal

Nehru National Solar Mission, whose ambitious goals aim to put India on the forefront of global solar power through manufacture and installation of large amounts of solar installations. Some big additions were made possible in India, the fifth global market for solar power, by the early adoption of photovoltaic technology and a decremental decline in solar module prices. The corresponding origination of wind power in India dates from the 1990s; Tamil Nadu and Maharashtra were the only states equipped to tackle installations. Technological improvements in turbine design, such as higher hub heights and larger rotor diameters, have increased energy yields, making wind power a viable energy sources in low-wind-speed regions. Bioenergy technologies, including biogas plants and biofuel production, have leveraged India's vast agricultural resources. The introduction of the National Bio-Energy Mission has further supported the growth of biomass power and bagasse-based cogeneration. However, despite progress, the pace of adoption has often been hindered by policy gaps and infrastructural challenges.

2.2. Current Advancements and Market Trends

Recent years have witnessed a rapid transformation in renewable energy technologies, driven by advancements in digital tools, material sciences, and integration capabilities. In the solar sector, the advent of bifacial solar panels, thin-film technologies, and perovskite cells has enhanced efficiency and reduced costs. India's push for floating solar projects, such as the Ramagundam Floating Solar Project[1], exemplifies the innovative use of land-scarce areas. The wind energy sector has seen the deployment of hybrid energy systems, combining solar and wind to optimize generation. Offshore wind farms, though nascent in India, hold immense potential, with exploratory projects underway along the Gujarat and Tamil Nadu coasts. In the bioenergy domain, advancements in second-generation biofuels and biomass gasification have improved energy efficiency and reduced environmental impact. India is also investing in compressed biogas (CBG) technologies under the Sustainable Alternative Towards Affordable Transportation (SATAT)[2] initiative, aimed at reducing vehicular emissions and enhancing energy security.

2.3.Key Challenges in Scaling Renewable Energy Solutions

[1] NTPC commissions India's Largest Floating Solar project in Telangana. | NTPC Limited, https://ntpc.co.in/media/press-releases/ntpc-commissions-indias-largest-floating-solar-project-telangana (last visited Dec 18, 2024).

[2] Sustainable Alternative Towards Affordable Transportation - Ministry of Petroleum And Natural Gas, https://mopng.gov.in/en/pdc/investible-projects/alternate-fuels/sustainable-alternative-towards-affordable-transportation (last visited Dec 18, 2024).

Despite significant progress, several challenges impede the large-scale adoption of renewable energy technologies in India. One of the primary barriers is the high upfront cost of renewable energy installations, particularly for advanced technologies such as offshore wind and second-generation biofuels. Limited access to financing mechanisms exacerbates this issue, especially for small and medium enterprises (SMEs) seeking to enter the renewable energy market. Another critical challenge is the intermittent nature of solar and wind energy, which necessitates investment in energy storage systems, such as lithium-ion batteries, and grid modernization[3]. Infrastructure bottlenecks, including inadequate transmission capacity and land acquisition hurdles, also pose significant obstacles. In the bioenergy sector, the lack of a robust supply chain for feedstock and limited awareness among stakeholders hinder scalability[4]. Additionally, policy inconsistencies and delays in regulatory approvals undermine investor confidence and slow down project implementation. Addressing these challenges requires coordinated efforts by policymakers, industry stakeholders, and the research community to ensure the sustainable and equitable expansion of renewable energy solutions[5].

3. Intellectual Property in Renewable Energy

Patents are essential for *"maintaining intellectual property rights in the technological sphere because they provide companies with the temporary exclusive right to keep a portion of the added value of their discoveries and the efforts made to develop and market them with[6]. They serve as indicators of value for potential investors and partners, encouraging various types of technology cooperation and long-term partnerships."* Awarded patents also aid in the justification of technical expenditures, with the bulk of renewable energy investments going to solar and wind. When patents are recompiled, a library of creative and trustworthy technical data is produced that other organisations may utilise to regionalise innovations. Businesses specialising in renewable energy employ trade secrets and private data about hardware, production, and deployment in addition to patents.[7]

3.1. Wind & Solar Energy

[3] Grid integration of renewables: challenges and solutions | Indian Journal of Power and River Valley Development, https://www.informaticsjournals.co.in/index.php/ijprvd/article/view/29662 (last visited Dec 18, 2024).
[4] Usha Tandon (ed.), Energy Law and Policy 49 (Oxford University Press, New Delhi, 1st edn., 2018)
[5] Dr Uday Shankar & Utpal K Raha, *Renewable Energy in India: Study of Law and Policy*, 4 (2015).
[6] IP Rights in Green Technologies Innovation | Metis Partners, https://metispartners.com/thought-leadership/the-role-of-ip-rights-in-green-technologies-innovation/ (last visited Dec 18, 2024).
[7] The role of intellectual property in the renewable energy sector, https://www.keystonelaw.com/keynotes/the-role-of-intellectual-property-in-the-renewable-energy-sector (last visited Dec 18, 2024).

Turbine technology is a copyrighted technological field that is frequently subject to patent disputes. General Electric has launched a patent infringement case against its competitor, Siemens Gamesa Renewable Energy. The activity focuses on a way to keep wind turbines powered even when grid voltage declines, providing control over the crucial pitch of the blades. If successful, Siemens might continue providing turbines to future big wind farm projects in the UK. However, patent disputes might prove difficult, and Siemens may face delays and increased costs. Solar power, on the other hand, is distinct from wind power in that firms frequently purchase gear rather than produce it themselves. Solar power, on the other hand, differs from wind power in that firms frequently purchase gear rather than produce it themselves. *"Manufacturers may secure patent rights on different components of their hardware, and it is the solar energy provider's job to negotiate suitable contractual protections and licenses in the applicable procurement contracts. This might involve software licensing and indemnification for third-party intellectual property infringement allegations."*

A solar firm would create and safeguard in-house knowledge on design optimisation, such as aspects to consider when choosing a site, solar array topography, storage, design, project development, and asset management. This information would set the firm apart from the competitors and be developed and preserved internally.

3.2. Collaborative Projects

Collaboration on significant initiatives is difficult owing to the requirement to manage intellectual property, ownership, and permission to use among stakeholders. R&D partners, ranging from universities to industry, joint ventures, and service businesses, must provide strict contractual control of information transmission and ownership. Unauthorised publishing of valuable innovations can result in losing originality, patent restriction, and a company's competitive edge. For example, a solar energy firm that hires engineering, procurement, and construction contractors may be required to disclose design papers and proprietary information. The service contract must include proper confidentiality and restricted usage provisions, and the corporation must be judicious in what it shares with the contractor to complete the job. This assures that the company retains an advantage over its competitors.

3.3.The Role of IP in Fostering Innovation and Commercialization

Intellectual property (IP) is a critical driver of innovation and commercialization in the renewable energy sector, serving as both an incentive mechanism and a framework for protecting technological advancements. IP rights encourage investments in research and

development (R&D) by granting inventors exclusive rights to commercialize their innovations, ensuring returns on investment. For example, patents on advanced photovoltaic (PV) cell technology and wind turbine designs have enabled renewable energy companies to attract funding and secure market advantages. In India, the push for indigenous innovation under initiatives such as Make in India and the National Innovation Council has led to an increase in renewable energy-related patent filings. Moreover, IP facilitates collaboration between stakeholders, such as licensing agreements between technology developers and manufacturers, which expedite the deployment of clean energy technologies. However, the role of IP is not without challenges; concerns over monopolistic practices and the high cost of patented technologies can hinder equitable access, particularly in developing economies like India[8].

3.4. Safeguarding Trade Secrets

Every country relies heavily on trade secrets to spread green technologies. *"Trade secrets are sensitive knowledge that is either unpatentable or effectively kept as trade secrets rather than patented. It's always economically useful. Trade secrets are crucial in safeguarding the routes for know-how exchanges because they provide a secure environment for disseminating private information. For example, the United States government has acted in response to Chinese enterprises stealing trade secrets from renewable energy companies like Solar World and American Superconductor Corporation. Trade secrets frequently preserve tacit information about the application, enhancement, and adaptation of patented technology. Trade secrets related to green technology are expected to be critical for industrialised and developing countries as they adapt green technologies to local conditions.[9]"*

Without adequate trade secret protection, organisations may end up devoting significant resources to the physical security of their trade secrets rather than investing in technological innovation. There is a documented positive association between R&D investment and increased trade secret protection.

3.5. Balancing Exclusiveness and Public Access to Clean Energy Solutions.

Balancing the exclusivity afforded by IP rights with the necessity for public access to clean energy technology is difficult task, especially in light of climate change and sustainable

[8] Pratheeba Vimalnath et al., *Intellectual Property Strategies for Green Innovations - An Analysis of the European Inventor Awards*, 377 JOURNAL OF CLEANER PRODUCTION 134325 (2022).
[9] U.S. charges Chinese wind company with stealing trade secrets | Reuters, https://www.reuters.com/article/us-sinovel-doj-idUSBRE95Q1IQ20130627/ (last visited Dec 18, 2024).

development. Exclusivity encourages private sector investment and innovation, but it may also create impediments to technological diffusion, particularly in emerging nations such as India. Mechanisms like as compulsory licensing under Section 84[10] of the Indian Patents Act provide a legal foundation for achieving this balance by permitting other parties to produce patented inventions under certain situations, such as public health emergency or insufficient market supply. Furthermore, open-access efforts, such as Tesla's decision to make its EV patents available for public use, demonstrate a collaborative approach to IP management in clean energy. *"Global platforms like as the Clean Energy Patent Growth Index (CEPGI)[11] and WIPO GREEN[12] help to spread renewable energy technology through licensing and collaborations. For successful implementation of such techniques, India must address structural obstacles such as a lack of IP awareness and enforcement. By promoting fair intellectual property frameworks, India may progress its renewable energy ambitions while providing equal access to sustainable innovations[13]."*

3.6. Advantages of IPR in the Renewable Energy Sector

Intellectual property rights (IP) are critical for fostering innovation and creativity by rewarding inventors and disseminating technological information to the public. This encourages everyone to contribute fresh ideas, innovations, and improvements. IP holders can prohibit others from reproducing or using their IP without permission, so protecting their investment and collecting revenue. This may be used to fund research and development, company expansion, and employment. The prospect of financial benefit encourages businesses to engage in ecologically and socially responsible technologies, as well as branded products and services. There are demands for global IP sharing and balancing IP protection with investment in renewable energy. Companies can capitalise on intellectual property rights by implementing commercialisation and licensing programs, and distributing portions of the produced IP through non-commercial exploitation or open-source partnerships. Protecting intellectual property rights assures that no third party may commercially use the idea without the company's consent. As the worldwide quest for sustainable solutions continues, corporate strategies and

[10] Shah, *supra* note 6.
[11] Clean Energy Patent Growth Index, CLEAN ENERGY PATENT GROWTH INDEX, https://www.cepgi.com/ (last visited Dec 18, 2024).
[12] WIPO GREEN – The Marketplace for Sustainable Technology, https://www3.wipo.int/wipogreen/en/ (last visited Dec 18, 2024).
[13] Shweta Khurana & T K Bandyopadhyay, *Patenting in Renewable Energy Sector- An Analysis* (2018).

governance, including intellectual property strategy, will be critical to the effective development and implementation of energy transition innovation.

3.7.Disadvantages of IPR in the Renewable Energy Sector

Energy transition initiatives confront an abundance of challenges and concerns, including intellectual property ownership, adaptation of rights and obligations, and potential infringement risk. As businesses focus on producing new goods and services, protection methods will grow, with patents playing a significant role in technology protection. The growth of the electric car industry has resulted in several new patents for wind turbine design, manufacture, and operation. Other types of protection include trade secrets, copyrights, sensitive information, algorithms, software, and the development and deployment of these technologies. Design rights supplement other intellectual property rights by giving a simple way to protect the aesthetic look of an invention. Companies looking to highlight their green credentials may file for trademark protection when launching new products and services, but caution should be exercised before finalising such names. Obtaining permission to avoid using identical or confusingly similar names may help avert future problems. Descriptive product names or phrases like "green" or "eco" may not be protected.

The Indian Renewable Energy Development Agency (IREDA)[14] should evaluate various mechanisms for promoting renewable energy technology innovation, with an emphasis on patents, standards, technology transfer, and collaboration in R&D and demonstration. The efficient application of these instruments will help RET innovation. Many politicians are unaware of the importance of patents promoting RET innovation, therefore IREDA would do well to improve this awareness. Making patent information more available can assist in stimulating innovation, benefiting both individuals and the nation[15].

4. Global IP Frameworks and Their Impact on Renewable Energy

4.1.International Treaties and Agreements

International treaties and agreements have significantly influenced the development and deployment of renewable energy technologies by establishing frameworks for intellectual property (IP) rights. The Agreement on Trade-Related Aspects of Intellectual Property Rights

[14] https://www.ireda.in/ (last visited Dec 18, 2024).
[15] Ananya Chattopadhyay, *Role of IPR in the Generation of Renewable Energy*, (Dec. 1, 2022), https://ijpiel.com/index.php/2022/12/01/role-of-ipr-in-the-generation-of-renewable-energy/ (last visited Dec 18, 2024).

(TRIPS)[16], administered by the WTO, harmonizes global IP standards and protects innovations, including renewable energy technologies, across member nations. However, TRIPS has also drawn criticism for its restrictive provisions, which may limit access to affordable renewable technologies in developing nations. Complementing TRIPS, the Paris Agreement (2015)[17] emphasizes the transfer of clean energy technologies to support global climate goals. Article 10 of the Paris Agreement advocates for innovation and technology diffusion, aligning IP frameworks with climate change mitigation objectives. Still, balancing IP protection with equitable access remains a persistent challenge.

4.2.Regional IP Frameworks and Innovation Ecosystems

Regional frameworks and innovation ecosystems vary significantly, impacting renewable energy progress across jurisdictions. In the European Union (EU), the Unitary Patent System simplifies IP protection, fostering cross-border innovation. The EU's Horizon Europe Program emphasizes funding collaborative R&D for green technologies. The United States leads in renewable energy patents, with robust protections under the U.S. Patent Act and programs like the Energy Innovation Hubs, which support IP commercialization. China has emerged as a global leader in renewable energy, supported by an IP system that prioritizes domestic innovation and international competitiveness. In India, the National IPR Policy (2016) emphasizes promoting innovation in renewable energy through expedited patent processes and policy incentives[18].

4.3.Challenges for Developing Nations

Developing countries are still faced with several challenges regarding renewable energy technologies mainly because of their prohibitive costs and very restrictive IP regimes. The technology gap and resource poverty have made it all worse to adopt patented technologies. While statutory licensing provides some relief, the political and legal complexities have made it under-utilized. International collaborations and funding initiatives must be formed in order to bridge these gaps and facilitate sustainable energy transitions in developing regions.

5. Encouraging Innovation: Balancing IP and Open Access

[16] WTO | intellectual property (TRIPS) - TRIPS and public health: Compulsory licensing of pharmaceuticals and TRIPS, https://www.wto.org/english/tratop_e/trips_e/public_health_faq_e.htm (last visited Dec 4, 2024).
[17] Heleen de Coninck & Ambuj Sagar, *Technology in the 2015 Paris Climate Agreement and Beyond*.
[18] The diffusion of energy technologies. Evidence from renewable, fossil, and nuclear energy patents - ScienceDirect, https://www.sciencedirect.com/science/article/pii/S0040162522000981 (last visited Dec 18, 2024).

5.1.Open Patent Initiatives

Initiatives such as Tesla's Open Patent Pledge and the Open Solar Initiative exemplify the balancing act between IP protection and public availability. With its open use of renewable-energy patents, Tesla has spurred innovation in electric vehicles and battery storage. Similarly, open access to solar technologies has accelerated the adoption of photovoltaic systems globally, fostering competition and reducing costs. These initiatives demonstrate that strategic IP sharing can advance climate goals while preserving commercial interests.

5.2.Compulsory Licensing for Renewable Energy Technologies

Compulsory licensing, as permitted under TRIPS, enables governments to authorize the production of patented technologies without the patent holder's consent in cases of public interest. Countries like India have the legal framework to utilize this provision under Section 84[19] of the Patents Act, particularly for renewable energy technologies critical to national energy security. However, its application remains rare due to concerns over investor confidence and legal disputes.

5.3. Collaborative R&D Models and Public-Private Partnerships

Collaborative research and development (R&D) models and public-private partnerships (PPPs) have proven effective in advancing renewable energy innovation. With initiatives like India's National Solar Mission aiding collaborations between government agencies, research institutions, and private companies, breakthroughs in cost- competitive solutions for Solar Energy are being achieved. In the same spirit, global PPPs like the Mission Innovation Initiative promote collaborative R&D for clean energy technologies by harnessing their collective resources and competences.

6. Challenges and Criticisms of IP in Renewable Energy

6.1. Monopoly Concerns and Their Impact on Affordability

Monopolistic rights provided by certain patents lead to elevated costs associated with renewable energy technologies that limit access. This situation is most acute across developing countries; budgets are limited and energy shortages mandate seemingly affordable solutions against a backdrop of consistently rising markets. Patent owning monopolies may engage in

[19] Shah, *supra* note 6.

market abuses, foregoing the ethical duty to favor revitalization when faced with climate change and human development concerns.

6.2.Patent Thickets and Litigation

Concerns about patent thickets-the layering of many overlapping IP rights, which curtail innovative processes-arise persistently in the renewable energy sphere. For example, there have been protracted litigations regarding wind turbine design and solar module technology disputes, causing the diversion of intellectual property in favor of resolving the conflict. Therefore, there is urgency to expedite patent regimen and promote cross-licensing agreement to decrease this inefficiency.

6.3. Ethical Considerations

The key moral implication relating to IP in renewable energy is the need to prioritize global environmental goals over commercial gains. The critics argue that stringent IP regimes impose an obstacle to international climate agreements because they underscore the need for equitable access to renewable energy technologies.

7. The Role of Policy and Legal Frameworks

7.1.National Policies Promoting IP in Renewable Energy

The National IPR Policy (2016), Production Linked Incentive (PLI) regarding renewable energy manufacturing stress on the realization of IP towards the promotion of green innovation. The salient goals of these policies include expediting patent processes, boosting domestic R&D, and providing incentives to private enterprises for investing in renewable energy technologies.

7.2.Incentivizing Green Innovations

Tax politiques and subsidies are being employed by governments worldwide in pursuit of promoting green innovations. For instance, the U.S. offers tax benefits under the Inflation Reduction Act (2022) for renewable energy installations and production. Subsidies have been extended for solar and wind projects by India under the Renewable Energy Development Agency (IREDA).

7.3.Role of IP in Achieving the Sustainable Development Goals (SDGs)

Intellectual property has a significant role in supporting the achievement of SDGs, Goal 7 (Affordable and Clean Energy) and Goal 13 (Climate Action). IP frameworks may serve as

mechanisms for mobilizing the world toward sustainability through the protection of innovation while allowing for the transfer of technology. However, a balanced approach to aligning IP with the SDGs needs to foster innovation alongside enabling access.[20]

8. Conclusion and Recommendations

The study demonstrates that intellectual property plays an important role in the development of renewable energy technologies-solar, wind, and bioenergy-along with fostering innovation, commercialization, and global diffusion. In studying this problem, though, big issues arise relating to monopoly, affordability, and the intricacies of patent thickets that often hinder equitable access to clean energy solutions, mainly in developing countries. These issues can be addressed by a balanced approach to innovation and inclusion. Recommendations include encouragement of open patent initiatives and collaborative R&D models that support knowledge sharing and innovation ecosystems. The use of compulsory licensing and tax incentives may also open access and lower costs. Finally, aligning IP frameworks with international climate goals and SDGs can mediate both complementary goals of supporting innovation and addressing the global energy transition. By such balancing strategies, IP can become a potent driver for a sustainable and equitable renewable energy future.

[20] (PDF) ENVIRONMENTAL POLICIES IN INDIA, https://www.researchgate.net/publication/378590048_ENVIRONMENTAL_POLICIES_IN_INDIA (last visited Dec 18, 2024).

RIGHT TO PRIVACY IN DIGITAL ERA IN BALANCING SECURITIES AND INDIVIDUAL LIBERTIES

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Abstract

In the digital age, the right to privacy has become a major and divisive topic in current legal and social debates. The extraordinary advancement of digital technology has revolutionised the accumulation, storage, and utilisation of personal data, frequently testing the limits of individual privacy. Concurrently, apprehensions regarding national security, cybercrime, and terrorism have prompted governments and organisations to adopt comprehensive surveillance techniques and data gathering practices, engendering a precarious balance between safeguarding public security and preserving individual liberties. The digital age presents a dual challenge: protecting privacy rights while fulfilling the legitimate demand for security in a connected world. Advanced digital innovations offer tremendous possibilities for progress, yet they also spark serious concerns about potential misuse, mishandling of personal record, and heightened surveillance capabilities. This situation highlights the intricate relationship between privacy and security, especially as governments and corporations traverse the legal and ethical limits of personal data utilisation.

Keywords: Right to Privacy, Digital Era, Balancing Securities, Liberties

1. Introduction

Despite being implied in the Indian Constitution, the right to privacy has become more widely acknowledged and important Within today's technology-driven environment. A Quick development of digital tools, The expansion of online connectivity, and the pervasive use of data-driven services have completely changed how people engage with the outside world. But there are also previously unheard-of difficulties with regard to privacy, monitoring, and personal liberties brought about by this digital revolution. Debates concerning the sufficiency and efficacy of the judicial system protecting the entitlement to privacy in India have been triggered by these difficulties. 1

The COVID-19 epidemic has heightened questions about the gathering, handling, and storage of private data, the emergence of government initiatives such as Aadhaar and Digital India, and the increasing dependence on digital platforms. Although the goals of these programs are to enhance governance and spur economic growth, they have brought up serious concerns about

[1] Gaana N, "Right To Privacy in The Digital Period: A Study With Indian Context*," Journal of Legal Research and Juridical Sciences*, Vol. 3 Issue 2 (2019).

possible data misuse, privacy violations, and a lack of robust regulatory monitoring.2 This examines the regulatory framework governing Indian law that protects individual's right to security in the digital era, with a focus on key laws, landmark court decisions, and recent policy measures, including the 2023 legislation on personal data protection. It also evaluates whether these mechanisms effectively address privacy challenges while balancing competing priorities like national security, societal interests, and economic growth.

2. Constitutional of India, 1950

2.1 Right to Privacy under Article 213

The right to privacy was explicitly acknowledged as a basic right under article 21 in the pivotal decision of Justice K.S. Puttaswamy (Retd.) v. Union of India Judicial (2017) significantly expanded the scope of Article 21. India's apex judicial body highlighted that the essence of Inherent worth and autonomy, central to life and liberty, is safeguarded through the protection of privacy:

- Personal Autonomy: Individuals have the right to make choices about their personal lives, including decisions about family, marriage, reproductive rights, and sexual orientation.
- Data Protection: Citizens possess the right to safeguard their private information from unauthorised access and use.
- Private Spaces: People are entitled to live their private lives without undue intervention from the state or other parties.
- Freedom of Thought: Privacy extends to protecting one's thoughts, beliefs, and expressions.4

2.2 Article 19(1)(a): The protection of free expression under this article encompasses digital interactions and indirectly reinforces the individual's control over their personal information. 5

[2] Himanshu Tripathi, "Right to Privacy in the Digital Age: Constitutional Implications in India," *Acclaims* Volume 32 (May 2024).
[3] Constitutional of India, 1950, art.21.
[4] Kamshad Mohsin, Zainab Khan, "Right to Privacy in Digital Era," *SSRN Electronic Journal* (2020).
[5] Constitutional of India, 1950, art.19(1)(a).

1. Freedom to Access and Share Information: Citizens need access to information for meaningful participation in a democracy. This includes accessing data online and expressing their views via digital platforms like social media.
2. Chilling Effect on Free Expression: Without robust informational privacy protections, individuals may hesitate to share opinions, fearing their personal data might be misused or tracked.
3. Right to Anonymity: Expressing oneself anonymously is part of an individual's freedom to express opinions and ideas. The absence of informational privacy protections can compromise anonymity, deterring individuals from voicing dissent or controversial opinions.

2.3 Article 14: Guarantees equality before the law, relevant in addressing discriminatory practices in privacy violations. 6

1. Preventing Discrimination in Data Collection and Usage: Governments and private entities collect vast amounts of data. Article 14 ensures that data collection and processing practices do not target or discriminate against individuals based on gender, religion, caste, socioeconomic status, or other factors.
2. Addressing Digital Divide and Privacy Inequality: Access to privacy-enhancing technologies and digital literacy varies across regions and socioeconomic classes. Unequal access to these resources can lead to privacy violations for marginalized communities.
3. Discriminatory Surveillance Practices: Mass surveillance programs can disproportionately target specific communities, violating their right to equality.
4. Privacy in Employment and Workplace Practices: Employers may monitor employees differently based on gender, class, or position. Such discriminatory practices in workplace surveillance violate the equality principle under Article 14.
5. Algorithmic Bias and Data Privacy: Algorithms used in decision-making (e.g., for credit scoring, hiring, or law enforcement) may reflect biases that result in discriminatory outcomes.7

[6] Constitutional of India, 1950, art.14.
[7] Yamak Sharma, "The Right to Privacy and Digital Era in India," *White Black Legal,* Volume: 2, Issue: 16 (2024).

2.4 Regulatory Landscape: India's IT Act, 2000

This legislation underpins India's digital legal infrastructure through its emphasis on protecting individual privacy and ensuring data security:

2.5 Section 43A: Obligates corporate bodies to safeguard sensitive private information and compensate individuals for negligence

Under Section 43A of India's principal cyber law, organizations are held accountable for securing sensitive user information and are liable to pay damages in cases of negligent handling. Introduced in response to mounting worries about data breaches and privacy violations in the digital sphere, this section came under the Information Technology (Amendment) Act, 2008.[8]

1. Obligation to Protect Sensitive Personal Data: Organisations that manage, process, or retain sensitive personal information are legally required to adopt appropriate security measures and protocols to protect that information.
2. Definition of Sensitive Personal Data:

   Section 43A omits a direct definition of *sensitive personal data*; however, the interpretation is supplied by the 2011 IT Rules on Reasonable Security Practices, which enumerate the types of personal information classified as sensitive. Following terms are included:

   - Passwords
   - Financial personal data (e.g., bank account related details etc.)
   - Health data
   - Biometric data
   - Sexual orientation
   - Any information received under confidentiality agreements
3. Reasonable Security Practices: Corporate bodies must adopt security practices consistent with international standards or industry best practices, as prescribed in their privacy policy or other agreements with customers.

[8] Information Technology Act, 2000, s.43A.

2.6 Section 72: Penalizes unauthorized disclosure of personal information by service providers. 9

1. Unauthorized Access and Disclosure: This section penalizes individuals or service providers who have: Gained access to any personal information through their official capacity or due to a legal agreement.
2. Applicability: It applies to service providers, intermediaries, and individuals entrusted with personal data during their professional duties.
3. Punishment: Section 72 prescribes a penalty that may involve imprisonment for a term extending up to two years and/or a monetary fine not exceeding ₹1 lakh.

2.7 Section 66E: Prohibits capturing, publishing, or transmitting private images without consent. 10

1. Prohibited Actions: Photographing an individual's private area without their consent. Disseminating or sending such photos electronically without permission.
2. Private Area Definition: The term "private area" refers to parts of the human body that are covered with clothing and are not intended to be visible to the public.
3. Consent Requirement: Explicit consent is necessary to capture or share such images. Lack of consent constitutes a violation under this section.
4. Punishment: Section 66E prescribes a penalty that may involve imprisonment for a term extending up to three years and/or a fine not exceeding ₹2 lakh.

2.8 Section 69, Government is legally empowered to access, supervise, or decode data if it serves purposes related to national safety or public order. 11

1. Powers Granted: Relevant governmental bodies at the national or regional level may instruct designated agencies to access or surveil data that is being sent, received, or maintained on digital platforms or electronic systems. They are also authorized to decrypt such information when required.
2. Responsibilities of Intermediaries and Providers of services:

[9] Information Technology Act, 2000, s.72.
[10] Information Technology Act, 2000, s.66R.
[11] Information Technology Act, 2000, s.69.

- Suppliers of services, intermediaries, and persons in charge of computer resources are required to:

  Designated entities are obligated to provide technical assistance to governmental authorities in accessing, overseeing, or decoding electronic communications or data. Failure to comply with these obligations may result in imprisonment for a term of up to seven years, along with financial penalties.

3. Safeguards:
   - Orders for interception, monitoring, or decryption can only be issued by:
     - Authorized government officials at the central or state level.
     - Following due process as outlined in rules framed under the IT Act.

2.9 Section 69A: Governmental Power to Restrict Digital Access[12]

Section 69A empowers government officials to order online platforms and service providers to block certain content or apps if it poses a threat to national security. This legal measure is often applied to ensure the protection of the country's sovereign rights, internal and external security, peaceful foreign affairs, social harmony, and to stop any acts that could lead to serious legal infractions. Upon the issuance of such an order, intermediaries are legally mandated to adhere and limit access to the designated content or sites. This clause has been prominently utilised in instances such as prohibiting mobile applications considered detrimental to India's national interests.

2.10 Section 79: Provides a safe harbour to intermediaries like social media platforms but holds them accountable for non-compliance. 13

This section explains a "safe harbour" to intermediaries, including social networking platforms, e-commerce websites, and web hosting services, shielding them from liability for third-party content. This indicates that intermediaries are not legally accountable for user-generated information, data, or communications conveyed via their platforms, provided they do not start, alter, or choose the recipient of such content. This protection is not unconditional. If an intermediary contributes to content creation or fails to act on illegal content after official notification, it is no longer protected from liability.

[12] Information Technology Act, 2000, s.69A.
[13] Information Technology Act, 2000, s.79.

To maintain safe harbour protection, intermediaries must meet specific requirements, including preventing users from disseminating illegal information such as obscene, defamatory, or dangerous material. They must exercise due diligence as mandated by the 2021 rules governing intermediaries and digital media ethics under the framework of India's IT regulations. This encompasses notifying users regarding content limitations, designating grievance officers to handle user complaints, and collaborating with law enforcement agencies during enquiries. These clauses seek to reconcile the autonomy of internet platforms with their accountability and obligation to mitigate the dissemination of illegal or detrimental content.

3. New Legal Framework for Data Privacy (2023)

The 2023 enactment of India's data protection law reflects a legislative shift towards empowering individuals with greater control over their digital personal information Sections 2 and 3 of the 2023 data protection legislation outline its scope and key definitions. The law applies to the handling of digital personal data within Indian territory, irrespective of the data's origin, and extends to both domestic and international entities engaged in offering goods or services in India. It defines essential terms such as the *Data Principal*, referring to the individual whose data is processed, and the *Data Fiduciary*, denoting the party responsible for such processing. Consent is characterised as a voluntary, informed, clear, and specific agreement given by the Data Principal.

Rights of Data Principals: Section 11 ensures their access to information regarding the manner in which their personal data is handled. 14 Section 12 allows individuals to seek correction of inaccurate data and deletion of data that is outdated or no longer relevant.15 Under Section 13 individual have the right to file complaint, Data Principals can lodge complaints with the Data Fiduciary or escalate them to the Data Protection Board if unresolved.16 The provision in Section 14 grants individuals the ability to retrieve their personal data and transfer it across different processing entities, ensuring greater control over their digital information.[17]

Obligations of Data Fiduciaries: Sections 4 through 10 of the Digital Personal Data Protection Act, 2023, set out essential obligations for entities handling personal data.

[14] Digital Personal Data Protection Act, 2023, s.11.
[15] Digital Personal Data Protection Act, 2023, s.12.
[16] Digital Personal Data Protection Act, 2023, s.13.
[17] Digital Personal Data Protection Act, 2023, s.14.

- Section 4 establishes the principle of purpose limitation, requiring that data be processed solely for clearly defined and legitimate objectives.[18]
- Section 5 reinforces data minimization by mandating that only the data strictly necessary to achieve the intended objective be collected and used.[19]
- Section 6 provides that processing activities must be grounded in lawful bases, which may include the individual's consent, compliance with legal duties, or actions carried out in the public interest. [20]
- In line with this, Section 7 outlines the requirements for valid consent, which must be specific, informed, and voluntary, while Additionally providing data subjects with the ability to rescind their consent at any point.[21]
- Section 9 addresses data retention, directing that personal data be discarded once its relevance to the processing purpose has ceased.
- Lastly, Section 10 imposes a duty on Data Fiduciaries to implement adequate technical and organizational safeguards to prevent data breaches, unauthorized disclosures, or loss of information.

4. Special Provisions for Significant Data Fiduciaries

Sections 17 and 18 of the act introduce a risk-based classification system and impose enhanced responsibilities on certain entities. Entities that process large volumes of personal information or present elevated risks to individual privacy are classified under a special category of data handlers with heightened responsibilities. These organizations must adhere to enhanced regulatory obligations, including the regular evaluation of privacy-related risks through structured assessments. Moreover, they are required to appoint a dedicated officer responsible for ensuring compliance with data management standards and applicable legal frameworks. To promote greater accountability and operational transparency, such entities must also keep comprehensive documentation of their data processing activities via systematic audit logs.

4.1 Cross-Border Data Transfers

[18] Digital Personal Data Protection Act, 2023, s.4.
[19] Digital Personal Data Protection Act, 2023, s.5.
[20] Digital Personal Data Protection Act, 2023, s.6.
[21] Digital Personal Data Protection Act, 2023, s.7.

Section 15 addresses cross-border movement of individual data. It allows personal information to be moved outside India to specific countries or regions, provided they are officially designated by the Government of India. This designation is reflecting on an assessment of receiving jurisdiction's commitment to data protection and its adequacy in ensuring privacy safeguards comparable to Indian standards.

4.2 Data Protection Board (DPB)

- Section 19: Establishment
    - Constitutes the Data Protection Board of India, responsible for:
        - Grievance redressal.
        - Ensuring compliance with the Act.
        - Imposing penalties for non-compliance.
- Section 20: Powers
    - The DPB can summon individuals, inspect data processing systems, and issue binding orders.22

4.3 Penalties for Non-Compliance

- Section 25: Financial Penalties
    - Imposes strict penalties for violations, including:
        - Up to ₹250 crore for failing to prevent a data breach.
        - Up to ₹200 crore for non-compliance with Data Principal rights.
- Section 26: Recovery Mechanism
    - The penalties can be recovered as arrears of land revenue if unpaid.

4.4 Telegraph Act, 1885

- Section 4: Exclusive Privilege of the Government: The central government holds exclusive rights to establish, maintain, and regulate telecommunication systems within

[22] Himanshu Tripathi, "Right to Privacy in the Digital Age: Constitutional Implications in India," *Pen Acclaims* (2024).

India. Private players can operate telecom services only with a license granted by the government.[23]

- Section 5(2): Interception of Messages
    - Empowers the central or state government to intercept messages in the following circumstances:
        - In furtherance of national defence and public safety.
        - To safeguard public peace and social harmony.
        - To prevent incitement of offenses.
        - During emergencies.
    - This section forms the legal basis for government surveillance programs.
- Section 7: Rules and Regulations
    - Allows the government to make rules regulating telecommunication services.
    - Includes the authority to prescribe conditions for granting licenses, equipment usage, and fee structures.[24]
- Section 10: Right of Way
    - Grants the government powers to place and maintain telegraph lines on private or public property, subject to compensation for damages.
- Section 20: Misuse of Telegraph Lines
    - Penalizes unauthorized use of telegraph lines with fines or imprisonment.
- Section 25: Damage to Telegraph Lines
    - Penalizes willful destruction or interference with telegraph lines.
- Section 26: Telegraph Fraud
    - Penalizes fraud in using telegraph services, including unauthorized access or tampering.

[23] Telegraph Act, 1885, s.4

[24] Meenakshi Bains, "Right to Privacy in the Digital Era," *Amity International Journal of Law and Multidisciplinary Studies,* Volume: II, Issue: III (2018).

5. Credit Information Companies (Regulation) Act, 2005

1. Objective of the Act

- To oversee the operations of credit information entities and promote transparency and accountability in how credit-related data is gathered, handled, and disclosed.[25]
- To facilitate the smooth operation of the credit system by providing accurate and reliable credit data.
- To safeguard the privacy and confidentiality of credit-related information.

2. Applicability

- Applicable to all credit information companies, their members (banks, financial institutions, etc.), and users of credit information (e.g., lenders).[26]
- Section 3: Mandatory Registration
    - CICs must obtain a certificate of registration from the Reserve Bank of India (RBI) to operate.
    - RBI has the authority to regulate and supervise these companies.
- Section 4: Conditions for Registration
    - The RBI may impose conditions for granting registration, including capital adequacy, infrastructure, and security measures. [27]
- Section 14: Functions of CICs
    - CICs are authorized to collect, process, and disseminate credit information to their members.
    - Information includes loan histories, repayment records, defaults, and other financial data.
- Section 15: Obligation of Members

  It is mandatory for banks, financial institutions, and associated participants to routinely furnish credit information that is accurate and reliable to CICs.

[25] Credit Information Companies (Regulation) Act, 2005.
[26] Gaana N, "Right to Privacy in the Digital Period: A Study with Indian Context," *Journal of Legal Research and Juridical Sciences* (2024).
[27] Ayushman Patnaik and Harshit Arora, "The Right To Privacy In The Digital Age: How Technology Is Impacting Privacy On Social Media," *Indian Journal of Integrated Research in Law* Volume III Issue III (2018).

Section 16: Sharing of Credit Information

- CICs can share credit data only with authorized users (e.g., lenders) and cannot disclose it to unauthorized parties.

- Section 19: Protection of Information
  - Ensures confidentiality and restricts the misuse of credit information.
  - Any breach of confidentiality can result in penalties.
- Section 20: Right to Access and Correct Information
  - Individuals and organizations are entitled to review their credit records and seek rectification in case of any discrepancies.

Regulation by RBI

- Section 13: Powers of RBI
  - RBI is the regulatory authority and oversees the functioning of CICs.
  - RBI can issue directions, inspect records, and revoke the registration of CICs in case of violations. 28

Dispute Resolution

- Section 21: Disputes Between CICs and Members
  - Disputes between CICs and their members (e.g., banks) can be referred to the RBI for resolution.
- Section 22: Disputes with Individuals
  - Individuals can lodge complaints with the CICs if they find errors in their credit reports. CICs are obligated to resolve these disputes promptly.29

Penalties

- Section 23: Penalty for Non-Compliance

[28] Poonam Rawat and Shreyes Aggarwal, "Right to Privacy And Data Protection Issues In India," *IJCRT*, Volume 8, Issue 8 (August 2020).
[29] Rohit Saini, "The Right to Privacy in the Age of Digital Technology: A Study with Indian Context," *International Journal of Advanced Legal Research*, Volume: 3, Issue: 3 (2023).

- CICs and their affiliates can incur sanctions for violating regulatory requirements or disseminating false or misleading information.

- Section 24: Offenses by Companies
    - Any violation by a company can result in fines or imprisonment of responsible individuals.

6. Conclusion

In the contemporary digital era, Privacy has increasingly been recognised as a critical and highly contested issue, particularly in the Indian context, where rapid technological advancement and widespread digitisation have significantly transformed societal structures. With individuals increasingly reliant on digital platforms for essential activities such as communication, commerce, education, and healthcare, personal data has evolved into a valuable and vulnerable asset. This growing digital dependency has amplified the risk of data misuse, unauthorised surveillance, and exploitation, thereby necessitating the development of a robust legal framework to uphold individual rights and freedoms.

A landmark judicial pronouncement by India's highest judicial authority reaffirmed that privacy constitutes an essential constitutional guarantee, intrinsically linked to the broader principles of life, dignity, and individual freedom as enshrined within the nation's supreme legal document. This decision marked a pivotal moment in Indian constitutional jurisprudence, establishing a foundational precedent for addressing privacy concerns in the digital age. It acknowledged the multifaceted challenges introduced by emerging technologies and the broad use of individual data across state bodies and commercial organisations.

In response, there has been a gradual evolution of the legal and regulatory landscape aimed at enhancing data protection and ensuring accountability among entities that process personal information. Earlier statutes helped establish initial measures against online threats and data compromise, but lacked the breadth needed to manage evolving issues concerning the control, sharing, and protection of personal data. Consequently, newer legislative developments have been introduced, specifically designed to provide comprehensive protection of personal data and to establish mechanisms for transparency, user rights, and institutional accountability in digital governance.

IMPACT OF CLIMATE CHANGE ON SUSTAINABLE LIVELIHOOD AMONG PVTGS OF WEST BENGAL: A CASE STUDY OF LODHA AND BIRHOR

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Abstract

Climate change significantly threatens the sustainable livelihood of Particular Vulnerable Tribal Groups (PVTGs) in West Bengal. The Lodha, Toto and Birhor are three PVTGs mainly resides within West Bengal. These communities, who are deeply intertwined with natural resources and traditional practices, are particularly susceptible to the adverse effects of climate variability and change. Erratic rainfall patterns disrupt agricultural cycles, leading to unpredictable crop yields and soil degradation makes their lives a living hell. This instability undermines food security and economic stability, as agriculture remains a primary livelihood source for these groups. This study explores how alterations in climate patterns, such as rising temperatures, erratic rainfall, and increased frequency of extreme weather events, are impacting the agricultural practices, water resources, and overall socio-economic stability of these communities. This paper aims to identify the relationship between forest and the indigenous people, particularly the PVTG due to climate change. The study deals with socio-economic activities of the PVTGs to endure them on the basis of changing climate. This article also highlights about a comprehensive understanding of the challenges faced by the community during lean periods and second part indicates that climate change exacerbates existing vulnerabilities, leading to severe consequences such as decreased agricultural productivity, heightened food insecurity, and forced migration. These changes threaten the traditional knowledge systems and cultural heritage of the PVTGs, making them further marginalized. Lastly the authors highlight the urgent need for tailored adaptive strategies to mitigate the adverse impacts of climate change on PVTGs in West Bengal.

Keywords: Climate change, Sustainable livelihood, PVTG, Lodhas, Adaptive strategies

1. Introduction

The impact of climate change on sustainable livelihoods for Particularly Vulnerable Tribal Groups (PVTGs) in West Bengal is a critical issue at the intersection of environmental, social, and economic challenges. These tribal groups mainly depend on natural resources like forest products, agricultural lands to sustain their livelihood and meet their basic daily needs. But with the drastic change in the climatic condition especially in coastal and forested areas creates an adverse effect on the life of the PVTGs. Rising temperatures, irregular rainfall, droughts, and sea-level rise are jeopardizing the resources essential to PVTGs' survival, thus threatening their traditional ways of sustaining their lives.

Historically, these communities have relied on subsistence agriculture, forest resources, fishing, and hunting. However, climate change disrupts these traditional livelihoods, with unpredictable weather patterns, prolonged droughts, and sudden rains undermining crop productivity and food security. Many PVTGs depend on rain-fed agriculture in small plots, lacking sufficient irrigation and climate-resilient crop varieties, which makes them even more vulnerable to these changes.

Culturally, climate change's impacts on PVTGs are profound. Traditional knowledge systems that have helped these communities harmonize with their natural surroundings are becoming less effective as environmental conditions shift. The reliability of traditional methods is decreasing, and out migration among youth, who seek better opportunities in urban areas, is causing a decline in the transmission of indigenous knowledge and cultural values.

To address the complex challenges, climate change poses for PVTGs in West Bengal, a comprehensive approach is necessary. This includes community-based adaptation initiatives, improved access to climate-resilient agricultural practices, and targeted policies that recognize and support the unique needs of PVTGs. Such measures can foster sustainable livelihoods for PVTGs while helping to preserve their cultural heritage, strengthen resilience, and enhance adaptive capacity in the face of a changing climate.

According to the report, the PVTG's socio-economic operations must adapt the changing climate condition in order to survive. The three community's i.e Toto, Lodha and Bihor lives in deep forests. The PVTGs typically work in the following occupations: hunting, rope making, domestic animal care, poultry bird husbandry, day labor, and Forest Produce Collection (FPC). The primary traditional occupation that provides a means of subsistence throughout the six seasons is the harvesting of various kinds of forest products.

India is a land of diverse geographical features that attract people from all over the world. The country boasts six major relief features: the Himalayan Mountains, the Northern Plains, the Indian Desert, the Peninsular Plateau, the Coastal Plains, and the Islands. Each of these regions offers unique landscapes and contributes to India's rich biodiversity and cultural heritage. Forest sector is the second largest land use after agriculture. In remote forest fringe villages about 300 million tribal and other local people depend on forest for their subsistence and livelihood and about 70% of India's rural population depends on fuel wood to meet its

domestic energy needs.[1]

The majority of tribal people especially the PVTGs resides in rural areas and were mostly dependent on agriculture, according to the 1971 Census Report. From an economic perspective, the tribes may be divided into three groups: semi-nomadic, jhum cultivators, and established cultivators. All of them rely entirely on forest products for their livelihood. Their primary means of subsistence are various types of forests products. They get their food from those forest products, build their homes out of bamboo or wood, gather firewood for cooking and for warmth in the winter, utilize grass for mats, brooms, and fodder, gather leaves for leaf plates, and use harrebehra for tanning and colouring. Even many non-tribal people also live in the forested areas, and they rely on the trees for food, fuel, and other necessities. Since independence, the forests of West Bengal have been a site of conflict between the forest department and local residents, most of who belong to tribal communities. The forest dwellers assert their right to use forest resources for their livelihood, as they have traditionally depended on them. One of their grievances is that the cattle trenches dug around the forest areas obstruct the natural flow of water, making the land unsuitable for irrigation.[2]

India's national forest policy has not been successful in protecting the ecosystem. According to a UN estimate, 50 percent of the total land area in India is seriously affected by water and wind erosion. The displacement of fertile soil is estimated to be around 6 billion tons a year, thus depriving the country of vast amount of total plant nutrients. The past experience shows that the forest policy seeks to protect forest wealth from forest dwellers. The deforestation program gives top priority to quick-growing species that can be used as raw material for forest-based industries. Even ecological considerations are often overlooked.

On the other hand, the movements by the forest dwellers- Chipko, Bhoomi Sena, Silent Valley Movement, and Jharkhand Movement - are insisting on a planned strategy incorporating the needs of the local ecology, local economy and the national interests. Only a people-oriented forest policy and development strategy will be able to bring the forest dwellers in the mainstream of national life without adversely affecting the ecosystem.[3]

2. Particularly Vulnerable Tribal Groups (PVTGs)

[1]*Ministry* of Environment, Forest and Climate Change, "Total Forest and tree cover increased by 2261squarekilometre in India as per the India State of Forest Report (ISFR) 2021",13 MAR 2023,PIB Delhi availableat https://pib.gov.in/PressReleasePage.aspx?PRID=1906388 accessed on 24.02.2025

[2]NationalForestPolicy,1988,Govt.ofIndia,NewDelhi

[3]Chandramohan, B.P.Villalan, T.K.S.Munirathanam,Mr.J. 2010. 'Impact of Commercialisationon Tribal CultureandForestEcosystemSustainability'intheJournal ofHumanEcology, Vol.5(2)

Scheduled Tribes are referred to in Article 366 (25) of the Constitution of India as those tribal communities or parts of or groups within such tribes or tribal communities, who are scheduled in accordance with Article 342 of the Constitution. The essential characteristics (first laid down by the Lokur Committee) for a community to be identified as Scheduled Tribes are: – (a) Indications of primitive traits (b) Distinctive culture (c) Shyness of contact with the community at large (d) Geographical isolation (e) Backwardness.[4]

Tribal communities are often characterized by specific traits such as primitive customs, a distinct cultural identity, geographical isolation, reluctance to engage with the broader society, and socio-economic backwardness. Additionally, certain tribal groups—approximately 75 in number—exhibit unique characteristics, including reliance on hunting and gathering for sustenance, pre-agricultural technological practices, stagnant or declining populations, and exceptionally low literacy rates. These groups are classified as Particularly Vulnerable Tribal Groups (PVTGs).[5]

A tribal community is categorized under PVTGs based on the following criteria:

i) Use of pre-agricultural technology
ii) Extremely low literacy rates
iii) Declining or stagnant population growth
iv) Subsistence-based economy

2.1 Lodhas:

Lodhas who were designated by the British colonialists as a "Criminal Tribe" and later on this nomenclature underwent interesting evolution in the post-colonial period. This poor, marginalized community was later put under the category of "De-notified Community" and at present has been reclassified as a "Primitive Tribal Group" (PTG). The Lodhas and Birhor mainly resides at hilly rugged terrain covered with jungle. Traditionally, they were forest dwellers.

In volume III of the *People of India* (1994) edited by the Director General of the Anthropological Survey of India it was reported that the Lodhas are mainly concentrated in the western part of Midnapore district in West Bengal and their traditional rights of access to forest have been curtailed. The *People of India* volume added

[4]The Constitution of India, ss. Article 366 (25),Article 342
[5]Government of India, "Welfare of Particularly Vulnerable Tribal Groups" (Ministry of Tribal Affairs, 2019)

> ***"……they makes surreptitious forays into forests, which result in criminal cases being filed against them. Consequent to the colonization scheme, some have taken to agriculture. Besides, they supplement their income by working as daily-wage laboureres, when hunting or fishing yield little return (Singh, 1994)."6***

In a paper written much later in the *Newsletter* of the Royal Anthropological Institute of Great Britain, Bhowmick explained the socio-psychological processes which created a vicious circle of underdevelopment, poverty and mistrust among the Lodhas.

> ***"The chronic poverty and low aspiration level and lack of zeal of these people have created socio-cultural and economic constraints which, in turn, have made them lazy and lethargic. This has also made them unresponsive to any sort of change or innovation introduced for their uplift (Bhowmick, 1981)." 7***

2.2 Bihor:

Birhor means jungle people. 'Bir' means Jungle and 'Hor' means Sikari. Traditionally they are nomadic.The word Birhor means "forest-dweller" and as the name suggests this tribe is a foraging, hunting and gathering community who prefer to live in forests. They are primarily a semi-nomadic community whose most natural setup is in the forests. Birhor men and women are excellently skilled hunters specializing in hunting monkeys, rabbits and small birds called Titars. Birhors' methods of hunting are markedly different compared to neighbouring tribal communities.8

3. Review of Literature

- According to Hegde .R et.al(2000) The primary goal of this study, which was conducted in the Mudumalai Wildlife Sanctuary and the nearby Sigur Plateau in the Indian state of Tamil Nadu, was to measure the local population's reliance on forests and measure the impact that restrictive biodiversity conservation measures would have on their standard of living.9
- According to Meher.R (2010), this paper examines the challenges posed by India's

[6] Singh, K. S. (1994): 'People of India' The Scheduled Tribes. Oxford University Press: Anthropological Survey of India.

[7] Bhowmick, P.K. (1981): Rehabilitaion of a 'Denotified Community' The Ex-Criminal Lodhas of West Bengal. Royal Anthropological Institute of Great Britain and Ireland.44: 6-8. Source: Stable URL: http://www.jstor.org/stable/3032233.

[8]Ashim Kumar Adhikari 'traditional economy and other socio-economic factors in the edited book "The *Birhor* Universe" edited by Asishkumar Sinha, 2014.

[9] Uma Shankar, Ravi Hegd e& K.S.Bawa, Extraction ofnon-timberforestproductsin theforestsofBiligiriRangan Hills,India.6.fuelwood pressure and management options

economic liberalization, privatization, and globalization-driven development model, which has led to the displacement and deprivation of tribal communities and agriculture-dependent poor populations. The rapid, unregulated expansion of mineral-based industries in tribal regions has disrupted traditional, sustainable livelihoods, forcing these communities into economic vulnerability. While mining and other extractive industries exploit the natural resources of tribal ecosystems, they fail to offer these displaced populations viable, long-term alternatives for sustainable employment and economic stability.[10]

- Panda. S., (2015) The study examined the implementation of various developmental programs from the Central and State Governments among the Birhor and Lodha communities in the Purulia and Paschim Medinipur districts of West Bengal. The findings indicate that the main challenges in implementing these programs for both the Lodhas and Birhors stem from their landlessness and poverty. The study also emphasizes the failure of the developmental state to effectively execute its well-intentioned policies for these communities. Furthermore, the author illustrates the connection between the education of Particularly Vulnerable Tribal Groups (PVTG) and their overall development.[11]

- Bhattacharyya, S. (2023) concluded her research paper stating about the Pandit Jawaharlal Nehru's Panchsheel principles which supports the growth and progress of the tribal community. From then until now, many plans have been made and put into action to help improve the lives of tribal people. People think that the tribal community can only progress by giving those lots of education. However, there are some difficulties in teaching them. The researcher also identified the specific challenges that need to consider in providing better education. Although the government is taking action, it is clear that the policies and actions they have taken so far are not sufficient for success. More strategies must be taken in future.[12]

- Panda. S. and Guha A., (2013) The study reveals that although the government's primary goal was to integrate the Lodhas into agriculture and settle them as farmers, the distribution

[10]RajkishorMeher,Globalization,DisplacementandtheLivelihoodIssuesofTribaland AgricultureDependentPoorPeople:TheCaseofMineral-based IndustriesinIndia,Vol:25issue4pp (457-480)

[11] Dr.Panda.S, "The Development of primitive tribal groups: A case of Lodha and Bihor of West Bengal," World Wide Journal of Multidisciplinary Research and Development, Vol 1 Issue 6 pp- 28-35, 2015 available at https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://wwjmrd.com/upload/the-development-of-primitive-tribal-groups-a-case-of-lodha-and-birhor-of--west-bengal-.pdfaccessed on 12.11.2023

[12] Bhattacharyya, S., "West Bengal's Tribal Education, Challenges and NEP 2020", International Journal of Creative Research Thoughts, Volume 11, Issue 7 July 2023.accessed on 12.12.2023.

of land to landless Lodha families by the Land and Land Reforms Department remains largely incomplete. Despite various developmental initiatives, only 41 percent of the Lodha families surveyed received any form of government support. The nature of the developmental inputs provided indicated a focus on cash loans for house construction and advanced solar technology. Additionally, the research found that houses constructed by contractors were substandard and unsuitable for living. As a result, many families sold their high-tech solar cells to wealthier neighbors, such as the Santhals and Mahatas, at inflated prices.[13]

4. Climate Change: Effect and Fortitude of Primitive Tribal Groups

4.1 International View

The tribal population of a country is its native people, who, although part of society, are generally cut off from the rest of society. Historically and even now, they are subjected to marginalization and neglect by society as well as the government. Poor literacy and poor governmental support have resulted in their economies being highly dependent on traditional practices like hunting, gathering, fishing, and both settled and shifting cultivation, among other nature-based livelihoods. Nevertheless, industrialization, rapid population growth, and urbanization have greatly amplified pollution levels, leading to climate change. Paradoxically, these indigenous communities, which least contribute to environmental degradation, bear the brunt of its impact. Throughout the globe, their way of life is threatened by climate change, causing loss of lives, lives, and gradual degradation of their distinctive cultural traditions and practices.[14]

4.2 Indian View

The Indian tribal communities although constitute about 8% of the population of the country but are rich and diverse in their culture and traditional abilities. They have a special affinity with nature and have been surviving and flourishing in their natural geographical environment for centuries. The Indian subcontinent tribes are mainly found within and around the hill regions encompassing valleys and plane land, they are predominantly based on cultivation and

[13] Panda.S and Guha. A., "Ground realities of development among the Lodhas in West Bengal", Journal of South Asian Anthropologist, Vol. 13. 75-84 (2013) available at https://www.researchgate.net/publication/257221844_Ground_realities_of_Development_among_the_Lodhas_in_West_Bengal accessed on 02.01.2024

[14] (Sengupta, 1988)

agriculture, whereas where agriculture has its drawbacks, there the hills offered alternative choices like grazing lands and forest producing bounteous resources to form different handicrafts and other products like wove baskets, etc. Similar to other tribes in the rest of the world, India's tribal communities too have faced discrimination and marginalization even when seventy-eight years have passed since independence the government has remained apathetic towards their fate. With pollution, greenhouse gas emissions, and global warming increasing and one of the most polluted and densely populated countries being India, there has been a rampant climate change process going on.

5. Objective of the Study

The objective is the root or way of any scientific research. The study is required to promote the true impact of the utilization of forest products by the indigenous people of West Bengal and the ways to preserve the resources by this indigenous people for the future.

1. To know the method of sustainable livelihood due to climate change of a forest dweller tribal people;
2. To study about the laws passed by the Government imposing the strict un-utilization of the forest products ;
3. To know relationship between tribal people and forest resources with preservation for future generations;
4. Finally, some policy-oriented suggestion has been made for the policy maker of government forest department for better sustainable livelihood.

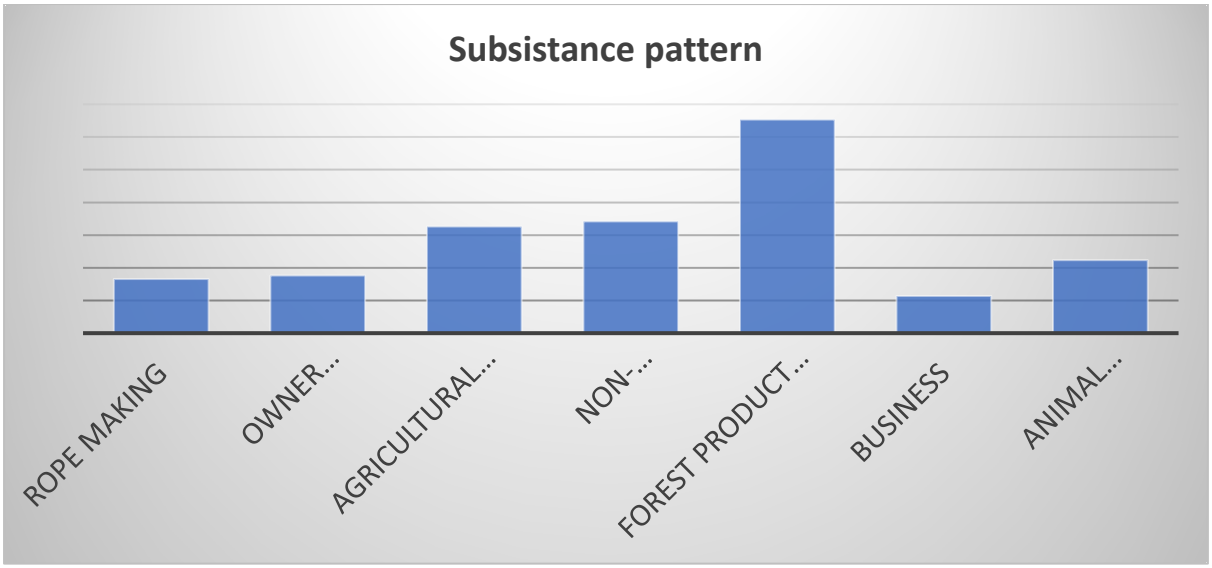
6. Methodology

It is a field based empirical study. The data has been collected from the various villages of the West Bengal. For this study,the methods like interview, case study, observations and focus group discussion has been applied. It is a short-term study; the qualitative or quantitative data has been collected to prove our thought or analysis. Some earlier studies have been followed to find out some previous knowledge through various literature. The study area was West Bengal Districts like Purulia, Bankura, Jhargram and Paschim Medinipur. The study unit was village, the sampling technique was random sampling and the criteria was those villages are situated vary vicinity to the forest. The first author conducted the fieldwork. Total household has been conducted 989.

Summer	Winter	Rainy	Spring	Throughout the Year
Hunting, Forest Produce Collection (Creeper, Honey, Wood, etc), Migrant Labour, Unskilled wage Labour.	Agricultural day labour, Non-agricultural Day Labour, Forest Produce Collection (Medicinal Plant)	Migrant Labour (AGL), Cultivating own land, collect local animal & insect for consumption.	Hunting, Forest Produce Collection (leaf, root, fruit, skin of tress, etc.), Unskilled wage labour	Livestock Rearing, Rope making, non-agriculture day labour

Table 1 Occupational pattern of the PVTG's with Percentages

Rope making	**Owner cultivator**	**Agricultural labour**	**Non-agricultural labour**	**Forest product collection**	**Business & handicraft**	**Animal husbandry**	Total
32(8.29)	**34(8.81)**	**63(16.32)**	**66(17.10)**	**126(32.64)**	**22(5.70)**	**43(11.14)**	386



Summer	Rainy	Winter	Spring	Whole Year
Hunting at forest, Forest Produce Collection (Creeper, Honey, Wood, insect, sal leaf, sal gum etc)	Forest Produce Collection (Medicinal Plant, Shak, creeper, fruit, leafs, mushroom, various roots-bawla alu, Khamalu etc)	Hunting at forest, Forest Produce Collection like Medicinal plant, sal leaf, Sal gum, wood for selling, fire wood, sal & peal fruit and seed, Mahul flower and fruits etc	Hunting, Forest Produce Collection (leaf, root, fruit, bark of tress, various shak and choir creeper etc.),	gathering like fire wood, creeper, roots, green leaf and dry leaf

7. Findings of the study

The study exposed that both are forest dweller tribe in India. The occupation opportunity and socio-economic existence depend on forest and environment. The Lodhas and Birhor are hunter gatherer community. The data shows that most of the family depend of forest produce collection. Various forest produce collection is the main traditional occupation as livelihood strategies around the six seasons. But due to change of climate they are depend on other source of economic activities. They are very much conscious about the geographical region and environmental situation. During summer they are depend on only non-agricultural activities like road construction work, building construction labour, worker as personal domestic work and cleaning work in the shop, home etc. day labourer. Some informants share their views ‘very

few persons or families got the job as daily labour, only one or two members received the day labour work. If we are not getting the work during summer, how we survive?

- During this time forest has been fully dry'. So, they are moved here & there to collect raw material for preparing the tradition handicraft product.
- During spring and winter, they are fully depending on forest produce like new sal leaf, kendu leaf, various creeper, fruits and various medicinal plant. They have no right to cut the tree or firewood without the permission of forest protection committee. This is also an accepted fact that 'Joint Forest Management' affects their livelihood. With that scheme, these peoples are slightly benefited but the scheme execution process needs to be robust.
- During rainy season they are depend on agricultural day labour and rest of the time they went to forest to collect Potato, mushroom, fruits, roots, seeds and medicinal plant etc.
- Only in winter they are fully depending on forest produce collection. That-time they are collected timber and firewood without any permission (Table 3).
- During autumn they were faced lean period, most of them have not got work and they did not enter the forest. So, in the hilly terrain most of the time is summer, during that time they are moved here and there to collect various raw materials to prepare handicraft product.

In this study we have found eight types of occupational activities among the Lodhas and seven types of occupational activities among the Birhor. Most of the population depends on forest produce collections. Season wise their occupational activities has been changed due to climate change. The Lodha and Birhor did not entire forest throughout year due to climate change and restriction of the forest department (Table 3&4). They are collecting various items from forest season wise. Seasonal forest produce collection is not fruitful for them because forest is the only source of income for most of the people. In the rainy season they are unable to get fire wood only collect food items. This season is their lean period to earn something those are depending on forest (32.64 %). Due to climate change like during winter and spring rain is coming so they are faced treble situation.

8. Conclusion

The influence of climate change on sustainable livelihoods for Particularly Vulnerable Tribal Groups (PVTGs) in South Bengal is a critical issue at the intersection of environmental, social, and economic challenges. It is concluding that, with very strange note climate change affects the substantive issue of the socio-economic, educational and health status of tribal communities are an integral part of the development agenda that the State has been pursuing for its citizens. With respect to tribal development, there were two prominent colonial discourses which have continued into the postcolonial period.

In one of the conversations, the overall condition of tribal people, including their poverty, is attributed to their social and geographical isolation. This social and geographical isolation keep on affecting the livelihood. Climatic effect also leads with the economic aspects of PVTG's of West Bengal. They are under the radar of climate which needs to revisit with government support. Poor implementation of programmes is offered as another explanation for the issue of lack of social development of PVTG's.

In this view, the solution lies in effective implementation of State-sponsored development programmes and schemes, whether these pertain to livelihood and income-generation activities, and/or communication facilities. However, the problem of ineffective implementation in tribal areas remains inadequately addressed. Forest degradation also poses a significant threat, as many PVTGs rely on forest resources to sustain their livelihoods. Rising temperatures and altered rainfall patterns reduce the availability of non-timber forest products (NTFPs) such as honey, firewood, medicinal herbs, and fruits, which are vital for household needs and income. Biodiversity loss impacts both their economic resilience and cultural practices, as many PVTGs have spiritual connections to the forest and specific plant and animal species. Climate-induced shifts in local biodiversity disrupt ecological balance and erode the cultural heritage that PVTGs have preserved for generations.

Moreover, water scarcity, amplified by climate change, presents another major issue. With groundwater sources dwindling and rainfall patterns shifting, access to drinking water and irrigation has become more challenging for PVTGs, who often depend on natural water sources. Coastal communities face the added problem of saline intrusion from rising sea levels, contaminating freshwater supplies and complicating agriculture. Poor water quality and increasing health risks from vector-borne diseases further threaten the productivity and well-being of these communities, reducing their ability to cope with environmental changes.

Though, the Lodha and Birhor are hunter gatherer community but they are surviving themselves agriculture and non-agricultural day labourer due to encroachment of forest and law of joint forest management. The climate change, rights to enter the forest and encroachment of forest are the main disturbance of livelihood opportunity of the PVTGs in West Bengal.

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