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Prof. (Dr.) Srikrishna Deva Rao

NALSAR Law Review

Volume 10 Number 1 2025

Editorial Note

We are delighted to present the tenth volume of the *NALSAR Law Review*, a milestone that offers us the opportunity not only to celebrate a decade of rigorous legal scholarship but also to reflect on the evolving landscape of law and its intersection with a rapidly transforming world. This volume, marking a significant milestone in our journey, is a testament to the collective intellectual engagement of the academic community committed to addressing modern legal challenges with a critical insight.

This volume curates a collection of articles that are interdisciplinary in scope, diverse in methodology, and deeply engaged with questions of contemporary legal relevance. The multi-faceted contributions address established and emerging issues, offering nuanced insights into global and Indian legal systems, challenging traditional boundaries and proposing forward-looking frameworks.

The article "*Anti-Suit Injunctions and Jurisdictional Rivalry—Can Patent Litigation Provide the Answer?"* engages readers in the high-stakes world of cross-border patent litigation. By examining the judicial approaches of countries like India, China, the US, the UK, and France, it helps readers understand the complex role of anti-suit injunctions and emphasises the need for a cooperative international legal order grounded in judicial reasoning.

The contribution "*Regulating Business and Human Rights in India: A Fragmented Focus, An Overlooked Whole"* in this volume invites readers to rethink corporate accountability beyond state-centric paradigms. It reveals the regulatory blind spots in India's Business and Human Rights framework and advocates for a holistic, rights-based approach, encouraging both scholars and practitioners to push for systemic reforms in corporate governance.

The article titled "*The Silver Jubilee Year of the Information Technology Act, 2000: Need to Overhaul the Legal Landscape of Cyberspace Amidst the Emergence of New Digital Rights and Technologies in India"* critically guides readers through India's digital law, illuminating its failure to keep pace with fast-emerging technologies and digital rights. The article provides insights for legislators, academics,

and digital rights activists who seek a progressive and future-oriented cyber law regime.

In our legal history portion, the article "*Analytical Study on Impact of Colonialism on Women's Education Work, and Political Participation in India"* provides readers with a historical lens to understand the intersection of gender and colonialism. By tracing the roots of systemic inequalities, it equips scholars and activists with deeper insight into the enduring challenges women face in post-colonial societies.

A thought-provoking article, "*The Biometric Panopticon - Death by Algorithm, Digital Colonialism, and the Carceral Global South,"* in this volume interrogates the rise of biometric policing and algorithmic surveillance in the Global South, examining how facial recognition, iris scans, and digital tracking entrench systemic exclusion. The article brings to the attention of the readers the historical systems of control by linking them to technological expansion. It compels readers to rethink current surveillance practices and consider rights-driven, inclusive frameworks for digital governance.

The article "*Regulating the Resource curse: Legal and Constitutional Dimensions of Mining and Environmental Governance in India"* highlights the sector's economic significance alongside its ecological and social costs. Focusing on statutory frameworks like the *MMDR Act* and *Environment Protection Act*, as well as judicial doctrines such as the precautionary principle and sustainable development, the study offers a critical lens into the tensions between economic development and ecological preservation. The article highlights the role of the judiciary in shaping the regulatory oversight, offering policymakers, legal scholars, and environmental advocates critical insights to help craft a sustainable balance.

The article titled "*Automating the Criminal Justice System"* investigates the potential of artificial intelligence to enhance efficiency and transparency in India's criminal justice system, especially in light of delays and investigative backlogs. The article appeals to readers interested in legal innovation by exploring the use of AI to reduce delays

and improve fairness in India's criminal justice system. It balances the perks of technology with the perils of bias, offering a comparative global perspective that policymakers and technologists will find invaluable.

The article "*Legal and Bioethical Intricacies of Using in Silico Methods in Clinical Research: National and Cross-Jurisdictional Perspective"* brings to light a largely overlooked dimension of digital biomedical innovation. It helps readers navigate the ethical and legal implications of using personal genetic data in computational trials and advocates for comprehensive regulation grounded in global best practices.

The contribution on *"The Mediated Middle Ground: A Comparative Analysis of Mediation's Efficacy in Resolving Shareholder Oppression Claims in Closely Held Corporations"* provides a compelling reading for corporate law professionals and dispute resolution practitioners. Examining legal frameworks in Canada, the UK, and the US (Delaware), the article demonstrates that structured mediation can serve as a cost-effective and relationship-sustaining alternative to litigation.

The paper "*Augmented Reality: A Pathway Driving Educational Justice and Inclusivity of Persons with Intellectual Disability"* argues that Augmented Reality (AR) can enhance inclusive education for persons with intellectual disabilities. It examines AR's potential to support special education, while addressing related privacy and intellectual property concerns, offering a forward-looking analysis of technology's role in promoting educational justice. Readers will gain a deeper understanding of inclusive learning design, supported by India's NEP 2020 and global development goals, an invaluable resource for educators, policymakers, and technologists alike.

The contribution titled "*Historical Development of the Domestic Violence Law in Nepal"* traces the legal history and ongoing challenges of domestic violence in Nepal, where, despite the Domestic Violence (Offence and Punishment) Act, 2009, and constitutional guarantees, the patriarchal norms and socio-cultural stigmas perpetuate its prevalence. The paper engages readers in a reflective exploration of legal reforms

aimed at combating gender-based violence. It provides critical context and underscores the gap between law and lived reality, offering actionable insights for improving enforcement and community outreach in Nepal and comparable settings.

Together, the contributions in this volume underscore the need for legal thought to remain responsive to the evolving contours of social, technological, and geopolitical change. The thematic breadth from digital governance and environmental regulation to corporate accountability and access to justice demonstrates the increasingly interdisciplinary nature of contemporary legal scholarship.

We extend our sincere appreciation to all contributing authors whose research and analysis have enriched this volume. Their work captures the complexity of law's interaction with society, technology, and global governance and offers amicable solutions to the current issues. We also thank our editorial team, advisors, and peer reviewers for their diligence and commitment to scholarly rigour.

To our readers, students, academics, legal professionals, or policy thinkers, we are grateful for your continued engagement. We hope this tenth edition offers valuable perspectives and provokes meaningful dialogue on the evolving contours of law and justice. As we look ahead, we reaffirm our commitment to fostering interdisciplinary, inclusive, and forward-looking legal discourse on the issues to come.

Sincerely,
The Editorial Committee.

ANTI-SUIT INJUNCTIONS AND JURISDICTIONAL RIVALRY – CAN PATENT LITIGATION PROVIDE THE ANSWER ?

V.K. Unni[*]

Introduction

All legal systems across the globe have certain basic features. These common minimum standards cut across civil law and common law systems and remain as one of the most distinguishing features which can be considered as the hallmark of modern-day jurisprudence. One such feature is the existence of legal remedies which can be enforced against injuries that meet a well-defined legal standard. According to Douglas Laycock "*The choice of remedy and the measure and administration of the remedy chosen pose a distinctive set of questions -- logically separate from the liability determination and usually considered subsequent to that determination -- focused on what the court will do to correct or prevent the violation of legal rights that gives rise to liability*".[1]

The law provides a broad spectrum of remedies from the fields of both civil and criminal law and this can be of the nature of monetary damages, fines, restraint orders regarding future conduct and in some cases imprisonment also. On most occasions the legal system which consists of the legislative, executive and judicial arms of the state chooses the most appropriate legal remedy to deal with specific types of injuries by considering various factors Those factors may be any or all of the following like

a) intention to compensate the party who suffered the harm/injury,

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[1] "Laycock, Douglas. 2008. "*How Remedies Became a Field: A History*," The Review of Litigation 27: 161-267 (2008)".

b) punish the party who causes the injury/harm,

c) restrict future conduct by the party who causes the injury/harm or

d) prevent similar conduct by third parties

Patent Law and Remedies

Coming to the field of patents, laws across most countries including India provide for remedies against infringement of patents. These remedies are mostly civil in nature and are intended to compensate the patent holder against the harm/injury caused by the infringing party. India is a very good example of this approach as its patent law provides civil remedies like injunction, damages/account of profits, seizure/destruction of infringing items/materials used to produce them. Remedies like damages are not alternatives to injunctions and it is very much possible for the patent holder to be awarded damages with respect to the losses incurred even if an injunction order is in place.

An injunction involves a direction by the court that mandates someone to do certain things or stop doing certain things. In litigations involving non patent maters petitioners generally approach the court for injunctions to deal with situations where a third party had trespassed into their property or invaded their privacy. Coming to patent infringement, if the patent holder were to demonstrate that the defendant had done some act which was likely to infringe a granted patent, then the patent holder had to get an injunction from the court which would have the effect of restraining the defendant from carrying out the conduct that had resulted in the commencement of litigation by the patent holder.[2] As far as availability of injunctive relief is concerned, across the globe there are two different approaches. According to the first approach injunctive relief shall be provided as a matter of right when a patent

[2] For a detailed analysis of injunctions see generally "Sikorski, Rafał Between Automatism and Flexibility: Injunctions in Twenty-First Century Patent Law," in Rafał Sikorski ed., Patent Law Injunctions. Wolters Kluwer (2019).

is infringed[3] and the second approach involves an evaluation of the suitability of injunction as one of the many remedies available when a patent is infringed.[4]

Injunctions, Patent Infringement and Globalisation

The last three decades have also witnessed major changes to the global economic landscape which in turn has transformed many domestic companies having a miniscule national presence into international conglomerates which are very keen to enter multiple markets outside their home country. Naturally these companies are compelled to spend substantial portion of their resources to make their presence felt at the global stage.

While globalisation bring in economic prosperity to all stakeholders it also increases the possibility of commercial disputes being pursed before courts in multiple jurisdictions. This is already being experienced in technologies pertaining to mobile phones, tablets, personal computers and related communication devices. A very important factor behind the popularity of mobile phones, tablets etc on a global level is due to the rapid strides made in standardisation of technology which has transcended national borders and has resulted in the universal adaptation of critical technologies like 2G / 4G/5G, Wi Fi, Bluetooth, MPEG video, HDMI connector etc. In fact, such standards constitute the basic building blocks for a viable ecosystem involving mobile phones, tablet, personal computers etc. For a variety of reasons, standards are generally beneficial for both consumers and industry participants.[5]

Organisations who are involved in the development of such technological standards are popularly called by the name Standard

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3 This approach is followed in many continental European jurisdictions like Germany

4 Many common law jurisdictions follow this approach for example USA, India

5 See generally "Mark A. Lemley, *Intellectual Property Rights and Standard-Setting Organizations*, 90 Calif. L. Rev. 1889, 1896–98 (2002)".

Setting Organisations (hereinafter SSOs).[6] Developing such standards is a very complex process involving active participation by various stakeholders like the companies/firms who had actually invented such technology and the users or implementers of these standards. The process involves active co-operation which eventually culminates in the development of a technology standard that would be widely used by the industry. The technologies which eventually become an industry standard are protected by a category of patent called standard essential patents (SEPs).[7]

Owing to the large number of patents involved and the exorbitant costs associated with acquiring all important patents no single company would be owning all the SEPs which form part of the standard.[8] Thus, anybody who intends to manufacture a product that incorporates a particular standard will need to become a licensee with respect to at least some of the important patents within the standard.

Another interesting aspect of SEP licensing is that the standard implementers often need to take a license from their direct competitors. Such a situation could be exploited by some SEP owners who might offer a license to the implementer only at an exorbitant rate. Such practices are called as Patent Hold-Up. Furthermore, on some occasions standard implementers may resort to practices like Patent Hold-Out, i.e they may not take the license which is offered to it by the SEP owner or may try to avoid royalty payments to the SEP holder.

With the aim of making the standard widely available to

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6 They are also called by the name "Standards Development Organizations (SDOs)".

7 For Details regarding SSOs read generally "JUSTUS BARON, JORGE CONTRERAS, MARTIN HUSOVEC & PIERRE LAROUCHE, EUR. COMM'N, JOINT RSCH. CTR., MAKING THE RULES: THE GOVERNANCE OF STANDARD DEVELOPMENT ORGANIZATIONS AND THEIR POLICIES ON INTELLECTUAL PROPERTY RIGHTS 20 (Nikolaus Thumm ed., 2019), https://perma.cc/J9VG-KN8B".

8 See "Eli Greenbaum, Forgetting FRAND: The WIPO Model Submission Agreements, LES NOUVELLES 81 (June 2015), at https://www.wipo.int/export/sites/www/amc/en/docs/frand_2015.pdf "

companies who want to incorporate these technologies in their products, the SEP owners generally make a commitment to issue a license on the SEPs owned by them based on terms that are considered fair, reasonable, and non-discriminatory (FRAND). The license issued on FRAND terms not only makes sure that the standard is widely available to technology implementers but also protects the interests of technology developers by giving them adequate returns for developing the technology which has become part of a standard and very useful to the society at large.

In spite of licensing under FRAND terms which has become a great success there are instances where SEP owners and implementers disagree with respect to certain terms and conditions under FRAND. Sometimes these disagreements become disputes however most of such disputes are resolved without resorting to any kind of litigation. This is because of the flexible nature of FRAND terms which provides for customised licenses that can deal with various industry specific issues faced by individual companies who are the implementers. [9]

With the widespread use of SEPs all over the globe at least some disputes have reached the litigation stage where courts across various countries have been called upon to adjudicate. These issues deal with methods to calculate licensing royalties under FRAND terms, ascertaining the appropriate royalty base wherein FRAND rates can be applied, interface of SEPs with competition law, availability of injunction to SEP holders etc. Disputes pertaining to SEPs which in turn lead to litigation has a global impact because of the presence of multi-national companies all over the world and the proliferation of technologies covered by these SEPs. Such litigations on many occasions involve parallel legal proceedings in at least two countries that will proceed simultaneously. Needless to state this can cause lot of confusion among the parties to the litigation and also the courts handling these matters in their respective jurisdictions.

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[9] For more details on SEP disputes see generally "Igor Nikolic, *Licensing Standard Essential Patents: Frand And The Internet Of Things* (2021); Chryssoula Pentheroudakis & Justus A. Baron, Eur. Comm'n, Joint Rsch. Ctr., *Licensing Terms of Standard Essential Patents: A Comprehensive Analysis of Cases* 40-41 (Nikolaus Thumm ed., 2017), https://perma.cc/N4L7-FB2D".

SEP Litigation and its Global Impact

In a highly globalised business environment of the present times, SEP owners and those who implement or license these SEPs have their presence in multiple geographies. Scholars point out that an average patent family at the European Telecommunications Standards Institute[10], covers more than 6 countries, with the number going to as high as 26 in some instances. [11]

Similarly, those who implement the technology like manufacturers of mobile phones on most occasions have global operations in the form of marketing teams and/ or manufacturing facilities. Because of their global outlook and presence, it is quite natural for them to go for a global SEP license which would alleviate the need to negotiate different licenses in each country where they operate.

If the parties are unable to resolve the differences over an SEP license, it may pave the way for a very interesting and somewhat unique situation involving patent law and contract law. This is because the commercial dispute arising out of the SEP license is global and the rights granted by the patent is essentially national.[12] It should also be noted that in most jurisdictions the right granted by patent to the owner is the right to exclude others. This is true in the case of India too and the relevant legal provision reads as follows

"*Subject to the other provisions contained in this Act and the conditions specified in section 47, a patent granted under this Act shall confer upon the patentee—*

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[10] "Details at https://www.etsi.org , ETSI Is involved in development of standards for ICT-enabled systems, applications and services".

[11] More details at "RUDI BEKKERS, EMILIO RAITERI, ARIANNA MARTINELLI & ELENA M. TUR, EUR. COMM'N, JOINT RSCH. CTR., LANDSCAPE STUDY OF POTENTIALLY ESSENTIAL PATENTS DISCLOSED TO ETSI 34 (Nikolaus Thumm ed., 2020), https://perma.cc/AWT3-EGEJ"

[12] In spite of various international agreements like Paris Convention and TRIPS Agreement, patent laws are territorial in nature.

(a) where the subject matter of the patent is a product, the exclusive right to prevent third parties, who do not have his consent, from the act of making, using, offering for sale, selling or importing for those purposes that product in India;

(b) where the subject matter of the patent is a process, the exclusive right to prevent third parties, who do not have his consent, from the act of using that process, and from the act of using, offering for sale, selling or importing for those purposes the product obtained directly by that process in India"[13]

Because of the national or territorial nature of rights being granted by the patent, the SEP owner may take recourse to national litigation, on the basis of the patents granted by respective national patent offices, and pray before the competent court in that country to grant it any appropriate remedy like injunction and /or damages, as its SEPs are being infringed in that particular country. In the famous SEP dispute that arose between Ericsson and Samsung, courts in multiple jurisdictions like China, Germany, Belgium, and the United States were involved.[14] In certain cases SEP owners might approach the court and seek a declaratory judgment that its SEPs were offered on FRAND terms to the implementer. Such an approach is generally followed in the United States. Declaratory judgements often define the legal relationship between parties and the rights which they are entitled to in a dispute which is being decided by the court.[15] Such judgements can be of immediate help when there is no clarity with respect to the legal rights and obligations between two parties. Many countries including the United States, India etc provide for such judgements. To counter this action by the SEP holder implementers sometimes take offensive actions before courts which may include steps being taken to

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13 Section 48, The Patents Act 1970, India (hereinafter IPA)

14 Details at " https://patentlyo.com/patent/2021/04/moving-toward-injunctions.html and https://www.juve-patent.com/cases/ericsson-sues-samsung-for-patent-infringement-in-europe/ "

15 More details at "https://www.law.cornell.edu/wex/declaratory_judgment"

invalidate the SEPs[16] or declarations regarding non-infringement[17]. In countries like the United Kingdom[18] and the United States[19] which view FRAND commitment through the prism of contract law, litigations may be initiated by third-party beneficiaries or implementers on the ground that the SEP owner had committed a breach of contract because of its failure to offer FRAND licensing terms, and may petition before the court to frame or revise the terms of the FRAND license.

Apart from patent law and contract law, there are instances where implementers have invoked provisions of competition law against SEP owners on the ground that SEP owners are abusing their dominant position in the relevant market because of their ownership of the patent covering a crucial technological standard. Interestingly Apple had filed a case against the SEP holder Qualcomm on grounds relating to breach of contract, patent validity and antitrust claims in multiple jurisdictions including the United States, Japan, China, the United Kingdom etc. [20]

It becomes very clear that the various patent and non-patent issues surrounding an SEP can influence each other in a variety of ways. If the court in a particular country hears the SEP infringement matter without any delay and grants an injunction in favour of the SEP holder this can have serious consequences on the implementer. Such a decision by the court may compel the implementer to settle the matter by taking a license from the SEP holder. In the same way, if a court in a particular country expeditiously makes a determination of FRAND licensing terms, this would effectively

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16 Details at "Katrin Cremers et. al., *Patent Litigation in Europe*, 44 EUR. J.L. & ECON. 1 (2016)".

17 More information at "DJ Jive, *Using Declaratory Judgments Offensively in Patent Cases*:, 3 J.MARSHALL REV. INTELL. PROP. L. 1, 2 (2003)".

18 Important case from the United Kingdom is "Unwired Planet Int'l Ltd. v. Huawei Techs. Co. [2017] EWHC (Pat)."

19 "Microsoft Corporation v. Motorola (2015) , details at https://caselaw.findlaw.com/court/us-9th-circuit/1709142.html "

20 Details of the case filed in United States is available at Apple Inc. v. Qualcomm Inc., 2017 WL 3966944, No. 3:17-cv-00108-GPCMDD (S.D. Cal. Sept. 7, 2017). Generally antitrust is viewed as a subset of competition law.

end the SEP infringement case in other countries. This means that the judgement of court in the country which is the first to pass the final judgement will effectively pave the way for resolution of the dispute at a global level also.

Because of the global nature of SEP dispute and the importance attached to the decision of the court which passes the first judgement, courts in some jurisdictions have begun to issue anti-suit injunctions. Such injunctions will ensure that all litigations pertaining to the SEP can be consolidated in one particular court which will affirm its jurisdiction against courts in other countries. Currently some countries like the United States and China have started issuing anti-suit injunctions (hereinafter ASI) while dealing with matters involving SEPs. The first country to issue an ASI in a dispute concerning SEPs is the United States.[21]

Salient Features of an Anti-Suit Injunction -ASI

When a court issues an ASI, it has the effect of prohibiting a party before the court from filing a suit of any kind in a foreign jurisdiction. These kinds of injunctions are actually aimed at restraining any kind of litigation being filed by the defendant in a foreign country's court. Thus, ASIs prevent parties in a dispute from initiating or continuing with parallel litigation and ASI's may be customised to deal with certain specific jurisdictions or may have a global impact.[22]

Normally in a classical anti-suit injunction scenario, initially a suit is filed by a plaintiff against the defendant before a national court. During the second stage the defendant files an action for declaratory judgment in a court based in a foreign country. In the final stage either the defendant who sought declaratory judgment in

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[21] See "Jorge L. Contreras & Michael A. Eixenberger, *The Anti-Suit Injunction - A Transnational Remedy for Multi-Jurisdictional SEP Litigation*, in The Cambridge Handbook of Technical Standardization Law: Competition, Antitrust, and Patents 451, 456-57 (Jorge L. Contreras ed., 2018)".

[22] Se "Raghavendra R. Murthy, *Why Can't We Be FRANDs?: Anti-Suit Injunctions, International Comity, and International Commercial Arbitration in Standard-Essential Patent Litigation* 75 Vand. L. Rev. 1609, 1613 (2022)".

the foreign court or the plaintiff who initiated the suit in the domestic court, petitions before the court (in which they filed the suit) to issue an anti-suit injunction, restraining the other party from carrying on with its lawsuit. ASIs are perceived to be offensive in nature as they impinge upon the right of a foreign court to decide whether or not it has the requisite jurisdiction to deal with a particular dispute.[23]

ASIs in Various Jurisdictions

The United States

Even though courts in the United States were the first to issue ASIs in the case of SEP disputes, such ASI's granted were very limited in scope. The first landmark ASI in a SEP dispute was granted in the Microsoft v. Motorola case.[24] The facts of the case involved an allegation by Microsoft against Motorola regarding violation of its FRAND commitment regarding an SEP license which eventually led to the case being filed in the Court of Western District of Washington.[25]. Thereafter Motorola filed a patent infringement case against Microsoft in Germany. The German court held that Microsoft had infringed the patent owned by Motorola and restrained Microsoft from selling infringing products in Germany. Against this Microsoft approached the US court for an ASI which would have the effect of preventing Motorola from enforcing the German injunction. The District Court observed that a resolution of the dispute which was filed before it would effectively dispose of the litigation in Germany. In other words, if Motorola were held in the United States to have violated its commitments under FRAND license, then it could not seek an injunction against Microsoft in any country which included Germany.

The District Court observed that in order to obtain an ASI "*the applicant is not required to show a likelihood of success on the merits of the underlying claim. Rather, it need only demonstrate that*

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23 "Richard W. Raushenbush, *Antisuit Injunctions and International Comity*, 71 Va. L. Rev. 1039, 1043 (1985)".

24 "Microsoft Corp. v. Motorola, Inc., 871 F. Supp. 2d 1089, 1097 (W.D. Wash. 2012)"

25 Hereinafter the District Court

the factors specific to an anti-suit injunction weigh in its favour. Those factors are: (1) whether or not the parties and the issues are the same, and whether or not the first action is dispositive of the action to be enjoined; (2) whether the foreign litigation would frustrate a policy of the forum issuing the injunction; and (3) whether the impact on comity would be tolerable"[26]

This is the Gallo standard: even as the legal criteria for issuing Anti-Suit Injunctions remain to be considered fragmented in the United States, courts generally follow some version of the three-part framework laid down by the Ninth Circuit in E. & J. Gallo Winery v. Andina Licores[27]. Under this framework, a court first determines whether the parties and issues in the local action are functionally equivalent to those in the foreign action. If they are not, issuance of an injunction to preclude the foreign action would not avoid duplicative litigation and would not be warranted. If the parties and issues are identical, the court then examines whether adjudication of the local action would be dispositive of the foreign action. An ASI is usually not warranted where the local action does not dispose of the foreign action. The court then analyzes whether any of the four factors announced by the Fifth Circuit in In re Unterweser Reederei[28] are present: (1) frustration of a policy of the forum issuing the injunction; (2) vexatious or oppressive foreign litigation; (3) threat to the issuing court's in rem or quasi in rem jurisdiction; or (4) prejudice to other equitable considerations. Finally, provided that at least one of the above-mentioned factors exists, the court examines whether the injunction will have any significant or considerable impact on international comity[29]. In the

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[26] Id. , this test called the "Gallo Test" was developed in the famous case of "E. & J. Gallo Winery v. Andina Licores S.A., 446 F.3d 984, 989 (9th Cir. 2006)".

[27] E. & J. Gallo Winery v. Andina Licores S.A., 446 F.3d 984, 991 (9th Cir. 2006) at 159-64.

[28] In re Unterweser Reederei GMBH, 428 F.2d 888, 890 (5th Cir. 1970), aff'd on reh'g, 446 F.2d 907 (5th Cir. 1971); M/S Bremen v. Zapata Off-Shore Co., 407 U.S. 1 (1972).

[29] Unterweser, 428 F.2d at 994 ("Comity is the recognition which one nation allows within its territory to the legislative, executive or judicial acts of another nation, having due regard both to international duty and convenience, and to the rights of its own citizens, or of other persons who are under the protection of its laws" (quoting Hilton v. Guyot, 159 U.S. 113, 164 (1895));

absence of such impact, an ASI may be issued.[30]

Getting back to the Motorola case, the District Court was of the opinion that timing of the litigation by Motorola before the German court raised serious concerns regarding forum shopping and vexatious litigation.[31] Finally the District Court issued an ASI which in its opinion was limited in scope and would have the effect of preventing Motorola from enforcing any injunction that it might get from the German litigation pertaining to infringement of its European Patents.[32] The District Court decision was appealed before the Court of Appeals for the Ninth Circuit which also affirmed the decision of the District Court. [33] The Appeals Court held that the District Court did not abuse its discretion while making a determination that Microsoft's contract-based claims, would, if held in its favour decide the legality of the enforcement by Motorola regarding the patent infringement suit filed in Germany.[34] The Appeals Court noted the following

> *"In sum, whether or not the district court ultimately determines that Motorola breached its contract with the ITU (it may or may not have), it is clear that there is a contract, that it is enforceable by Microsoft, and that it encompasses not just U.S. patents but also the patents at issue in the German suit. Moreover, even if Motorola did not breach its contract, then, however the [FRAND] rate is to be determined under the ITU standards, injunctive relief against infringement is arguably a remedy inconsistent with the licensing commitment"*[35]

Contreras, J. L. (2022). Anti-Suit Injunctions and Jurisdictional Competition In Global FRAND Litigation: The Case For Judicial Restraint. https://core.ac.uk/download/520123829.pdf.

30 Contreras, J. L. (2020). It's Anti-Suit Injunctions All The Way Down – The Strange New Realities of International Litigation Over Standards-Essential Patents. *IP Litigator*, *26–4*, 1–7. https://dc.law.utah.edu/scholarship

31 Id. at 1100.

32 Id. at 1101

33 "Microsoft Corp. v. Motorola 696 F.3d 872 details at https://cdn.ca9.uscourts.gov/datastore/opinions/2012/10/04/12-35352.pdf

34 Id.

35 "Id. at 884-85."

TCL v. Ericsson was another landmark decision where an ASI was granted by the court that had the effect of prohibiting parallel patent litigation.[36] TCL a Chinese company filed a suit against Ericsson before the United States Court on various grounds like breach of contract, seeking court's intervention to determine FRAND terms regarding defendant's SEPs, invalidity of SEPs and non-infringement of SEPs.[37] Against this action before the United States Court, Ericsson requested the District Court to decide regarding the FRAND licensing terms and also filed suits for patent infringement against TCL in other jurisdictions like France, the United Kingdom, Germany etc.[38] Subsequently TCL prayed before the District Court for an ASI to restrain Ericsson from proceeding with parallel infringement proceedings in ther countries.[39] While all this was on, both parties agreed that the District Court would need to decide on the global FRAND licensing terms. Thus, both parties had expressed their desire that the present action before the District Court should result in a global resolution of the disputes pertaining to SEP licensing on FRAND terms and claims on damages. The District Court held the following

> *"this Court determines that a bilateral preliminary anti-suit injunction is warranted based on the parties' mutual agreement. Thus, the Court orders that neither party, nor its affiliates or subsidiaries shall initiate or continue to prosecute a patent infringement action against the other regarding the 2G, 3G, and 4G SEPs at issue before this Court or their foreign equivalents."*[40]

Another important litigation which provided many insights regarding legality of ASI's is judgement delivered in Apple v. Qualcomm case.[41] Qualcomm held thousands of SEPs that covered

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36 "TCL Commc'n Tech. Holdings v. Telefonaktienbolaget LM Ericsson, 2015 U.S. Dist. LEXIS 191512". The case was filed before the Court of Central District of California, hereinafter the District Court

37 Id. at 4.

38 Id. at 11-13.

39 Id. at 10.

40 Id. at 19.

41 "2017 U.S. Dist. LEXIS 145835" The case was decided by the Court of

various mobile communication standards. Apple marketed mobile phones that practised many of these communication standards like 3G, 4G etc. Apple implemented these standards by relying on the licenses between Qualcomm and contract manufacturers of Apple. As the telecommunication industry became globalised its key stakeholders set up an SSO to foster global connectivity. The European Telecommunications Standards Institute (hereinafter ETSI) is one of the most important SSOs in the mobile communications industry. Both Apple and Qualcomm are members of ETSI, along with numerous other members based all over the world.[42]

Between January 2017 and April 2017, Apple the standard implementer had filed many lawsuits against the SEP holder Qualcomm and its subsidiaries in countries like the United States, the United Kingdom, Japan, China, and Taiwan etc.[43] To counter this, Qualcomm moved before the District Court for an ASI against Apple with a prayer "*to enjoin Apple from pursuing all of the claims in all of the foreign actions and from filing any other foreign action during the pendency of the U.S. action".*[44]

With regard to the disposition issue, the District Court was of the firm opinion that the legal issues which were litigated in the foreign jurisdictions were not the same as those before it and consequently its decision would have no bearing on the disposition of the disputes which were pending in many foreign jurisdictions.[45] The District Court pointed out that the law suits filed by Apple in foreign jurisdictions were not dealing with infringement of patents, on the contrary they dealt with challenges regarding the validity and exhaustion of the foreign patents owned by Qualcomm, Qualcomm's licensing policies and how those policies violated competition laws of various countries etc.[46] The District Court distinguished this case

Southern District of California, hereinafter the District Court

42 Id. at 4

43 Id. at 12.

44 Id. at 16.

45 Id. at 35-36

46 Id. at 33-24

from the earlier case of Microsoft[47] because in the present case Apple, as the implementer, did not make any FRAND commitment like Motorola did in Microsoft, and thus the District Court was of the opinion that the present case could not be compared with the Microsoft Case. [48] The District Court noted the following

> *"Apple has made no binding commitment that limits where it can bring a lawsuit, under what laws, or how it can enforce its third-party beneficiary rights under ETSI. As a baseline matter, therefore, Apple is free to exercise its rights in the United Kingdom, China, Taiwan, and Japan under those countries' laws"*[49]

Dealing with the second factor of the *Gallo Test*, the District Court did not find the overseas litigations initiated by Apple as a ploy to gain leverage in licensing negotiations and held that Apple's approach of filing law suits in foreign countries was legitimate.[50] According to the District Court, cases filed by Apple in foreign countries raise several legitimate questions which had to be decided under foreign anti-competition and patent law which are clearly distinct from the claims before it and thus it did not find that allowing the concurrent proceedings to carry on with the cases would waste any judicial resources.[51]

With respect to the third factor of *Gallo Test* on comity[52], the District Court differentiated this case from Microsoft[53] decision and held that in the present case many of the law suits filed by Apple in foreign jurisdictions involved allegations of anti-competitive practices committed by Qualcomm, unlike the Microsoft case which

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47 Microsoft supra note 33.

48 Apple supra note 41 at 32.

49 Id. at 32

50 Id. at 44.

51 Id. at 46.

52 "Comity is the recognition which one nation allows within its territory to the legislative, executive or judicial acts of another nation, having due regard both to international duty and convenience, and to the rights of its own citizens, or of other persons who are under the protection of its laws. see Gallo, 446 F.3d at 994"

53 Microsoft supra note 33.

purely dealt with private matters. Thus, District Court was of the opinion that the boundaries of the present dispute were not restricted to the United States. Multiple sovereign states and bodies have posed legal challenges to Qualcomm's business model on the belief that Qualcomm's conduct in their respective jurisdictions had an adverse effect on competition in their territories. Thus, the issuance of an ASI, therefore, would directly impede upon the ongoing efforts in the United Kingdom, China, Japan, and Taiwan to assess the anti-competitive effects of Qualcomm's licensing and chip practices on their markets. Finally, the District denied the issuance of an ASI as the impact on comity was not tolerable.

According to the District Court

> "*Multiple sovereign states and bodies have posed legal challenges to Qualcomm's business model on the belief that Qualcomm's conduct in their respective jurisdictions has an adverse effect on competition in their territories. To issue an anti-suit injunction, therefore, would directly impede upon the ongoing efforts in the U.K., China, Japan, and Taiwan to assess the anticompetitive effects of Qualcomm's licensing and chip practices on their markets.*"[54]

In Huawei v. Samsung,[55] Huawei filed this law suit in the United States alleging that Samsung infringed its SEPs and violated its promise to enter into a SEP cross-licensing deal with Huawei on FRAND terms and conditions.[56] Thereafter Huawei also filed many law suits in China mainly before the Intermediate People's Court of Shenzhen (hereinafter Shenzhen Court) where Huawei headquarters is situated.[57] The Shenzhen Court held that Samsung had infringed the SEPs of Huawei and granted an injunction in favour of Huawei which effectively restrained the Chinese affiliates of Samsung from

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54 Apple supra note 41 at 57.

55 "2018 U.S. Dist. LEXIS 63052. The case was filed before the Court of Northern District of California, hereinafter the District Court"

56 Id. at 10.

57 Id. at 11

making and selling its mobile phones in China.[58] Thereafter Samsung moved before the District Court to enjoin Huawei from enforcing the injunctions issued by the Shenzhen Court and the District Court issued an ASI against Huawei.[59] The facts of this case are very similar to the Microsoft case and thus the District Court followed the rationale of the Microsoft decision and issued an ASI against Huawei.

China

Interestingly China is one country which has some experience with respect to ASIs in SEP litigation. The dispute between Conversant and Huawei and ZTE resulted in two separate ASIs in China. Conversant filed a law suit against Huawei and ZTE before the District Court of Düsseldorf alleging that Huawei and ZTE had infringed many of its patents. Thereafter the Dusseldorf Court granted an injunction against "Huawei's and ZTE's sale, use, or importation in Germany of devices infringing any of the SEPs owned by Conversant.[60] Against this Huawei filed before the Supreme People's Court in China (hereinafter SPC) for the grant of an ASI to restrain Conversant from enforcing the injunction issued by the Dusseldorf Court until the conclusion of the proceedings in China.[61]

An ASI was granted against Conversant by the SPC and the SPC enumerated a number of factors considered by it to grant the ASI in favour of Huawei.[62] Firstly, SPC demonstrated that the parties to both the litigations being pursued in China and Germany were the same and there was similarity with respect to the subject matter of litigation. Thereafter SPC held that if Conversant were to take steps to enforce the injunction issued by the Dusseldorf Court

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58 Id. at 12.

59 Id.at 41.

60 "Mathieu Klos, Conversant Wins in Germany with EIP Against Huawei and ZTE, JUVE PATENT (Sept. 2, 2020), https://www.juve-patent.com/news-and-stories/cases/conversant-wins-in-germany-with-eip-against-huawei-and-zt"

61 Huawei Decision translated version at "https://patentlyo.com/media/2020/10/Huawei-V.-Conversant-judgment-translated-10-17-2020.pdf"

62 Id.

it would interfere with the proceedings that were continuing before the SPC. Furthermore the SPC also held that its issuance of ASI would not harm the public interest or adversely affect international comity.[63]

In the case of InterDigital v. Xiaomi, the dispute was between InterDigital a company based in the United States and Xiaomi, a Chinese mobile phone manufacturer.[64] Even though parties were having discussions for a license, they were not successful in arriving at a deal and thereafter in June 2020 Xiaomi approached the Wuhan Intermediate People's Court (hereinafter Wuhan Court) for a declaration regarding the appropriate FRAND royalty rate for the SEPs owned by InterDigital.[65] InterDigital responded to this by filing a patent infringement suit in India before the Delhi High Court (hereinafter Delhi Court) against Xiaomi and sought remedies including injunction and damages.[66] In August 2020 Xiaomi approached the Wuhan Court to issue an ASI so as to restrain InterDigital from proceeding with any injunction issued by the Delhi Court while the legal proceedings before the Wuhan Court was on.[67] The Wuhan Court granted the ASI and noted that the commencement of parallel litigation before the Delhi Court by InterDigital was aimed at interfering with the proceedings of the Wuhan Court and this would likely result in a conflicting ruling.[68] Wuhan Court's decision might have been influenced because of the status of InterDigital which unlike Xiaomi was a non-practising entity that did not make products but relied exclusively on licensing income, and thus the Wuhan Court held that its issuance of ASI would not cause any substantial harm to InterDigital.[69]

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63 Id. , see also "PETER K. YU, JORGE L. CONTRERAS, YU YANG , *TRANSPLANTING ANTI-SUIT INJUNCTIONS*, 71 Am. U.L. Rev. 1537, 1579-80 (2022)".

64 InterDigital Decision translated version at https://patentlyo.com/media/2020/10/Xiaomi-v.-InterDigital-decision-trans-10-17-2020.pdf

65 Id. at 6

66 The Delhi Hight Court case was filed in July 2020

67 InterDigital supra note 64 at 7.

68 Id.

69 Id. at 8

Europe

Scholars point out that courts in Europe are not in favour of issuing ASIs.[70] But courts in Europe including the United Kingdom take steps to safeguard their own jurisdictions against foreign ASIs by granting restraint orders against ASIs.[71]

While parallel proceedings are generally unobjectionable, the UK courts have granted anti-suit relief in five different FRAND cases, or at least indicated that they would have done had the parties not reached an agreement beforehand. The first three cases involved defendants initiating proceedings in other jurisdictions to seek relief that the UK court found objectionable. In 2017 in the Unwired Planet case[72] through the Shenzhen courts in China, Huawei issued proceedings arguing that Mr Justice Birss' FRAND judgment and global licence were not FRAND and inquiring into an injunction to restrain Unwired Planet from continuing UK proceedings. For example, in 2018 ZTE applied to the Shenzhen courts for a declaration that the licence offers of Conversant were not FRAND and an injunction to restrain conversant from bringing UK proceedings[73].

There is of course a deep division in Europe between common law and civil law jurisdictions. Whereas the UK courts are prepared to grant ASIs subject to certain conditions[74], ASIs are illegal in the EU in so far as they would impede the proceedings in

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70 "Adrian Briggs, *Anti-Suit Injunctions and Utopian Ideals*, 120 LAW Q. REV. 529, 530 (2004); Nikiforos Sifakis, *Anti-Suit Injunctions in the European Union: A Necessary Mechanism in Resolving Jurisdictional Conflicts?,* 13 J. INT'L. MAR. L. 100 (2007)". This position remains the same for matters involving SEPs and non-SEPs.

71 See "Igor Nikolic, *Global Standard Essential Patent Litigation: The Anti-Suit and Anti-Anti-Suit Injunctions*, 30 Geo. Mason L. Rev. 427, 443 (2023)".

72 Unwired Planet Int'l Ltd. v. Huawei Techs. Co. [2017] EWHC (Pat).

73 *United Kingdom: SEPs and FRAND – litigation, policy and latest developments*. (n.d.). https://globalcompetitionreview.com/hub/sepfrand-hub/2023/article/united-kingdom-seps-and-frand-litigation-policy-and-latest-developments

74 Conversant Wireless Licensing SARL v. Huawei Technologies Co Ltd & Ors [2018] EWHC 2549 (Ch).

another EU Member State under Article 29(1) of the EU Regulation 1215/2012 and CJEU case law[75]. Moreover, ASIs are not usually provided for in the civil procedure codes of most countries in the civil law tradition, and courts usually frown upon taking steps that would interfere with the jurisdiction of a foreign court. This has then provoked the need for European courts to react with anti-ASI orders in an attempt to restrain ASIs from the court infringement of their jurisdiction. For example, the Paris Court of Appeal gave an AASI in the case of IPCom v. Lenovo. The Court found that, without an AASI, IPCom would be permanently stripped of any rights under French patent law and that the US ASI would cause "manifestly illicit harm" in cutting off IPCom from lodging new infringement actions and thereby infringing on IPCom's fundamental rights to property and effective judicial protection under the EU Charter of Fundamental Rights and European Convention on Human Rights.

The Higher Regional Court of Munich and the District Court of Munich in Germany have similarly found that ASIs infringe Nokia's property rights under the German Civil Code[76]. The Munich courts reasoned: "As far as the SEPs are concerned, ASIs impair a patentee from exercising his rights, and on the other hand the right of a patentee to property is very relevant." A FRAND defense could still be maintained by infringers in proceedings in Germany, following CJEU case law[77].

Position in India

In India even though no ASI has been issued with respect to any SEP litigation, there are instances where Indian courts have issued ASIs when non-SEP disputes were decided by them.

In the landmark case of Modi Entertainment Network v.

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75 Case C-159/02, Gregory Paul Turner v. Felix Fareed Ismail Grovit and others [2004] ECLI:EU:C:2004:228.

76 IPCom v. Lenovo, Court of Appeal of Paris (Cour d'Appel de Paris), Case No RG 19/21426 (3 March 2020).

77 Tsilikas, H. (n.d.). *Anti-suit injunctions for standard-essential patents: the emerging gap in international patent enforcement*. https://www.4ipcouncil.com/application/files/8616/4397/3917/220201_4iP_Council_Summary_antisuit_injunctions.pdf

W.S.G. Cricket Pte. Ltd.[78], Supreme Court held the following *"It is a common ground that the courts in India have power to issue anti-suit injunction to a party over whom it has personal jurisdiction, in an appropriate case. This is because courts of equity exercise jurisdiction in personam. However, having regard to the rule of comity, this power will be exercised sparingly because such an injunction though directed against a person, in effect causes interference in the exercise of jurisdiction by another court."*[79]

Anti-Anti- Suit Injunctions

Anti-anti-suit injunctions (hereinafter AASI) are of a different kind of remedies and are generally perceived to be defensive in nature. Such injunctions restrain a party before the domestic court from petitioning the foreign court for an anti-suit injunction. These category injunctions are considered defensive since they only have the effect of preventing a foreign court from taking away the jurisdiction of a domestic court, while the foreign court comes up with its final determination.

Thus, in a typical AASI situation, the domestic court issues an injunction to safeguard its jurisdiction from any possible meddling by a court situated in a foreign jurisdiction. Firstly, the plaintiff files suit in a domestic court. Thereafter in a foreign court the defendant files an action for a declaratory judgment and in the final step the plaintiff in the domestic court files for an anti-anti-suit injunction, which is also called by the name pre-emptive ASI. In effect AASI restrains the defendant from approaching the foreign court for an ASI.

While China and the United States rank high amongst countries that have issued ASIs there are many countries who had taken steps to counter ASIs by just countering them through AASIs.

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78 (2003) 4 SCC 341. In the case of Devi Resources v Ambo Exports Ltd. (2019) Calcutta High Court held that the "general equitable jurisdiction of granting an injunction encompasses the authority to grant an anti- suit or anti-arbitration injunction or even an anti-anti-suit injunction, details at para 55 https://indiankanoon.org/doc/60725244/ ".

79 Id. Modi Entertainment para 36.

The United Kingdom, India, Germany all fall under this category.

Europe

In the case of IPCom v. Lenovo, the plaintiff prayed before the English Court to enjoin the English companies of the Lenovo Group from providing assistance to the U.S. companies of the same group while Lenovo Group was pursuing an ASI application before a court in the United States.[80] The UK Court held that

> *"It is common ground that this court has jurisdiction to grant an anti-anti-suit injunction. The applicable principles of law are broadly the same as those which apply to the grant of an anti-suit injunction. However, particular caution must be applied in the case of an anti-anti-suit injunction because potentially there is an even greater danger of interfering improperly with the conduct of foreign proceedings"*[81].

The UK Court granted the AASI by pointing out that "*it would be vexatious and oppressive to IPCom if it were deprived entirely of its right to litigate infringement and validity of EP '268 and thereby be deprived of those advantages".*[82]

In October 2020, the UK court granted Philips an interim anti-anti-suit injunction (AASI) to prevent Xiaomi from initiating proceedings in China that would undermine its jurisdiction[83]. The subsequent application to continue the AASI was settled confidentially, marking the first instance where a UK court showed willingness to issue a preventative AASI, though Mr. Justice Mann's reasoning was not disclosed[84].

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80 "IPCom GmbH & Co. v. Lenovo Tech. Ltd. [2019] EWHC (Pat) 3030 (Eng.), full text at https://www.bristows.com/app/uploads/2020/02/2019-EWHC-3030-Pat-IPCom-v-Lenevo.pdf "

81 Id. at 4.

82 Id. at 11.

83 *Koninklijke Philips NV v Xiaomi Inc & ors* [2021] EWHC 2170 (Pat), paragraph 9.

84 *United Kingdom: SEPs and FRAND – litigation, policy and latest developments*. (n.d.-b). https://www.iam-media.com/hub/sepfrand-

In July 2022, in Philips v. Oppo, Mr. Justice Meade granted an AASI against Oppo[85]. A significant factor was the Sharp v. Oppo case in China, where Oppo had obtained an ASI that ended German infringement proceedings. Despite Oppo's claim that it had stopped seeking anti-suit relief in Chinese courts, the judge found the evidence insufficiently convincing, particularly since Oppo proposed a seven-day notice to Philips before seeking any Chinese court relief that would affect the UK proceedings. This ambiguity suggested a potential threat of Oppo seeking anti-suit relief, which the court deemed vexatious and oppressive, as it would prevent a UK court from ruling on UK patent infringement. To respect comity, the court's order protected UK proceedings without restricting the Chinese courts' global rate-setting, leaving enforcement of such judgments unaffected[86].

Just like in the United Kingdom, IPCom proceeded against Lenovo before the French Court of Appeals for the grant of an AASI against the ASI application of Lenovo in the United States.[87] The Paris Court of First Instance (hereinafter the Paris Court) issued an AASI against the U.S subsidiaries of Lenovo and directed them to withdraw their ASI motion from the court at the United States as far as it related to IPCom's infringement action with respect to the French portion of the European patent.[88] The Paris Court invoked Article 835 of the Code of Civil Procedure which empowered the Court to issue directions for interim protection or corrective steps to stop a "*manifestly unlawful disturbance*".[89]

India

Recently India joined the list of countries which had issued

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hub/2023/article/united-kingdom-seps-and-frand-litigation-policy-and-latest-developments#footnote-14

85 *Koninklijke Philips NV v Guangdong Oppo Mobile Telecommunications Corp, Ltd & ors* [2022] EWHC 1703 (Pat).

86 Id at 84

87 "Cour d'appel [CA] [regional court of appeal] Paris, Mar. 3, 2020, 19/21426 (Fr.) https://www.cours-appel.justice.fr/sites/default/files/2020-03/3%20March%202020%20ICCP-CA%20RG%201921426%20EN.pdf ."

88 Id. at para 13.

89 Id. at para 9.

an AASI in a SEP litigation. The AASI was issued by the Delhi High Court (hereinafter the Delhi Court) in the famous case of InterDigital v. Xiaomi.[90] Interestingly this case had a Chinese connection as the initial litigation for determining the terms of a FRAND license was initiated by Xiaomi against InterDigital in China before the Wuhan Court in June 2020.[91] Against this InterDigital filed a patent infringement suit against Xiaomi in India before the Delhi Court in July 2020. Thereafter in August 2020 the Wuhan Court issued an ASI against InterDigital which inter alia directed InterDigital to withdraw the infringement proceedings before the Delhi Court and restrained InterDigital from filing any patent infringement suit against Xiaomi, before any courts in China or any other country.[92] InterDigital approached the Delhi Court in September 2020 for an AASI against Xiaomi. In October 2020 the Delhi Court granted an AASI against Xiaomi.[93] The Delhi Court was critical of the penalty imposed by the Wuhan Court on InterDigital if it continued the patent dispute in India. This according to Delhi Court directly negated its jurisdiction and infringed its authority to "*exercise jurisdiction in accordance with the laws of this country*".[94] Delhi Court made it very clear that no court can pass an order that has the effect of restraining a court of another country, to exercise jurisdiction which is vested in it in a lawful manner.

Subsequently in May 2021 the ad interim injunction was made final.[95] In the final order the Delhi Court observed that when the order passed by one sovereign country's court, without any valid justification, trespasses on the lawful enforcement of remedies by a litigant in another sovereign country, the latter country's court shall do everything to protect such violation on its jurisdiction.[96]

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90 Hereinafter InterDigital India, full text at https://indiankanoon.org/doc/118671167/

91 See InterDigital supra note 64.

92 InterDigital India supra note 64, at para 3.

93 Id, para 78. In October 2020 an ad interim injunction was issued.

94 Id. at para 76.

95 "Interdigital v. Xiaomi full text at https://indiankanoon.org/doc/159852349/"

96 Id. at para 90. In this case the Delhi Court used the term Anti Enforcement Injunction instead of Anti-Anti-Suit-Injunction

Interestingly the judge also opined that it would be a misnomer to refer "*anti-enforcement injunctions"* as "*anti-anti-suit injunctions*" and pointed out that the present case involving InterDigital was an Anti-Enforcement Injunction.[97]

Interplay between different jurisdictions for ASI and AASI

On the format of comity and jurisdictional principles, there still exists remarkable dynamism on how jurisdictions interact in the context of awarding Anti-Suit Injunctions (ASIs) in Standard Essential Patent (SEP) cases. In the U. S., the Microsoft v. Motorola case is an important one and it established the grounds for ASI, restraining Motorola from enforcing a German injunction based on a three-step test called the Gallo standard. This framework evaluates the parity of cross-party issues and concerns, the influence of the forum policy, and the permissibility of comity consequences. China has also issued ASIs, as witnessed in Huawei and ZTE cases to avoid enforcement of foreign injunctions that can hinder Chinese proceeding, asserting that incompatible decisions must not prevail and Chinese interest should prevail. There are complex differences in the approach used when it comes to ASIs in Europe. However, even if other UK courts have issued ASIs in certain FRAND cases, EU regulations do not allow the interference between member states where jurisdiction boundaries are concerned. French and German courts have exercised an Anti-Anti-Suit Injunction (AASIs) to balance the measures of non-EU ASIs, and uphold national and European legal provisions. Whereas in India ASIs have not been given out in SEP disputes, other case Cont pledged for ASIS by Indian courts but the course demonstrated prudence to avoid intrusion on foreign jurisdictions. This global reluctance to issue ASIs is evidence of the giant strides being taken to respect the principle of international comity and the need to avoid cross-jurisdictional conflict.

With respect to AASI also we can see a difference in different jurisdictions, ASI Is are used by countries such as United Kingdom, India and Germany to respond to ASIs. For instance, as

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97 Id. paras 76-80.

seen from the UK legal precedents, the courts have allowed AASIs to be granted to avoid the dilution or subversion of the domestic proceedings by other courts; this has been evidenced in cases such as IPCom v. Lenovo and Philips v. Oppo. Likewise, an AASI was granted by the French Court of Appeals in Lenovo's case in the U. S against the ASI application to assert IPCom's rights under a European patent. In India, in InterDigital v. Xiaomi, the Delhi High Court obtained an AASI to respond to an ASI in the Wuhan Court regarding the jurisdiction of patents cases.

These examples show that AASis are used to sustain the power of domestic courts in situations where foreign judicial actions are used to prevent their jurisdiction.

Conclusion

The phenomenon of globalisation along with the emergence of multi-national conglomerates have compelled us to take a re-look towards the various economic models that served us well for about a century. Such a re-look involves creation of a new economic structure which gives enormous importance to protection of Intellectual Property in general and its various categories like patents, copyrights in particular. Adding to the complexity of such a structure is the evolution of various communication technologies which have received universal acceptance. In order to protect the monopoly and maximise their wealth potential, patent owners enter into mass licensing schemes which are supposed to be fair and reasonable. Since the ownership in such cases refer to a technology standard the stakes are high on both sides and at least in some cases differences pave the way for disputes and disputes which remain unresolved later on become high profile litigations.

Presently all the major markets around the globe are witnessing numerous patent disputes pertaining to communication technologies and at least on some instances courts are overstepping their jurisdiction and intruding upon the jurisdiction of courts in other sovereign countries, by way of Anti Suit Injunctions. This paper gives an overview of the various judicial approaches taken by courts in the United States, China, France, India, the United

Kingdom etc and the manner in which they interface with the principles of comity, public policy and judicial sovereignty.

This paper is of the firm opinion that there should be a consensus driven approach taken at the global level to develop a comprehensive, time-bound and transparent mechanism to resolve all issues relating to SEP infringements, FRAND licensing commitments etc. Until that happens national courts should impose some self-restraints so that remedies like ASIs are not granted as a matter of right. To a great extent the stand taken by Indian judiciary reflects this minimalist approach and is definitely a welcome sign.

LEGAL AND BIOETHICAL INTRICACIES OF USING *IN SILICO* METHODS IN CLINICAL RESEARCH: NATIONAL AND CROSS-JURISDICTIONAL PERSPECTIVE

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"A theory has only the alternative of being right or wrong. A model has third possibility: it may be right, but irrelevant."

Manfred Eigen

Abstract

In clinical research, the researchers use computational techniques known as in silico methods to analyze different aspects of human biology. These experiments carried out with or on a computer have expanded its application to a novel and complex level. Today, there are various public and private research projects that allow the usage of personal computers to conduct experiments, and to do that, they share sensitive personal data of individuals. These data comprise genetic data of a person as well. Even though it helps in the utilization of computers, including idle personal computers, for purposes beneficial for improving the health and well-being of society through research, it ends up creating several legal and bioethical concerns. In silico methods use data drawn from a person's biological material that include his families and progenies personal data, and if he belongs to any indigenous community, his entire community as well. In

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that case the complexity of issues pertaining to the use of in silico methods as become worse. In India, the concerns arising out of the use of in silico methods in clinical research are currently governed through the grey areas of the existing laws and guidelines. A cross-jurisdictional study on the major contributors of in silico trials, such as the United States, the European Union, and Japan, will help to understand the regulatory initiatives taken by them to regulate and monitor the use of in silico methods in clinical research. In the absence of a comprehensive regulatory mechanism, the situation might result in legal uncertainty, exploitative practices, and violation of rights and ethical norms

Key Words: *In silico* methods, Human biological material, Legal and ethical concerns, Indian legislation, Cross-jurisdictional perspective

Introduction

Clinical research plays an integral part in expanding knowledge regarding medical science, drugs, devices, public health, and patient care. From the first documented clinical research in 1747 to the contemporary era of clinical research in 2025, it has undergone tremendous transformation. In the late 20th century, an innovative approach was introduced into the clinical research setting: *in silico* methods. They are scientific investigations conducted with the help of computer simulation instead of conducting the study on a living thing or their biological material. Computational technique is a simple and efficient technical way of analyzing or solving mathematical, scientific, geographical, geometrical, engineering, and statistical issues by using computers.[1] The goal of computational methods is to comprehend complicated social, biological, technological, and numerous other patterns and behaviors by applying new developments in computing, such as

[1] Moses Eterigho Emetere, *Introduction to Computational Techniques*, 54 *in* ENVIRONMENTAL MODELING USING SATELLITE IMAGING AND DATASET REPROCESSING 19 (2019), http://link.springer.com/10.1007/978-3-030-13405-1_2.

algorithms, models, simulations, and systems.[2] Simulation technique is a computer-aided approach using models to imitate the real-world systems or processes.[3] The simulation shows the different ways in which the model changes over time and under various conditions.[4] Computational and simulation methods play a significant role in understanding and analyzing the fundamental molecular pathways and processes that define human biology.[5] These techniques aid in having a better understanding of the process and elements that cause diseases, the effectiveness of treatment, and biological systems.[6] The ability to provide more insights into difficult and impossible theoretical and experimental studies makes computational modeling and simulation techniques more acceptable and crucial in scientific research.[7]

Computational modeling and simulation analysis helps to make sound clinical decisions that are essential for providing better health outcomes. Since they can replicate the biological process even at the cellular level, it is significant in studies relating to the physiological function and structure of human biological material. Computational techniques used in clinical research, such as mathematical models, statistical models, machine learning, bioinformatics, etc., are tools that are used to explain real-life problems in the form of mathematical equations, symbols, graphs, etc.[8] Today, scientists and researchers associated with medical and

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2 Computational research methods, Purdue university https://www.purdue.edu

3 Manjul Sharma & Subhadip Biswas, *Estimation of Passenger Car Unit on Urban Roads: A Literature Review*, 10 INTERNATIONAL JOURNAL OF TRANSPORTATION SCIENCE AND TECHNOLOGY 283 (2021); Edwin Frank, Joseph Oluwaseyi, Godwin Olaoye, Simulation Techniques, https://www.researchgate.net/publication/379652840_Simulation_Techniques (last visited Jul 15, 2024).

4 *Id.*

5 Catherine Bjerre Collin et al., *Computational Models for Clinical Applications in Personalized Medicine—Guidelines and Recommendations for Data Integration and Model Validation*, 12 JPM 166 (2022).

6 *Id.*

7 Roland R. Mielke et al., *Overview of Computational Modeling and Simulation*, *in* HEALTHCARE SIMULATION RESEARCH 39 (Debra Nestel et al. eds., 2019), http://link.springer.com/10.1007/978-3-030-26837-4_6.

8 Zhiwei Ji et al., *Mathematical and Computational Modeling in Complex Biological Systems*, 2017 BioMed Research International 1 (2017).

healthcare research widely use and depend on these kinds of techniques due to their reliability compared to the traditional approaches that are mainly based on observation and human experiences.[9] The simulation techniques, such as Molecular Dynamics (MD) simulation that helps to understand the physical movements of atoms and molecules in drug studies or studies relating to protein folding, pharmacokinetic or pharmacodynamic modeling that helps to predict how a drug behaves in the body, disease progression models, Monte Carlo simulation etc., are important tools in clinical research.

The rapid increase in technology has brought computers into the equation, and now there are a lot of techniques done just on computers. Today, the majority of computational and simulation techniques are designed by advanced algorithms and better-preforming computing systems. Regardless of the benefits provided by the *in silico* methods used in clinical research to the scientific realm and the healthcare of society, it poses several legal and ethical concerns, due to the technological complexities and the involvement of large volumes of data belonging to individuals, including their sensitive personal information. Recently, several jurisdictions, including India, the United States (US), and the European Union (EU), have recognized the importance of *in silico* methods in clinical research and taken the necessary initiative in regulating such methods. Despite their efforts, there still exist several issues that are not resolved. Taking into consideration the nuances and complexity posed by *in silico* methods, a proper study of such methods might help in addressing the current issues more effectively.

In-Silico Methods

In silico methods refer to an experiment conducted with a computer or on a computer. The term is derived from a Latin phrase "in silicon," refers to the material silicon used in computer chips. The term *in silico* was first used by Pedro Miramontes, a mathematician from the National Autonomous University of

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9 *Id*

Mexico.[10] He states that biological experiments carried out only through computers can be termed as "*in silico.*" These *in silico* methods include various tools and techniques, such as databases, homology modeling, machine learning, network analysis, etc., that use a computer.[11] In other words, scientific discoveries that are made using computer simulation rather than biological studies are referred to as *in silico* studies.[12] The beginning of *in silico* methods can be traced back to the early stage of computational biology.[13] Computational biology is a branch of biology that deals with the application of computers and computer science to understand and model the structures and processes of life.[14] Alan Turing, father of computing, uses computers in their early stage to a develop mathematical model that serves as the foundation for modern computing theory.[15]

As the technology progresses in the field of computer simulation, it helps the scientists to model biological processes and systems, drug development, personalized medicine, disease progression, etc., in a cost-effective and time-efficient manner. Recently, these techniques have drawn significant attention due to their ability to conduct computational and simulation techniques for clinical research even at home using personal computers.[16] Projects like Folding@home, Rosetta@home, the World Community Grid (WCG), etc., have developed software to utilize the idle processing powers of personal computers around the world to carry out

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10 Sarah Moore, what is in silico? https://www.news-medical.net/life-sciences/What-is-in-Silico.aspx#:~:text=It%20was%20used%20by%20mathematician,)%20and%20Danchin%20(1991).

11 S Ekins, J Mestres & B Testa, In Silico *Pharmacology for Drug Discovery: Methods for Virtual Ligand Screening and Profiling*, 152 BRITISH J PHARMACOLOGY 9 (2007).

12 Grant Beyleveld et al., *New-Generation Screening Assays for the Detection of Anti-Influenza Compounds Targeting Viral and Host Functions*, 100 ANTIVIRAL RESEARCH 120 (2013).

13 Britannica, Computational biology https://www.britannica.com/science/computational-biology

14 *Id*

15 New Scientist, Alan Turing, https://www.newscientist.com/people/alan-turing/

16 Grant Beyleveld et

computational and simulation techniques to understand biological processes and how the changes in these processes affect the health of a person and to develop new therapeutic techniques to cure diseases and other health conditions.

Legal and Ethical Concerns

In clinical research, the application of *in silico* method has provided significant insights into medical and health care research. The potential of *in silico* methods to comprehend our understanding and make predictions regarding biological processes, disease mechanisms, drug development, and effects of treatment to improve health outcomes is vital. It provides answers to numerous health challenges and improves the quality of life. Despite these merits, these methods pose certain legal and ethical concerns that cannot be avoided.

Data Privacy and Security

Clinical research that employs *in silico* methods for computational and simulation analysis uses computer systems, algorithms, software, databases or repositories, mathematical models, etc., to study and predict biological processes, drug discovery and development, disease modeling, personalized medicine, and other elements pertinent to improving the health of an individual. In order to do *in silico* analysis, sensitive personal data, such as genetic, proteomic, clinical, imaging, pharmacological, etc., of an individual is gathered from databases, literature, electronic health records, and other data sources. In this digital age, protection of personal and sensitive data against unauthorized access, privacy violation, sharing, modification, and destruction is of serious concern.

Every person has the right to have control over their personal data and to decide who should and should not have access to it. Securing sensitive data in cyberspace has become challenging due to the increased volume of data, advancements in techniques, AI, poor security practices, and lacunas in existing laws. The common form of data privacy violation in the *in silico* method is unauthorized

access to the data of a person.[17] Inadequate anonymization, improper data sharing and security measures, software malfunctioning, etc., are serious threats to the protection of sensitive data. Even though there is a rapid development in technology, there is no technology in place that ensures complete anonymization of data.

It is significant to give consideration to the data sharing medium of *in silico* analysis, no person other than the authorized one could have access to it. The issue of data privacy and security arises when the data is given to an unqualified person or to a computer system that was not designed to safeguard such sensitive data. Furthermore, the existence of scientific computing platforms that persuade people by saying that "anyone can be a scientist" or "citizen scientist" to perform *in silico* analysis may result in data exploitation, inaccurate results, issues of informed consent, accountability, liability, and risk of other harm. Since such practices may lead to ethical, legal, and scientific concerns, an in-depth evaluation of their risk is necessary.

When conducting *in silico* analysis with computers and software, the concern of malfunctioning or hacking into the computer system and its resources with the intention of causing harm to participants or influencing the legitimate purpose of the research is a serious issue. Such practices might impact the integrity of data, the validity of findings, intellectual property theft, public health implications, and privacy. Intellectual property theft, a growing concern in this regard, occurs either due to unauthorized access or misappropriation of the protected data or software that is shared with a person who is going to conduct research. When researchers misuse their position to commit such an act for commercial, academic, or any other competitive gain, it can lead to privacy breaches and distrust towards the entire research community and the government, which are responsible for ensuring such safety. The occurrence of such unlawful acts while using *in silico* methods

[17] Gabriel Arquelau Pimenta Rodrigues et al., Understanding Data Breach from a Global Perspective: Incident Visualization and Data Protection Law Review, 9 DATA 27 (2024).

in clinical research needs instant attention.

Informed Consent

The informed consent process is an integral component in clinical research involving human subjects or their biological material.[18] The participant should be fully aware of the study to which they provide the consent. The shift from traditional method to modern methods like *in silico* posed a challenge regarding the significance and validity of the informed consent process. The existence of several public and private research projects that allow people to use their personal computers to conduct *in silico* analysis even at home raises serious ethical and legal concerns. In such projects the only requirement is to download software from their website. When the required software is downloaded, anyone with a computer across the globe can conduct testing utilizing these methods. People to whom the participant have given consent may not be the one who conduct the study. Making people aware of the complexity of *in silico* studies and the involvement of people from various fields in such studies is a difficult task. The complexity of informed consent procedures increases when these studies are conducted on pre-acquired data of a person rather than on a newly collected one. The involvement of public repositories as a source of data to be used for *in silico* analysis is another challenge.

The participant or patient whose data is being used in clinical research should be properly informed about the risks and limitations of using *in silico* methods, including potential errors, malware in software, and other associated issues. Since *in silico* method is mostly used for diagnosis and to determine a suitable treatment plan, they should be aware of the possible risks and benefits before making a sound decision about providing consent. The current informed consent procedure is currently insufficient to regulate *in silico* methods used in computational and simulation techniques done through computers. A more comprehensive informed consent process is necessary to monitor *in silico* methods used in clinical

[18] Umesh Chandra Gupta, Informed Consent in Clinical Research: Revisiting Few Concepts and Areas, 4 PERSPECT CLIN RES 26 (2013).

research that involves sensitive personal information of an individual. The autonomy of the patient should be given more importance, and necessary steps should be taken by all the research institutions and other stakeholders in this regard.

Ownership and Patent Protection

In recent times, the question of ownership is the most frequently debated area in the legal realm. When human biological material data contained in databases, electronic health records, etc., are obtained to conduct *in silico* research, the question of who owns the data, *in silico* techniques and tools, and the outcome of such study is a serious query that needs immediate attention. The ambiguity over ownership rights leads to concerns over patentability, copyright infringement, and trade secret misappropriation. The issue of who owns the human biological material that is separated from the human body for research is still widely contested. In several jurisdictions, personal property rights over human biological material have been denied based on the doctrine of *res nullius*.[19] In another verdict, the court held that 'when samples are collected for research purposes, the university will have the ownership, not the patient or the doctor who initiated the collection for research.'[20] It is an unusual conclusion to mention that the same thing is treated in a difference way when it is inside the body and taken out of it. The recognition of the intrinsic value of a person should be extended to their biological material also. Since the ambiguity over ownership of human biological material separated for research persists, the dispute over who owns the data derived out of such human biological material is yet to be determined.

A patentable subject matter should possess certain conditions: novelty, inventive step, industrial utility, and should not fall into the excluded category of inventions. With respect to the results drawn from *in silico* research, if research is entirely

[19] Moore v. Regents of The University of California (1990) 51 Cal. 3d 120.
[20] Washington University v. Catalona (2007) 490 F.3d 667.

conducted with *in silico* tools and pre-existing data, then will they be patentable? If they are patentable then, who will own such patent? In several ways, an invention that depends exclusively on *in silico* methods might not satisfy all the conditions for patentability. In respect of patenting the *in silico* method itself, the most common challenge while patenting is in regard to the component of novelty and non-obviousness. Mere mathematical methods, computer programs or algorithms are not subject matter of patents. But if they are incorporated into some new technical process or hardware that exhibits a technical effect, then they become eligible for a patent. However, the emergence of AI in these fields cannot be unseen, and a room to incorporate such technologies in the legal system is necessary. On the other hand, patents for inventions or final products that are created by using existing data and *in silico* methods, the major challenge is in proving novelty, inventive step, industrial application, and there is no breach or violation of any legal rights while developing such an invention. Firstly, the person claiming a patent has to prove that his or her invention is not entirely dependent on existing data and methods or their modified versions. Secondly, if they use pre-existing data and techniques, they should prove that their work is different from the pre-existing one in all aspects, including technicality. Since most of the inventions originate from existing knowledge in some way or other, the incorporation of existing data and tools itself is not a limitation to deny a patent. Finally, the person claiming a patent has to prove that they have complied with all documentation regarding the permission, license agreements, etc., to prove that they have not violated any rights or protection provided to an individual while collecting and using data and tools in their invention process. They have to confirm that the databases they used were publicly available or, if they are private databases, then they have to obtain a license for using such data.

The question regarding who owns such a patent is another cardinal point to be discussed. Since *in silico* analysis involve volunteer-led platforms, if a volunteer led to an invention, a complex challenge over inventorship will arise. In the case of the invention of a product or a process, the involvement of human biological material and data is itself a complicated concern. Because in such inventions, including the ones that employ *in silico* methods, the

question of ownership and inventorship will point towards several stakeholders. In the case of ownership, among several stakeholders such as the person from whose biological material the data has been originally collected, the person who initiated the collection, researchers, scientists, clinical practitioners, research institutions, or sponsors, who should be considered an owner? The person who donates their human biological material or provides informed consent to obtain data from their human biological material for research purpose is not considered as owners because the final product contains only the processed form of their donated material and not the actual material itself. In this regard, only the research institution, research organizations, and sponsors of the research studies who put their skill, knowledge and recourses are considered as owners in the legal realm. Researchers or scientists who conduct the research are rarely considered as owners when they are either independent or carry out the invention on the basis of certain agreement conditions. With respect to inventorship, a person can be regarded as an inventor only when he or she has made an intellectual contribution to the final outcome of a scientific study.[21] Therefore, a person whose contribution is limited to suggestions, consultation on technological know-how, financial contributions or technical performance of the experiments cannot be considered as an inventor. If a volunteer has done any *in silico* simulation or analysis independently and beyond the instruction given to him or her, and if that input results in an invention, then he or she has a right to claim inventorship. But the ownership of the patent will be determined by the agreements between the volunteer and employer under which he performed the task. However, the formation of tests and conditions to determine the inventorship of volunteer-led programs is necessary to get more legal clarity. However, a true and first inventor will be the one who first files the patent application.

Copyright Infringement and Trade Secret Misappropriation

Copyright infringement is another common concern in the utilization of human biological material data stored in databases for conducting *in silico* research. These databases contain both raw and

[21] N*ational Institute of Virology* v. *Mrs. Vandana S. Bhide*,581 /BOM/ 1999

processed data. Raw data are usually not eligible for copyright protection unless they are processed, arranged, and exhibited in a particular manner. Processed data might get copyright protection if they satisfy the required condition specified in law. Data available in public databases will not be under copyright protection because they enter the public domain because of expiration of copyright, failure of the renewal process, or voluntary placement. But the reuse of such data depends on the policy agreement governing such databases. Private databases on the other hand, might have more stringent policies. The extent of 'fair dealing' and 'fair use' of data and in silico methods is an essential element to be looked into while using such platforms for conducting clinical research to ensure research integrity and compliance with regulatory frameworks. If copyrighted data is being used, it leads to violation of the rights of the owner who obtained such protection over his or her work.

Several in silico methods and tools are protected under the category of trade secret; violation of a non-disclosure agreement leads to both civil and criminal liability. An entire research study might get affected if in *silico* methods protected under intellectual property rights are used without authorization or used beyond the agreed conditions. The unauthorized use or misuse of data and *in silico* methods that are protected as trade secret leads to trade secrets infringement. All these violations affect not only the research itself but also all the people associated with such research. It ultimately affects the scientific progress and legal order of society.

Validity and Transparency

In clinical research involving human subjects or their biological material, adherence to ethical values is important. Since these techniques are used to understand the real-world situation in mathematical or statistical terms, the validity of such results needs to be assessed. There should be a mechanism to evaluate the results obtained through such techniques. The real-world situations are more complex; therefore, whether these techniques can replicate the complex issues poses a serious ethical consideration. Since most medical and health care decisions depend on their result, the evaluation of the accountability of this method is essential.

Transparency in research is another important factor.[22] People should know about the research techniques, validity, purpose, risks, and benefits associated with these techniques. Many of the computational and simulation techniques used in clinical research are not transparent. The use of personal data of an individual in this analysis emphasizes the need for transparency even more. At present, there is a lack of transparency in the development, usage, validation, safety, reliability, and efficacy of *in silico* methods. The risk of misrepresentation and corrupted techniques are other concerns of these methods. If the algorithm or any other technical malfunction happens, it will affect the results, thereby the lives of the people. There is a need for ethical guidelines to regulate all the activities regarding *in silico* methods to ensure the safety of the patients and to uphold the integrity of the research.

Infringement on Basic Bioethical Principles

Compliance with bioethical principles is crucial in medical and healthcare research involving human participants. The four fundamental principles of bioethics, such as autonomy, beneficence, non-maleficence, and justice, are important in upholding the rights and dignity of research participants. Currently, the utilization of *in silico* methods in clinical research has led to certain infringements of bioethical principles due to the lack of proper governance over it. Inaccurate results, privacy violations, etc., are considered violations of the principles of beneficence and non-malfeasance. Taking into consideration the technological complexity of *in silico* methods, the concentration of such methods into certain groups of people might lead to the violation of the principle of justice.

India's Regulatory and Bioethical Regime

India has always given importance to medical and health care research. Recently, there has been a tremendous increase in the use of computational and simulation techniques in clinical research. In India, such techniques are governed by the gray areas of existing

[22] J. André Knottnerus & Peter Tugwell, Promoting Transparency of Research and Data Needs Much More Attention, 70 JOURNAL OF CLINICAL EPIDEMIOLOGY 1 (2016).

laws and guidelines that regulate clinical research, medical devices, data protection, privacy, and drug development. The absence of a comprehensive regulatory mechanism pertaining to *in silico* techniques creates a challenge, as the laws are scattered among several statutes, reflecting a dearth of concern over this method.

In India, the Drugs and Cosmetics Act of 1940[23] and the Drugs and Cosmetic Rules of 1945[24] govern the manufacturing, sale, distribution, import, and export of drugs and cosmetics. Schedule Y of the Rule of 1945 provides criteria for conducting clinical trials in India.[25] According to this schedule, all the laboratories and other facilities used to generate data for clinical research must adhere to Good Laboratory Practices (GLP),[26] and it also states that prior to the trial, approval from the licensing authority is required for sending samples to a laboratory outside of the nation.[27] The *in silico* methods used in clinical research can be conducted at any place, and they don't require a laboratory to do the processing. There are several computational and simulation projects that utilize the idle processing power of personal computers to conduct such processes. Providing personal and sensitive information about an individual in such a manner raises concerns about data privacy and confidentiality. The question of whether a home can be classified as a laboratory or as another type of facility, and if it does, what standards or procedures need to be adhered to is a serious concern. The definition provided for the term 'laboratory'[28] is not adequate to understand what constitutes a laboratory or what are the criteria to consider a place as a laboratory. The validity of the findings also raises questions since some of such research is not conducted by a qualified scientist. The schedule further states that it is the responsibility of the clinical trial sponsor to implement and maintain the quality assurance system to make sure that the trial is conducted and documented in accordance with

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23 Herein after referred as the D&C Act of 1940.
24 Herein after referred as the Rules D&C of 1945.
25 The Drugs and Cosmetic Rules, 1945, Sch. Y.
26 The Drugs and Cosmetic Rules, 1945, Sch. Y 2(1)(ii).
27 *Id.*
28 The Drugs and Cosmetic Rules, 1945, Rule 2 (e).

the protocols and guidelines.[29] The instances of the usage of personal computers for computing and simulation processes raises the concerns over the sponsor's accountability in such cases. The investigator who runs the clinical trial is also responsible for conducting the studies according to the protocols and guidelines.[30] An undertaking by the investigator is required before conducting the research.[31] In such situations, how can someone who conduct *in silico* methods at home, who is not qualified to comprehend the guidelines or protocols of research, be eligible to conduct such a major study? When someone downloads software or an application to conducts *in silico* studies, they typically accept the conditions of the application without going through the instructions. Conducting crucial studies that involve people's sensitive data in such an unprotected manner is unacceptable and should be considered irresponsible.

The *in silico* techniques that are considered to use in clinical research, as well as any potential ethical issues that may result from their application, must be evaluated by the ethics committee. The data that is required to be submitted for acquiring permission to conduct clinical studies must mandate inclusion of a detailed description of these techniques and the way in which data should be shared. Schedule L-I of the Rule, that deals with Good Laboratory Practices and Requirements of Premises and Equipment has given a description about what falls within the category of "raw material."[32] It states that software falls under the category of raw material. The schedule specifies that data handling may be done through a computerized system, and features of this kind are to be incorporated into the Standard Operating Procedure (SOP).[33] Schedule M-III of the Rule that deals with Quality Management Systems for Notified Medical Devices and *In-Vitro* Diagnostics specifies conditions that need to be followed by the manufacturers of medical devices and *in-vitro* diagnostics for a quality management system. This schedule states that software is a

29 The Drugs and Cosmetic Rules, 1945, Sch. Y 2(2)(i).
30 The Drugs and Cosmetic Rules, 1945, Sch. Y 2(3)(i).
31 The Drugs and Cosmetic Rules, 1945, App. VII.
32 The Drugs and Cosmetic Rules, 1945, Sch. L-I, 15.
33 The Drugs and Cosmetic Rules, 1945, Sch. L-I, 13 (b) (iv).

component that can be included as a part of a medical device[34] and as process equipment.[35] In order to ensure the quality and efficacy of the product, software validation and risk analysis need to be done.[36] When manufacturers apply computer software for validating the product, there is a need to establish documented procedures for the application.[37] In the case of monitoring and measuring devices, the potential of the computer software needs to be ensured.[38] A proper definition and criteria for software, computational and simulation methods were not provided in the D&C Act or the Rule. The SOP that provides the detailed description of the entire procedure to be done in clinical trials doesn't have a provision regarding computational and simulation techniques and how to handle them. The data generated through such techniques, transferred for the application of such techniques, and the individual who will be accountable for its misuses need to be stated clearly. Compensation and other remedies for violation of privacy and misuse of data need to be determined. There is certain limitation for providing *in silico* methods more consideration, as this legislation was solely created to address the matters relating to drugs and cosmetics. A more comprehensive regulation is required since the present and potential applications of *in silico* technologies are not limited to drug development.

The New Drug and Clinical Trial Rules of 2019 have undergone certain amendments in 2023, and they include 'sophisticated computer modeling' as one of the acceptable non-clinical testing methods that can be used to assess the safety and efficacy of new drugs or investigational new drugs in India.[39] This amendment has been introduced as an initiative towards creating an alternative mechanism to the time-consuming human or animal testing and to recognize the use of *in silico* methods that have already been in use.

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34 The Drugs and Cosmetic Rules, 1945, Sch. M-III, 3.6.
35 The Drugs and Cosmetic Rules, 1945, Sch. M-III, 6.3(c).
36 The Drugs and Cosmetic Rules, 1945, Sch. M-III, 7.3.6.
37 The Drugs and Cosmetic Rules, 1945, Sch. M-III, 7.5.2.1.
38 The Drugs and Cosmetic Rules, 1945, Sch. M-III, 7.6.
39 Ministry of Health and Family Welfare, The New Drugs and Clinical Trials (Amendment) Rules, 2023, G.S.R. 175(E) (Issued on March 9, 2023) (India).

The Indian Council for Medical Research (ICMR) is the apex authority supporting biomedical, social and behavioral science research for health in India. The ICMR National Ethical Guidelines for Biomedical and Health Research involving Human Participants[40] of 2017 provides an ethical framework that needs to be followed in research involving human subjects or their biological materials and data. The guideline was established to ensure that the research is conducted in an ethical manner and to uphold the rights and welfare of the participants. The principle of ensuring privacy and confidentiality is included in this guideline and states that information related to participants should be kept confidential and no person other than an authorized one should have access to such data.[41] It further states certain conditions under which privacy of the information can be breached in consultation with the Ethics Committee (EC).[42] This guideline also stipulates that it is the responsibility of the researcher, research team or organization to secure the information from unauthorized access, use, disclosure, modification, loss, or theft.[43] Certain information that is sensitive in nature should be protected to avoid any kind of discrimination.[44] Researchers, EC, and all other stakeholders associated with research should take due care to minimize the risk, and appropriate compensation should be given if any harm occurs.[45] The principle of professional competence has been given adequate importance and included as one of the general principles to be followed while conducting the research.[46] The competency of the person who is conducting the research in terms of qualification, experience, and training is always crucial. The guideline makes it clear that researchers must adhere to their own professional codes of conduct.[47] The question is, what code of conduct may an ordinary

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40 Herein after referred as the ICMR Guideline of 2017.

41 Indian Council of Medical Research, National Ethical Guidelines for Biomedical and Health Research Involving Human Participants, 1.1.5 (Issued on August 30, 2017).

42 ICMR Guideline of 2017, *supra* note [38], at 1.1.5.

43 ICMR Guideline of 2017, 2.3.

44 ICMR Guideline of 2017, 2.3.4.

45 ICMR Guideline of 2017, 1.1.6.

46 ICMR Guideline of 2017, 1.1.7.

47 ICMR Guideline of 2017, 3.2.1.

person be expected to adhere to if they conduct research using *in silico* methods in projects like Folding@home?

The infrastructure of the institution or the place where the research is carried out is also important.[48] Institutions should have policies of their own to facilitate responsible research. Research must be conducted in a fair, honest, impartial, and transparent manner to guarantee accountability.[49] The data and methods used in research, declaration of conflict of interest, keeping the records for external verification, etc., ensure transparency and accountability in research.[50] Data sharing is important in research, and it is stated that published experiment results are expected to be publicly available for other researchers to review and utilize.[51] The words "expected to" create an uncertainty about whether these data are freely available, as well as about the extent to which they can be used in other research work. In such cases, data that is shared or made available to the public in a de-identified or anonymized form requires permission or consent.[52]

The informed consent process is one of the important components in responsible research. This guideline has recognized the ethical concerns surrounding these procedures and specifies the certain steps to take when getting informed consent.[53] In addition, a detailed provision regarding informed consent has been provided in this guideline, which explains the documentation of informed consent, electronic consent, waiver of consent, re-consent, etc.[54] These two provisions address the voluntariness of participants in providing their consent, and they fail to address issues regarding obtaining informed consent for *in silico* research or data sharing for such research and the use of personal computers in these research

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48 ICMR Guideline of 2017, 1.1.9.

49 ICMR Guideline of 2017, 1.1.10.

50 *Id.*

51 ICMR Guideline of 2017, 3.3.2.

52 Indian Council of Medical Research, National Ethical Guidelines for Biomedical and Health Research Involving Human Participants, 3.3.2 (Issued on August 30, 2017)

53 ICMR Guidelines, *supra* note [38], at 2.2 & 2.2.1.

54 ICMR Guideline of 2017, 5.

and the involvement of a common man in such research as an investigator. The question of how and from whom informed consent needs to be obtained in cases where research uses data from information repositories that are open to the public and other publicly available resources for study purposes raises other concerns that need to be addressed.

Collaborative research has gained tremendous attention and acceptance in recent years due to the complexity of contemporary scientific issues that constantly require interdisciplinary or multidisciplinary approaches.[55] The guideline states that in conducting collaborative research, researchers should be aware of all procedures pertaining to approvals, memorandums of understanding (MoUs), material transfer agreements (MTAs), and EC approval of collaborating institutes at local, national, and international levels.[56] The obligation to be aware of these procedures should not be limited to researchers. The research sponsors, research institutions, organizations, and other stakeholders should also be responsible in this regard.

The term "device trial," defined in the guideline, has included software to be considered as a medical device.[57] Other than the inclusion of software in the definition of device trial, no other efforts have been taken to recognize the technological advancement that has taken place in the computational and simulation techniques used in clinical research. Since this guideline is most widely followed in any research that involves human subjects or their biological materials, the recent advancement must be taken into consideration to protect the participant and to enhance the integrity of the research practices.

The Information Technology Act of 2000[58] is a comprehensive legislation that deals with emerging concerns of the cyberworld. It can be inferred from the various definitions provided

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55 Seema Bansal et al., *Collaborative Research in Modern Era: Need and Challenges*, 51 INDIAN J PHARMACOL 137 (2019).

56 ICMR Guidelines, *supra* note [38], at 3.8.

57 ICMR Guideline of 2017, 7.7.

58 Herein after referred as the IT Act.

by the Act that software can be considered as a computer,[59] computer resources,[60] and information.[61] The use of computers in computational and simulation techniques cannot be unseen, and the concerns it raises. The utilization of computers and computer software for clinical research has made it more easily accessible to any person in the world by just joining websites. The processing of the data of an individual by transferring them to several people through a website or application raises the concern over the protection of data.

Cybercrimes are offenses that are committed with the aid of computers and the internet.[62] *In silico* methods mainly rely on computers and computer software's that makes them more exposed to cyberattacks. The IT Act defines and penalizes numerous cybercrimes relating to data breach and privacy of an individual. The provisions of the IT Act can be used to regulate the criminal activity that occurs when employing *in silico* methods in clinical research. The provisions, such as tampering with computer source,[63] penalty for causing damage to computer and computer system,[64] failure to protect data,[65] identity theft,[66] breach of confidentiality and privacy,[67] dishonestly receiving stolen computer sources,[68] etc., to a certain extent help to regulate the present technology. Taking into consideration the sensitive nature of a person's data and the way in which it can be utilized in *in silico* methods, a more comprehensive approach is necessary. Adequate cybersecurity measures have to be taken by research institutions and other stakeholders associated with *in silico* studies. Other than unauthorized access, data manipulation, and privacy violation that

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59 The Information Technology Act, 2000, § 2(1).
60 IT Act, § 2(k).
61 IT Act, § 2(v).
62 Asst. Prof. at Sutex Bank College of Computer Applications & Science,Amroli, Surat,Gujarat - 395009 & Kejal Chintan Vadza, *Cyber Crime & Its Categories*, 3 IJAR 130 (2011).
63 The Information Technology Act, 2000, § 65.
64 IT Act, § 43.
65 IT Act, § 43 A.
66 IT Act, § 66 C.
67 IT Act, § 72.
68 IT Act, § 66 B.

affects the data of a person. A proper efficiency check of the software or techniques used to conduct such computational and simulation analysis is necessary to ensure the reliability of the results. The studies with *in silico* methods need to be protected from malicious software.

In India, copyright protection is regulated by the Copyright Act of 1957. According to the provisions of the Act, copyright infringement occurs when a person without a license from the copyright owner or Registrar of Copyrights, or in breach of license conditions, does something that can only be done by the owner of the copyright;[69] communicates the work in public for commercial benefit;[70] makes, sells or offers to sell, hires, displays, distributes, or imports infringing copies.[71] India follows the doctrine of "fair dealing," where the reproduction of copyrighted material without the permission of the copyright owner is not considered infringement. The act provides a list of exceptions under which the doctrine applies. According to its provision, any work, not being a computer programme, that can be used for both private and personal purposes, including research, criticism, review, and reports of current events and affairs, including lectures.[72] The protection under fair use won't be available to a person if he or she downloads copyrighted software to modify, redistribute, or commercially exploit it without authorization.[73] A person can also make copies and adaptations of a computer programme but only for personal, non-commercial use.[74] Therefore, when a person or a research team engages in research work, they should obtain legal authorization or a license before using, copying, or distributing data, literary works, software, and other relevant information needed for their studies that are under copyright protection before incorporating them into their studies. The failure to do so will be considered as an offense under the Act, and the person who commits such an infringement shall be liable to punishment.

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69 The Copyright Act, 1957, § 51(a)(i).
70 The Copyright Act, 1957, § 51(a)(ii).
71 The Copyright Act, 1957, § 51(b)(i), (ii), (iii), & (iv).
72 The Copyright Act, 1957, § 52(1)(a).
73 The Copyright Act, 1957, § 52(1)(aa).
74 The Copyright Act, 1957, § 52(1)(ad).

The Patent Act of 1970 was enacted for encouraging innovation and protecting the rights of inventors. According to this Act, to consider a product or process an invention, it should be new, involve an inventive step, and be capable of industrial application.[75] The Act also provides a list of inventions that cannot be considered as patented.[76] Under this Act, computer programs *per se* or algorithms are considered as non-patentable subject matter.[77] In respect of computer-related invention (CRI), the concept of "technical effect" has gained attention lately. If an invention exhibits a certain technical effect, it becomes patent eligible and will not be prohibited under s.3(k) of the Act.[78] Recently, in 2023, the Delhi High Court comprehensively discussed s.3(k) of the Act, the inclusion of "per se," and CRI guidelines and held that an invention will not become non-patentable just because it merely involves a mathematical method or computer programme.[79] With respect to the patent, which is the outcome of research conducted with the help of *in silico* analysis, it will undergo the same procedure as any other invention, and if it fulfill the necessary criteria, it will get a patent. A patent can be applied for only by the true and first inventor, the assignee of the inventor, and the legal representative of the deceased inventor.[80] A clear definition for the term 'inventor' is not provided in the Act, and also the existing definition for the term 'true and first invention' needs clarity. The incorporation of AI in clinical research as well as in silico tools is emerging. The recent DABUS case has sparked the discussion about AI as an inventor.[81] India only recognizes 'person' as an inventor.[82] In this changing scenario, the determination of the legal status of AI seems necessary.

The Digital Personal Data Protection Act[83] of 2023 was

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75 The Patent Act, 1970, § 2(1)(j).

76 The Patent Act, 1970, § 3.

77 The Patent Act, 1970, § 3(k).

78 Ferid Allani v. Union of India & Ors., 2020 (81) PTC 561 (Del)

79 Microsoft Technology Licensing, LLC v. Assistant Controller of Patents and Designs**,** 2023 DHC 3748.

80 The Patent Act, 1970, § 6.

81 Thaler v. The United States Patent & Trademark Office Case No. 1:20-cv-00903

82 The Patent Act, 1970, § 2(1)(p).

83 Herein after referred as DPDP Act.

enacted to ensure the protection of personal data or information of an individual in digitalized form. This piece of legislation has a significant role to play in this technologically advanced era. Most of the data used in the *in silico* method is digitalized. The results acquired through such techniques are also stored in the same way. The terms "personal data"[84] and "personal data breach"[85] were defined clearly in the legislation. Any person can process personal data of a person in accordance with the provisions of the Act for lawful purposes.[86] For processing the data, the consent of the person is essential.[87] Processing of data or transferring of data outside the country has been given special mention,[88] but the transfer of data through software applications to conduct *in silico* research or the use of *in silico* methods to conduct data analysis needs to be addressed. Software can be installed by any person around the world, and they can conduct the research with the data shared through such software. The data shared through such software will belong to an individual who is not the citizen of the country. In such cases, the existing provision won't be enough to regulate these criminal acts. There remains certain ambiguity over data sharing processes in the Act.

The DPDP Act has established a Data Protection Board of India[89] an independent body to oversee the compliance of the Act and to protect the personal data of an individual from privacy violations and other data breaches. The Act fails to specify the potential risks, harm, or offenses that may arise from data breaches. Even though it provides protection to the privacy of an individual, it still fails to recognize the importance of genetic data and biomedical or clinical research data that is stored in digital form. Genetic data of a person is very sensitive, and several advancements are emerging to analyze these materials to improve the health outcomes of the people. The newly emerging technologies in clinical research and their application need to be taken into consideration. The computational and simulation techniques done with the help of

84 The Digital Personal Data Protection Act, 2023, § 2(t).
85 DPDP Act, § 2(u).
86 DPDP Act, § 4(1).
87 DPDP Act, § 4 (1)(a).
88 DPDP Act, § 16.
89 DPDP Act, § 18.

computers are useful tools in clinical research, and therefore such advancements should receive more attention.

The Medical Device Rules of 2017 were formulated to regulate the manufacturing, sale, distribution, and import of medical devices. The rule has classified medical devices into various categories according to their risk factors. It has ensured the safety and efficacy of the newly developed medical devices to protect the health of the people. The definition provided for the term medical device in this rule has incorporated the phrase 'substances used in *in-vitro* diagnosis,' but there was no clear explanation of what these substances are.[90] Due to this, there exist an ambiguity in considering computational and simulation procedures, methods or tools, as medical devices. Whether *in silico* methods used in clinical research falls into the category of medical device or not is a question that need immediate attention.

An Overview of the Legal and Bioethical Framework in the United States, European Union, and Japan

The United States

The *in silico* clinical trial market is expected to increase at an annual compound growth rate (CAGR) of 7.95% from 2025 to 2032.[91] Among the North American countries, the U.S. holds the highest shares.[92] In the U.S., the Food, Drugs and Cosmetic Act of 1937 regulates the production, sale, and distribution of foods, drugs, medical devices, and cosmetics. In the recently enacted FDA Modernization Act 2.0 of 2022, the U.S. Food and Drug Administration (FDA) has recognized *in silico* clinical trials as an alternative to animal testing in the pre-clinical stage.[93] In 2023, a

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90 The Medical Device Rules, 2017, Rule 2 (zb).

91 In Silico Clinical Trials Market, Coherent Market Insights, https://www.coherentmarketinsights.com/market-insight/in-silico-clinical-trials-market-5608(last visited June 3, 2025).

92 In Silico Clinical Trials Market Report, Grand View Research, https://www.grandviewresearch.com/industry-analysis/insilico-clinical-trials-market-report (last visited June 3, 2025).

93 Jason J. Han, *FDA Modernization Act 2.0 Allows for Alternatives to Animal Testing*, 47 ARTIFICIAL ORGANS 449 (2023).

guidance document for industry and FDA staff's on Assessing the Credibility of Computational Modeling and Simulation in Medical Devices Submission were issued by the FDA. It provides a general risk-informed framework for evaluating the credibility of *in silico* methods used in medical device submissions. The recommendations provided in this document have no binding effect. Taking into consideration the evolving nature of *in silico* methods, the guidance document states that it won't provide recommendations for creating a virtual cohort or how to execute an *in silico* clinical trial.[94] Recently, in April 2025, the FDA announced its significant decision to phase out the animal testing requirement for monoclonal antibodies and other drugs with other human-relevant alternative methods such as AI-based computational models, cell lines, and organoids.[95] The initiative put forth by the U.S. is remarkable. They are aware of the potential of *in silico* methods in the future clinical research setting and are taking necessary measures to govern them. In addition to legal regulatory measures, ethical guidance is also necessary in this situation. As the technology progresses, significant changes have to be incorporated in other associated legislation as well for better governance.

European Union

In the European Union (EU), the Regulation No. 536/2014 is the major legislation that governs interventional clinical research.[96] There are certain other regulatory instruments used to govern clinical research on human biological materials and associated data, such as, the Convention for the Protection of Human

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94 U.S. Food & Drug Admin., *Assessing the Credibility of Computational Modeling and Simulation in Medical Device Submissions: Guidance for Industry and Food and Drug Administration Staff* (2023), https://www.fda.gov/media/154985/download.

95 Press Release, U.S. Food & Drug Admin., *FDA Announces Plan to Phase Out Animal Testing Requirement for Monoclonal Antibodies and Other Drugs* (Apr. 10, 2025), https://www.fda.gov/news-events/press-announcements/fda-announces-plan-phase-out-animal-testing-requirement-monoclonal-antibodies-and-other-drugs.

96 Regulation (EU) No. 536/2014 of the European Parliament and of the Council of 16 April 2014 on Clinical Trials on Medicinal Products for Human Use, and Repealing Directive 2001/20/EC, 2014 O.J. (L 158) 1.

Rights and Dignity of the Human Being with Regard to the Application of Biology and Medicine of 1997 and its Additional Protocols of 1998, 2002, 2005, and 2008; the EU Tissue Directive-Directive 2004/23/EC; Regulation (EC) No. 1394/2007; and the General Data Protection Regulation (GDPR) of 2016. These regulations have not explicitly recognized the use of *in silico* methods in clinical research. However, the ban on animal testing for finished cosmetic products in 2004 compelled the EU to find out alternative measures that include *in silico* methods.[97] In 2020, a report on "the legal and ethical review of *in silico* modelling" was submitted by the European standardization framework for data integration and data-driven *in silico* models for personalized medicine (EU-STANDS4PM). The report states that the data used in *in silico* methods are gathered from several sources, that makes the involvement of regulations of several fields at different levels, including international, regional, national, and institutional.[98] The report also delves into the concerns such as autonomy, data protection, transparency, and confidentiality.[99] The European Medicines Agency's (EMA) 'Regulatory Science to 2025' strategy, published in 2020, has recommended the promotion of *in silico* methodologies in both human and veterinary medicines.[100] The EU's pharmaceutical reforms proposal of 2023 has mentioned that the *in silico* methods can be incorporated under the category of "New Approach Methodologies" in the Directive 2010/63/EU.[101]

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97 EcoMundo, EU and UK: Animal Testing Bans in Cosmetics and Ethical Challenges, ECOmundo (Oct. 21, 2024), https://ecomundo.eu/en/blog/animal-testing-bans-europe.

98 EU-STANDS4PM, *Legal and Ethical Review of In Silico Modelling – Compact Version* (Sept. 2020), https://www.eu-stands4pm.eu/lw_resource/datapool/systemfiles/elements/files/B0844A7BCA055417E0537E695E86F6F8/live/document/D3-1_V1_Sep2020_compact_public.pdf.

99 *Id.*

100 European Medicines Agency (EMA), *EMA Regulatory Science 2025: Strategic Reflection* (Dec. 17, 2020), https://www.ema.europa.eu/en/documents/regulatory-procedural-guideline/ema-regulatory-science-2025-strategic-reflection_en.pdf.

101 Commission Proposal for a Regulation of the European Parliament and of the Council Concerning Medicinal Products for Human Use and Amending Regulation (EU) 2017/745, COM (2023) 193 final (Apr. 26, 2023), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52023PC0193.

Japan

In the Asia-Pacific region, among several other countries, Japan holds a significant position in the *in silico* clinical trial market.[102] Since the clinical research in Japan is driven by highly efficient technologies including AI-powered robotic laboratories, digital tools, *in silico* simulations, etc., a study on their regulatory and ethical oversights plays an important role in understanding how they tackle the legal and ethical issues arising out of *in silico* methods used in clinical research. Japan follows a dual regulatory mechanism for clinical research depending on two factors: Firstly, the purposes of the research, whether it is conducted for commercial approval of the government for marketing the drugs, medical device, regenerative therapy product, etc., or whether it is conducted for non-approval research focusing only on academic or exploratory purposes and not on commercial aspects.[103] Secondly, the nature of funding and intervention, whether the study is corporate or manufacturer funded and interventional in nature or whether it is investigator-initiated research (i.e., not funded) and it included both interventional and observational studies. With respect to the clinical research in the first category, the Ministry of Health, Labor and Welfare (MHLW) of Japan and the Pharmaceuticals and Medical Devices Agency are the primary governing authorities. The Pharmaceuticals and Medical Devices Act of 2014 and the three ministerial ordinances, such as the MHLW's Ordinance on Standards of Implementation of Clinical Studies on Drugs of 1997,[104] the Ordinance on Standards of Implementation of Clinical Studies on Medical Devices of 2005,[105] and the Ordinance on Standards of Implementation of Clinical Studies on Regenerative

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102 Grand View Research, *In Silico Clinical Trials Market Size, Share & Trends Analysis Report by Therapeutic Area, by Industry, by Region, and Segment Forecasts, 2025–2030*, https://www.grandviewresearch.com/industry-analysis/insilico-clinical-trials-market-report.

103 Baker McKenzie, *Clinical Trials Handbook – Japan* (2019), https://www.bakermckenzie.com/-/media/files/insight/publications/2019/healthcare/ap/dsc125067_clinical-trials-handbook--japan.pdf.

104 Ministerial Ordinance No. 28 of March 27, 1997

105 Ministerial Ordinance No. 36 of March 23, 2005

Medicine Products of 2014[106] are the main ones that govern the first category of clinical research. For the second category, the MHLW and the Institutional Review Boards of respective research institutions carry out the legal and ethical oversight. The Clinical Trial Act of 2018 and the Ethical Guidelines for Medical and Biological Research Involving Human Subjects of 2021 are the major legal and ethical regulatory frameworks for the clinical research belonging to the second category.[107] In 2023, the EU-Japan bilateral meeting on the regulation for *in silico* trials discussed the need for industrial standardization. Since Japan plays a crucial role in clinical trials in the global sphere, they should make more initiatives to formulate regulatory mechanisms to govern the *in silico* methods used in clinical research.

A Cross-Jurisdictional Evaluation: India, the United States, the European Union, and Japan

The legal and ethical regulatory mechanisms adopted by India, the U.S., the EU and Japan to govern *in silico* methods used in clinical research show notable differences. A study into their legislative measures, ethical guidelines, and recent initiatives helps to get a clear insight into each country's successful approaches and setbacks.

In India, the legal and bioethical regulatory approaches in place to govern *in silico* methods in clinical research are in their initial stages. Even though there exist various laws and ethical guidelines to regulate clinical research, data privacy, and informed consent, they lack clear provisions relating to *in silico* methods. The New Drugs and Clinical Trials (Amendment) Rules of 2023 is the only initiative taken by India as a progressive notion towards recognizing *in silico* methods. However, the absence of the term "*in silico* methods" and the limitation of sophisticated computer modeling only as a non-clinical testing method point out the inadequacy and lacuna in overall governance of such methods. The IT Act of 2000 and the DPDP Act of 2023 provided certain

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106 Ministerial Ordinance No. 89 of July 30, 2014

107 Hideki Maeda, *The Current Status and Future Direction of Clinical Research in Japan From a Regulatory Perspective*, 8 FRONT. MED. 816921 (2022).

protections on data privacy and security, but they cannot be considered sufficient to regulate unique challenges posed by *in silico* methods that use a personal sensitive data in huge amounts. On the other hand, the U.S. and EU have made significant efforts in recognizing and establishing certain regulatory measures to govern *in silico* methods. The recognition of *in silico* clinical trials as an alternative to animal testing in the FDA Modernization Act 2.0 of 2022, the FDA's 2023 guidance document, and the recent announcement in 2025 to phase out animal testing by AI computational models are the commendable efforts taken by the U.S. The EU has also taken similar initiative to recognize and incorporate *in silico* methods within their governance purview. Similar to India, Japan's regulatory measures are also in an initial stage and need adequate changes. Since Japan's technology is rapidly increasing, they are in urgent need of a proper regulation to govern *in silico* methods used in clinical research. With regard to intellectual property protection, in India, unlike in the US, the concept of 'fair dealing' is applied, and in the US, they follow the 'fair use' concept. On evaluation, the concept of fair use is more broad than the concept of fair use. The safe harbor provision of the Digital Millennium Copyright Act of 1998 that protects internet intermediaries from infringement liability of the user has certain similarities to s.79 of India's IT Act of 2000. However, neither of these provision provide protection to the intermediaries for infringement done by the intermediary itself.

However, the recognition of *in silico* method as an alternative method to animal testing cannot be considered as sufficient to recognize this unique method and associated legal and ethical challenges posed by it. But only as an initiative to recognize its existence. All the four countries should formulate a comprehensive legislation and ethical guideline specifically designed to govern *in silico* methods used in clinical research with the help of experts from different field. A proper study regarding the socio-economic and other challenges posed by *in silico* methods in society when they are utilized in clinical research are also essential in formulating an effective regulatory and ethical oversight.

Conclusion

Advancements in clinical research are important for better health outcomes in society, but the welfare and protection of the individual should be given more attention. Technologies and techniques like *in silico* methods need to be developed, and along with them, more importance should be given to the developing technology that ensures data protection, anonymization, and privacy of an individual. A proper legal and ethical framework to regulate the computational and simulation techniques in clinical research is necessary to maintain order in the research process and safeguard the rights and welfare of the individual. Formation of computational ethics guideline will also be useful. Before the formation of such regulatory measures, the legal standing of *in silico* methods must be determine, whether they are research tools, product making tools or a technology? The lack of proper governance over these kinds of advancements can lead to more complex issues, which the authorities may not be able to control. The policymakers should take into consideration the evolving nature of these technologies and they must foresee future consequences in developing regulations for these techniques. Researchers and other people who are using or developing such techniques should adhere to these measures to ensure the protection of the data of the participants and promote the integrity of the scientific community. International cooperation of other jurisdictions also plays an important role in regulating these methods. *In silico* methods used in clinical research are not just tools; they represent a fundamental change in biomedical research.[108] The development of such innovative tools needs to be encouraged and protected along with the rights of the individual.

[108] Shaheen E Lakhan, *In Silico Research Is Rewriting the Rules of Drug Development: Is It the End of Human Trials?*, CUREUS (2025), https://www.cureus.com/articles/366260-in-silico-research-is-rewriting-the-rules-of-drug-development-is-it-the-end-of-human-trials.

REGULATING BUSINESS AND HUMAN RIGHTS IN INDIA: A FRAGMENTED FOCUS, AN OVERLOOKED WHOLE

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Abstract

The traditional understanding of human rights was unidirectional, from state to individual, for protection of private sphere from public intrusion. This myopic view of human rights, effectively ignored human rights violations that occurred at the hands of private actors. International human rights paradigm has since evolved to accommodate this understanding, articulating human rights as a set of entitlements enjoyed by everyone to be respected by everyone, including businesses. Increasingly global and national legal frameworks subscribe to this expanded understanding, clearly articulating the need for corporations to engage with adverse human rights impacts of its working. This is encapsulated in the term 'Business and Human Rights' (BHR), which evolved from and embodies the paradigm linking corporate conduct with human rights responsibilities. In this context, the article engages with the question of how the Indian regulatory framework accommodates and addresses issues that arise at the interface of businesses and human rights. Firstly, it charts the trajectory of human rights as traditionally understood and its expansion to include corporations within its scope. It then outlines and unpacks the BHR regulatory framework as articulated in Companies Act 2013, Companies (Corporate Social Responsibility Policy) Rules 2014, and other initiatives such as the National Guidelines on Responsible Business Conduct 2019 and BRR (BRSR) frameworks. Moving beyond the

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narrow focus on the specific elements of human rights such as labour rights, etc, the article argues for adoption of a holistic understanding of human rights that acknowledges the interconnected and systemic nature of business impacts on human rights. It finally concludes by critically analysing various components of the BHR regulatory framework to highlight key concerns, gaps and challenges that may impact the overall efficacy of the regulatory framework, and argue for comprehensive accountability instead of piecemeal compliance.

Key Words: Business and Human Rights (BHR); Responsible Business Conduct; Corporate Human Rights Responsibility; National Guidelines on Responsible Business Conduct; UN Guiding Principles on Business and Human Rights and India

Introduction: The 'Idea' of Human Rights

The idea of human rights is both simple and powerful at the same time, and at its core seeks to secure to everyone a dignified existence. They are rights that humans beings have by the virtue of being a human. These rights inhere in a person irrespective of their "nationality, sex, national or ethnic origin, colour, religion, language, or any other status,"[1] and is secured to them equally and without discrimination. The trio of interrelatedness, interdependence and indivisibility capture the essence of these rights.

In addition to articulating the nature of humans beings, human rights also seek to respond to fundamental enquires about their relationship with other members of the society, including the global society. It accordingly addresses power structuring i.e. between power wielders and power yielders, and relationship of members with a group and with other members of the group. These structures are supplemented by additional frameworks relating to

[1] Office of the Commissioner of Human Rights, *What are human rights?,* https://www.ohchr.org/en/what-are-human-rights (last visited June 03 2025).

settlement of disputes (administration of justice), participation in political (civil and political rights) and material (social, economic, cultural and developmental rights) structuring of the society.[2]

The present day international human rights legal framework trace its origins back to the world wars, with the holocaust triggering a greater need for wider and stronger protection of human rights worldwide.[3] The aftermath of the wars witnessed a reordering of the international power systems witnessed through a proliferation of documents, institutions and frameworks. Within such a structuring, human rights came to be protected through an overlapping layer of international, regional and national protective systems articulated in a series of legal and policy documents, augmented by efforts of international and national institutions.

The original architecture of international human rights regime conceptualised primary responsibility of protecting and promoting human rights on the states. This was important as states remained the primary violators of human rights. Traditionally, private parties were not considered as subjects of international law, and therefore lacked international legal personality. In the event of a violation on international plane, interest of a person were assumed by the state as a matter of diplomatic protection. Yet with the passage of time this perspective shifted from state centricity to the recognition that human rights concerns could involve non-state actors (NSA), ranging from individuals, insurgent groups to private companies. This led to increasing conversations on whether NSAs should possess human rights and obligations similar to states.

Today, the Westphalian order has given way to a multi-layered system wherein power, rights and obligations are distributed among entities other than states. Some well-known categories such as individuals and inter-governmental institutions have long been recognised as capable of bearing rights and obligations on international plane, and more recently there have been efforts to

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2 ILIAS BANTEKAS & LUTZ OETTE, INTERNATIONAL HUMAN RIGHTS: LAW AND PRACTICE 6 (2020).

3 ANDREW CLAPHAM, HUMAN RIGHTS: A VERY SHORT INTRODUCTION 31 (2007).

extend similar recognition to multinational corporations.[4] These efforts have intensified with acceleration of globalisation manifested through increasing transnational trade, commerce, and investment and their impact on protection and promotion of human right.[5] This expanded perspective includes within the ambit of human rights private economic players such as businesses recognising them both as possessors and violators of human rights.

However, that is not to say that such extension is without its deterrents. Andrew Clapham categorised the arguments in opposition of such extension into five broad categories, namely, (a) trivialisation argument (applying human rights obligations to private actors trivialises human rights and ignores its historical pedigrees, the concern being the conflation of human rights violations with ordinary crimes or breaches of the law); (b) the legal impossibility argument (private non-state actors cannot incur responsibilities under international law, international law is about states whether by negotiation (treaties) or practice (customary law) and therefore cannot bind non-state entities); (c) policy tactical argument (use of human rights to justify illegal actions of the states against opposition groups such as insurgents, would allow states to deflect criticism by pointing to violations committed by others, such as armed opposition groups); (d) legitimisation of violence argument (brining NSAs into international law/human rights realm would legitimise their actions particularly use of violence); and (e) rights as a social barrier to justice argument (primary utility of human rights as a tool for social justice, i.e. protection of private sphere from public interference).[6] Yet, these and similar counter arguments have been repeatedly debunked, with international human rights categorically acknowledging both public and private entities within its fold. This

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4 P.T. Muchlinski, *Human Rights and Multinationals: Is There a Problem?*, 77(1) International Affairs (Royal Institute of International Affairs 1944) 31, 42 (2001).

5 ILIAS BANTEKAS & LUTZ OETTE, *supra*, note 2, at 879 "None the less, the means by which globalisation is pursued is inherently at odds with fundamental human rights. Its emphasis is on financial growth without any reference whatsoever to human well-being."

6 ANDREW CLAPHAM, HUMAN RIGHTS OBLIGATIONS OF NON-STATE ACTORS 33- 56 (2006).

is because human rights can no longer be viewed simply connecting the public (state) and the private (individuals), rather it has to be viewed as entitlements enjoyed by everyone to be respected by everyone.[7]

The idea of 'respect by everyone', has led to identification of several new duty holders, including corporations, as responsible for protection and promotion of human rights. A normative grounding for this idea is also found in the UDHR, Preamble of which captures this idea succinctly. "*Every individual and every organ of society, keeping this Declaration constantly in mind […] and by progressive measures, national and international, to secure their universal and effective recognition and observance…*".[8] The term every organ of society has been interpreted to have within its ambit business entities.[9] In 1998, Mary Robinson, the then UN High Commissioner for Human Rights echoed this sentiment. In response to the question why business should care about human rights she responded that businesses need human rights to flourish.[10] Yet the world has moved past viewing this intersection simply a question of self-interest, rather it is a question of responsibility.

Business and *their* Human Rights Obligations

Business are considered as engines of economic growth and no nation can potentially hope to develop without a robust set of

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7 UNITED NATIONS, G.A. Res. 217 (III) A, *Universal Declaration of Human Rights*, U.N. Doc. A/RES/217 A (III) (Dec. 10, 1948), https://www.un.org/en/about-us/universal-declaration-of-human-rights (last visited June 03 2025).

8 *Id*. Preamble.

9 Louis Henkin, *The Universal Declaration at 50 and the Challenge of Global Markets*, 25(1) Brooklyn Journal of International Law 17, 24-25 (1999). The author observed "Every individual includes juridical persons. Every individual and every organ of society excludes no one, no company, no market, no cyberspace. The Universal Declaration applies to them all."

10 Mary Robinson, United Nations High Commissioner for Human Rights, The Business Case for Human Rights, 1998, https://www.ohchr.org/en/statements/2009/10/business-case-human-rights-mary-robinson-united-nations-high-commissioner-human. "Every organization and individual has a legitimate right to be concerned and the responsibility to promote human rights."

businesses driving that growth.[11] Today businesses are seen as more than mere economic entities, instead they are viewed as social actors with the ability to act as a force of transformative good. While their positive contribution has been widely acknowledged, over the years the negative fallout of their working has created serious concerns. Large corporations can have significant impact on human rights, whether on account of direct power wielded over individuals (such as employees); controlling access to resources essential to enjoyment of human rights (housing, finance, etc); ability to influence institutions with political power to do their bidding and in the process effect human rights; and carry the ability to form and influence opinions towards preferable and business friendly outcomes.[12] It is therefore no surprise that unchecked business operations have led to increasing concerns relating to labour, environment, and broad human rights.[13] As a result, there has been growing calls to hold business accountable for their human rights impacts.

The above position that business entities is responsible for human rights is not without its detractors. The arguments have ranged from normative arguments (human rights is singularly

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[11] For the purposes of this article, the term business is used in a broad sense and takes into its purview corporations operating in both domestic and international settings.

[12] P.T. Muchlinski, ADVANCED INTRODUCTION TO BUSINESS AND HUMAN RIGHTS 19 (2022). Rachel Davis categorises the contribution in three broad categories: where business facilitate or enables adverse impacts, where it creates strong incentives for a third party to cause adverse impacts or where it undertakes activities in parallel with a third party leading to cumulative adverse impacts. Rachel Davis, *The UN Guiding Principles on Business and Human Rights and Conflict-Affected Areas: State Obligations and Business Responsibilities*, 94(887) International Review of the Red Cross 961, 973-74 (2012).

[13] Subhan Ullah *et.al.*, *Multinational corporations and human rights violations in emerging economies: Does commitment to social and environmental responsibility matter?*, Journal of Environmental Management, (2021), https://doi.org/10.1016/j.jenvman.2020.111689. The authors analyse 273 human rights violations in emerging economies perpetrated by 160 different MNCs originating from 24 different countries from 2002-2017 to conclude that multinational companies continue to be engaged in human rights violations.

applicable to states only); status and purpose of corporations (existence for commercial purpose only); feasibility (are corporations best suited to apply general and vague standards of human rights); ability (unelected entities to act as moral arbiters, competing human rights, in relation to wider issues); and free rider concern (not all states and corporations will take same care to observe human rights, this will disadvantage more conscientious corporations).[14]

Yet the reality of continuing violations remains. Corporations continue to be ethically responsible for their actions and its fallout, particularly on account of the re-envisioning of the existing social contract that exists between the state and private sector.[15] Corporations are social actors, and in return for their right to operate and make profits, they must ensure that their working does not inflict human rights damage. It is therefore no surprise that the 'shareholder' model of corporate governance, which unduly prioritises corporate profits over all other concerns, has come under considerable scrutiny, with calls to supplant it with the 'stakeholder' model of corporate governance.[16] The latter posits consideration of impact of corporations actions on all stakeholders, both internal (shareholders, managers and employees) and external (customers, suppliers and other special interest groups).

International efforts to regulate Business and Human Rights

In recent times, various international initiatives have been undertaken focussing on locating the working of businesses within the human rights paradigm. These have alternated between voluntary to mandatory approaches, meeting with varying degree of success. Be it the United Nations Commission on Transnational Corporations' proposed UN Draft Code of Conduct on TNCs; the

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14 P.T. MUCHLINSKI, *supra*, note 12, at 26-35.

15 Wesley Cragg, *Human Rights and Business Ethics: Fashioning a New Social Contract*, 16(2) New England Journal of Public Policy 109, 115 (2001).

16 Karin Buhmann, *Human Rights, Business and Meaningful Stakeholder Engagement*, in ENCYCLOPAEDIA OF STAKEHOLDER MANAGEMENT 153-155 (Jacob Dahl Rendtorff & Maria Bonnafous-Boucher, eds. 2023).

International Labour Organisation's (ILO) Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy (MNE Declaration); OECD Guidelines for Multinational Enterprises on Responsible Conduct; ILO's Declaration on Fundamental Principles and Rights at Work; UN Norms on the responsibilities of TNCs and other Business Enterprises with regards to Human Rights, and the UN Global Compact 2000 to name a few.[17]

However, a crucial initiative in this regard was the United Nations Guiding Principles 2011 (UNGP), which outlined the 'Protect, Respect and Remedy' framework.[18] The framework for the first time articulated an authoritative scheme detailing responsibilities of businesses to acknowledge, prevent and address human rights fallouts of their activities, operations or business relationships. The scheme was succinctly captured through three key principles, namely, the 'State Duty to Protect', the 'Corporate Responsibility to Respect', and the need to ensure 'Access to Remedy' for victims.[19] In articulating the above framework, Prof. Ruggie, the architect of UNGP elsewhere acknowledged that

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[17] The Ten Principles, *U.N. Global Compact*, https://unglobalcompact.org/what-is-gc/mission/principles (last visited June 26, 2025). Principles 1 and 2 require businesses to support and respect the protection of internationally proclaimed human rights and make sure that they are not complicit in human rights abuses. In addition to this, other prominent efforts to highlight and hold corporations accountable for human rights violations have included the 1977 Sullivan Principles articulated in the background of anti-apartheid struggles in South Africa in 1970s and 80s; 1984 MacBride Principles; 1987 Slepak Principles, 1991 Miller Principle, 1991 Maquiladora Standards of Conduct, 1998 Ethical Trading Initiative, 2002 Extractive Industries Transparency Initiative, 2001 FTSE4Good, to name a few.

[18] U.N Human Rights Council, *Report of the Special Representative of the Secretary-General on the issue of human rights and transnational corporations and other business enterprises, John Ruggie*, UN Doc.A/HRC/17/31 (2011), https://www.ohchr.org/sites/default/files/Documents/Issues/Business/A-HRC-17-31_AEV.pdf (last visited June 03 2025).

[19] U.N Human Rights Council, GA Res 17/4, *Human rights and transnational corporations and other business enterprises*, UN Doc. A/HRC/RES/17/4 (2011), https://docs.un.org/en/A/HRC/RES/17/4 (last visited June 03 2025). The UNGP was unanimously endorsed by the Human Rights Council.

"*Multinationals corporations became the central focus of business and human rights concerns because their scope and power expanded beyond the reach of effective public governance systems, thereby creating permissive environments for wrongful acts by companies without adequate sanctions or reparations*."[20] Therefore, as a foundational principle, UNGP required businesses to respect human rights. The requirement extended not merely to avoid infringing human rights but also addressing adverse human rights impacts with which they are involved.

UNGP's application extends to all business enterprises, regardless of size, sector, operational context, ownership and structure. The framework is operational independently of state's abilities or willingness to fulfil their own obligations, and exists over and above compliance with national laws and regulations protecting human rights. Eschewing approaches adopted by some of the previous attempts, UNGP did not go down the legal obligations road. These guidelines were not aimed at creating international law obligations or limiting/undermining any international legal obligations of the state. This was visible from the choice of phrasing, when compared to the first pillar (duty of state), corporates were required to respect, which under the framework meant non infringement of the rights of others. At its heart 'Responsibility to respect' required the corporations to do no harm. This is often considered to be the baseline expectation for all companies in all situations.

Indian Regulatory Framework for Business and Human Rights

India has pledged its firm commitment to protection of human rights through promotion of responsible business, to further the overall aim of inclusive development.[21] Shunning the mandatory vs. voluntarism dichotomy, India has adopted a mid-path, a

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[20] JOHN GERALD RUGGIE, JUST BUSINESS: MULTINATIONAL CORPORATIONS AND HUMAN RIGHTS, xxiii (2013).

[21] MINISTRY OF CORPORATE AFFAIRS, National Action Plan on Business and Human Rights: Zero Draft (2020) https://www.mca.gov.in/Ministry/pdf/ZeroDraft_11032020.pdf (last visited June 03 2025).

combination of the two models. Its approach is contained in the Companies Act 2013, Companies (Corporate Social Responsibility Policy) Rules 2014, and other initiatives such as the National Guidelines on Responsible Business Conduct 2019 and BRR framework.

Companies Act 2013 and CSR Rules

Indian law conflates the idea of business and human rights with that of corporate social responsibility.[22] As a result, the primary legislative framework in this regard is the Companies Act 2013, by virtue of which India became one of the first nations to legislatively mandate implementation and reporting of corporate social responsibility (CSR) activities. §135 of the Companies Act 2013 (Act) read with, Schedule VII of the Act and Companies (CSR Policy) Rules 2014, provide the basic legislative approach on CSR to harness business efficiency. It outlines the criteria for assessing CSR eligibility of a company, and implementation and reporting of their CSR policies.

The Act mandates companies (meeting specified net worth, turnover or net profit threshold) to spend a percentage of their average net profits of preceding three years towards socially beneficial activities as listed in Schedule VII.[23] These activities include eradication of poverty, hunger, sanitation; promoting education, vocation skills; gender equality; environmental sustainability, rural development, slum development to name a few. The overall aim of this framework is to drive economic, social and environmental wellbeing of all, through responsible business conduct.

Similarly, §166(2) of the Act imposes an explicit fiduciary

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[22] It is important to bear in mind that the two ideas - Business and Human Rights and CSR - are not the same, and not used interchangeably. For a detailed discussion on the points of divergence see generally FLORIAN WETTSTEIN, *The history of business and human rights and its relationship with CSR*, in RESEARCH HANDBOOK ON HUMAN RIGHTS AND BUSINESS 23-45 (Surya Deva & David Birchall, eds. 2020)

[23] The Companies Act, 2013, §135

duty on directors of the company to act in good faith to promote objects of the company for benefit of members as a whole and in the best interests of various stakeholders, such as the company, its employees, shareholders, community and protection of environment.[24] This is a marked shift from the traditional view of corporations as merely profit oriented entities. It was for the first time that that India legislatively articulated duties of a director. The current provision acknowledges that not only do directors owe a duty of care, but that such a duty is owed to stakeholders beyond the company to the wider society. That said, scholars have criticised this development arguing that such provision though benevolent in approach, is unworkable in its current form.[25]

Recent amendments to Rule 8(3) incorporate the requirement to undertake impact assessment by an independent agency of completed CSR projects. Such assessment is required to be executed for companies with minimum average CSR obligation of INR Ten crore or more in the immediately preceding three financial years, and companies that have CSR projects with outlays of minimum one crore and which have been completed not less than one year before undertaking impact assessment. In all other instances such impact assessment is voluntary.[26]

Other important initiatives

These statutory measures are complemented by a whole range of measures. In 2009, the Ministry of Corporate Affairs issued CSR Voluntary Guidelines (2009 Guidelines), focussing on fostering socially responsible businesses. The 2009 Guidelines linked good corporate governance standards and practices with sustainable business for the overall aim of generating long term

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24 The Companies Act, 2013, §166(2).

25 See generally, HARPREET KAUR, *Achieving Sustainable Development Goals in India*, in THE CAMBRIDGE HANDBOOK OF CORPORATE LAW, CORPORATE GOVERNANCE AND SUSTAINABILITY 463-464 (Beate Sjafjell, *et.al.*, eds. 2020).

26 MINISTRY OF CORPORATE AFFAIRS, COMPENDIUM ON CORPORATE SOCIAL RESPONSIBILITY IN INDIA, 71-72, https://www.mca.gov.in/Compendium/Ebook/mobile/index.html (last visited June 03 2025).

value for all its shareholders and other stakeholders. These were designed as voluntary guidelines recommended for the ethical and responsible conduct of business. In case of non-adoption, the guidelines urged companies to inform their shareholders reasons for non-adoption of these guidelines. A key focus of the guidelines was creation of risk management framework, implemented through a concerted process of risk identification, risk minimisation and risk optimisation.[27] However, the guidelines categorically linked the idea of 'risk' to existence of the company, in other words, those risks or elements of risks which threatened the existence of company. Such linking approximates the entire process to standard due diligence process for identification of risks. Resultingly, the guidelines only focus on a certain type of risks namely ones that threaten the existence of the company, a deliberate and systematic identification and addressal of human rights risks emerging from its working and operations is clearly not contemplated.

In sharp contrast stood the 2011 National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business (NVG). Articulated in the form of nine principles, the guidelines were seen as a refinement over the 2009 Guidelines, providing a framework for sustainable and responsible business operations and actions. The broad purpose of the guidelines could be identified as firstly, help businesses to actively participate in socio-economic upliftment of communities, and secondly, to operate sustainably enabling them to meet their current requirements without compromising the needs of the future generation.[28]

The cornerstone of the framework was the conviction that responsible business implied ethical conduct of the business at all

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[27] MINISTRY OF CORPORATE AFFAIRS, CORPORATE GOVERNANCE VOLUNTARY GUIDELINES 16 (2009), https://www.mca.gov.in/Ministry/latestnews/CG_Voluntary_Guidelines_2009_24dec2009.pdf (last visited June 03 2025).

[28] MINISTRY OF CORPORATE AFFAIRS, NATIONAL VOLUNTARY GUIDELINES ON SOCIAL, ENVIRONMENTAL AND ECONOMIC RESPONSIBILITIES OF BUSINESS, 34 (2011), https://www.mca.gov.in/Ministry/latestnews/National_Voluntary_Guidelines_2011_12jul2011.pdf (last visited June 03 2025).

its levels, functions and processes, and promote its adoption not only in areas within their direct control, or within their sphere of influence, but also their vendors, distributors, partners and other collaborators across its value chains. The changes thus had to emerge across the business starting from at its very core, namely the purpose of the organisation. Such a reorientation towards ethical conduct of business was expected to enhance businesses by augmenting their competitive strength, securing their reputation, enhance their ability to attract and retain talent, and strengthen its relation with all relevant stakeholders. These guidelines were designed for utilisation by all businesses irrespective of size, sector or location, and were articulated as minimum requirements, with businesses being encouraged to go beyond the noted requirements. All business including multinational companies operating in India were expected to follow the guidelines. Similar expectations were levied on Indian businesses investing or operating abroad. The NVGs articulated the triple-bottom-line approach, seeking to harmonise in a sustainable manner financial performance with expectations of the society and environment. Corporations were also encouraged to formulate a Business Case Matrix to help assess how adoption of the guidelines will provide a short- and long-term business benefits.

Importantly though, NVGs specifically urged businesses to embrace UNGP's corporate responsibility to protect approach in their operations including across their value chains. The businesses were required to engage with human rights with the understanding that such rights were inherent, universal, indivisible and interdependent in nature. Principle 5 of the guidelines specifically called upon businesses to respect and promote human rights. It required corporations to - (a) recognise and respect human rights of all stakeholders, including ones beyond the workplace such as communities, including vulnerable and marginalised groups; b) not be complicit with human rights abuses by third parties; c) assess and manage human rights impact of its operations; d) within their sphere of influence promote awareness and realisation of human rights across their value chains; and e) ensure that all individuals impacted by the business have access to grievance redressal mechanisms.

This overarching requirement was augmented by specific strictures relating to elements of human rights such as requiring businesses to govern and operate ethically, transparently and with accountability (Principle 1); promote safe and sustainable goods and services (Principle 2); promote well-being of all employees (Principle 3); respect and be responsive towards all stakeholders especially those who are disadvantaged, vulnerable and marginalised (Principle 4); and support inclusive growth and equitable development (Principle 8).

Implementation of the guidelines were structured on four pillars[29] – a) leadership (to ensure that the principles are fully understood across the organization and comprehensively executed); b) Integration (embedding of the principles in business policies, strategies and workings; c) Engagement (forging strong relationships with stakeholder including through consistent and continuous engagement); and d) reporting (designed around 'apply-or-explain' principle including disclosure by companies of their impact on society and environment).

The expectation was to engage in constant self-monitoring of implementation of strictures of the guidelines, to enable which a broad list of indicators were provided. Chapter 5 of the NVGs outlined a reporting framework for the businesses to report on their performance.[30] The information required included basic business operations information and performance indicators for each of the nine principles. As regards Principle 5, the information on the following aspects were required - a) business policy statement on upholding human rights in their operation, and b) statement on complaints relating to human rights violations during the reporting period. Similarly, Part C-1 prompted businesses to disclose any adverse social, environmental and economic impacts of its operations.

In 2012, acknowledging the NVGs Business Responsibility Reports (BRR) framework, SEBI mandated its inclusion as part of

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29 Id, Chapter 3.

30 Id, Chapter 5.

the Annual Reports for listed entities. Under the framework, information was to be provided for, among others, principle wise performance.[31] For Principle 5 corporations were required to provide information on clear points – (a) does the policy of the company on human rights cover only the company or extend to the Group/Joint Ventures/Suppliers/Contractors/NGOs/Others?; and (b) how many stakeholder complaints have been received in the past financial year and what percent was satisfactorily resolved by the management? This was an extension of the information required in NVGs.

National Guidelines on Responsible Business Conduct 2018 (NGRBC)

By 2018, to align Indian approach with international developments, particularly sustainable development goals, the NGRBC was conceptualised and issued by the ministry as a replacement of the NVGs. The NGRBC's were specifically based on the UNGPs, SDGs, Paris Agreement on Climate Change (2015), ILO Core Conventions 138 (minimum age employment of children) and 182 (worst forms of child labour), the BRR framework and the Companies Act 2013.

In many ways, NGRBC was an extension of the NVG. It was designed for businesses of all types of ownership, size, sector, structure or location. It extended to businesses investing or operating in India, including foreign MNCs operating in India, and Indian MNCs in their overseas operations, not just to business contexts directly within their control or influence, but also their suppliers, vendors, distributors, partners, and other collaborators. The requirements under the guidelines were in addition to domestic norms governing responsible business conduct.[32] Underpinning the

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31 SEBI, *Circular on Business Responsibility Reports,* CIR/CFD/DIL/8/2012 (August 13, 2012), Section E: Principles -wise performance: Principle 5, https://www.sebi.gov.in/sebi_data/attachdocs/1344915990072.pdf (last visited June 03 2025).

32 MINISTRY OF CORPORATE AFFAIRS, NATIONAL GUIDELINES ON RESPONSIBLE BUSINESS CONDUCT 12 (2018), https://www.mca.gov.in/Ministry/pdf/NationalGuildeline_15032019.pdf

guidelines approach was the acknowledgement, that businesses impact a range of stakeholders (based on caste, creed, sex, race, ethnicity, age, colour, religion, disability, socio-economic status or sexual orientation) in different ways, and such differences must be kept in mind while applying guidelines principles.[33] Adopting human rights language, the NGRBC characterised its principles as interdependent, interrelated, and indivisible, requiring the business to address them holistically.

Principle 5 of the NGRBC specifically gave recognition to the need of businesses to 'respect and promote' human rights (national and international) in their operations.[34] Pursuant to this principle, businesses were required to institute policies, processes and structures to demonstrate respect for human rights. But more crucially such processes envisioned both preventive and corrective actions by requiring the corporations to - (a) conduct human rights due diligence 'to identify, prevent, mitigate and account for how they address adverse human rights impacts.'; (b) take corrective actions to address human rights impact either caused by it or where its actions have contributed to it; and c) provide access to effective grievance redressal mechanism.

Taking forward the NVG's BRR framework, NGRBC articulated a reporting framework to obtained information that could assist in evaluation of corporations efforts to promote ethical business working. It consists of – a) General Disclosures focussing on operational, financial and ownership related information (Section A); (b) Management and Process Disclosures focussing on the structures, policies and processes to integrate NGRBC (Section B), and (c) Principle-wise Performance Indicators on how well businesses are performing in pursuit of NGRBC (Section C).[35] As regards Principle 5, information was required on eleven aspects divided into two categories of indicators – essential[36] and

(last visited June 03 2025).

33 Id, at 13.

34 Id, at 23.

35 Id, Business Responsibility Reporting Framework, Annexure 3, at 38.

36 Id., Essential indicators for Principle 5 would include - 1. percentage of employees that have been provided training on human rights issues; 2.

leadership.[37] Essential indicators were the most fundamental, and the expectation is that all businesses irrespective of size, sector, or ownership structure, are able to achieve them. Leadership Indicators on the other hand show how advanced a business is in responsible practices.[38] However, similar to the NVGs, the reporting framework was identified as directory in nature, leading to concerns of meaningful adoption.

In 2018, the BRR framework was revised to reflect the changes in NGRBC. The formats were designed to capture at one place nonfinancial sustainability information relevant to all business stakeholders, including public at large.[39] In 2017-18 the SEBI extended the filing of BRR to top 500 listed companies by market capitalisation, and later to top 1000 listed companies by market capitalisation from 2019-20. In 2021 the extant reporting framework was expanded by SEBI with the aim to drive corporations commitment to sustainability. The Business Responsibility and Sustainability Reporting (BRSR) required corporations disclosures on their performance against the nine principles noted in NGRBC divided into essential and mandatory indicators. Reporting for

employee categories that are covered by the human rights policies of the business; 3. number of business agreements and contracts with third party partners that were reviewed in the year, to avoid complicity with adverse human rights impacts in the previous year; 4. stakeholders groups governed by the grievance committee for human rights issues; 5. number of stakeholders that reported human rights related grievances and/or complaints.

37 Id., Leadership indicators for Principle 5 would include - 1. percentage of contractual employees and value chain partners that have been made aware / provided training on human rights issues; 2. External stakeholder groups and representatives that are covered by the human rights policies of the business; 3. Stakeholder groups that have been made aware of the grievance mechanisms for human rights issues; 4. List (up to three) corrective actions taken to eliminate complicity with adverse human rights impacts in the last year; 5. Provide (up to two) examples of a business process being modified / introduced as a result of addressing human rights grievances/ complaints; 6. Provide details of the scope and coverage of any human rights due-diligence conducted during the year.

38 Supra, note 32, page 38.

39 MINISTRY OF CORPORATE AFFAIRS, REPORT OF THE COMMITTEE ON BUSINESS RESPONSIBILITY REPORTING 36 (2020), https://www.mca.gov.in/Ministry/pdf/BRR_11082020.pdf (last visited June 03 2025).

essential indicator was required to be done a mandatory basis, while for leadership indicators it was to be done on voluntary basis.[40] The new reporting framework was designed to obtained quantitative and standardised disclosures on ESG parameters to enable comparability across companies, sectors and time.

National Action Plan (NAP)

In response to a UN Human Rights Council recommendations, countries across the globe have developed National Action Plan on Business and Human Rights (NAP) for effective implementation of UNGPs. A draft NAP was released outlining a framework for promotion of socially responsible businesses and realisation of human rights.[41] While the NAP reiterated much of what NVG and NGRBC had put forth, it failed to add to the conversation in any meaningful manner. A revised draft incorporating suggestions and recommendations received from stakeholders consultations is yet to be put forward.[42]

Evaluating the current regulatory approach

Clearly, the thrust on various aspects of human rights is evident in the frameworks. Read together with various supportive initiatives including formation of CSR aspirational districts[43]or SEBI's stipulation for the top 1000 listed entities to have women

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40 SEBI, *Circular on Business responsibility and sustainability reporting by listed entities,* SEBI/HO/CFD/CMD-2/P/CIR/2021/562, (10 May 2021), https://www.sebi.gov.in/legal/circulars/may-2021/business-responsibility-and-sustainability-reporting-by-listed-entities_50096.html (last visited June 03 2025)

41 MINISTRY OF CORPORATE AFFAIRS, NATIONAL ACTION PLAN ON BUSINESS AND HUMAN RIGHTS 9-10 (2018), https://www.mca.gov.in/Ministry/pdf/ZeroDraft_11032020.pdf (last visited June 03 2025).

42 MINISTRY OF CORPORATE AFFAIRS, *Consultation notice on India's National Action Plan on Business & Human Rights,* https://www.mca.gov.in/Ministry/pdf/NationalPlanBusinessHumanRight_13022019.pdf (last visited June 03 2025).

43 See NITI AAYOG, Aspirational District Programme, https://www.niti.gov.in/aspirational-districts-programme; http://championsofchange.gov.in/site/coc-home/ (last visited June 03 2025).

independent directors on their boards[44] as a means of addressing gender gaps in governance, the overall picture seems both progressive and promising.

However, there remain concerns in the manner which the regulatory framework is structured, which may hamper effective mainstreaming of human rights within the working of businesses. A combined reading of §135(3)(a) of the Act and Rule 2(c)/6(1)(a) of the Companies (Corporate Social Responsibility Policy) Rules, 2014, clearly indicates that companies ambit of activities are limited to those indicated in Schedule VII. A clarification in this regard was issued by the MCA to the effect that Schedule VII entries were required to be interpreted liberally so as to capture the essence of the subjects enumerated in the Schedule.[45] While laudable, liberal interpretation takes one only so far, and still remains an impediment for inclusion of a wide range of activities that otherwise may not be covered by any of the entries. If the aim of such formulation was to exclude certain (say frivolous or meaningless) activities from CSR ambit, then perhaps that was the way to go, namely to clearly articulate a list of activities that would not be included within the ambit of CSR, as was done in Rule 2(1)(d) of the CSR Rules. An indicative list of the nature provided in Schedule VII was not required. Viewed from a human rights lens, while on the one hand such limitation focuses corporations' efforts into relevant identified areas, yet on the other it hampers the ability of those corporations who at the end of a human rights due diligence exercise identifies areas/subjects not covered under Schedule VII.

Additionally, in its extant form the law does not articulate a requirement to select CSR activities in line with the impacts of corporations' working. As a result, the possibility of a complete disconnect between human rights impact of corporations' working

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44 *Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulation*, 2015, Regulation 17(1).

45 MINISTRY OF CORPORATE AFFAIRS, *Clarifications with regard to provisions of Corporate Social Responsibility under section 135 of the Companies Act, 2013,* Circular, No.21/2014, (18 June 2014),). Point (i), https://www.csr.gov.in/content/csr/global/master/home/aboutcsr/csr-legislation.html (last visited June 03 2025.

and its CSR remains very real. Additionally, lack of specific linking requirement may cause the corporation to remain in the dark about direct adverse human rights impacts of its own activities or ones which are directly linked to their operations. Since a link is not required to established, it may incentive the corporation to not even make an attempt to ascertain the adverse impacts. Such lack of awareness is clearly dangerous from a human rights perspective, but is neither sought to be remedied nor rectified under the Act and Rules. As a result, one may arrive at a precarious situation where CSR activities might be undertaken simply as a facade, or worse, to create a false narrative of responsibility while continuing harmful practices unchecked.

Compounding this concern, is the legislative direction to give preference to the local area and areas around in which the corporation operates for engaging in CSR activities.[46] A clarification by MCA in this regard was limited to reiterating that the provision concerning preference to be given to local area and areas where it operates had to be followed in letter and spirit. Again such clarification remains of little relevance, without requiring earmarking of a percentage of spending on such identified areas or specifically disregarding CSR efforts when not primarily undertaken in such areas.[47] Clearly the law does not provide for a scenario where the company fails to do this. A general penalty clause for non-compliance is prescribed. There are however two specific concerns which restrict the effectiveness of such an approach – a) no specific standards have been prescribed to ascertain if the provision has been complied with, in other words is the association simply one of territory, or something more; b) the penalty clause itself, contained in §135(7) is narrowly tailored to address the broader mandate of transfer of unspent CSR funds into designated accounts. The punitive focus is on non-transfer of funds rather than broader non-compliance with CSR obligations. The specific quantification of the penalty, i.e. twice the amount required to be

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46 The Companies Act, 2013, S.135(5) first proviso.

47 Circular, No. 06/2018, *Clarification with regard to provisions under section 135(5) of the Companies Act, 2013* (Ministry of Corporate Affairs 28 May 2018), https://www.csr.gov.in/content/csr/global/master/home/aboutcsr/csr-legislation.html (last visited June 03 2025). Point 2.

transferred or one crore rupees whichever is less, further reinforces this interpretation.[48]

In similar vein, concerns emerge for requirement of impact assessment as noted in Rule 8(3).[49] While such assessment of impacts serves as an important feedback system on the effectiveness of the CSR spending, being limited to completed projects limits its utility as an accountability mechanism particularly for human rights violation in an ongoing project, and in turn making it less effective in guiding or improving future projects. Similarly, non-prescription of parameters of assessment, dampens the impact of inclusion of an assessment by independent agency, since the company may have an undue say in the selection of standards to be utilised in impact assessment, creating the risk of standards being tailored to present the business in a favourable light rather than ensuring genuine accountability. Finally, while the report is made public, there is no continuing requirement to report on actions taken to modify working/operations/project implementation to prevent recurrence of such violations. Such impact assessment as a result remains limited to reporting and doesn't serve as a continuing mechanism to identify, prevent and remediate human rights violations or drive meaningful corporate accountability.

As compared to the legislations, the guidelines were more progressive. Focus on protection and promotion of human rights by corporations was more explicit in the latter. For instance, NVG 2011 on the whole was extremely promising particularly from a human rights perspective. The guidelines not only specifically acknowledged human rights but also highlighted elements of human rights requiring special focus. Its comprehensive approach also brought in requirements of transparency, accountability and in that spirit encouraged stakeholder involvements. Periodic assessment and regular communication ensured continuing relevance of corporations efforts to address human rights concerns. However, the guidelines were designed for voluntary adoption, and therefore left much to the initiative of the business. This included self-setting of

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48 The Companies Act, S.135.

49 The Companies (CSR Policy) Rules, 2014, R.8(3).

goals and targets in the area of social, environmental and economic responsibilities.[50] Its overall design while very positive, still retained a predominantly compliance requirement approach. The consequence was of incentivisation the corporations to meet the letter of law rather than its spirit, often finding ways to demonstrate greater compliance on paper while making minimal substantive changes in practice. The voluntary nature also raises concerns of enforceability, since it leaves much to the discretion of the corporations. Corporate discretion also guides risk identification and assessment of impacts. This could be of serious concern since how such identification and assessment was done was not outlined, and simply left to corporations to declare, in compliance reports such as the BRR. Even such reporting seems perfunctory given its limited applicability and scope of information required.

A 2019 study conducted by the IICA bore out some of the concerns. The study undertaken to assess the working of the reporting framework, analysed the SEBI-BRR disclosures of 490 companies for the financial year 2018-19, on three criteria, namely, completeness, accuracy, and clarity of information provided.[51] The study revealed that most companies had the capacity and ability to achieve a high level of completeness in their disclosures. However, a marked decline was observed as regards both accuracy and clarity of information. This meant while most of the assessed corporations provided information regarding Principle 5 (human rights), severe doubts remained as regards the accuracy of information provided. The absence of accurate information, effectively rendered the available information of little relevance. While this prompted several modifications in NGRBC, there is limited research assessing the efficacy of changes introduced by NGRBC through its BRSR framework.

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50 Supra, note 28, at 39. "C-2 - Brief on Goals and Targets in the area of social, environmental and economic responsibilities that the business entity has set for itself for the next Reporting Period."

51 G Dadhich and D Mishra, *Baseline Assessment of Business and Human Rights Situation in India*, Indian Institute of Corporate Affairs, 2019. The study itself is not available in public domain. Its reference was found in Ministry of Corporate Affairs, Report of the Committee on Business Responsibility Reporting, Supra, note 39, at 24. The three criteria are -

That said, NGRBC was also a step in the right direction, updating NVGs with critical components from global standards to reporting frameworks. Of particular importance was its categorical inclusion of human rights due diligence. Yet conduct of such due diligence though strongly encouraged remained voluntary. This was evidenced from the BRSR framework, which merely required details of the scope and coverage of any human rights due-diligence conducted.[52] No guidance was provided on the manner, periodicity, minimum scope, methodology or benchmarks for conducting such due diligence. The likely outcome would be inconsistent implementation, discretionary self-serving actions, minimal compliance approach, and difficulty in comparability with other similarly placed entities.

This lax approach was witnessed in other key areas as well, most visible perhaps in the guidance notes for BRSR. For instance, when it comes to focal point within corporations responsible for addressing human rights impacts or issues caused or contributed by it, the corporation is only required to respond yes or no as response, without the need to provide any further details. A binary answer remains of limited utility, without clearly indicating information regarding the expertise of such authority and resources committed to it by the corporation. The likely result would be superficial compliance. Similarly, as regards the grievance redressal mechanism, a hundred-word summary of the mechanism is required to provided, without a need to provide any information or data on it effectiveness, compare alternatives or justify its structure. As before, there remains a strong possibility of companies merely doing the paper work without anything more. Of similar concern, was the voluntary requirement of reporting for leadership indicators. For instance for key concerns, such as details of a business process being modified / introduced as a result of addressing human rights grievances/complaints; details of the scope and coverage of any human rights due-diligence conducted; or details on assessment of value chain partners, provision of information was made

completeness, accuracy, and clarity. Indian Institute of Corporate Affairs, ANNUAL REPORT 2019-20 77 (2021).

[52] Supra, note 39, at 63.

voluntary.[53]

A 2020 evaluative India study by IIM Bangalore and National Human Rights Commission (NHRC), spanning four sectors namely pharma, construction, IT services and logistics, found that all of the top 100 companies failed to provide information on the following, namely – a) code of conduct for its suppliers, b) frequency of inspections conducted, c) details of accountability mechanism instituted to tackle rights violations, and d) mitigation measures in instances of violations in the supply chain. Similarly there was a conspicuous absence of human rights due diligence in various businesses operating in the identified sectors. It further found that reporting on human rights due diligence or human rights impact assessment by businesses in these sectors was next to nil.[54] While the focus of the study was limited to few sectors, it does indicate an alarming trend in Indian businesses when it comes to addressing human rights impacts of their operations.

Perhaps the fundamental concern lies in the overall approach adopted towards CSR on the one hand and business and human rights on the other. The Companies Act 2013 and rules made thereunder view CSR as a mechanism to achieve national priorities by viewing working of the corporate sector as a means of achieving SDGs. The focus as a result remains firmly national priorities, and local priorities which may be more directly impacted from corporations working take a backseat. The Act calls upon corporations to balance national priorities with local preferences, yet the legislative framework remains silent on how such balancing is to be achieved.[55] It also makes such balancing voluntary. Clearly, if

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53 Supra, note 40.

54 National Human Rights Commission and IIM Bangalore, *Assessment and Evaluation of Business and Human Rights Reporting by Corporate India,* 16 (2020), https://nhrc.nic.in/sites/default/files/Assessment%20and%20Evaluation%20of%20Business%20and%20Human%20Right.pdf (last visited June 03 2025). In 2024 NHRC initiated yet another conversation on this interface, https://nhrc.nic.in/media/press-release/nhrc-india%E2%80%99s-core-group-meeting-business-and-human-rights-suggests-mapping (last visited June 03 2025).

55 Supra, note 26, at 53.

the two align it is ideal, otherwise local 'preferences' is likely to be ignored. As a result, rather than assessing ground level realities to identify human rights issues, priorities get dictated at the national level. Human rights identification thus becomes predominantly a top-down approach, rather than predominantly bottom-up approach as it should be for a meaningful engagement. The problem is compounded with the dovetailing of CSR with BHR. While the more recent guidelines acknowledge and respect the difference between the two concepts, the statutory framework lags behind continuing to conflate the two.

Conclusion

Today, the power, authority, and relative autonomy wielded by many corporations are similar to ones wielded by public institutions.[56] It is now well established that their actions and operations may adversely infringe upon human rights on a broad scale. These infringements could be felt internally (employees, suppliers, etc) and externally (as part of global value chain). As a key component of any society, corporations bear responsibility to safeguard human rights.

The nature of this responsibility for corporations is not without serious disagreement, with equal number pitched on both sides of the 'voluntarism v mandatory' debate. Numerous global initiatives have tried to strike a balance between the two sides with little success. The closest perhaps were the UNGP that clearly endorsed the normative understanding that corporations were required to give due consideration to human rights, but limited the consideration to responsibility to respect human rights. This responsibility was to exist independently of state's ability or willingness to fulfil their human rights obligations, and applied irrespective of size, sector, operational context, ownership and structure. A key aspect of this responsibility for businesses was to identify, prevent, mitigate and account for how they address their impact on human rights. It was to be initiated as early as possible,

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[56] John Gerald Ruggie, *Multinationals as global institution: Power, authority and relative autonomy*, 12 Regulation & Governance 317, 329 (2018).

and given that human rights situation remain dynamic there was a need to conduct the same at regular intervals.

In this context, the paper attempted to engage with the business and human rights regulatory framework in India, particularly the extent of its integration of human rights considerations, the approach taken to engage businesses with these obligations, and the specific measures prescribed for corporate compliance. Analysis of framework articulated in the Companies Act 2013, CSR Rules, NVG, NGRBC and NAP, let to identification of key concerns. Barring NVG and NGRBC, none of the other components clearly articulates a human rights requirement within the pillar of corporate responsibility to respect human rights. On the one hand this is not surprising given the primary responsibility for protection and advancement of human rights remain with the State, while on the other it is troubling in view of the now established norm, namely that non-state actors including businesses, are duty holders within the broader paradigm of human rights.

The continuing conflation of BHR on the one hand and CSR on the other, dilutes the accountability driven BHR obligations often reducing them to voluntary initiatives, with limited enforceability. While adopting a mandatory CSR regulation, India has seemingly merged the two ideas, and in doing severely restricted the conversation on BHR to a large extent. A corrective legislative measure in this regard is necessary to enable Indian regulatory approach to account for specificities of the BHR paradigm.

This is however not to suggest that Indian regulatory approach towards business is devoid of any human rights dimensions. Clearly NVG and NGRBC are at pains in centring discussion on and incorporating key elements of human rights, including requirement of human right due diligence. This is a commendable achievement and must be acknowledged as such. Yet some of the highlighted concerns are serious enough to substantially diminish the effectiveness of the proposed frameworks on business and human rights. So yes, one could argue that something is better than nothing. But surely in a domestic setting, that is a fairly low bar to achieve.

HISTORICAL DEVELOPMENT OF THE DOMESTIC VIOLENCE LAW IN NEPAL

Dr. Bishnu Bashyal[*] *& Sonika Shrestha*[♦]

Abstract

Across the world societies face many serious problems among which domestic violence is a serious and damaging issue describing as a glaring violation to human rights that affects people of all backgrounds. It is a pattern of abusive behavior used by one partner to control another and can take many forms including physical, sexual, emotional, psychological and economic abuse. In Nepal, domestic violence remains widespread due to cultural, religious and economic factors that reinforce male dominance. Despite laws like Domestic Violence (Offence and Punishment) Act, 2009 and constitutional rights ensuring equality and protection, many victims still struggle to get help. Police data shows that over half of the cases involve physical violence and often affect young girls. To address this issue, Nepal needs strong legal enforcement, education, community support, and awareness programs to challenge the harmful norms and improve access to services and build a society free from fear and thus everyone can live in dignity.

Key Words: Domestic Violence, Gender Inequality, Patriarchy, Human Rights, Abuse, Legal Framework, Social Norms, Women's Rights, Awareness.

1. Conceptual Background

Across the world, Societies face many serious problems that deeply affect people's lives and opportunities. Many issues like

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poverty, inequality, discrimination and lack of education continue to limit opportunities for millions of people where it is to be found that they cannot do anything they want of their freedom. Conflicts and economic crisis makes it very difficult to build stable communities which not only harm people but also create environments where violence, exploitation, discrimination, inhumane treatment and injustice thrive around. Thus, it is very necessary to understand how social conditions shape human behavior and how power is used or misused with families and communities.

Among these devastating issues, Domestic Violence is one of the serious and damaging forms that arises within these challenging social issues. It affects people across cultures, classes, race and communities leaving a deep sense of physical, emotional scars. Simply, Domestic violence is regarded as a violence which occurs in a domestic setting i.e. in a marriage. It is a pattern of abusive behavior in any kinds of relationship that is used by one partner to gain power and control over another partner. It can be physical, sexual, emotional, psychological or any kinds of threats that may influence another person within an intimate partner relationship. Thus, it includes those behavior which includes humiliate, isolate, frighten, coerce, threaten, blame, hurt, intimidate, manipulate and injure someone.[1]

Likewise, Domestic Violence is any physical, sexual, economic and emotional abuse which is in combination or alone by an intimate partner which is done often for the purpose of establishing the power of control over the other partner. It occurs in heterosexual, lesbian, gay, bisexual and transgender relationships whether the victim is male or female, from every age, racial or ethical background, religious group, domestic violence affects all.[2]

Domestic violence not only undermines safety and dignity of individuals but also weakens the broader fabric of the society. It

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1 Office on Violence Against Women (OVW), *Domestic Violence*, available at: https://www.justice.gov/ovw/domestic-violence .

2 Harvard University, Domestic Violence, available at: https://www.hupd.harvard.edu/domestic-violence .

is a pattern of incidents of controlling, coercive, threatening, degrading and violent behavior including sexual violence. It is very common that it is experienced by women and is perpetrated by men.[3] It is not limited by geography or economic status as it affects communities worldwide. The impact of domestic violence is profound mainly harming physical health, emotional well-being and the ability to participate fully in society. In addition, it is very important to recognize the domestic violence as a complex issue shaped by individual behaviors, norms and inequalities. It is a pervasive problem which occurs in all regions of the world; in every culture and social group. It is found that the victims are overwhelmingly female who face many challenges in accessing justice and protection.[4]

In every country and every culture, domestic violence affects people where it is estimated that 35% of women worldwide have experienced physical and sexual violence. Nepal is no exception as domestic violence remains a pervasive human rights and public health issue here. Nepal has taken significant steps towards domestic violence as it takes close collaboration with women's rights organizations, UN Agencies and Other Partners. Likewise, it has made normative legal commitments in this area including Domestic Violence (Offence and Punishment) Act, 2009. The right to equality as well as the right of children and women also have ben enshrined in Nepal's Constitution of Nepal, 2015 as one of the fundamental rights.[5]

In Nepal, Domestic Violence is a widespread problem. Various factors like cultural, economic and religious belief reinforce male dominance where men inherit power and control most property in responsibility to support parents, wife and children. Women are

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3 *What is domestic violence*?, available at: https://www.womensaid.org.uk/information-support/what-is-domestic-abuse/ .

4 *Preventing and Responding to Domestic Violence*, available at: https://www.unodc.org/roseap/uploads/archive/documents/vietnam/publication/Trainee_manual_in_English_6-5-11_.pdf .

5 *Responding To Domestic Violence: A Resource Guide For Un Personnel In Nepal*, available at: https://un.org.np/sites/default/files/doc_publication/202104/ DVRB%20including%20GBV%20pocket%20book-%20English.pdf .

more dependent on men which is reinforced by religious and cultural norms. Thus, poverty, lack of jobs and alcohol abuse feed the opportunities for violence.[6] According to Nepal Police data, 53% of the domestic violence is physical violence and 47% is mental violence. Likewise, it is found that 67% of cases of domestic violence are between husband and wife whereas 63% of victims are girls between 11 to 16 years and 38% of perpetrators are between 10 and 25 years old.[7]

Hence, to address the problem, Nepal needs a coordinate approach that combines legal enforcement, education and community support. As domestic violence is not just a private family matter but a glaring violation of human rights that damages individuals, families, and society as a whole. Awareness campaigns to challenge harmful norms, better access to shelter, strong collaboration between government agencies all plays a very important role.

2. Development of the laws of Domestic Violence

Domestic violence has not been always considered as a serious offence than the violence among seniors.[8] In Early 1500s beating wife was allowed for correctional purpose. Old-English common-law allowed these kinds of activities and had set out a limitation that husband was allowed to whip their wife which was not bigger than their thumb.[9] It was also considered acceptable in ancient Rome. The rule of thumb was also practiced and common in

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6 *Domestic Violence in Nepal*, available at: https://www.theadvocatesforhumanrights.org/Res/nepal_2.PDF .

7 Rastriya Samachar Samimiti, *16-day Campaign against VAW– 80 per cent of GBV includes domestic violence*, The Himalayan Times, available at: https://thehimalayantimes.com/nepal/16-day-campaign-against-vaw-80-per-cent-of-gbv-includes-domestic-violence .

8 JOAN ZORZA, *THE CRIMINAL LAW OF MISDEMEANOR VIOLENCE,1970-1990,* 83 J. CRIM. L. & CRIMINOLOGY, 46, 47 (1992).

9 *The Pennsylvania Child welfare Resource Centre, Domestic Violence timeline*, 310 *DOMESTIC VIOLENCE ISSUES: AN INTRODUCTION FOR CHILD WELFARE PROFESSIONALS* 1, available at: https://www.pacwrc.pitt.edu/Curriculum/310DomesticViolenceIssuesAnIntroductionforChildWelfareProfessionals/Handouts/HO3DomesticViolenceTimeline.pdf .

Ancient Rome during the reign of Romulus.[10] According to it, husbands are allowed to beat wife with rod or switch which was not thicker than their thumb. It shows that the traditional status considered husband as the owner who could treat their wife as no lesser than their property. They could correct the wife's behavior by beating them. Thus, early history of domestic violence is not that flattering for women. [11]

After that, with the end of the Punic wars, women were allowed more freedom and right to sue their husband for unjustified beating. Even at this time, wife-beating was not considered illegal but only unjustified beating could be contested. However, the patriarchal norm was restored. In around 300 AD, the emperor Constantine burned his wife alive when she was of no use. Thus, even till this time it can be said that it was not that great situation for women as they could be tortured and burned alive for being no use to the husband. The situation can be considered to have worsened because traditionally they were allowed to be beaten only but now it was considered okay to burn them alive. Even though the legal status of this is not sure, however, societal perception is all about that.[12]

The same is also reflected in the decision of the Mississippi's Supreme Court which allowed a husband to administer "moderate chastisement in case of emergencies". [13] In this case, husband was accused for a common assault and battery, upon his arraignment, he pleaded he was not guilty as Lydia Bradley was his wife. The court held that husband cannot have unlimited right to beat their wife under the ground of the humanity or law. However, the court allowed that husbands can exercise the right of moderate chastisement in cases of great emergency and 'could use salutary restraints in very case of misbehavior without being subjected to

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10 *Genesis, Women's History Month and the History of the Domestic Violence Movement*, available at: https://www.genesisshelter.org/blog/tag/Domestic+Violence .

11 *Id*.

12 *Women's History Month: Pioneers in Domestic Violence*, available at: https://shelteringwings.org/2021/03/25/pioneers-in-domestic-violence/ .

13 Bradley v. State 2 Miss (Walker) 156 (1824).

vexatious prosecutions'.[14]

This also reflects that husband was allowed to beat wife if he considered that wife had done something wrong. However, this did not always remain as the right and in 1871, the right was taken away by Alabama state. Furthermore, it was considered as a crime by Maryland in around 1972. In 1875, Martha Mc Whirter opened a shelter for the survivors of domestic violence.

Mississippi in Harris v. State stated that the right to administer moderate chastisement is overruled.[15] Things started to change when the civil rights movement in 1950s and 1960s and feminist movement started. This changed the position of women. The notion that the wife could be beaten started to change. [16]

The women organization in 1970s started to make campaign that 'wife would not be beaten'. In 1970s, it was found by feminist that it was not only women with working class husband, but all class of husband suffered from domestic violence.[17] During this time feminists founded shelter house and also fought legally against the offense of domestic violence.[18]

3 Historical Development of Domestic Violence Law in Nepal

Domestic violence until recently was considered to be limited to private sphere until recently. This part deals with historical development of domestic violence laws and practice in Nepal in two main parts: Un-codified Period and Codified Period.

3.1. History of Un-Codified Law Period of Nepal

a. Ancient Period

The recorded history of Nepal dates to *Kirat* period which is

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14 *Id.*
15 Harris v. State, 71 Miss. 462 (1894).
16 *Id.*
17 ANNA CLARK, DOMESTIC VIOLENCE, PAST AND PRESENT, 23 JOURNAL OF WOMEN'S HISTORY, 193, 193 (2011).
18 *Id.*

then followed by *Lichchhavi* period.[19] In Kirat period, rulers used base on traditional customs. Social and cultural aspects, belief and values were takes were considered very important. Even though there were traditional rules, a holy book named '*Mundhum'* was taken as a basic framework of law. State's main Function was considered as to maintain peace and security. Violence was connected to religion and was considered as sin. The punishment was based upon retributive system. Murderers were given punishment of death sentence. In Kirat period polygamy and child marriage were allowed which are also related to domestic violence as of now. However, there is no certainty on whether similar approach was taken in matter of domestic violence.

Lichhavi era was also based on *Hindu Dharma Shastra* and guided by theological concept. The concept of hell and heaven was widely believed, and activities were connected to it. It was believed that those who commit sin, would go to hell. *Manusmriti*, *Yagyabalkyasmriti*, *Kautilyashastra* and *Naradsmriti* were referred. Killing of women was considered as *brahmanhatya*, *balhatya*, *guruhatya*, *gotrahatya*. A reference of women having higher status can be drawn from here. However, we can see the reference of polygamy's existence during the time/adultery was prohibited. Furthermore, a *mapchowk* which was considered as family court was also established which dealt with issues like marriage, divorce and partition.[20]

b. Medieval Period

The government system in medieval period was based on shastras. It was guided by Arya-Hindu culture. It also believed in system of hell and heaven. *Strihatra* was considered as heinous crime and women were exempted if they had been convicted of crime liable for capital punishment. A reference can be drawn from here that women must have had a good status in society. Codified

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19 *Itihasa*, available at: https://itihasaa.com/lichhavi-dynasty/ .

20 Gyanu Maya Rai, *The Contribution of the Ancient Kirat Civilization in Nepal and its Consequences of Decline*, available at: https://ijsscfrtjournal.isrra.org/index.php/Social_Science_Journal/article/download/1514/187/1775 .

books were also found during the period. Jayasthiti Malla had introduced *Manvnyayashastra* and similarly King Ram Shah had introduced '*Ram Shah ko Esthete'*.[21]

- **Manavnyayashastra**

Manavnyayashastra was introduced by Jayasthiti Malla[22] does not explicitly refer to domestic violence laws. However, there are various provisions that reflect the society of that time which helps to get some idea on how the situation of domestic violence could have been. The chapter on *Stripunsayog (man-woman relationship)* dealt on relationship between husband and wife. There is a provision which legitimizes 2 or more wife if the rule regarding Varna is followed. So, polygamy was allowed at the time. Various discriminatory languages have been used which portrays woman as only the subject of creation. Vile disease, brazenness, emotional attachment with other man and deformity were considered as defects of women. Those women who were deemed to be unfaithful as per the law of the time, were forced to sleep on the floor, eat bad food and were compelled to do works relating to dirt and waste. If a woman attempted for abortion, then husband was allowed or even more, encouraged to banish her from house.

The Chapter on inheritance of partition had provision which ensure the property of mother to the daughter after the death of mother. On the Chapter on violence, violence against another's wife has been considered as one of the highest degrees of crime but it has not incorporated violence against one's own wife. The lines like "*how a husband without any quality is respected by wife"* which portrays the status of husband and wife must have been unbalanced at that time also.

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21 PROF. DR. RAJIT BHAKTA PRADHANANGA AND KHEM RAJ BHATTA, DOMESTIC VIOELCE LAW IN NEPAL: CONCEPT, HISTORY AND JUDICIAL PRACTICES, CRIMES AGAINST WOMEN IN NEPAL 440 (2075).

22 Jayasthiti Malla, *Nyayabikasini*, avaialble at: https://itihasaa.com/legal-system/nyayabikashini-manabnyayashastra/ .

c. Period of Shah before 1854

- **Ram Shah's Thiti[23]**

King Ram Shah, (King of Gorkha since 1666 B.S-1693B.S.) had introduced sthiti for regulation of the country but there was no special reference to family law issues and domestic violence. However, it had provision relating to domestic violence which is also one of the forms of domestic violence till now. In No. 18 there is provision which says that it is not encouraged to file a case in the name of '*witchcraft*' but even after someone does and wins case then he would be awarded with Rs 5 and recognition but if he loses, he should be fined and banished. This shows that the practice existed and could also be proved.

- **Prithivi Narayan Shah's DivyaUpadesh**

King Prithivi Narayan Shah (King of Gorkha and Nepal since 1742-1774 A.D.) unified Nepal from a scattered and fragmented states. So, before the unification each state had their own ruling system-based custom, culture and tradition. However, after the unification King Prithvi Narayan Shah started to rule by '*DivyaUpadesh'. DivyaUpadesh* had no specific reference to issues of family laws and domestic violence.[24]

3.2. The History of Codified Law Period of Nepal

Many rulers of the Shah dynasty ruled in Nepal after the King Prithvi Narayan Shah. The first step of unification of laws took place at the time of Junga Bahadur Rana who was then Prime Minister, which is called as *Muluki Ain* 1910 B.S.

a. Muluki Ain, 1910 (1854).

It was a compilation of customary rules existing at the period. People largely believed in Hinduism and the code also

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[23] Ram Shah, *26 thitis*, available at: https://itihasaa.com/legal-system/26-thithis/ .

[24] *Dibyaupadesh*, available at: https://itihasaa.com/chronicle/dibya-upadesh/ .

reflects Hindu-oriented laws. *Muluki Ain,* 1854 followed *Mitashara* school but it had some inconsistency with original *Mitakshara* which believed women and children to be the part of the property. However, *Muluki Ain* 1910 had defined wives and sons as heirs to and co-partners to the father's property. Clause 1 on chapter on husband and wife obliged the husband to execute partition of the property and hand over the share of wife or wives, if he commits physical assault against them or fails to provide maintenance to them. [25]

Hindu principles can be clearly reflected as legal relations have been attempted to be defined in terms of *Kul* (Kin group), *Santan* (family lineage), *Jat* (caste) and *Linga*(sex). Gender and caste system has been considered as societal status. The Code was discriminatory in the application of law on the ground of religion, race, sex, caste and tribe. There was difference in punishment for men and women and for the person of "lower caste" and "upper caste."

It was based on *Manusmriti* and believed on the philosophy that a woman is not entitled to independence as the father is supposed to protect her in childhood, husband in her youth and son in old age. Polygamy, child marriage, unmatched marriage was permitted without any precondition. Daughters were excluded of in the matters of property.[26]

Muluki Ain, 1888 also called as Second *Muluki Ain* of 1888 and *Muluki Ain*, 1935 also called as third *Muluki Ain*, 1935 were amendments to *Muluki Ain,* 1854 to make the code practicable and organized. Third *Muluki Ain* of 1935 constituted of hurt, abortion, homicide, rape and incest as heinous crimes. Even though domestic violence has not been incorporated but these crimes in a way can be analyzed in the context of various forms of domestic violence.

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25 Muluki Ain, Chapter, 1910 (1854).

26 Forum for Women, Law and Development (*Fwld), An Update Of Discriminatory Laws In Nepal And Their Impact on Women,* available at: http://fwld.org/wp-content/uploads/2016/07/An-Update-of-Discriminatory-Laws-in-Nepal-and-their-impact-on-Women.pdf .

b. Muluki Ain, 2020 (1963)

The *Muluki Ain*, 1854 was replaced by new *Muluki Ain*, 1963. *Muluki Ain*, 1963 was a step forward in terms of codified law and it played as a landmark to various reformations. *Muluki Ain*, 1963 has a chapter on husband and wife. In no.1 of the chapter, there is provision which allowed bigamy and banishment by husband without proper food and care as ground of divorce for wife. There are terms like co-wives used in no. 4 of chapter on partition which reflects the existence of bigamy in a way. Bigamy is one of the main reasons that deprive woman of their and subject them to violence.[27]

In no.1 of Chapter on women's share and property, a provision guarantees the unmarried, married or widowed women's right to dispose the property earned by them in their own discretion. This kind of provision ensure women's independence in their property, which can be a way forward to check domestic violence as women become independent and fight against it. No. 5 of the same chapter discusses about discretion of women in matters related to dowry. On the one hand this sort of provision ensures their right to use while on the other hand reflects that the practice of dowry had not been checked. Domestic violence also occurs because of dowry and especially in Terai, there are various incidents of daughter-in law murdered by burning because of lack of or less dowry.[28]

Even though *Muluki Ain*, 1963 had no specific provision for domestic violence but various forms of domestic violence were incorporated in general crimes. No. 1 of Chapter of hurt had provision related to bloodshed, wound and injury and grievous hurt as crime. Homicide, intention of sex, rape and incest has also been criminalized by the code.

On no. 9 of Chapter of Marriage, bigamy has been prohibited except in cases of contagious veneral disease, incurable disease, in case of no off-springs, when crippled and if taken partition share. On no. 10 (b) of Chapter in decency, the provision ensures that no

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[27] Muluki Ain 2020, available at: https://www.equalrightstrust.org/resources/national-code-muluki-ain-2020-1963 .

[28] Muluki Ain, 2020. Ch. 1 & 5.

one to be banished from the house in the name of or accusation of being a witch.[29]

In this way, *Muluki Ain,* 1963 has not incorporated specific provisions for domestic violence but has attempted to touch via other provisions. While on the one hand there are provisions that have tried to ensure independence of women and on the other hand there were still discriminatory provisions.

c. Constitution of Kingdom of Nepal, 2047 (1990)

Constitution of Kingdom of Nepal, 1990 was product of success of people's movement of 1990. The constitution had outline fundamental Rights in part 3. When referring the constitution in context of domestic violence, there is specific reference. However, domestic violence is a complex issue which is related to various social rights that has been insured in the constitution.

Article 12 of the constitution has ensured the right to equality which is about everyone to be treated equally and equal protection before law. No discrimination on the basis of sex is allowed. However special provision for positive discrimination for betterment is allowed. Domestic violence, especially against women is committed because of discriminatory attitude towards women. This provision has helped to eradicate discriminatory attitudes.[30]

Article 14 of the constitution has ensured the right to freedom under which personal liberty is protected which has direct relation to human rights that can be violated by domestic violence. So, the provision indirectly prohibits such kind of violence that hinders personal liberty.[31]

Article 17 of the constitution ensures the right to property of every citizen which can be interpreted in a way that the domestic violence which restricts right to property has been touched here

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29 Muluki Ain, 2020, Ch. 9 & 10 (b).
30 Constitution of Kingdom of Nepal, 2047, Art. 12.
31 Constitution of Kingdom of Nepal, 2047, Art. 14.

indirectly.[32]

d. Interim Constitution of Nepal, 2063 (2007).

This constitution was product of people's movement II and has incorporated various rights as fundamental rights in part 3. **Article 13**[33] ensures the right to freedom which protects personal liberty as well as freedom of opinion and expression. Article 13 ensures that no one to discriminated on the ground of sex, race, etc. **Article 18**[34] ensures the right to employment of every citizen. There are various instances where domestic violence has taken place restraining the right to employment of women. So, these kinds of activities are prohibited as per the fundamental rights and can be brought for remedy if violated.

Article 20[35] ensures right of women which has been incorporated as a new provision from other constitutions. This provision restricts discrimination by virtue of sex and furthermore, goes on to prohibit any kind of violence against women. **Article 28** protects every citizen's right against exploitation in the name of custom and tradition.[36]

This was the first constitution which had provision that prohibited any kind of violence against women in fundamental rights.

e. An Act to Amend Some Nepal Acts for Maintaining Gender Equality, 2063 (2006).

This Act was brought forward to amend the provision so as to maintain gender equality as per the need in existing provisions. This act amended the No. 1 of chapter on husband and wife which omitted the ground of medical certificate of not being able to bear child for dissolution of marriage.

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32 Constitution of Kingdom of Nepal, 2047, Art. 17.
33 Interim Constitution of Nepal, 2063, Art. 13.
34 Interim Constitution of Nepal, 2063, Art. 18.
35 Interim Constitution of Nepal, 2063, Art. 20.
36 Interim Constitution of Nepal, 2063, Art. 28.

f. The Domestic violence (Offence and Punishment) Act, 2066 (2009).

This is special legislation that brought the focus in prevention of domestic violence in public sphere. This Act has defined what constitutes domestic violence and has further highlighted various aspects of domestic violence. Various forms of domestic violence along with provisions for punishment have been outlined. Not only that but various complaint mechanisms and victim protection mechanisms have been incorporated in the Act which shall be outlined in detail in later sections.

The Domestic Violence (Crime and Punishment) Act, 2066 defines domestic violence in Section 2[37] as any form of physical, mental, sexual, or economic harm by a person living in a shared household. Section 3[38] explicitly prohibits all such acts. Under Section 4, victims or any concerned person can file complaints either verbally or in writing, and the authorities must register them immediately and take necessary steps.[39] Section 5 empowers courts to issue interim protection orders, including orders for safe shelter, restriction of the accused's movement, or arrangements for maintenance.[40] Section 6 provides for in camera hearings to protect the victim's privacy.[41] Section 7 requires that proceedings be concluded within 90 days under a simplified, fast-track process.[42] Section 8 allows the court to order compensation to cover physical, mental, or economic harm suffered by the victim.[43] Section 13 details penalties, prescribing fines between NPR 3,000 and 25,000 or up to six months imprisonment, or both, for first-time offenders, with repeat offenders facing double punishment.[44] Section 14 adds an extra 10% punishment if the perpetrator is a public official.[45]

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37 Domestic Violence (Crime and Punishment) Act, 2066, Sec. 2.
38 Domestic Violence (Crime and Punishment) Act, 2066, Sec. 3.
39 Domestic Violence (Crime and Punishment) Act, 2066, Sec. 4.
40 Domestic Violence (Crime and Punishment) Act, 2066, Sec. 5.
41 Domestic Violence (Crime and Punishment) Act, 2066, Sec. 6.
42 Domestic Violence (Crime and Punishment) Act, 2066, Sec. 7.
43 Domestic Violence (Crime and Punishment) Act, 2066, Sec. 8.
44 Domestic Violence (Crime and Punishment) Act, 2066, Sec.13.
45 Domestic Violence (Crime and Punishment) Act, 2066, Sec.14.

Overall, these provisions aim to ensure prompt action, protection, and justice for survivors of domestic violence in Nepal.

g. The Constitution of Nepal, 2072 (2015).

There are several provisions within Constitution of Nepal which affirms the commitment for eliminating gender-based violence and can be invoked to protect the victim of domestic violence.

The preamble of the Constitution set the purpose of eliminating gender-based violence. It reads[46]:

"Protecting and promoting unity in diversity, social and cultural solidarity, tolerance and harmony, by recognizing the multi-ethnic, multi-lingual, multi-religious, multi-cultural and geographically diverse characteristics; and resolving to build an egalitarian society based on the proportional inclusive and participatory principles in order to ensure economic equality, prosperity and social justice by eliminating discrimination based on class, caste, region, language, religion and gender and all forms of caste-based untouchability;

The preamble of the constitution reflects that the constitution of Nepal fundamentally believes in equality and strongly condemns all kinds of discrimination. Thus, the major goal of the domestic violence laws can be evident even in the constitution and only thing that is left to be done is to associate these two notions.

Article 16[47] while recognizing the right to dignified life as fundamental right, Article 18 ensures equality before law and equal protection of law irrespective of any gender.[48] It may be a question that why an offence and the right to equality is being associated. Yes, this question has to be raised and answered as well. It is associated and integrated because, despite some instance of violence against men, this phenomenon cannot be denied as gendered

46 Constitution of Nepal, 2071, Preamble.
47 Constitution of Nepal, 2071, Art. 16.
48 Constitution of Nepal, 2071, Art. 18.

phenomenon. Thus, this means that due to the historical oppression that is continued even till now is a major reason woman still suffer from the domestic violence. Because women were treated as property and had to depend on the male members of the family, the society turned in such a way which started to see women as someone they could trample upon. Thus, the real notion of gender equality is the fundamental aspect of domestic violence.

Only when the real idea of gender equality is achieved in society, the offense of domestic violence will be eliminated. Specific domestic violence laws may be a temporary solution to serve punishment and remedies, but it cannot bring permanent solution. Thus, from the right to equality incorporated in the Constitution of Nepal, it has paved way for the permanent solution. However, to achieve that a wide range of policies and action plans need to be introduced.

There are some new provisions which can be invoked to protect the victim of domestic violence. For example, **Article 35** guarantees the right of every citizen to have free basic health services from the State[49], and no one to be deprived of emergency health services. This means that the physical injury suffered by the victim as well as the psychological harm they suffered shall be the matter of right to health services and they can in no way be deprived of it. **Article 36** guarantees the right relating to food[50].

Article 37 ensures every citizen the right to appropriate housing and protects them from any eviction from the residence owned by him or her except in accordance with law.[51] In many cases, domestic violence can be perpetrated by evicting the victims from their house. Furthermore, micro-analysis on this right with specific reference to domestic violence shows furthermore aspects. While providing interim relief or ordering the victims and perpetrator stay together in a house they have suffered, it should be questioned, if that is the right to house this constitution is talking about.

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49 Constitution of Nepal, 2071, Art. 35.
50 Constitution of Nepal, 2071, Art. 36.
51 Constitution of Nepal, 2071, Art. 37.

Article 38 specially relates to women. The provision guarantees the right to equal lineage without discrimination.[52] Many women suffer and continue to suffer because they cannot give their name to the child for the citizenship. This threatens the future of the child, and this is one of the main reasons why domestic violence victims do not make complaints against the offender.

Furthermore, every woman shall have the right to safe motherhood and reproductive health. Some forms of the domestic violence may curtail this right of women and some violence may occur because of this right of women. All women have the right to choose on the issues of the family planning. Some women may be tortured on how many children to give birth to and the spacing of so. Some women are victims of the domestic violence because they did not give birth to son. Thus, this right ensures that these aspects should not be tolerated, and it is right of every woman. Furthermore, it should also be recognized that domestic violence has been curtailing this right of women.

Another right that has been ensured by the constitution for women in that no woman shall be subjected to physical, mental, sexual, psychological, or other form of violence or exploitation on grounds of religion, social, cultural tradition, practice or on any other grounds. Such an act shall be punishable by law, and the victim shall have the right to obtain compensation in accordance with law. This right is directly associated with domestic violence.

Furthermore, the right of women to participate in all bodies of the State based on the principle of proportional inclusion has also been ensured. Even though this does not seem to have a direct relation to domestic violence. But it surely does have an indirect relation to it. For instance: the social status of women is also a major concern in matters relating to the domestic violence.

Women shall have the right to obtain special opportunity in education, health, employment and social security, on the basis of positive discrimination. If all the other rights of women are ensured,

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52 Constitution of Nepal, 2071, Art. 38.

then automatically women will be able to come out of the relation of violence. It shall also create an environment of respect for women which shall deter the domestic violence.

The husband and wife have been ensured the equal right to property and family affairs. This is another important right in relation to domestic violence. It is so because many women do not come out of violent relationship because they have no place to go. Thus, this right has to be ensured substantively to improve the status of women in Nepal.

Similarly, Article 29 protects every person from exploitation.[53] As per the provisions no person shall be exploited in any manner on the grounds of religion, custom, tradition, usage, practice or on any other grounds. No one shall be subjected to trafficking, nor shall one be held in slavery or servitude. No one shall be forced to work against his or her will. An act contrary to these provisions is punishable by law and the victim shall have the right to obtain compensation from the perpetrator in accordance with law. Article 21 guarantees the rights of the victims, which include right to get information about the investigation and proceedings of a case in which he or she is the victim and right to justice along with social rehabilitation and compensation in accordance with law.

Article 25 can further be invoked to protect the privacy of the victim of domestic violence. As per the provisions, the privacy of any person, his or her residence, property, document, data, correspondence and matters relating to his or her character shall, except in accordance with law, be inviolable. And in case the victims of domestic violence are not financially capable, Article 20(10) can be invoked to claim for legal aid[54].

h. The Muluki Criminal Code, 2074 (2017)

The Muluki Criminal code, 2074 (2017) has criminalized discriminatory and disrespectful behavior in the name of origin,

[53] Constitution of Nepal, 2071, Art. 29.
[54] Constitution of Nepal, 2071, Art. 20 (10).

religion, race, caste, sex, physical state, disability, health status, marital status, etc. Section 175 of the code has criminalized bigamy and sets out punishment for the crime.[55] The code has also criminalized forceful abortion in section 188(2)[56] of the code. *Kutpit* and murder have also been criminalized by the code. The code has also criminalized marital rape and incest rape in section 219(4) and 220[57] respectively. In this way even though, specific reference has not been done to domestic violence but relation can clearly be done.

From a long history where there has been legitimization of violence, Nepalese evolution of domestic violence law has come to the public sphere where domestic violence is criminalized and punished.

Most of the forms of the domestic violence like assault, acid attack, etc. are already criminalized in Criminal Code of Nepal. The minor matter like assault is taken as civil issues and allowed to reconcile.

4. Conclusion

In Nepal, domestic violence is deeply entangled with socially constructed gender norms and there's is a pervasive influence of patriarchy. This position man's as the dominant authority where women are more dependent on men and often kept in weaker positions than men. This is not only how individual man think but is a social system that teaches people that controlling and hurting women is normal. These kinds of beliefs are passed from generation to generations to families and communities. As a result of this, home which should be a safe place for women often feels like place where violence like hitting, insults and financial control takes place.

This problem affects women from all backgrounds whether they live in villages or cities. Even though there are special rules and laws which promises the equality like Domestic Violence (Crime

55 Muluki Criminal code, 2074, Sec. 175.
56 Muluki Criminal code, 2074, Sec. 188(2).
57 Muluki Criminal code, 2074, Sec. 219(4) & 220.

and Punishment) Act, many women still struggle to get help. Male power is so accepted inside the family which is why many cases of abuses are hidden and ignored whereas women may be afraid of shame, worried about their children and scared of violence if they try to report the abuse.

Therefore, addressing domestic violence in Nepal demands more than just legal provisions. It requires efforts for transforming the patriarchal foundation that holds inequality and control over women. Laws are important to punish abusers and protect victims but we must also teach communities about respect and equality. If everyone works together to challenge these kinds of harmful belief and support equality and fairness, Nepal can build a safer society where no one has to live in fear and suffer violence at home.

In conclusion, raising awareness in society and building strong community support are important steps to change and stop domestic violence. When communities talk openly about this issue, it beaks the silence and victims may feel less alone and more supported. Likewise, Awareness programs in schools, workplaces and villages and teach people about equality, respect and healthy relationships. Along with awareness, the government must strengthen laws and make sure strict punishments are given to those perpetrators ho commit abuse so that they will think twice before harming someone again. Finally, it is very important to take this issue seriously and work together to build a society where everyone is treated with dignity and respect. Only afterwards we can create a society free from fear and where women and children are treated equally.

THE SILVER JUBILEE YEAR OF THE INFORMATION TECHNOLOGY ACT, 2000: NEED TO OVERHAUL THE LEGAL LANDSCAPE OF CYBERSPACE AMIDST THE EMERGENCE OF NEW DIGITAL RIGHTS AND TECHNOLOGIES IN INDIA

Dr. Ashok P. Wadje[*]

Abstract

The central focus and argument of the present article is to assess the functioning and efficacy of the Information Technology Act, 2000 in view of its Silver Jubilee Year in 2025 i.e. on 9th June, 2025. The present article is written in the backdrop of two key developments in the arena of cyberspace in India. One, the rapid change of and emergence of unprecedented technologies which are constantly changes our lives. Second, lawlessness in the arena of legal landscape of cyberspace in India, especially, the failure of Information Technology Act, 2000 which was supposed to be the grundnorm of cyber regulations in India, when it was passed in the year 2000. However, the passage of the Act of 2000 has not been so, and there have been constant changes, public criticism and outrage so far as the provisions and working of the Act. Twenty Five years after its commencement, there have been no significant changes in the legal landscape of the technology in India. Now the technologies have intruded and new rights have come to the fore, there has been a concern to lay down a robust IT Legislation in India. This article discusses the path, functioning and a concern, for the overhaul of the Act and to suggest concrete suggestions in the ahead of the new cyber jurisprudence in India.

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Relevance of the Study and Gaps in the existing Literature:

This article will be a great literature on a topic which other researchers would always find useful - the *grundnorm* of cyberspace i.e. the Information Technology Act, 2000, the functioning of which had not been successful as desired. It assumes significance, also in the wake of the fact that there has been a constant demand to revisit the legal landscape of the cyberspace especially post the promulgation of privacy judgement by the Supreme Court of India in *Justice K.S. Puttaswamy vs. Union of India*[1], which puts additional obligation on the government to protect informational privacy. Furthermore, there exists a gap in the implementation of the provisions of the Digital Personal Data Protection Act, 2023 which seeks to replace the data protection provision of the IT Act, 2000. Technological advancements in the form digital technologies such as Internet of Things, Artificial Intelligence, Metaverse, Big Techs etc need to be addressed by the legal regime. There have been several omissions on the part of IT Act, 2000 in codifying many cyber wrongs and cybercrimes in the realm of cyberspace. All these aspects will be dealt with, critically, to present before the legal fraternity a holistic legal material based on research to delve further into the issues which the article seeks to address.

There have been studies carried out to appreciate and assess emerging technologies and its effect. They have focused on specific findings and issues, however, there have been less literature on the topic of the *overhauling* aspect in the cyber law carried out in the context of the Cyber Regulations in general and Information Technology Act, 2000. The future and probable cyber regulatory regime will be a matter of policy and which will decide the fate of over all development of the free and democratic nation like India. Furthermore, the sui-generis status of the IT Act, 2000 has not been explored by any Researcher in the field of Cyber Law in India. The question whether, IT Act, 2000 is sui-generis legislation or not assumes significance in assessing the efficacy and development of the Act. The present article also enquires into the same.

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[1] (2017) 10 SCC 1)

Importantly the present research assesses the over all passage and functioning of the Act of 2000 in the wake of the fact that the Act of 2000 will mark a Silver Jubilee year. Laws need to be revisited, reviewed and critically assessed.

Technological Landscape and the Paradigm Shifts:

The innovation and advancements in the field of Information and Communication Technologies (ICTs) has had not happened in a single day and it has been changing in accordance with the change in the lives and the Research and Development which is happening in the technology field. There is paradigm shift of the humankind in general and countries in particular in switching to adaptation of digital technologies in all sectors[2]. For what they started with, the *calculating*, *computing*, and then switching on to the *generating* to ultimately come to the stage of *understanding* and *deciding*. The 'understanding' and 'deciding' factors associated with the information technology in the form Artificial Technology has the potential of threatening human life and which why it should be a matter of concern for all[3]. There are various writings, claims and evidences of how, where and in what state or form the Information and Communication Technologies have came to be a part of the human lives. There have been constant inventions and changes in the life of the humans and every technology comes with some opportunity and some challenges. A computer science has also developed in phases. 1960s came to be known as the era of *mini-computers*, 1980s an era of *personal computers*, 1990s came to known as the era of computer networks or that of the internet and 2000 year onward came to known as the era of mobile computing.[4] The paradigm shift was not been just confined to the machine and it structure, it was more of the kind of technology it was changing, the change in the ability of machines to perform, the power, capabilities,

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2 ATUL JALAN, WHERE WILL MAN TAKE US - THE BOLD STORY OF THE MAN TECHNOLOGY IS CREATING (Penguin India 2019)

3 YUVAL NOAH HARARI, NEXUS, A BRIEF HISTORY OF INFORMATION NETWORKS FROM THE STONE AGE TO AI (Fern Press 2024),

4 ACHYUT GODBOLE, ARTIFICIAL INTELLIGENCE 11(Madhushri Publications, 2021 ed.)

potentialities and the impact on the society giving rise to new phenomena in human lives such as e-commerce, sectoral reforms etc. In those processes, the technology provided us with a lot of opportunities and challenges in various sectors such as education, commerce, governance business, entertainment etc in the form of certain developments in each phase such as, Internet, Artificial Intelligence (AI), Internet of Things (IoT), Industrial Internet of Things (IIOT), Big Data, Augmented Reality, Virtual Reality, Cloud Computing, and 3D Printing, 5G etc.[5].

Simpler process of calculations, logical applications, computing, storage, availability of or generation of or digitisation of records to the decision making stage of technology has been phenomenal. The inception of the artificial intelligence has marked a revolutionary stage of human lives compelling us to change with the pace of time.The research and development has gone to the extent of studying and integrating cognitive abilities of humans with that of computer's cognitive ability to the benefit of humankind.[6]

Regulating the Cyberspace: A Jurisprudential Perspective:

A legal analysis is required to be carried out in connecting the Law with the technology. Technological advancements and the legal development must go in tandem with and Law can not afford to be lagging behind of technology. Many a times, a technology touches upon the social fabric, moulding, either upgrading or downgrading the fabric of then society. here have been studies increasingly discussing upon the intersection of law and technology and its relevance to the society and legal system Legal Theories are also been explored to the extent of discussing the intersection of Law, Science and Technology[7].

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5 *Ibid*.

6 Susan Straight and Zara Abrams, *'How psychology is shaping the future of technology, American Psychological Association'* (24th January 2025 at 02:00 PM) https://www.apa.org/news/apa/2024/psychology-shape-future-technology

7 Faulkner, Alex, et al. *Introduction: Material Worlds: Intersections of Law, Science, Technology, and Society.* Journal of Law and Society, vol. 39, no. 1, 2012, pp. 1–19. JSTOR 25th January 2025 at 04:00 PM) http://www.jstor.org/stable/41350295

Legal Theories discusses the foundations of law, legal system and its evolution in various phases of human life. It is also explored to asses the interface of the law and the society. John Austin, one of the prominent legal scientists, discusses the 'Law as Command of Sovereign' having political authority the subject to legislate and to prescribe sanctions. Legal Theories are divided into Analytical, Sociological and Theoretical studies which focusses not just on intersection with science and technology but all walks of human lives[8]. The *Analytical* thought explores the conceptual and historical framework of the principles and its relevance to the legal system. The Sociological branch studies the actual impacts of law in society and the Theoretical branch assesses and critiques legislation in the light of the objectives or goals that have been proposed for it.[9]

Technology whereas is set of inventions, innovations and its industrial application, having relevance to the human lives. Technologies, often, are considered as means to advance the human civilisation, bringing transformation in human lives. Technology in modern times is referred to as: 1) tools and techniques 2) organised systems such as factories, 3) applied science, 4) those methods that achieve, or are intended to achieve a particular goal such as efficient, and 5) the study of or knowledge about such things[10].

Technological innovation is critical for addressing world's key and contemporary challenges such as climate change, pandemics, food security, energy conservation, depletion of natural resources, etc., by transforming the we deal with them. These transformational technologies, in long run, have the potential to further the socio-economic growth and has the ability to improve

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8 Kaniemozhi A/P Katheravan, Puvanamathi A/P Mathiallahan, Nabeel Mahdi Althabhawi, *Science, Technology's Influence on Law: The Perspective of Jurisprudence, Economic Growth and Environment Sustainability* (26th January 2025 at 10:00 AM) https://journals.indexcopernicus.com/api/file/viewByFileId/1675452

9 *Ibid*.

10 Lyria Bennett Moses, *Why Have a Theory of Law and Technological Change?* Minnesota Journal of Law, Science & Technology, Volume 8 Issue 2 (26th January 2025 at 11:30 AM) https://scholarship.law.umn.edu/cgi/viewcontent.cgi?article=1269&context=mjlst#:~:text=

lives for People, Business and Society. It was urged that the Governments need to understand before they formulate the policies to maximise the perks of the technological advances by ensuring sustainable development.[11] This can better be done through an instrumentality of law and agency of State, especially in a case where Artificial Intelligence is providing an opportunity for the world community in an unprecedented ways. It is the Law, Policy and the Governmental attitude, has the potential to control the hazards the same technologies pose, like we see in case of the same Artificial Intelligence and technologies enabled by it.

Such *transformative Technologies*, must be supported, complimented, recognised, promoted and regulated by the Legal System. Jurisprudential studies assumes a great role and holds a lot of significance in making an assessment in recognition of, adaptation of, and prescribing foundational basis for, technologies impacting society. The Legal System is capable of holding *legalities* and *illegalities* of the technologies that are in the society. Law creates a sustainable and balanced approach in ensuring efficiency, productivity and threats that are associated with the technologies such as Artificial Intelligence - both, negative and positive impact on the society.

Unfolding International Legal Regime vis-a-vis Cyberspace:

The process of digitisation has taken a toll and is considered to be a significant step in connection with the governance of any country in a welfare state. Not just that, the digital interface and exchange of records through digital platforms, has also paved a way towards the reformation of the commerce, business, communication and governance, in an unprecedented way. It is believed that the use of information and communication technologies in the governance and public life by the state will ensure efficiency, transparency and

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[11] Toluwalola Kasali and Tobi Kasali, Technology Innovation, Policy, and People', (London School of Economics Blogs, 2024 (26th January, 2025 at 02:00 PM) https://blogs.lse.ac.uk/internationaldevelopment/2024/01/11/technology-innovation-policy-and-people/

accountability in the governance[12]. The usage of the ICTs such as computation, command, digitisation, storage, communication, dissemination, publication and generation of the records have been adopted successfully by the governments across the country in various forms.

The inception and adaptation of technology shows the transformed pattern of society. Trade, business, investments and commerce thrived under the aegis of the information and communication technology[13]. The World Community had to respond to the new model of electronic commerce (e-commerce). As a result, the United Nations, through the agency of the United Nations International Commission on Trade Law adopted 'Model Law on E-Commerce' which is popularly known as 'UNICTRAL Model Law on E-Commerce', in the year 1996 in order to give effect to the or to create a legal background for 'digitisation of commerce'. The UNICTRAL Model Law on E-Commerce, is the first formal international legal document in the area of cyberspace and it was not viewed only from the point of commerce but was seen as a model for the overall digitisation of the records.[14]

This document urges all the State parties to accord legal validity to the digitisation of records and implement the spirit of global trade and business. The UNICITRAL Model Law on E-Commerce is fundamentally based on following key principles:

1) Non-discrimination;

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12 Reetika Khera and Vineeth Patibandla, (2020), *Information Technology and Welfare Social Security Pensions in Andhra Pradesh*. (26th January, 2025 at 03:13 PM) https://www.epw.in/journal/2020/26-27/insight/information-technology-and-welfare.html

13 OECD Policy Paper, *Trade in Information and Communications Technology and its Contribution to Trade and Innovation*. (2nd February, 2025 at 02:00 PM) https://www.oecd.org/en/publications/trade-in-information-and-communications-technology-and-its-contribution-to-trade-and-innovation_5kg9m8cqg4wj-en.html

14 United Nations Commission on International Trade Law, *Electronic Commerce* (2nd February, 2025 at 02:00 PM) https://uncitral.un.org/en/texts/ecommerce

2) Technological Neutrality and

3) Functional equivalence.

Of course the first principle urges all the State parties to accord fair opportunity of trade and business at the global forum, remaining two could best be considered as motivating factor for the countries to adopt digital governance. These two principles, such as *Technological Neutrality (*Legislations must not restrict function or act by the kind of technology it is using as long as it legal in nature) and the *Functional Equivalence (*Regulations must eye on the function of any particular act or behaviour and not the form) have paved way for e-governance and resulted in digitisation of records, storage, collection, publication of information in electronic form (e-form) and offering public administration against thereof. Many countries have adopted the path of UNICITRAL Model Law on E-Commerce, 1996 including India by passing its first ever enactment on the subject of cyberspace, including recognition to the e-governance. The enactment, namely the Information Technology Act, 2000 was passed to give effect to the Model Law on E-Commerce.

It is to be noted that the foregoing international document is a part of promotional jurisprudence, meaning thereby it only enables countries to adapt or accord legal validity to digital record, paving way for - electronic commerce (e-commerce), electronic governance (e-governance) and electronic evidence (e-evidence). This came down to mean a *Model Civil Law* in the IT sector of the legal regime. However, the major concern and the struggle of the World Community had been to lay down or develop a *Model Criminal Law* to deal with the menace of the cyber threats or cyber crimes. For time and again, the Organisation for Economic Co-operation and Development has expressed concerns numerous times in the form of various Reports on Cyber Crime[15]. The United Nations taking cognisance of the developments and rise in Cybercrimes, laid down explored the concept and provided the theoretical framework for the

[15] Cybercrime Law, 'The Organisation for Economic Co-operation and Development' (OECD) (2nd February, 2025 at 04:45 PM) https://www.cybercrimelaw.net/OECD.html

same by defining the facets of Cybercrime in its various endeavours.[16] This global initiative and programme of the United Nations on Cybercrime, promotes long-term and sustainable capacity building to prevent and counter cybercrime by means of establishing and strengthening specialised national capacities in the fields of Cyber Investigations, Digital Forensics, Digital Evidence, Virtual Assets, Online Child Sexual Exploitation and Abuse, and Cybercrime prevention.[17] It is important to note here that, the UN Body, is in preparation of bringing a global legal document exclusive on the menace of cybercrime which threatens, mostly the financial safety and sovereignty and integrity of nations. The INTERPOL[18], International Criminal Police Organisation, an inter-governmental cooperation body at the international level which seeks to prevent crimes at global level making a world safer place, has also taken a lot of preventive initiatives and mutual cooperation at the global level, so far as Cybercrimes are concerned.

However, all these measures were not sufficient to tackle the international concern of cyber safety of the world community. There was need to have a global understanding and consensus on the cyber security or cybercrime. This void was, to an extent, fulfilled by two regional level international documents:

1) The Budapest Convention on Cyber Crimes, 2001

2) African Union Convention on Cyber Security and Personal Data Protection, 2000

The Budapest Convention on Cyber Crimes, 2000[19] was adopted by the European Union to tackle the menace of cybercrime for the European Union countries. However, it is to be noted that the

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16 The UN Office of Drugs and Crimes (2nd February, 2025 at 05:14 PM) https://www.unodc.org/unodc/en/cybercrime/our-approach

17 Ibid.

18 INTERPOL, *Cybercrimes cross borders and evolve rapidly* (2nd February, 2025 at 05:35 PM) https://www.interpol.int/en/Crimes/Cybercrime

19 The Council of Europe, *The Convention on Cybercrime (Budapest Convention, ETS No. 185) and its Protocols* (4th February, 2025 at 07:00 PM) https://www.coe.int/en/web/cybercrime/the-budapest-convention#:~:text=

present document is open for all the countries in the world to be a part of this first ever attempt on regulating cybercrime by any continent. Whereas the African Union Convention on Cyber Security and Personal Data Protection, 2001[20], as the name itself suggests, was adopted by the African Union to address two important concerns beyond or within the regime of Cybercrime: a) Recognition and Promotion of Cyber Security across the African Union countries for electronic communications and computer networks and b) Protection of Personal Data of the residents of the African Union in e-commerce and e-governance regime.

However, UN General Assembly, recently in the month of December, 2024 adopted one of the historic and key international documents, which was long standing concern of the world community, namely, *United Nations Convention Against Cybercrime; Strengthening International Cooperation for Combating Certain Crimes Committed by Means of Information and Communications Technology Systems and for the Sharing of Evidence in Electronic Form of Serious Crimes, 2024*[21]. This marked a landmark event in the history of the landscape of international regime on Cybercrime. It will only be a matter of time, the modality, working, functioning and the system to be set in place will be clear to the world community. No doubt, the Members States will have to take necessary legal measures in implementing the concern of the present Convention.

Reflecting the Cyber Jurisprudence in the Legal Landscape of India:

The regulatory regime on any subject matter or affairs of our

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[20] African Union, *African Union Convention on Cyber Security and Personal Data Protection* (2nd February, 2025 at 09:45 PM) https://au.int/sites/default/files/treaties/29560-treaty-0048_-_african_union_convention_on_cyber_security_and_personal_data_protection_e.pdf

[21] UN General Assembly, *Countering the use of information and communications technologies for criminal purposes - Report of the 3rd Committee* (3rd February, 2025 at 06:00 AM) https://documents.un.org/symbol-explorer?s=A/79/460&i=A/79/460_1733767802442

society is a systematic process which goes through a struggle. Involvement of various stakeholders, balancing of conflicting interests, and getting it passed it through technical law making procedure as established by the Constitution of India, makes it complex process to understand. Further, in a free and democratic set up like that of India, the process becomes not just elaborative and complex, but participative and inclusive. Public opinion or public consultation is often involved in Law making in India, which is considered to be a significant aspect of Law making.[22] Furthermore, for some legislations which are sensitive in nature and related to a major section of the society, it is often a testing time for the State, owing to opposition of the proposed Law by the citizens affecting it[23]. In some cases, proposed laws take almost a years to come in and to be made applicable to the citizens on a particular subject matter, in view of the quest for the applicable, suitable and model draft[24]. Law making may be the result of reaction to the legal regime of World Community[25] or it could be a reaction to the Judicial decision[26] or it could be a pressing need of the society to regulate the dark realities and ongoing practices.[27]

In reference to the Information Technology Act, 2000[28] it is evident[29] that it has been passed or enacted as a result of the United Nations International Commission on Trade Law's Model Law on E-Commerce, 1996[30] during the process and emergence of *winds of digitisation* across the countries of the world so far as business, governance and communications sphere are concerned. In the legal

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22 Sakshi Parashar, *Evaluating the Gaps in Pre-Legislative Consultation Policy: A case for Deliberative Democracy,* DNLU Law Review, Vol. 1 (3rd February, 2025 at 07:30 AM) https://www.mpdnlu.ac.in/dnlulr_vol_1.php

23 Ibid.

24 Kirk J Nahra, *India Passes Long Awaited Privacy Law*, WilmerHale (3rd February, 2025 at 06: 30 PM) https://www.wilmerhale.com/en/about

25 UNCITRAL Model Law on E-Commerce is a model Law for many UN Member countries, the example being the Information Technology Act 2000

26 The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013.

27 The Surrogacy (Regulation) Act, 2021

28 Hereinafter read as 'IT Act 2000'

29 Preamble, The Information Technology Act 2000

30 Hereinafter read as 'UNCITRAL Model Law on E-Commerce'.

landscape, it would have been difficult for the countries to go ahead with the e-commerce and e-governance, without there being a legal recognition. UNICITRAL Model Law on E-Commerce accords that[31]. Whereas the remaining part of this international document urges State Members to incorporate and legally recognise, ''writing in electronic form'[32]', 'electronic signature[33]', 'electronic contract[34]' and other model rules in order to give effect to the foregoing concerns.

The IT Act was passed, as has been mentioned earlier in the article, in order to given enforcement to the UNCITRAL Model Law on E-Commerce. The IT Act, 2000 makes provision for the providing of legal recognition to the digitisation of the records except certain transactions. The IT Act, 2000 best be described as an "*An Act to provide legal recognition for transactions carried out by means of Electronic Data Interchange and other means of electronic communication, commonly referred to as* "*Electronic Commerce", which involves the use of alternatives to paper-based methods of communication and storage of information to facilitate electronic filing of documents with Government Agencies.*[35] It is an important piece of legislation though not exclusive, on the subject of cyberspace and information technology.*"*

Orienting Cyber Regulations in India: *Sui-Generis* or Piecemeal?

The *sui-generis* status of any legislation is a type of legal classification which is enacted to fill the devoid in a legal system so far as particular subject matter is concerned. It is defined as *of its kind or class* and it can be viewed as regime tailored to meet a certain need.[36]. Such type of legal classifications seeks to give effect

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31 Article 5, UNICITRAL Model Law on E-Commerce 1996

32 Article 6, UNICITRAL Model Law on E-Commerce 1996

33 Article 7, UNICITRAL Model Law on E-Commerce 1996

34 Article 8, UNICITRAL Model Law on E-Commerce 1996

35 Preamble, The Information Technology Act 2000

36 Moni Wekesa, *What is Sui Generis System of Intellectual Property Protection, Technology Policy Brief*, African Technology Policy Studies Network (6th February, 2025 at 06:45 AM) https://atpsnet.org/wp-content/uploads/2017/05/technopolicy_brief_series_13.pdf

to a principal law on a given subject matter and will normally override on all other laws. The term is also attributed to the laws aimed to govern, recognised, regulate and promote new age affair of human intercourse or new arena, often owing to advancements in science, technology and socio, economic and political environment of the human society. These are enacted in special circumstances and in case of special subject matters which are beyond the realm of existing laws, requiring special attention. It was argued that technological advancements and changes drives State to respond to it in the form of legislation, hence there is a tendency to propose new rules designed to make applicable specifically to the new technology and as a result of which, technological change often leads to rapid increase in such models of law making. Responding quickly to such emerging technological advancements, is the best practice for the legislations to respond[37].

The *sui-generis* nature of the IT Act, 2000, for that matter of any Law, is to be ascertained on the basis of the legislative history of the Act, the provisions thereof and insights of the researchers and academicians. As regards the IT Act, 2000 and its legislative background and history, we do not come across any special reasons except that of the implementation of the UNICITRAL Model Law on E-Commerce, to accord a *'legal recognition to the digital records.'* That is what the reason we don't see holistic structure of the Act of 2000 which will be explored hereinafter. Furthermore, to support or to disclaim the proposition that the IT Act, 2000 is *sui-generis* in nature, there have been no concrete research works or juristic writings throwing a light on that. Nor it has been addressed by any Authority in the realm of cyber laws. This has not been enquired into by the researchers as of now.

No doubt, the Act of 2000 brought drastic changes in the way business and governance is carried out. The Act of 2000 has brought some of the unprecedented changes (amendments) to the Indian

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[37] Lyria Bennett Moses, *Recurring Dilemmas: The Law's race to keep up with the technological change*, SSRN (3rd February, 2025 at 08:45 AM) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=979861#

Penal Code, 1860[38], and the Indian Evidence Act, 1872[39] so as to give recognition to and enforcement of digitisation which the Act of 2000 intended to carry out. So far as the digitisation of the records and transacting[40] in electronic mode is concerned, now doubt it a principal legislation. The Act of 2000 seeks to introduce *digitisation* except the case of certain transactions or subject matters where it may have been difficult to introduce at the that point of time, such as Power of Attorney, Negotiable Instruments, Transfer of Property, Testamentary dispositions (Wills) and Trust.[41] Further, the exclusiveness, the principal status of the IT Act, 2000 is seen in the following excerpt of the Act:

> "*The provisions of this Act shall have effect notwithstanding anything inconsistent with therewith contained in any other law for the time being in force*[42]*."*

Mainly, the Information Technology Act, 2000 addresses following concerns:

1) Legal validity to electronic records

2) Digitisation of records in e-form

3) E-Commerce (Electronic Commerce)

4) E-Governance (Electronic Governance)

5) Civil Wrongs in Cyberspace

6) Cyber Crimes in Cyberspace

The uniqueness of the IT Act, 2000 is also unprecedented in the wake of the fact that it has given recognition to certain new principles in the legal system owing to *the change*, digital spaces have brought in the way business is carried out, that being concept

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38 Now, it is Bharatiya Nyaya Sanhita 2023
39 Now, it is Bharat Saksha Sanhita 2023
40 E-Commerce, E-Governance and E-Evidence
41 Section 1 (4), the Information Technology Act 2000
42 Section 81, The Information Technology Act 2000

of 'Intermediary', the legal status, position and liability being codified in the IT Act, 2000[43] as regard the electronic communications are concerned. The conventional form of concept of crime and its modality had to be redefined and legislated. Further, the traditional form of document, writing and the record keeping had to be transformed and recognised by the legal system which ultimately enabled the people to transact and communicate electronically. It is, the Information Technology Act, 2000 which has recognised the electronic nature of the document (writing & record keeping) and regulated the activities of the people which are detrimental to the society, driven by the digital era. Further, it has also introduced certain amendments, owing to digitisation, to the Banker's Books Evidence Act, 1891, and the Reserve Bank of India. Bringing simultaneous amendments to these legislations, especial Indian Evidence Act, 1860 (now Bharatiya Saksha Sanhita, 2023) is unprecedented and could only be done where the society adopts a drastic change in its affairs in various walks of life[44]. The uniqueness of the Act of 2000, which could make it or gives an impression of it being a sui-generis legislation lies in incorporation of following important points:

1. For the first time in India, an Information Technology led by digitalisation is sought to be regulated in India
2. Incorporation of safe harbour rule, the concept of 'Intermediary' for the first time is used as regards the digital platforms in general[45].
3. Legal Recognition to electronic records, validity to e-contracts, digital signature and electronic evidences[46].
4. It incorporates a provision for the data protection and privacy of the individuals[47]

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43 Section 79. Exemption from liability of intermediary in certain cases.

44 Pound, Roscoe. *Sociology of Law and Sociological Jurisprudence*, The University of Toronto Law Journal, Vol. 5, No. 1, 1943, pp. 1–20. JSTOR (7th February, 2025 at 04:45 PM) https://doi.org/10.2307/824509

45 Section 79

46 Section 3 & 4

47 Section 43A

5. Codification of Cybercrimes and contraventions in cyberspace[48]

Further, one of the important rulings of the Hon'ble Supreme Court in *Sharad Babu Digumarti v. State of NCT of Delhi,*[49] strengthens the premise and field of IT Act, 2000 being unique and exclusive on the subject, when it, as regards the concept of obscenity which is discussed both under IT Act, 2000 and Section 292 of the Indian Penal Code, 1860, held that the Information Technology Act, 2000 being the *specialised law* in dealing and combatting cybercrimes, it will prevail over the IPC, 1860 (BNS now). Hence, it creates a *non-obstante* clause which means a *special law will prevail over the general law*.

However, these provisions and the ruling of Hon'ble Supreme Court of India, which maintained the uniqueness and newness of the Information Technology Act, 2000 with respect to digital platforms, could no longer be retained and hold its significance being an exclusive law on the subject of digital platforms. There have been several attempts by legislature to think of codification beyond Information Technology Act, 2000 on a model of *sectoral basis* regulation. Further, even the same has been the attitude of the judiciary, to identify the law pertaining to any dispute or a legal point, beyond the provisions of the Information Technology Act, 2000 for its interpretation, regardless of the fact that the dispute or a legal point is pertaining to digital platforms. So, was it correct to say that the IT Act, 2000, jurisprudentially speaking, started losing its character as *sui-generis* feature or being a unique or exclusive law on the subject. This article accounts these developments which, jurisprudentially runs counter to the exclusivity of the Act of 2000.

- Copyright Act, 1975 and the Trade Marks Act, 1999: The jurisprudence of infringement developed under the The Copyright Act, 1957 and the Trade Marks, 1999 shows us that the law pertaining to the liability of intermediary as designed by the IT Act, 2000 is not the only test deciding the liability of the

[48] Section 43 and various other provisions on cyber crime

[49] (2017) 2 SCC 18)

intermediary in digital spaces. Involvement and the legal position of intermediaries in IP violation cases such as Copyright infringement[50] and Trade Mark infringement[51] involving e-commerce, are viewed under the respective laws and the law evolved under Section 79 of the IT Act[52] is not being involved. Even subsequent rulings of the Supreme Court[53] could not clarify the position and inconsistency still exists as regard the jurisprudence of IT Act, 2000[54].

- The Protection of Children from Sexual Offences Act, 2012: The Protection of Children from Sexual Offences Act, 2012 no doubt a special legislation which seeks to defines and punishes sexual crimes against Children. While doing so, this Act also incorporates certain crimes as offences which are done involving or if done with the help computer resource or in digital platform, involving children[55]. Whereas, the IT Act, 2000 has also incorporated, in fact, in a more wider and broader manner, similar provisions[56].

- Indecent Prohibition of Women (Prohibition) Act, 1986 As per the data available with the government, there have been prosecutions under the Indecent Prohibition of Women (Prohibition) Act, 1986 despite there being an involvement of digital platforms.[57] Whereas

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50 MySpace Inc. v. Super Cassettes Industries Ltd., (2017) 69 PTC 1

51 Kent RO Systems (P) Ltd v eBay India (P) Ltd, FAO (OS) (COMM) 95/2017 (Del)

52 Section 79 of the Act, 2000, Intermediary Rules, 2011 and the Shreya Singhal vs. Union of India, 2015 SCC Online SC 248

53 Amazon Seller Services (P) Ltd. v. Amway India Enterprises (P) Ltd, (2020) SCC OnLine Del 454

54 Vasundhara Majithia, *The Changing Landscape of Intermediary Liability for E- Commerce Platforms - Emergence of New Regime*, Indian Journal of Law and Technology, Vol.15, Issue 2, Article 8 (9th February, 2025 at 11: AM) https://repository.nls.ac.in/cgi/viewcontent.cgi?article=1021&context=ijlt

55 Section 14-Punishment for using child for pornographic purposes and Section 15 - Punishment for Storage of pornographic material involving child.

56 Section 67B: Punishment for publishing or transmitting material depicting children in sexually explicit act etc in electronic form

57 See for more details https://www.data.gov.in/resource/stateut-wise-cases-registered-cr-and-persons-convicted-pcv-under-indecent-representation (7th February, 2025 at 04:45 PM)

under the IT Act, 2000 there enough provisions to attract the IT Act, 2000 such as obscenity, pornography, violation of privacy etc.

- The Digital Personal Data Protection Act, 2023: The Digital Persona Data Protection Act, 2023 by virtue of Section 42 (2) takes away the jurisdiction of the IT Act, 2000[58] as regard the breach of data or privacy of the personal information of the individuals and makes that provision in operative in the present of the present one.

- Criminal Law (Amendment) Act, 2013: After the horrific Nirbhaya gang rape incident[59], Justice Verma committee was devised to revamp the criminal justice. Hence, numerous women centric provisions were introduced in order to safeguard the rights and privacy of the women in India. One such provision is Section 354C under erstwhile Indian Penal Code, 1860 defined voyeurism along with its respective punishment. However, similar provision is already in place under the IT Act, 2000.[60]

- Bharatiya Nyaya Sanhita, 2023[61]: The Bharatiya Nyaya Sanhita, 2023 which replaced erstwhile criminal law of India namely, the Indian Penal Code, 1860. Even, the Indian Penal Code, 1860 had direct and indirect provisions dealing with the cyberspace and even if IT Act, 2000 had not been there, it would have taken care of the prosecutions. Further the present code i.e. BNS has also incorporated and addressed the menace of the cybercrime, despite there being a separate chapter under the IT Act, 2000. Organised Crime, Obscenity, Unauthorised access to property, defamation and several other crimes directly or indirectly deal with the cybercrime.

Emergence of New Digital Rights the Regime of Cyberspace:

The Digital Technologies, across the world, have been

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58 Section 43A, The Information Technology Act, 2000
59 Delhi Gang Rape Incident happened in December 2012
60 Section 66E: Punishment for privacy
61 Popularly known as BNS

adopted by the legal systems with the sole of objective of ensuring human rights and and advancement of human lives. Digital Technologies have been considered to be a means to attain global human rights which delivers the promise of civil, cultural, economic, political and social rights[62].

Hence it is bound to on top priority of any government across the world to ensure that *Internet* and related technologies must reach the door steps, every needy person. And as result many developing countries are seeking help of tech-giants or Big-Techs, being private player in the market, to extend its help in ensuring access to the Internet to the masses.[63] It would be interesting to note in this context that '*right to access Internet*' which is closely related to or is a part of the ecosystem of E-Governance and E-Commerce, is a matter of a global human right. The legal system of many legal systems or jurisdictions across the globe have enforced the mandate of this human right in one or the other form, including the global Human Rights Document – Universal Declaration of Human Rights, 1948. The Universal Declaration of Human Rights, 1948 was promulgated after the establishment of UN Charter, 1945 in order to define the framework of global human rights. This document, under Article 19, indirectly concerns with the right to access Internet and states:

> Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.

Similar provision is also added in the International Covenant on Civil and Political Rights, 1966, under Article 19, which is part

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62 OHCHR Report, *About the Good Governance*, UNHR (7th February, 2025 at 09:13 PM) https://www.ohchr.org/en/good-governance/about-good-governance

63 The Indian Express, *Cisco partners with Google to launch free high-speed WiFi in India* (7th February, 2025 at 10:30 PM) https://www.newindianexpress.com/nation/2019/Jul/29/cisco-partners-with-google-to-launch-free-high-speed-wifi-in-india-2011104.html

of the International Bill of Rights along with Universal Declaration of Human Rights, 1948.

New Digital Rights in Indian Legal Landscape:

The Information and Communication Technologies have caused a great revolution in the human lives, making human life simpler, easier and convenient. At the same time it has enabled business and governance to be performed on single click of a computer. Furthermore, the digital technologies like Artificial Intelligence will decide the future of the humankind, as it has encroached almost all walks of our life. There have been concrete steps taken to regulate, govern and promote Information Technology by the States across the world and international community at regional or global levels. The Budapest Convention on Cyber Crime, 2001, The UNICITRAL Model Law on E-Commerce, 1996, the African Union Convention on Cyber Security and Personal Data Protection, 2000 and the European Union Artificial Intelligence Act, 2023. As the technology is advancing, new regulations started taking its place in Legal systems across the world, new rights are also emerging in the sphere of e-commerce and e-governance. The right to free speech and expression has already been included by many countries as part of their human rights document including that of Indian Legal System. The International Bill of Rights already makes a provision for the same. Further, under the Indian Constitution, 1950, Article 19 (1) (a) codifies it as fundamental right. Furthermore, Article 21 of the Indian Constitution, 1950 guarantees 'Right to Life and Personal Liberty', including right to dignity. Now, question comes what is the connection of these rights with that of e-Governance and the overall cyberspace. It was discussed and declared by the Supreme Court of India, in one of the case before it, *the Secretary, Ministry of Information v. Cricket Association of Bengal & Anr.*[64], declared that right to know and right to be informed are part of Article 19 (1) (a), the freedom of speech and expression and it is the duty of the state to control the same. Now, it is noteworthy to mention here that, access to internet and e-governance or digital governance ensures

[64] (1995) AIR 1236)

these rights in the broader perspective. However, it is only in another case before it, *Anuradha Bhasin vs. Union of India (2020) 3 SCC 637),* the Supreme Court of India directed equated *right to access internet* as part of Freedom of Speech and Expression (Article 19 (1) (a) and Freedom of Trade, Occupation and Profession (Article 19 (1) (g). Ensuring access to internet is no doubt, critical to the digital governance and digital India mission of the Government o India.

What is more significant development in this regard, has been the ruling of the Supreme Court of India in one of the landmark cases in the legal history of India, J*ustice KS Puttaswamy (Retd.) v. Union of India*[65], which declared and included '*Right to Privacy*' as one of the fundamental rights under Article 21, Right to Life, under the Constitution of India. This judgement of the Supreme Court of India has been landmark in the sense of following key aspects:

1) That it is for the first time that the Supreme Court of India has categorically included and declared 'right to privacy' as a part of fundamental right under Article 21 of the Indian Constitution

2) That, right to privacy as a fundamental right was read in Article 21 in response to the Aadhaar (UID) system which is a pivotal part of Digital Governance

3) That, right to privacy as fundamental right was declared in the context of (digital) informational privacy;

4) That right to privacy, post this judgement, will serve as an obligation on the part of the Government to not contravene while enforcing the mission of digital governance; and

5) The right to privacy was for the first time declared to be a basic human and natural right, for the first time, ever since the inception of the Indian Constitution.

Further, right after promulgation of the judgement of the

65 (2017) 10 SCC 1)

Supreme Court of India in K.S. Puttaswamy Case, the quest or struggle to have a robust data protection law gained impetus with the sole objective of enforcing the mandate given by the Hon'ble Supreme Court in the present case. Hence, the long standing demand and a struggle to have a robust Data protection law, was fulfilled and the Parliament of India, after a lot of deliberations,[66] enacted the Digital Personal Data Protection Act, 2023, despite the fact that India already had a legislation in the form of the Information Technology Act, 2000 which has a similar but weak data protection law under Section 43A of the IT Act, 2000. However, it was felt to have a strong, robust and detailed enactment on the data protection on the similar lines of the European Union's General Data Protection Regulation[67]. Hence, the Digital Personal Data Protection Act, 2023 was enacted by the Parliament of India.

Osculating to Oscillating Pattern of the IT Act, 2000 - Concerns and Developments in the last 25 years of the passing of the Act:

In the backdrop of the foregoing analysis of the IT Act, 2000, it appears that the passage of the IT Act, 2000 in the last 25 years of its enactment has not been found to be smooth when it comes to its drafting and implementation. The IT Act, 2000 has seen many ups and downs. Leaving aside the issue of implementation, which is normally a problem faced by other legislations or laws in the society, its structure, drafting. The provisions of the Act of 2000 was criticised for lack of clarity.[68] The author of this article, believes, that following developments, to the ups and downs, are to be attributed in order to assess the efficacy of the Act of 2000:

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66 Charru Malhotra and Udbhav Malhotra, *Putting Interests of Digital Nagriks First: Digital Personal Data Protection (DPDP) Act 2023 of India,* Indian Journal of Public Administration, (2024) Volume 70, Issue 3. (10th February, 2025 at 02:00 PM) https://doi.org/10.1177/0019556124127l5

67 Latham & Watkins (2023), *India's Digital Personal Data protection Act, 2023 vs. the GDPR: A Comparison* (10th February, 2025 at 10:00 PM) https://www.lw.com/admin/upload/SiteAttachments/Indias-Digital-Personal-Data-Protection-Act-2023-vs-the-GDPR-A-Comparison.pdf

68 Karnika Seth, *IT Act, 2000 vs. 2008 - Implementation, Challenges and the Role of Adjudicating Officers* (10th February, 2025 at 11:30 PM) https://www.sethassociates.com/wp-content/uploads/IT-Act-2000-vs-20083.pdf

a) The IT Act, 2000 did not focus much on the criminal side of the Information Technology and had codified handful of the cyber crimes. Neither Statement of Objects and Reasons of the Act nor Preamble of the Act has endorsed or talks about the concern or need for a strong regulatory regime for "cybercrimes";

b) In the year 2008/2009, the Legislature realized omission on their part to define or to lay down cybercrimes in the Act of 2000 in a more holistic manner and added some more cybercrimes into the scheme of cybercrimes by way of Information Technology (Amendment) Act, 2008;

c) In the year 2015, the Supreme Court of India, in *Shreya Singhal vs. Union of India*,[69] one of the landmark cases in the legal history of India, reviewed the constitutionality of some of the provisions of the IT Act, 2000, and then declared Section 66A which was inserted in the year 2008 by way of IT (Amendment) Act, 2008, owing to lack of clarity and had a chilling effect on the freedom of speech and expression guaranteed under the Article 19 (1) (a);

d) Even after the passing of a landmark judgment by the Supreme Court of India in *Shreya Singhal judgement*, Section 66A of the IT Act, 2000 became inoperative and was adjudged as ultra-vires and unconstitutional owing to its vagueness, the prosecution agencies kept on prosecuting the persons under Section 66A in various parts and States of India[70] and that actually surprised and sought attention of the Supreme Court of India in PUCL vs. Union of India,[71] on a recent occasion in.

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69 (2015) SCC Online SC 248

70 Express News Service, *Scrapped 6 yrs ago, 66A still in use: Shocked Supreme Court seeks govt reply, Indian Express* (10th February, 2025 at 01:00 AM) https://indianexpress.com/article/india/shocking-scrapped-section-66a-it-act-supreme-court-7389766/

71 Krishnesh Bapat, *SC's direction: Stop prosecuting people under the unconstitutional S.66A*, Internet Freedom Foundation (12th February, 2025 at 08:25 AM) https://internetfreedom.in/sc-direction-stop-prosecuting-people-under-the-unconstitutional-s-66a/

e) The controversial aspect of the deciding the cases where "Intermediaries" could be held liable and cases where they are exempted from the criminal liability. The scope and extent of "safe harbor" guaranteed under Section 79 of the IT Act, 2000 read with Intermediary Rules, 2011, to the Intermediaries is ever changing concept, with the change in the nature and structure of the Internet and Internet based services, as it is discussed above.

f) Recently promulgated 'Information Technology (Intermediary Guidelines and Digital Media Ethics Code), 2021' by the Ministry of Electronics and Information Technology (Meity), Government of India on 25th February, 2021, has raised concerns of the members of the civil society and has invited criticisms from across all the corners and has reminded the members of the legal fraternity, judicial pronouncement of Shreya Singhal case, which uphold the rights of the citizens, in a free and democratic society, of speech and expression over the Internet as a medium of expression[72].

g) In one of the Writ Petitions filed in the case of *Kamlesh Vaswani vs. Union of India*[73], an important point was been highlighted, for which international community and international Media[74] took cognisance of the matter. A blanket ban was sought on pornographic websites in the wake of mandate under Section 67[75], Section 67A[76] and

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72 Centre for Internet and Society, *Comments to the proposed amendments to The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021* (15th February, 2025 at 07:30 PM) https://cis-india.org/internet-governance/blog/comments-to-proposed-amendments-to-it-intermediary-guidelines-and-digital-media-ethics-code-rules

73 Writ Petition (C) No.177/2013 Supreme Court of India

74 David Barstow, *India Blocks 857 Pornography Websies, Defying Supreme Court Decision*, New York Times (12th February, 2025 at 10:30 AM) https://www.nytimes.com/2015/08/04/world/asia/india-orders-blocking-of-857-pornography-websites-targeted-by-activist.html

75 Publication or making available of obscene material in electronic Form

76 Publication of Sexually Explicit Content in electronic form

Section 67B[77] of the Information Technology Act, 2000. The Petition noted and pointed out that numerous pornographic sites on the internet are available making mockery of the legal provisions. However, the Government could not control or had a blanket ban on the same, which goes contrary to the foregoing provisions.

h) No full time Adjudicating Officers have not been appointed in various States of India for adducting the cases / complaints under Section 43 of the IT Act, 2000 as well as the mechanism or set up for speedy disposal of the matters.[78]

i) The rise in the concerns pertaining to the 'right to privacy' as highlighted by the Hon'ble Supreme Court of India in Justice (Retd.) *K.S. Puttaswamy vs. Union of India* as mentioned above, could not be addressed by the IT Act, 2000 when it was amended in the year 2008, although that could have been an early time to do that. Now, as the Digital Personal Data Protection Act, 2023 has been passed, the concerns seems to have addressed.

j) Cyber Curfews[79], in exercise of powers given IT Act, 2000 and IT Rules, are a common phenomenon having chilling effect on the freedom of Speech and expression and freedom of occupation, trade and business. Such vague provisions giving unfettered powers to the State machinery, are explored and research with in the foregoing countries they have formulated a doctrine of 'void for vagueness'[80]. In India there is a death of research in such areas.

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77 Publication etc of child pornographic material in electronic form

78 Arundhati Roy, *Detailed Analysis of the Adjucating Officers under Section 46 of the IT Act, 2000* (12th February, 2025 at 06:17 PM) https://blog.ipleaders.in/detailed-analysis-adjudicating-officer-u-s-46-information-technology-act-2000/

79 Geetha Hariharan, *Is India's website-blocking law constitutional? – I. Law & procedure*, Centre for Internet and Society (12th February, 2025 at 09:23 PM) https://cis-india.org/internet-governance/blog/is-india2019s-website-blocking-law-constitutional-2013-i-law-procedure

80 Orin S. Kerr, 'Vagueness Challenge to the Computer Fraud and Abuse Act', HARVARD LAW REVIEW (HLR), Volume 127, 2013.

k) Understanding these developments and concerns in the IT Act, and omission and failures of it to deal with emerging technologies such as Artificial Intelligence, Deepfake etc., the Ministry of Electronics and Information Technology has expressed its desire to revamp the provisions of the Information Technology Act, 2000 and to bring a holistic legislation to be named as '*Digital India Act, 2000'*. This announcement was made by Mr. Rajeev Chandrasekhar, India's Former Minister of State for the Ministry of Electronics and Information Technology (MEITY)[81].

Key Findings of the Study and Concluding Remarks:

The quest of the present research article had been to find and know working of the IT Act, 2000 and to assess its performance in view of its Silver Jubilee Year in 2025. The passage and flow of literature available on the topic and the contents of this article show the problematic nature of the IT Act. On a perusal of these developments it is understood that the problem is not just pertaining to the failed machinery in place or omission or gaps in the legal provisions but, the draconian use of administrative powers in the form of delegated legislation which often goes contrary to and has a chilling effect on the freedom of speech and expression and freedom of trade, occupation and profession, both being guaranteed under the Constitution of India as fundamental right. Furthermore, there has been no clarity on the extent of power to be used and freedom to be exercised over the medium of internet, as the 'right to access internet' is turning out to be also part of constitutional trio, Article 14, 19 and 21 on a combine reading. The fundamental principles on which the constitution of India is rest, *constitutionalism*, must be respected by the State in codifying or implementing or excising the powers under the IT Law. In the age where government is promoting AI in the country which is a considered to be a harbinger of growth across the world, any restriction one the free speech over the Internet will discourage the use of the technologies by the people.

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[81] Ahil Shaikh, *Transparency Must be a Cornerstone of the Digital India Act*, Tech Policy Press (18th February, 2025 at 07:43 AM) https://www.techpolicy.press/transparency-must-be-a-cornerstone-of-the-digital-india-act/

As regard the new regime of cyberspace, which is likely to be introduced in near future, amidst the enactment of DPDP Act, 2023, the new legislation must be enacted with a lot of consultation with the industry, civil society and the public. Furthermore, omission in criminalising certain behaviours as illegal cyberspace must be addressed in a holistic manner, as many of the wrongs in cyberspace have not been addressed by the Act of 2000. Emergence of new technological advancements must be duly appreciated on a similar lines, more or less of European Union Artificial Intelligence Act, 2023, as we do not have such laws dealing with new technologies.

Furthermore, the question, whether there is a sui-generis regulatory is in place so far as cyber space is concerned, is addressed negatively, considering foregoing developments in relation to the IT Act.

THE BIOMETRIC PANOPTICON

Death by Algorithm, Digital Colonialism, and the Carceral Global South

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Abstract

In an era defined by rapid technological advancement, biometric policing has emerged as a pervasive instrument of state surveillance that challenges social justice, human rights, and democratic accountability in the Global South. This paper interrogates the convergence of facial recognition, iris scans, and digital identity tracking within predictive policing and border control, contending that such systems extend beyond state efficiency to generate new modalities of social control. These technologies, underpinned by algorithmic decision-making, do not operate in a vacuum; rather, they reinforce historical frameworks of exclusion and control that disproportionately impact marginalized communities in postcolonial societies.

Employing a multidisciplinary methodology that combines doctrinal legal analysis with critical social theory, the study utilizes comparative case studies, policy document analysis, and in-depth stakeholder interviews. This empirical framework reveals how algorithmic biases and opaque data practices engender tangible forms of digital marginalization, encapsulated by the concept of a "biometric panopticon." Here, the repurposing of Foucault's panopticon illustrates how ubiquitous surveillance erodes individual autonomy and normalizes constant monitoring, while the notion of "death by algorithm" captures the perilous consequences of erroneous or discriminatory data

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processing—where even slight algorithmic missteps can result in severe punitive measures, including extrajudicial punishments.

Furthermore, the paper dissects the interplay between state-driven surveillance and digital colonialism, arguing that biometric systems both perpetuate historical patterns of subaltern control and serve as mechanisms for the economic exploitation inherent in surveillance capitalism. Ultimately, the study advocates for a cohesive international legal framework anchored in transparency, accountability, and participatory governance, thereby urging a critical reassessment of biometric governance and its capacity to redefine state power in the digital age.

Key Words: Digital Colonialism; Global South; Criminal Justice; Surveillance Capitalism; Algorithmic Bias

1. Introduction

In recent years, the Global South has witnessed the rapid deployment of biometric surveillance systems—programs that collect fingerprints, iris scans, facial images, and other bodily data of millions of citizens. Framed as tools of "efficiency" and "security," these systems actually instantiate a new biometric panopticon: a digital architecture that renders individuals perpetually visible and manageable to the state and its corporate partners. Scholars observe that "the idea of biometric technology as a digital panopticon is well-established in studies of Aadhaar (India's universal ID program), where surveillance becomes a central lens for analyzing digital identification journals.openedition.org. In other words, encoded bodies are constantly monitored and categorized through distributed networks of sensors and databases, echoing Foucault's model of panopticism on a massive scale. As one special issue on India's Aadhaar documents, these systems transform citizenship into "coded citizenship" – the translation of human populations into machine-

readable data ensemblesjournals.openedition.org. Yet this "datafication" is not benign; it carries forward legacies of colonial control and racial classification while introducing novel forms of algorithmic violence.

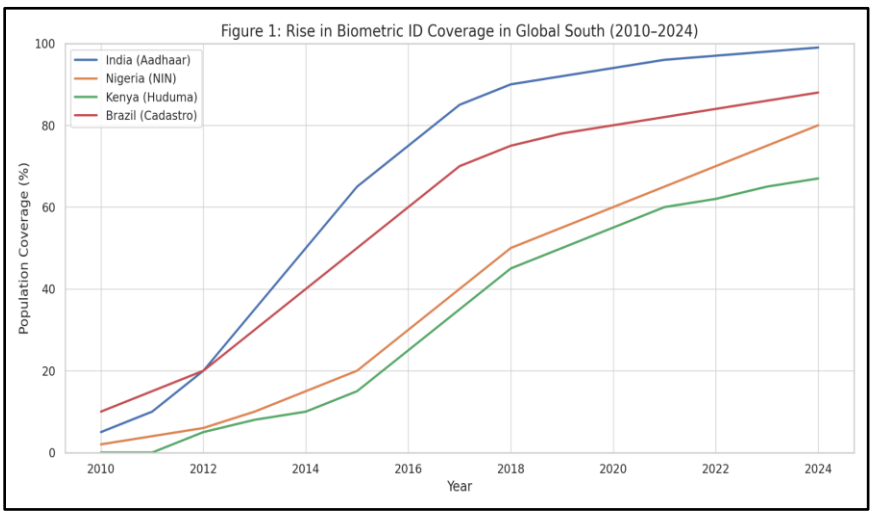
Table 1: Comparison of Biometric Surveillance Projects in the Global South

Country	Project Name	Technology Used	Foreign Partners	Key Concerns
India	Aadhaar	Iris & Fingerprint	World Bank, Accenture	Privacy, Exclusion
Kenya	Huduma Namba	Fingerprint & Facial	Mastercard Foundation	Lack of Consent, Data Colonialism
Nigeria	National Identity Number	Biometrics + Demog.	Oracle, Mastercard	Data Security, Colonial Extraction
Bangladesh	SIM Registration Biometric	Fingerprint	Local Operators	Surveillance, Digital Policing

This paper examines the **biometric panopticon** in the *carceral Global South* – the set of postcolonial states where criminal justice and social policy increasingly intersect with digital surveillance. This work links biometric policing and identification to the concept of the Panopticon and to broader notions of *digital colonialism* and *necropolitics*. Drawing on criminology, postcolonial theory, and critical data studies, this work show how biometric algorithms in contexts like India can function as instruments of social sorting and exclusion, sometimes resulting in what might be called "death by algorithm" (the removal of welfare, legal rights, or even lives through opaque computations). Through detailed case studies – focusing on India's Aadhaar identity program, its expansion into policing (forensics and surveillance), and the use of AI-powered facial recognition – this work analyzes how these technologies replicate historical structures of imperial control and systemic inequality. This also highlights the legal, ethical, and criminological concerns raised by biometric state surveillance, and proposes policy recommendations to ensure accountability, transparency, and justice. Finally, we suggest future interdisciplinary research directions, advocating for dialogues

between criminology, data justice movements, and postcolonial studies. In sum, this paper offers a deeply critical perspective on biometric governance in the Global South, arguing that without rigorous oversight such systems risk reinforcing a new colonial "grid of life and death" shaped by algorithms.

Figure 1: Rise in Biometric ID Coverage in the Global South (2010–2024)[1]



1.1 Statement of the Problem

The central problem is the **unchecked rise of biometric**

[1] Correspondent S, 'Aadhaar Covers 99% of Adults in India: Prasad' *The Hindu* (27 January 2017) <https://www.thehindu.com/business/Aadhaar-covers-99-of-adults-in-India-Prasad/article17104609.ece> accessed 23 May 2025; Fagbemi J, 'NIN Enrollment Surges by 1.19% to 118.4 Million in March 2025' (14 April 2025) <https://technext24.com/2025/04/14/nin-enrollment-surges-in-march-2025/> accessed 23 May 2025; Jaiyeola T, 'Diaspora NIN Enrolment up 308% as FG Eases Process' (*Businessday NG*, 25 March 2025) <https://businessday.ng/technology/article/diaspora-nin-enrolment-up-308-as-fg-eases-process/> accessed 23 May 2025; Odeniyi S, 'Lagos, Kano Lead as 117 Million Nigerians Get NIN' (*Punch Newspapers*, 1 April 2025) <https://punchng.com/lagos-kano-lead-as-117-million-nigerians-get-nin/> accessed 23 May 2025; Sinha A and others, 'Digital Identities: Design and Uses' (*Centre for Internet and Society, India*, 11 June 2019) <https://cis-india.github.io/digitalid.design/> accessed 23 May 2025

surveillance technologies in the Global South, particularly in postcolonial states like India, where these systems are deployed under the pretext of improving governance, security, and welfare. However, rather than serving as neutral tools of administrative efficiency, these technologies—such as facial recognition, fingerprinting, and iris scanning—operate within deeply entrenched structures of inequality, digital colonialism, and carceral governance.

The study identifies a critical gap: **the lack of robust legal safeguards, transparency, and democratic accountability** surrounding the design, deployment, and use of these biometric systems. The implementation of opaque algorithmic governance, often in partnership with global technology corporations, has resulted in widespread exclusion, misidentification, and algorithmic violence—phenomena that disproportionately impact marginalized communities. The paper argues that biometric identification systems in the Global South not only reproduce historical hierarchies of race, caste, and class but also **normalize systemic surveillance and algorithmic decision-making that can lead to social or even physical death**, a concept referred to as "death by algorithm."

Furthermore, the problem lies in the **fusion of surveillance capitalism with state power**, leading to an emerging form of digital colonialism where bodies are encoded into data, and identity becomes a tool of both inclusion and repression. The absence of adequate legal recourse and public oversight mechanisms has enabled these systems to evolve into a **biometric panopticon**—a pervasive architecture of control that erodes autonomy, dignity, and fundamental rights.

In essence, the problem is twofold:

1. **The reconfiguration of citizenship and personhood** through digital means without adequate safeguards.

2. **The transformation of surveillance into a colonial tool of governance**, reifying systemic violence under the guise of modernization.

This issue demands urgent scholarly, legal, and political attention to prevent biometric technologies from entrenching a new, algorithmically enforced regime of inequality and control.

1.2 Methodology

This study adopts a critical, interdisciplinary, and doctrinal approach, drawing from legal theory, surveillance studies, and postcolonial critique. It relies on qualitative analysis of policy documents, judicial decisions, and case studies—particularly from India, Kenya, and other Global South jurisdictions—to examine the socio-legal impacts of biometric surveillance. The paper also incorporates a comparative lens to highlight disparities in digital rights frameworks between the Global North and South, supplemented by scholarly literature and human rights reports to contextualize the biometric turn within broader trends of digital authoritarianism and data extractivism.

2. Theoretical Framework

2.1 Biometric Surveillance and the Panopticon

Foucault's *Discipline and Punish* famously describes the Panopticon – a circular prison design in which guards can observe inmates without being seen – as a metaphor for modern disciplinary power. In today's digital age, biometric surveillance extends this panoptic logic to entire populations. By encoding bodies into data, modern states create a situation where "the architecture of surveillance" becomes distributed rather than centralized[2]. Any agency or corporation with access to the central ID database can effectively participate in observation and control. As Krishna (2019) suggests, biometric technology **is** a "digital panopticon," making population-wide surveillance both pervasive and hidden behind

[2] Masiero S and Shakthi S, 'Grappling with Aadhaar: Biometrics, Social Identity and the Indian State' [2020] South Asia Multidisciplinary Academic Journal <https://journals.openedition.org/samaj/6279#:~:text=complements%E2%80%94the%20technologies%20built%20on%20top,such%20as%20providers%20of%20social> accessed 23 May 2025

technological interfaces. In India, the Aadhaar system exemplifies this: individuals are transformed into unique strings of digits (their Aadhaar numbers) linked to fingerprints and iris scans. Once captured, these data grant the state and its authorized partners the power to track citizens' movements and transactions across welfare programs, telecommunications, banking, and beyond.

Yet, as recent scholars point out, this new panoptic order is neither neutral nor uniformly applied. Biometric data collection is entwined with histories of racial and caste-based monitoring. Sananda Sahoo's historical analysis shows that from colonial times to the present, data about bodies have always been laden with profiling assumptions. Colonial anthropometrics like Annandale collected physical data under racist premises, seeking to "bestow objectivity" on differences between races. Post-independence planners like Mahalanobis similarly embedded colonial hierarchies in demographic data for developmental schemes. Today's Aadhaar regime, despite its rhetoric of "minimal" biometric data, continues this pattern under a different guise. The government's **"data imaginary"** — the narrative that essential biometric markers are neutral and the state-corporate partnership can "legitimately own" them for any future purpose — effectively renders citizens' bodies as government property. In Sahoo's terms, this neoliberal narrative recasts the modern state as a benevolent manager of transparent data, yet ignores how those data reproduce power relations. In reality, biometric attributes remain "laden with assumptions" that allow authorities to produce and manipulate identities while leaving individuals with little control over their own biometric information[3].

This digital panopticon thus represents a **biopolitical** mode of governance – one that reorganizes life itself (through biometric data) even as it wields control over life and death. In Foucauldian terms, biometric surveillance is a continuation of **disciplinary**

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[3] Sahoo S, 'Biometric Data's Colonial Imaginaries Continue in Aadhaar's Minimal Data' (2023) 8 BJHS Themes 205 <https://www.cambridge.org/core/journals/bjhs-themes/article/biometric-datas-colonial-imaginaries-continue-in-aadhaars-minimal-data/2A70115E83C9C9D8CD440D683EF05287#article> accessed 23 May 2025

power: it is not merely about punishing criminals, but about making populations **"legible"** and **manageable** via data. The notion of *coded citizenship* captures this shift: citizens become "machine-readable data ensembles" whose bureaucratic entitlements are conditioned on their computable status. At the same time, new questions arise around algorithmic authority and agency that Foucault could not have foreseen. Who designs these AI-driven systems? On what principles? And how are errors or biases to be corrected? These questions of technical design and governance, as well as the politics of "place" and social difference they engender, demand critical scrutiny.

2.2 Digital Colonialism and Datafication

The term **digital colonialism** (or **data colonialism**) has gained currency to describe how contemporary data practices mirror historical colonial dynamics. Nick Couldry and Ulises Mejias define *data colonialism* as a new form of colonialism, not merely a metaphor, but a system that *"combines the predatory extractive practices of historical colonialism with the abstract quantification methods of computing."*[4] In this view, just as colonial powers once extracted material resources and wealth from subject populations, so today's tech regime extracts human life into data flows for capitalist benefit and state control. Crucially, data colonialism is global: it involves not only former "colonial" states exploiting the Global South, but also powerful data powers (the U.S., China, etc.) and even domestic elites treating local citizens as raw material. In short, digital colonialism means that population-wide data becomes a resource to be harvested, monetized, and controlled – deepening the very inequalities that colonialism once enshrined.

In the context of biometric surveillance, data colonialism takes distinctive forms. First, the **infrastructure** of biometric ID often relies on foreign technology firms or global standards (for example, India's Aadhaar uses tech from global IT vendors).

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[4] Couldry N and Mejias UA, 'Data Colonialism: Rethinking Big Data's Relation to the Contemporary Subject' (2019) 20 Television & New Media 336 <https://journals.sagepub.com/doi/10.1177/1527476418796632> accessed 23 May 2025

Second, the **logic** of collection revives colonial categorizations: identities are carved into ethnoracial, caste, or class categories by the very act of digitization. Sahoo's historical study of Aadhaar shows that the ideology around biometric data in India "has continued elements of colonial imaginaries," implicating racial and ethnic identity in algorithmic identification. In practice, this means that a system like Aadhaar, marketed as an egalitarian welfare tool, may also be used to sort citizens along socio-economic lines inherited from history. As Sahoo notes, in the postcolonial state Aadhaar "perpetuated some colonial hierarchies while claiming the ground for population sampling", for example, creating benefits databases while implicitly reflecting caste and class biases in which groups are deemed most "deserving" or "legitimate."

Moreover, data colonialism is evident in the **consent and ownership** framework: typically, citizens have little say in how their biometric data is used. Once enrolled, a resident's fingerprints and iris patterns can be deployed not only for welfare authentication but also by police agencies, intelligence units, or private companies. In essence, the state-corporate partnership assumes indefinite ownership of citizens' biometric profiles, as if these bodily markers were a communal resource to be managed "for maximum efficiency". This strikingly parallels colonial legal doctrines that treated subjects' labor or land as state-owned for the "public good," except now the "resource" is the human body in data form. Couldry and Mejias warn that unchecked, such practices will pave the way for a new capitalism where all life is exploited as data.

Finally, digital colonialism in this context can entail **imperial surveillance**, where the state and its foreign partners conduct digital reconnaissance on society. The panoptic trap is not limited to criminals but ensnares entire populations, especially the poor and marginalized who are forced to rely on state services. As Zuboff and others have argued of surveillance capitalism, the line between public governance and private exploitation blurs: private companies may gain access to national identity databases, and governments may leverage corporate AI tools, creating a cross-cutting grid of power. Thus, biometric states in the Global South can be understood as hybrid formations of neo-colonial control – not

through guns and borders, but through cables, servers, and algorithms.

2.3 Algorithmic Governance and Necropolitics ("Death by Algorithm")

A final theoretical dimension is the idea of *necropolitics* or what might be called "death by algorithm." Achille Mbembe famously used the term necropolitics to describe how sovereign power decides who may live and who must die. In the digital era, this decision-making is increasingly offloaded to opaque computational systems. Biometric algorithms determine access to life-sustaining resources (welfare, medical care, identification for jobs) and can indirectly cause social death or even physical death. The notion "death by algorithm" thus captures instances where a person is effectively written out of the system – literally declared dead or otherwise excluded – by a bureaucratic process.

A striking example comes from recent investigative reporting in India. In Haryana state, a pensioner named Dhuli Chand, aged 102, had his monthly allowance abruptly halted. Why? The state had implemented a new welfare fraud-detection algorithm (the "Parivar Pehchan" program) that cross-checked Aadhaar and other databases to identify ineligible claimants. A coding error or faulty match declared Chand "dead" in official records, cutting off his pension. To protest, Chand led a village wedding procession (with him as the "bridegroom") to the social welfare office, holding a placard that read "your uncle is alive." Six months earlier, "an algorithm declared him dead," forcing him to prove his own life by public theater[5]. This tragicomic incident illustrates how algorithmic governance can strip away a person's identity and survival. Like the colonial census taker's tally of lives, an opaque digital form labeled him nonexistent, with no human review until a spectacle was made.

Chand's case is not unique: Al Jazeera's investigation found

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[5] Sambhav S, Tapasya and Tapasya D, 'In India, an Algorithm Declares Them Dead; They Have to Prove They're Alive' *Al Jazeera* (25 January 2024) <https://www.aljazeera.com/economy/2024/1/25/in-india-an-algorithm-declares-them-dead-they-have-to-prove-theyre> accessed 23 May 2025

that Haryana's system had erroneously suspended pensions of over 63,000 beneficiaries, later admitting 70% of these cases were in error. In sum, technological error and algorithmic thresholds produced a form of social "death" – families were denied vital support unless they could navigate grievance mechanisms. This phenomenon resonates with Nick Couldry's idea of data colonialism as appropriation of life itself. Here, life (and death) is abstracted into data points: being "marked dead" in a database means real hardship for living people.

Such algorithmic necropolitics can also extend to policing. Predictive policing algorithms (commonly used in the U.S. and other northern countries) flag certain communities as high-risk. If used in India or the broader Global South, such systems would likely target lower castes, religious minorities, or slum dwellers – the very groups historically criminalized under colonial law. Even without an explicitly predictive tool, facial recognition can produce deadly outcomes. For example, in the United States, facial recognition technology used by law enforcement has led to wrongful arrests of Black men (Benjamin, 2019). In India, the lack of strict constraints on face recognition raises fears that an innocent person misidentified could face harsh custodial treatment or worse. Moreover, the sheer expansion of surveillance cameras equipped with biometric identification creates a future in which fleeing police cannot hide; being "spotted" by a camera could escalate violent police encounters in places where police are often trigger-happy with suspects.

In this way, the biometric panopticon in the Global South can be read as a form of necropolitical control: it is not only about cataloguing life, but about managing death – which lives are protected and which are expendable. Algorithmic systems, claimed to be objective, thus have the potential to enact policy decisions of life and death with minimal accountability. The phrase "death by algorithm" also metaphorically captures subtler harms: denial of identity can deprive people of food rations, healthcare, or legal rights, thereby exposing them to destitution or state violence. What emerges is a stark paradox: technologies intended to bring welfare and order can become instruments of precarity and death.

3. Case Studies: India

3.1 Aadhaar and Coded Citizenship

India's Aadhaar program is the world's largest biometric ID initiative. Since 2009, the Unique Identification Authority of India (UIDAI) has enrolled over 1.3 billion residents, assigning each a 12-digit number linked to their fingerprints and iris scans[6]. Aadhaar was initially justified as a poverty-alleviation tool: by uniquely identifying each citizen, the state could better target subsidies and welfare. Over time, however, it has been linked to a host of services: bank accounts, mobile phones, electricity, public distribution (food rations), and social security schemes. In practice, Aadhaar functions as the core of India's digital governance apparatus. Citizens are required to produce their Aadhaar (physically or digitally) to receive benefits, file taxes, buy SIM cards, and even for private services like insurance or housing loans.

Critics have long warned that Aadhaar's data can be repurposed for surveillance. Early work saw Aadhaar as a "tool of both welfare and surveillance", and indeed the UIDAI maintains logs of every authentication (e.g. when a fingerprint scan is used at a gas station). Over time, the government has created interoperable databases (the JAM Trinity of Jan Dhan bank accounts, Aadhaar, and mobile phones) intended to streamline services. The Aadhaar Act of 2016 even allows government agencies to share data "in public interest" – a vague term that opens the door to many uses. For example, the Aadhaar numbers of prisoners have been leaked into criminal databases (leading to joint biometric-criminal identity); police have used Aadhaar to identify accident victims; and secretive police programs have sought to use demographic analytics to "predict" insurgency or gang activity. To date there is no public oversight of these programs.

Welfare schemes illustrate Aadhaar's dual face. Properly

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[6] Raphael R, 'Circles of Value : A Study of Working Lives of Informal Sector Traders in Delhi, India' (thesis/docmono, Lund University 2021) <http://lup.lub.lu.se/record/808c7adc-6b1d-4861-adef-5be802988e48> accessed 23 May 2025

implemented, Aadhaar-enabled transfers can reduce leakage (ghost beneficiaries) and improve convenience. However, they also risk excluding the poor. Field studies have found people losing entitlements due to biometric "authentication failures" (poor fingerprint quality for manual laborers, hardware glitches, network breakdowns). When the algorithm decides someone is not the same person (or simply halts), bureaucrats often respond by confiscating rations or pensions. Such events generate public outrage, but remedies are slow. The creation of formal grievance "camps" and ad hoc fixes in Haryana shows that these tools operate as black boxes beyond individuals' control.

Legal battles have also ensued. The Indian Supreme Court's landmark Puttaswamy judgment (2017) affirmed privacy as a fundamental right. Subsequently, in 2018, the Court held that Aadhaar was constitutional for welfare and tax purposes, but struck down private-sector mandates linking Aadhaar (e.g. for mobile SIM cards). The verdict underscored fears that linking biometrics to many aspects of life poses an "unprecedented informational privacy intrusion." Nevertheless, the government has blurred the line between public and private by encouraging banks and telecoms to also use Aadhaar, and by classifying corporate use as essentially under governmental direction (e.g., requiring telecom firms to notify the government when Aadhaar is used). In effect, the code of our biometric panopticon grows ever more encompassing, with limited legal safeguards.

3.2 Automated Facial Recognition and Policing

Alongside Aadhaar, India has begun deploying **Automated Facial Recognition Systems (AFRS)** for security and policing. According to the Internet Freedom Foundation's Panoptic Tracker, as of mid-2024 there are roughly 170 facial recognition initiatives announced by central and state authorities, with about 20 fully operational systems in states like Telangana, Delhi, and Maharashtra[7]. The government has touted AFRS for tasks like

[7] Jadhav A, 'India Has 170 Facial Recognition Systems, but Only a Handful Are Operational | Biometric Update' (17 June 2024) <https://www.biometricupdate.com/202406/india-has-170-facial-

finding missing children, identifying suspects from CCTV footage, and tracking criminals across jurisdictions. In Mumbai, police have reportedly run probe on thousands of faces per day after terror threats, and even linked live TV feeds to databases of felons (based on news reports). The Indian Railways plans to install AFRS in major stations. Notably, none of these initiatives has been accompanied by a public discussion of accuracy or bias.

Academic and journalistic reports sound a warning: facial recognition algorithms tend to be less accurate on darker-skinned and female faces. Intifada Basheer (2025) thoroughly documents that globally and in India, FRT tools exhibit racial and gender biases, "exacerbating already prevalent forms of societal discrimination". For example, a dark-skinned tribal woman or a Sikh man may be more likely to be misidentified as a match to a criminal record than a light-skinned man, simply because of biases in the datasets that trained the AI. In the Indian context, where police bias against lower castes and religious minorities is well-documented, deploying a biased FRT effectively encodes prejudice into law enforcement. Basheer notes that "when deployed by law enforcement agencies in India," such biased tools have led to "poor outcomes" and raised serious concerns. Yet these concerns are often brushed aside under the assumption that "technology will improve" or that the urgency of crime-fighting justifies any tool. In reality, AFRS in India could create a new underclass of "suspect profiles" based purely on appearance, reviving colonial ideas of physiognomy (the belief that criminal traits can be read on the face).

Beyond bias, AFRS raises privacy and ethical issues. Unlike Aadhaar enrollment, which is "consensual" (albeit heavily pressured), AFRS in public spaces is mostly voluntary on the part of those being captured. Individuals may be unaware their image is being scanned, let alone understand that it is being matched against databases of police records or even Aadhaar-linked ID photos. This surveillance is effectively compulsory. Human rights advocates compare it to China's social credit system or Orwell's *1984*: a "Big

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recognition-systems-but-only-a-handful-are-operational> accessed 23 May 2025

Brother" camera on every corner that knows who you are. So far, courts in India have not directly addressed AFRS, but the Puttaswamy judgment's emphasis on privacy and the need for law and safeguards suggests that secretive face scanning without accountability could violate rights. Some legal experts argue that AFRS must be subject to strict criteria (e.g. writs for warrants, independent audit of code, public notice) but there is no formal regulation as yet. In sum, in India's case the rollout of facial recognition by police illustrates how a biometric panopticon is being built without democratic oversight, promising social control under the rhetoric of public safety.

3.3 Policing and Biometrics: Emerging Practices

Beyond identity documents and face recognition, Indian police have long used biometrics for criminal identification. The Crime and Criminal Tracking Network & Systems (CCTNS) links state fingerprint databases with national IDs. When someone is arrested, their fingerprints are scanned into AFIS (Automatic Fingerprint Identification Systems), often linked with existing profiles in other state systems. Biometric data also assist in forensic investigations: in 2024, for instance, police began leveraging Aadhaar's fingerprint database (under legal provisions) to identify unidentified bodies by matching their prints to the Aadhaar backend [8]. (This measure was justified by efficiency, but worries human rights groups as it implies any police officer can now fingerprint you against the national ID database.)

Another trend is predictive policing. Although not yet publicly acknowledged in India, some city police forces are experimenting with data analytics to forecast where crimes might occur or who might be involved. If such systems rely on past arrest data or demographic data, they risk reinforcing existing biases. A slum that has historically had many arrests will continue to be treated as "high-crime," drawing even more surveillance and arrests

[8] Sarma CS, 'Aadhaar Biometric Data Access Will Aid Forensics' *The Hindu* (5 November 2024) <https://www.thehindu.com/opinion/op-ed/aadhaar-biometric-data-access-will-aid-forensics/article68833639.ece> accessed 23 May 2025

– a self-fulfilling prophecy. This pattern, widely observed in Western contexts, would be especially dangerous in the Global South where race and class maps onto geography.

Taken together, these practices suggest an emerging **digital carcerality**: the classical prison cell has been augmented by a biometric grid that envelopes society. Instead of being physically imprisoned, citizens – especially the marginalized – are continuously subject to digital mugshots. The logic of criminalization extends to everyday life: failing to "authenticate" at a welfare office can lead to deprivation; being falsely identified on street cameras can provoke arrest. Crucially, all these functions are justified in the name of policing and public order, making the biometric panopticon function as a preventative carceral state. Black and brown bodies in Indian cities thus risk being continuously parsed as either beneficial (i.e. "good, authenticated citizens") or suspect (erroneous algorithms, facial mismatches), with little recourse.

4. Colonial Continuities and Systemic Inequality

Throughout these case studies, a clear pattern emerges: biometric algorithms do not erase social hierarchies; they often reproduce or amplify them. This continuity with colonial control is no accident. Colonial regimes classified subjects by caste, religion, race, and recruited local intermediaries (census takers, police) to enforce order. Postcolonial states like India have inherited those bureaucratic practices, and biometric technology overlays a new apparatus. The result can be called a **continuity of domination**: what Mahmood Mamdani calls "Indirect Rule" or Achille Mbembe calls "necropolitics," where the sovereign selects which lives to nourish and which to cull.

For example, early anthropometric projects (Risley's profiling of tribes and castes, or colonial fingerprint bureaus) explicitly linked physical data to criminality and social status. Today, if an algorithm flags someone as a "potential defaulter" or a "missing person," often those are poorer individuals, migrants, minorities. A study cited in Sahoo's paper traces how India's

colonial censuses and contemporary Aadhaar both deployed ideas of race and caste: certain communities have been overrepresented or stigmatized in data sets. In practice, the people most likely to face Aadhaar authentication failures, privacy breaches, or misidentifications are the already disadvantaged. As Basheer notes for facial recognition, "bias and inaccuracy of these tools have led to poor outcomes" for minorities. For example, if a Dalit farmer's fingerprint wears out from manual labor, he might be denied government grain rations. If a Muslim street vendor is misrecognized by a camera at a checkpoint, he might face interrogation.

These outcomes do not arise randomly; they are shaped by design choices and political neglect. The "minimal data" trope of Aadhaar – that fingerprint and iris are enough – ignores how biometric systems function differently across social groups. Technical data refuses to capture the lived realities of caste and class: for instance, someone with worn fingerprints might be effectively erased. Moreover, data colonialism's logic means that the persons designing these systems often come from privileged backgrounds or foreign companies with little stake in the Global South's social justice. That asymmetric power relation – where the "data elites" decide what data is collected and how – echoes colonial hierarchies. In Sahoo's words, Aadhaar's data imaginary "enables [biometric data] to perform certain functions of producing and using identities where the actual individual owner of the biometric data has little control over their usage".

The result is a two-tiered citizenship. On one hand are the "legible" citizens whose lives fit the bureaucrat's model (they have bank accounts, residences with proper records, reliable biometrics). On the other are the invisible – stateless tribes, undocumented migrants, homeless people – whom the algorithm cannot properly recognize. Those "invisible" often lack digital footprints, and therefore risk exclusion from services, or worse, being misclassified as illegals or criminals. This digital exclusion amounts to a new form of social death: if your identity is never authenticated, you effectively do not exist to the state.

In sum, Indian biometrics do not break with history; they extend it. Colonial logics of population control (the census, the anthropometric museum, police gazetteers) find a new home in computer systems. The carceral elements are stark: suspects and undesirable populations can now be tracked, counted, and contained digitally. Yet because this process is hidden behind official promises of development, it escapes much criticism. The combination of "algorithmic governance and colonial legacy" thus produces a particularly harsh mode of rule – one where life and death may hinge on code.

5. Legal, Ethical, and Criminological Concerns

The convergence of biometrics and surveillance raises profound **legal and ethical issues**. First is the question of privacy and consent. Many Indians do not have meaningful choice when biometrics are required for basic services. While the constitution guarantees privacy, there is often no alternative to providing one's fingerprint at a government office or bank. Nor is there an option to opt out without sacrificing citizenship benefits. This coerced data collection conflicts with international human rights norms, which demand consent and purpose limitation. In Haryana's case, for example, poor residents were not asked permission before their Aadhaar and income data were pooled into a welfare algorithm.

Transparency is another major issue. The algorithms running welfare eligibility or policing are effectively black boxes. Neither citizens nor independent experts know the criteria by which a person is labeled "dead" or "suspicious." Attempts to access these algorithms via India's Right to Information Act have generally failed; companies (and often the government) claim intellectual property. Without transparency, there is no accountability when errors occur. The Al Jazeera report highlights this: requests for the logic behind the Parivar Pehchan algorithm were ignored. This opacity invites abuse. A government could adjust thresholds to exclude more families simply to save money, or use biometric cross-matching to profile political dissidents, all without public scrutiny.

Algorithmic bias, as noted, is a serious ethical concern. If an

algorithm trained on data that reflects past discrimination, it will perpetuate it. As Basheer warns, biased AFRS tools can reinforce societal inequalities. This is not mere speculation: studies from the US show how criminal justice algorithms disproportionately send Black and poor defendants to jail[9]. In India, with its complex caste and religious divides, there is every reason to expect a similar skew. Yet legal frameworks are only beginning to catch up. India has no specific law regulating AI or biometric systems. The Personal Data Protection Bill (first drafted in 2019) enshrines rights over data and mandates approvals for "social score" type profiling, but it has not yet passed Parliament and contains many exemptions for state agencies.

From a criminological perspective, biometric surveillance raises questions about justice and legitimacy. Policing in democratic societies is supposed to be by consent; when technology allows suspicion without reasonable grounds (just scanning a crowd for matches), the principle of individualized suspicion is eroded. Community trust may decline when people feel watched by ubiquitous cameras or when they hear stories of mistaken identities. Moreover, reliance on technology can create a "diffusion of responsibility" in law enforcement: if a detective trusts a face-match or risk score, he may follow its output without independent investigation, even if that match is wrong. This can lead to wrongful arrests, false evidence, and violations of due process. In the Indian context, where courts are often overloaded, there is a danger that algorithmic "evidence" will go unchallenged, further eroding legal norms.

Finally, there are human rights concerns around discrimination and exclusion. When biometric algorithms malfunction or when data is incomplete, entire groups can lose basic entitlements. Excluding elderly pensioners, tribal women, or migrants from welfare because of "system errors" not only violates administrative fairness but can push vulnerable people into

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[9] Basheer IP, 'Bias in the Algorithm: Issues Raised Due to Use of Facial Recognition in India' (2025) 10 Journal of Development Policy and Practice 61 <https://ideas.repec.org//a/sae/jodepp/v10y2025i1p61-79.html> accessed 23 May 2025

destitution. The case of Dhuli Chand shows how bureaucratic mistakes can require citizens to publicly shame the state before rights are restored. Such indignities – hearing of one's official death, queuing for redress – compound the suffering of marginalized communities. These issues underscore the need for strong legal safeguards: effective remedy mechanisms, clear limitation on data use, and independent oversight bodies that can audit algorithms and enforce non-discrimination.

6. Policy Suggestions

To address these challenges, states and regulators must act decisively. Parliaments should pass comprehensive data protection legislation that recognizes biometric data as highly sensitive. The law must require informed consent for all biometrics, limit use to narrowly defined purposes, and prohibit unauthorized sharing (especially with law enforcement) without warrants. Personal data should be held by the individual unless there is a compelling, transparent legal basis to share it. India's draft Personal Data Protection Bill (2019) goes in this direction but needs strengthening: for example, it should remove broad exemptions for state agencies and specify clear conditions under which biometric data may be processed.

All government algorithms, especially those affecting rights or welfare, should undergo independent audit. States should publish algorithmic impact assessments (analyses of potential harms) before deploying systems like welfare screening or AFRS. A public registry of algorithms – detailing their data inputs, decision logic (to the extent possible), and error rates – would allow civil society and experts to monitor for bias. Courts should recognize individuals' rights to know how automated decisions affecting them are made (a "right to explanation"). For instance, if an algorithm stops someone's pension, officials must at least provide the automated logic or data that led to that decision.

Policymakers should strictly circumscribe law enforcement's access to biometric databases. Linking Aadhaar to criminal databases or empowering police to conduct algorithmic

identity checks should require judicial oversight. Blanket facial recognition surveillance (e.g. every CCTV linked to a national database) should be banned or deferred until societal debate occurs. Instead, limited deployment with judicial warrants (for example, scanning video only when chasing a known suspect in a serious crime) can strike a balance. Any biometric policing program should include strong anti-bias measures: diverse training data, continuous re-calibration, and an independent review board to field complaints of misidentification.

Governments should establish dedicated oversight bodies with the power to halt or fine oppressive biometric programs. For example, a "Commission for Algorithmic Accountability" staffed by legal experts, technologists, and community representatives could vet major projects. Courts should be empowered to restrict biometric usage in specific domains. Civil society organizations (CSOs) and human rights NGOs must be supported in monitoring these systems and educating the public about their rights.

When system errors cause harm (as in wrongful exclusion from welfare), governments should facilitate rapid relief. This could mean maintaining a contingency fund to promptly reimburse wrongfully denied beneficiaries, without forcing long waits or legal battles. A streamlined redressal mechanism – possibly through Lok Adalats (people's courts) or designated ombudsmen – is needed. Education campaigns should inform citizens of their ability to appeal algorithmic decisions. In essence, victims of "algorithmic death" should not be left destitute while waiting for bureaucratic fixes.

Biometric systems should not be developed in isolation. Policymakers must engage with affected communities – including women's groups, lower-caste associations, privacy advocates, and disability rights activists – before and during implementation. Participatory design sessions can surface issues (such as fingerprint quality for manual laborers, or the stigma attached to certain ID flags) that technocrats may overlook. Ensuring representation in decision-making (for example, including community members on oversight committees) can help align technology with democratic

values.

Digital colonialism is a global issue. India and other Global South nations should cooperate (via bodies like the UN, G20, or BRICS forums) to develop norms on surveillance technology. For instance, they might negotiate guidelines limiting mass biometric databases or press for global regulations on AI bias. Learning from frameworks like Europe's AI Act (which bans facial recognition in public spaces) can provide models. Meanwhile, international human rights monitoring bodies should examine biometric surveillance within the rubric of civil liberties and urge compliance with treaties.

Governments should publish budgets and audits for biometric projects (as India is doing with the IFF's Panoptic Tracker database). This financial transparency enables the public to question costly programs. For example, if a state has spent $180 million on AFRS with no demonstrated public safety benefit, accountability demands answers. Comparative cost-benefit analyses (perhaps by independent auditors) should be conducted for large biometric investments.

Implementing these policies requires political will. Yet citizen movements in India (such as the "Right to Privacy" campaign) and regulatory developments abroad suggest momentum is building. It is crucial that reforms come before irreversible infrastructure is entrenched. Failing that, the biometric panopticon will solidify, and later efforts to dismantle it will be far more difficult.

7. Future Research Directions

Given the complexity of the issues, It calls for **multidisciplinary research** bridging criminology, science and technology studies, law, anthropology, and more. Digital Ethnographic and survey research is needed on how marginalized communities experience biometric systems on the ground. For instance, detailed fieldwork could document how Aadhaar enrollment stations treat different castes or genders, or how biometric kiosks operate in rural vs. urban areas. Similarly,

quantitative studies should assess the accuracy of AFRS and other tools in Indian conditions, broken down by demographic group. Criminologists can analyze police usage data to see if biometric tools change arrest patterns or complaint rates. Collecting these data will provide evidence to guide or reform policy.

Scholars of postcolonial and critical race theory should deepen analysis of how surveillance technology relates to imperial histories. For example, what can be learned by comparing British India's anthropometric police files with modern AFIS records? How does caste play a role in digital identity studies? Theoretical work might draw on thinkers like Mbembe (necropolitics) and Aníbal Quijano (coloniality of power) to conceptualize the biometric panopticon as an extension of colonial biopolitics. Collaborative projects between criminologists and historians could uncover archival parallels, enriching present-day critiques.

Law and philosophy scholars should model what robust biometrics regulation would look like. Comparative legal studies (comparing India's approach with that of the EU, Brazil, etc.) can identify best practices. Empirical legal scholars could also study litigation: for instance, tracking outcomes of Aadhaar cases and FOIA requests on surveillance algorithms. Additionally, ethicists might develop guidelines (e.g. on when biometric ID constitutes "excessive surveillance" or a human rights violation).

Computer scientists and engineers have a role in creating transparency tools. Research into explainable AI could yield methods for making biometric algorithms interpretable (e.g. an app that tells a user why an algorithm denied their entitlement). Data scientists can design "algorithmic impact assessment" frameworks, and build prototypes for privacy-preserving biometrics (like on-device matching or encrypted templates). Importantly, technical research should engage with social scientists to ensure innovations align with societal values (for example, by designing databases that de-identify caste unless specifically needed).

Public policy researchers should examine how different governance models affect outcomes. Case studies comparing India

with other Global South countries (Brazil's digital ID, Kenya's Huduma Namba, etc.) can reveal patterns. Evaluations of pilot programs (e.g. limited AFRS deployments) should be conducted by independent think tanks. Analysts might also study corporate roles: what responsibilities do tech companies (like Aadhaar contractors or camera manufacturers) have, and how do profit motives shape surveillance?

Overall, future research must resist disciplinary silos. The stakes of biometric surveillance cut across crime control, social justice, economic inclusion, and human rights. Integrating perspectives – for instance, combining legal analysis with ethnographic fieldwork and technical audit – will be essential to fully understand and ultimately transform the biometric panopticon.

8. Conclusion

The **biometric panopticon** in the Global South represents a confluence of cutting-edge technology and age-old power dynamics. As this analysis has shown, systems like India's Aadhaar and Automated Facial Recognition do not simply modernize governance; they reinforce a carceral logic inherited from colonial rule. Citizens become codified: their very bodies are read as data points in a state-corporate record. For marginalized communities, this means heightened vulnerability: errors or biases in the algorithm can strip away entitlements, push people into destitution, or mark them for over-policing. The examples of pensioners declared "dead" by algorithm and of biased face matches underscore that algorithmic processes can have dire, even fatal, consequences.

Yet the continued expansion of biometric surveillance is not inevitable. There are ongoing struggles – in courts, legislatures, and civil society – to challenge these developments. The Supreme Court of India, privacy advocates, and grassroots movements have, for instance, pushed back against unchecked biometric regimes. The very critique developed here, combining criminology and postcolonial analysis, is itself a form of resistance: it reveals how digital governance can become a new site of colonialism if left unexamined.

In closing, this work emphasizes that technology in itself is neutral; it is the *social context* that determines its impact. A biometric program could, in principle, empower citizens by making state services more accessible and transparent. But without strict guardrails, we risk cementing a dystopia where life is determined by data flows. The path forward must be guided by principles of justice: ensuring that every person's digital identity is protected and that algorithms serve the people, not the other way around.

AUTOMATING THE CRIMINAL JUSTICE SYSTEM

Nishtha Ganesh[*] *& Kritika Katoch*[♦]

Abstract

Undoubtedly, the more transparent and efficient justice system is, the more developed and empowered the society is. But today criminal Courts are stuck with backlog of cases, and investigation agencies are occupied with unsolved criminal cases. Sometimes to expedite the process of solving the cases, authorities slip to wrong practices or try to adopt short paths to conclude the guilt on a wrong individual.

As rightly said by Lord Hewart 'Justice must not only be done, but must also be seen to be done', in the case of Rex v. Sussex Justices[1]*. The ones who suffer injustice by delayed trials or by investigation are the most vulnerable to take the law in their hands which leads to the state of lawlessness and anarchy. So, to tackle this situation of injustice the state needs to adopt such practices or technologies which would advance the justice in a faster and efficient way. One of such technology which can be adopted is deploying artificial intelligence ('AI' for brevity) tools in the system. As also stated by former CJI Justice Dr. D.Y Chandrachud 'AI can streamline, speed up the delivery of justice.'*[2]

So, the present paper explores which AI tools can be deployed by the authorities to what extent and at what stage of criminal justice system without compromising

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1 [1924] 1 KB 256.

2 Utkarsh Anand, AI can streamline, speed up delivery of justice, Hindustan Times (Apr. 14, 2024, 6:30AM), https://www.hindustantimes.com/india-news/ai-can-streamline-speed-up-delivery-of-justice-cji-101713035043680.html.

with the principles of natural justice and with human rights of the accused. Further a comparative study will be done on AI tools used by the agencies across the globe to deliver the criminal justice.

Key Words: Artificial intelligence system, algorithms, criminal justice system, black box problem, automated systems.

Introduction

India's current judicial system is under immense pressure due to increase in the pendency of cases. Our criminal justice system is facing a lot of difficulties, such as undertrial prisoners waiting for a long period to get justice, recurrent use of adjournment, legal aid not being appropriately provided, and the ratio of Judge to person is also low owing to the large-scale population.[3]

If the present scenario persists then people might suffer a great deal by spending most of their lives around Courts and would not able to see justice being delivered in their lifetime. The pendency of cases and shortage of adequate officers along with cumbersome and lengthy judicial processes have shown that the need has arisen to bring reforms keeping into account the technological advancement, particularly in reference to artificial intelligence ('AI' for brevity), which is an important aspect in the legal field as it might facilitate speedy justice and the notion of impartiality.[4]

Involving AI in the Indian criminal justice system is the need of the hour, as it can easily and in less time predict, prevent, and investigate crimes. Thereby, delivering justice to the victims, in less time and more swiftly. But there are also certain limitations attached with the use of artificial intelligence such as the data fed to the algorithm could be biased which would in turn increase discrimination and biasness, there is lack of transparency as there is

[3] Isha Sharma, A Legal Study on Role of AI in Criminal Justice System in India, 10 JETIR a678, a679 (2023).

[4] Aditya Kumar et al., Artificial Intelligence in the Criminal Justice, 12 J Forensic Crime Stu 1, 2 (2024).

less knowledge on how the AI tool gives the required result, with lack of responsibility and accountability.

In the contemporary times the usage of new age technology in the legal arena has made the criminal justice system more efficient but the situation is such that at present the artificial intelligence tools cannot be used without human interreference.[5]

So, we need to critically analyze the repercussions, ethical considerations on deploying AI machines in the society. Global legal regimes on AI tools deployed in criminal justice system needs to be studied to reap the fruits of AI. AI tools in criminal justice system must go hand in hand with the spirit of constitutional provisions and the established principles of criminal jurisprudence.

Since AI transforms the conventional procedures of conducting investigation and trials to a digital format, so it will be challenging for the judges to determine the reliability, admissibility of the evidence collected by AI tools during the investigation and to interpret the present criminal laws in the light of cutting-edge technology. Further, law enforcement individuals need to be trained to investigate and to try the specific crime committed using AI tools. Last but not the least the day is not far away where law enforcement agencies will be required AI to fight with crimes committed by AI, since the crime committed by AI does not leave any evidence behind it.

Role of Artificial Intelligence in Criminal Justice System-

The criminal justice system can be defined as a system whereby the government enforces law and deals with criminal offenses, along with facilitating peace.[6] Also, it consists of law enforcement agencies, Courts, correctional institutions, prosecution,

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5 Sunil Kumar Srivastava, AI for Improving Justice Delivery: International Scenario, Potential Applications & Way Forward for India, 47 Informatica 21, 21 (2022).

6 Apoorva Chandra, Artificial Intelligence and the Criminal Justice System of India, 2 JLRJS 1161, 1163(2023).

prison facility etc.[7]

When a crime is committed it has a long-lasting impact on the reputation of the country. Therefore, in the recent times, it has become essential to use more advanced technologies to enhance the working of criminal justice system to safeguard the society in a better way.[8] In the recent years, artificial intelligence has been used in the criminal justice system to enhance its working.

Artificial intelligence can be defined as performing of certain tasks which generally requires human intelligence but without such direct human intervention and it has the liberty to respond to the environment independently.[9]

In contemporary times, the usage of AI is generally being preferred in all areas to make it more efficient and accurate which might further help in reducing the workload of the authorities in a more efficient way by also reducing the chances of human error.[10] Especially in the legal field, AI can be used to prevent the commission of offenses, do more accurate investigation when any offense is committed and make the society more safe to live in, which would also enhance public trust in the criminal justice system.[11] AI tools can be appropriated at various stages of criminal justice system like in the investigation stage involving- data handling, forensics, risk assessment, biometrics analysis, evidence collection and in trial stage involving case management, to prepare cross examination questions, evidence analysis or in preparing the order sheet, in granting bail to the accused etc. AI tools deployed in criminal justice systems worldwide have found to be very beneficial

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7 Sunidhi Singh, Artificial Intelligence and the Criminal Justice System: - Navigating Ethical and Legal Implications, 12 IJCRT d1, d4 (2024).

8 E. Parkkavi & K. Yadharthana, Artificial Intelligence in Criminal Justice: Balancing Efficiency with Fairness and Accountability, 4 IJIRL 483, 486 (2024).

9 P. Mahant, Implications of the use of AI Algorithms in the Criminal Justice System from a Constitutional Perspective, JCLJ 258, 259 (2024).

10 Paul De Hert & Georgios Bouchagir, Specific Laws Governing Use of AI in Criminal Procedure and Attentive Criminal Judges: American Songbook for global Listeners, 6 SLR 1, 2(2023).

11 *Id*.

to advance the justice like SUVAS, LIMB used by Indian Supreme Court, HART used by UK Courts, COMPAS used by USA courts.

Recent example of the use of artificial intelligence in the Indian criminal justice system is *Jaswinder Singh v. State of Punjab*[12], whereby the Punjab and Haryana High Court used ChatGPT to consider the jurisprudence behind the granting of bail, to decide the bail application.

The facets of AI in the legal field have been explained in detail below:

1. Law Enforcement Agencies

   Considering the large population of India, it is a difficult task to monitor the activities of all individuals to act against the possible threats. Therefore, the use of artificial intelligence becomes beneficial in such a scenario.

   AI can make the law enforcement measures more effective by feeding in the data of biometric information which includes face, fingerprints, speech types which further facilitates the easy catching of the suspect.[13] The use of AI would also lower the chances of human error in the form of procedural mistakes; thereby making the investigation and other legal processes more effective and efficient.

   A major role of artificial intelligence can be seen in predictive policing whereby the algorithm of such AI tools take into account the data of the crimes committed, to analyze the patterns if any and also determine as to which areas could be considered at a major risk of recurrent crimes being committed which would further help the police to be more vigilant around such areas and would successfully help in reducing criminal activities by preventing its occurrence.[14] Therefore, such algorithms could

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12 Mahant, *supra.*

13 *Id*.

14 Muskan Shokeen & Vinit Sharma, Artificial Intelligence and Criminal Justice System in India: A Critical Study, 5 IJLPSR 156, 161(2023).

also analyze if any crime is being committed on the basis of the adequate evidence and further send alerts to the law enforcement within time to prevent the happening of crimes.[15] This can also be done with the help of drones with sensors having AI feature.[16]

Also, facial recognition technology has also been proved to be helpful whereby it identifies individuals and further tracks them. Another area where AI can be used effectively is forensics. Thus, the AI could examine and analyze numerous biological materials found at the crime scene such as blood, saliva, fingerprints, and other body fluids, without any delay and in timely manner.[17] Thereby, analyzing large amount of data by consuming less time.

Reference can also be made to the Crime and Criminal Tracking Network and Systems- CCTNS as implemented by National Crime Records Bureau under the National e-Governance Plan. It is database regarding the crime and information of the criminal along with his personal details and biometrics. This project aims to create a comprehensive and integrated system which would further enhance efficiency and make policing more effective at the ground level.[18]

Reference can also be made to the Inter-Operable Criminal Justice System which is established to make justice delivery more effective and create a database which could be used for criminal investigation.[19] Thus, it would also facilitate free flow of information.

Even Bangalore has implemented the practice of predictive

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15 *Id.*

16 Nikhil Bajpai & Vineet Panda, Role of Artificial Intelligence in the Detection of Crime & Administration of Justice, 6 IJLSI 167, 171 (2024).

17 Chandra, *supra.*

18 National Crime Record Bureau, Crime and Criminal Tracking Network & Systems, Digital Police Government of India, https://digitalpolice.gov.in/DigitalPolice/AboutUs.

19 Ministry of Home Affairs, Inter-Operable Criminal Justice System, Government of India, https://www.mha.gov.in/en/commoncontent/inter-operable-criminal-justice-system-icjs.

policing using 7,500 cameras to monitor individuals.[20] While Punjab developed Punjab developed Punjab Artificial Intelligence system (PAIS) which contains the database of conviction and uses AI in the light of face recognition techniques to identity suspects.[21] Lately, an AI chatbot named Cyber Mittar has also been introduced to enhance reporting with 24/7 assistance, instant access to information.[22]

2. Correctional Institutions

Artificial intelligence tools can also be used in prisons to monitor the activities of the prisoners within and around the prisons and other correctional institutions with the help of drones and other surveillance systems. They can be used to assess whether an individual would create more crimes in the society or not and further analyze as to what could be the adequate methods to rehabilitate an individual.[23]

3. Judicial System

Whenever any dispute is decided in the Courts, much weightage is put on the precedents i.e., the judgments which already have been decided on the same topic; so as to decide in consonance with it. Much time is consumed in finding the appropriate judgment or the case where any disputed area is decided by the Apex Court. Thus, in such scenario artificial intelligence becomes helpful by storing the required database and providing the required result based on the keywords as searched by the user.

Also, judge often face with the issue of pendency of the cases

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20 Bajpai, *supra*.

21 Man Aman Singh Chhina, How Mohali police are integrating AI into day to day crime detection and resolution, Indian Express (Mar. 13, 2025, 1:45 PM), https://indianexpress.com/article/cities/chandigarh/mohali-police-integrating-ai-crime-detection-resolution-9884590/.

22 *Id.*

23 Aishwarya Sharma et al., Artificial Intelligence in the Indian Criminal Justice System: Advancements, Challenges, and Ethical Implications, 5 J. Lifestyle and SDGs Rev. 1, 5 (2025).

and also face the pressure to dispose of the cases timely.

The time-consuming task of recording a testimony can also be done by the AI tools by even reducing the risk of human errors.[24] Even though the chances are quite low for the replacement of Judges by machines i.e. the artificial intelligence but such AI tools could be of much use to enhance their productivity, thereby timely completing numerous time-consuming tasks.[25]

Various applications have been developed which facilitate the summarizing of the cases, thereby, shortening this time-consuming task for the Judges and other professionals in the legal department. A system containing artificial intelligence can be used to draft certain parts of the judgments to increase the productivity of the courts; which might also be a step towards taking decisions in a more uniform manner.[26] For example, such tools or systems can be used to assist the judiciary by analyzing numerous factors such as severity of crime committed and the criminal history of the accused in order to give an adequate sentencing.[27]

Artificial intelligence tools can also be used to classify different kinds of cases and systematically arranging them. Such tools can further categorize such cases which have similar or related or same legal issue as then the Court could club them and dispose them within time by consuming comparatively less resources.[28]

Further various tools can be used to recognize the speech and translate into textual format, any Court's order, judgment or decree or direction and the same was also used by the Supreme Court in the case of *Nabam Rebia v. Deputy Speaker*.[29]

Whereas another initiative worthy of attention as taken by the

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24 Chandra, *supra.*
25 Srivastava, *supra*.
26 *Id*.
27 Shokeen, *supra*.
28 Sharma, *supra.*
29 *Id*.

Indian Judiciary is the 'e-Court Project' whereby it was launched to modernize the judicial system. It was implemented in two phases and accordingly in 2007 the phase I computerized the district court for adequate management of cases. While, the phase II was implemented in 2015 wherein the computers were modernized by supplying additional hardware and even the Legal Services Authorities were computerised along with the Judicial academies for more effective training.[30]

Furthermore, the Supreme Court of India took an initiative by introducing SUVAS and SUPACE. SUVAS which is the short form of Supreme Court Vidhik Anuvaad Software focuses on linguistic diversity by translating the proceedings into regional languages so that the information is available to all without any linguistic barriers.[31] On the other hand SUPACE a short term for Supreme Court Portal for Assistance in Court's Efficiency facilitates the adequate retrieval and organization of data which would further help the Judge in taking informed decisions by also saving the time of legal research.[32] This technologically advanced tool was introduced to reduce the pendency of cases by also improving the research capacity of the Judges.[33]

Here it is also pertinent to refer to NSTEP which is an application beneficial in timely service of summons and notices by tracking them in real time, thereby also increasing transparency.[34] Also, on the similar lines, Legal Information Management & Briefing System (LIMBS*)* is a programme as is introduced by Ministry of Law and Justice which is used to track

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30 *Id.*

31 Vikrant Rana et al., Role of AI in Legal Systems: A Detailed Analysis, Lexology (Aug. 12, 2024), https://www.lexology.com/library/detail.aspx?g=7a4a5b4d-2359-4056-8c51-e1a775dbe397.

32 *Id.*

33 Siddharth Peter De Souza, AI and the Indian Judiciary: The Need for a Rights-based Approach, The Hindu (Nov. 28, 2024, 15:50), https://www.thehinducentre.com/incoming/ai-and-the-indian-judiciary-the-need-for-a-rights-based-approach-html-version/article68917505.ece.

34 SCI, NSTEP, E- Committee Supreme Court of India, https://ecommitteesci.gov.in/nstep/.

cases.[35]

4. Legal Professionals

   Artificial intelligence is used by advocates to produce responsive pleadings etc., by merely uploading the complaint.[36] Also, legal research is enhanced via various applications such as Indian Kanoon or Case Mine which consists of a depository of cases and makes searching of adequate cases based on the keywords very easy.[37] While other tools such as LawGeex and Legal Robot are often used to review documents.[38]

5. Empowering Individuals

   Since, in the recent times, the usage of artificial intelligence is increasing day by day in various areas of the legal field; thus, it becomes important to create awareness regarding it. It is essential that the usage of artificial intelligence is transparent so that it could build up the trust by the public and public awareness is also an important consideration for proper running of such algorithms.[39]

   Artificial intelligence can be referred by individuals who lack legal knowledge and may understand it in a simplified language. Such AI applications can even give legal advice by also maintaining privacy regarding the dispute faced by the victim. It can also focus on mediation, thereby try to resolve the issues even before reaching the Court. This would also reduce pendency of cases.

Responsible Artificial Intelligence

The benefits of artificial intelligence as enumerated above, facilitates the functioning of criminal justice system in more

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35 Dr. Debdatta Das & Dr. Paramita Bhattacharyya, Artificial Intelligence and Criminal Justice System in India, 8 NUJS j. regul. stud. 3, 16 (2023).
36 Chandra, *supra.*
37 Parkkavi, *supra.*
38 Bajpai, *supra.*
39 Shokeen, *supra.*

efficient way. Thereby, resolving numerous issues as has been faced traditionally. But there are certain limitations associated with the usage of artificial intelligence which need to be considered and maintenance of proper balance of the benefits and limitations would further enhance the functioning. The limitations are discussed further.

1. Resource Shortage

   Resource shortage would include personal shortage and the one caused due to the lack of funds which directly impacts the usage of such new age technologies.[40] Therefore, it creates more challenges to invest in artificial intelligence based tools and hinders the usage of such technology in the legal field.[41]

2. Algorithm Bias and Discrimination

   Since the data that is fed to the artificial intelligence is the pre-existing one and based on it the AI takes decision. The basis of developing the artificial intelligence-based tools is the using of historical data such as arrest records or documents of the Court etc. But the past records often show that at times there was a presence of biasness in it and if the same data is fed to the AI algorithm, then it would further increase biasness which acts in direct conflict with the natural justice principle of fair trial.[42]

   Thus, the risk of continuation of already existing discrimination increases. The over-reliance on such tools would act detrimental by unfair results.[43] This would further violate the right to equality as enshrined under Article 14 of the Constitution as would be discriminatory in nature.

   Certain errors which are faced due to such AI tools are wrongful imprisonment, unfair trials etc.[44] Thus, such inherent bias should

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40 Bajpai, *supra*.
41 *Id*.
42 Mahant, *supra.*
43 Parkkavi, *supra.*
44 *Id.*

be catered to so that the trial could be held fairly and impartially.[45]

The bias which takes place are of numerous kinds such as data bias whereby the algorithm on the basis historical data might target certain population which was discriminated upon earlier and show them to be the ones with high conviction rates and thereby being one's who are likely to commit crime again. Also, in feedback loop bias, since the algorithm would focus more on such specific groups, thereby perpetuating more bias.

When AI is used in the sentencing then it focuses in numerous factors such as the facts of the offence or defendant's criminal history if any and whether he is a criminal of potential risk which is a factor outside his control.[46]

Artificial intelligence algorithms are predominantly based on the historical data and in turn would reflect the biases done in the past and further increase discrimination while trying to give justice.[47]

3. Lack of Regulation

Since there is no legal framework governing this usage of artificial intelligence in the legal field, so there is no uniformity in its usage and such inconsistent application might often foster harmful usage of such technology and affecting the justice delivery. If there is no regulation in place to see the working of such AI tools then it might blur the lines of ethical standards and might foster a place for misuse thereby causing injustice.[48]

4. Violating Natural Justice

As artificial intelligence is often used for predictive policing, it directly impacts the core principles of natural justice as an

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45 Das, *supra*.
46 Mahant, *supra.*
47 Sharma, *supra.*
48 Parkkavi, *supra.*

individual is branded as potential criminal on the basis of the pre-existing data. Such mass surveillance and blind arrests would affect the rights of individuals as it is mostly based on the historic data and not that much on evidence.

If artificial intelligence is used at the stage of undertrial detention or proceedings being conducted on bail or the granting of adequate sentence then it would directly impact the natural justice principle of presumption of innocence as the algorithm would fail to consider other circumstances such as the circumstantial evidence or other humane factors which are considered by the Judge which the AI tools fail to consider unless such data is specifically fed to it.[49]

5. Insufficient Accountability and Transparency

Artificial intelligence as is used in the legal sphere and in other fields, is often trusted blindly and the way they function is often termed as 'black boxes' as it is difficult to understand as to on what basis does it gives result. If the AI tools are transparent then equality in decision making process is preserved. If there is lack of knowledge regarding the functioning of the artificial intelligence; along with its predominant usage in the legal sphere would directly affect the principles of natural justice. Thus, it becomes difficult to blame anybody in case of any incorrect results as it is unclear to whom to make accountable for the biases done by a machine which might act detrimental to the public trust in the legal system.[50]

6. Privacy Concerns

The usage of artificial intelligence in detecting crimes and surveillance of individuals is conducted without their consent. AI tools used to detect crimes uses surveillance tools via CCTV cameras or usage of facial recognition technology etc.[51] Such intrusion directly affects right to privacy of individuals.

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49 Mahant, *supra.*
50 Parkkavi, *supra.*
51 Bajpai, *supra.*

Also, the data which is stored in certain applications running via artificial intelligence, is on the constant risk of data breach which would directly impact one's right to privacy. Furthermore, if the data which is fed to such applications is false then the result given by AI would be biased in nature. Thereby, questioning its responsibility.

Foreign Case Studies On AI Tools Deployed In Criminal Justice System-

1. Post Office Scandal- Software called 'Horizon' prosecuted the postmasters for misappropriation of funds. System was uncertain as to its operation, and in calculating the amounts misappropriated. [52]

2. The Robo debt Case-Australian Government used a data matching system to verify the amount spent in welfare schemes and to identify overpaid welfare amounts. The AI system was also not accessible to the aggrieved.[53]

3. Former Prime Minister of UK- Boris Johnson in the UN General Assembly on 24 September 2019- 'We are slipping into a world involving round the clock surveillance, the perils of algorithmic decision-making, the difficulty of appealing against computer determinations, and the inability to plead extenuating circumstances against an algorithmic decision-maker'.[54]

4. In *State v. Loomis*[55]- In the instant case the accused contended that his rights were infringed by preventing him from challenging the validity and accuracy of an AI named COMPAS i.e., Correctional Offender Management Profiling for

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52 Bates & Others v. Post Office Ltd., High Court of Justice, Queens Div. Bench (2019) (UK).

53 Prygodicz v. Commonwealth of Australia, [2021] FCA 634 (Australia Supreme Court).

54 Bruce Sterling, The transcript of Boris Johnson's remarks at the UN General Assembly, Wired (Sep. 26, 2019, 3:15 AM), https://www.wired.com/beyond-the-beyond/2019/09/transcript-boris-johnsons-remarks-un-general-assembly/.

55 State v. Loomis, 881 N.W.2d 749 (2016) (Wis. SC, 2016).

Alternative Sanctions, which was used by the Courts as a risk assessment tool to decide as to whether bail should be granted or not.

5. In *Lynch v. Florida*[56]- Where law enforcement agency deployed the Face Analysis Comparison Examination System (FACES) to detect the suspected on the basis of features of the face. The system generated a face biometrics by comparing the suspected image to the face features available in the database.

6. In *Walters v. OpenAI*[57]- In June 2023, famous personality Mark Walters filed the case for libel against an AI company OpenAI after its ChatGPT in a response to a question generated false statement that Walters was a defendant in one of the suits and stands accused of fraud, misappropriation. OpenAI pleaded that AI-generated information is probability-based, tend to generate false information, because of a defect called 'hallucinations'. If the AI system is affected with such a defect, then how can any authority involved in criminal justice system rely upon the outputs generated by AI. Hence deploying AI in criminal justice system must be seen with a suspicious eye, till we remove defect of hallucinations from it.

Legal Framework

The legal framework governing the AI tools assisting the criminal justice system is divided into two categories i.e., firstly- multiple data protection laws and secondly- AI specific laws around the globe to check the interplay of AI and criminal justice system.

European Union

The EU AI Act prescribes four categorises of AI system[58] on the basis of the usage and the nature, extent of risks associated with the system. The unacceptable category of AI system is associated

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56 Leonardo Lynch v. Florida Department of Law Enforcement, 330 So. 3d 140 (Fla., 2021).

57 Mark Walters v. OpenAI, L.L.C., 1:23 -cv-03122 (N.D. Ga., 2024).

58 Artificial Intelligence Act, 2024, Regulation 2024/1689, art. 26, art. 28.

with manipulating the behavior of a person which may cause… physical or psychological harm[59]. The ambit of unacceptable risk also involves data used for developing the 'Social scoring card'[60] and to collect, store public biometrics in 'real-time' used by law enforcement agencies[61]. However certain exceptions have been carved out to conduct search for victims of crime, to prevent crime, or to identify imminent threat to the life and safety of people or in order to prevent a terror attack. So, in these exceptions it is permitted to curtail the privacy of individuals by seeking the prior authorization from a judicial or independent authority.

The second category is High risk AI systems which are fed with data of individuals to undergo the risk assessment procedures, in determining disputes, in sentencing; which may be allowed under strict regulations.

The third category is limited risk AI systems which are trained on the data to create Chatbots, Emotion or biometric recognition systems, Systems generating 'deepfake' etc. which can be deployed with limited restrictions. However, a duty has been imposed on the creator to disclose if the content is created with the help of artificial intelligence. Also, the users of an emotion recognition system or a biometric categorization system are obliged to communicate to the individuals regarding the deployment of aforesaid systems except if it is used to detect, prevent and investigate criminal offences**.**

Whereas the last category is of minimal risk like AI-driven video games which can be deployed with less or no restrictions.

General Data Protection Regulation **(**GDPR)[62] is having extra territorial jurisdiction if the data of EU citizens is collected, processed anywhere in the world. Art. 5 prescribes few principles related to the personal data like transparent processing of the data, accurate data collection for lawful purpose or for the public interest,

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59 Artificial Intelligence Act, 2024, Regulation 2024/1689, art. 5(1)(b).
60 Artificial Intelligence Act, 2024, Regulation 2024/1689, art. 5(1)(c).
61 Artificial Intelligence Act, 2024, Regulation 2024/1689, art. 5(1)(d).
62 General Data Protection Regulation, 2016, Regulation 2016/679.

scientific or for statistical reasons, to be stored till the purpose is not achieved and afterwards it has to be erased.[63] Further, Art. 643 prescribes consensual processing of data and elaborates the ambit of consent, withdrawal of the consent.[64] It also requires the processing of data should be proximately connected with the performance of a contract and to fulfil the legal obligation or to promote the interests of individual or in the public interest. Hence, to prevent crimes against the state, data can be collected.

India

Information Technology Act, 2000 deals with some aspects of AI involved in society controlling crime against the state like section 66C (identity theft) involves cheating using AI algorithms. Section 66D (cheating by personation by using computer resource), 66E (violation of privacy) covers the deepfake videos made by AI. Section 66F deals with cyber terrorism which covers terrorism by AI systems.

Section 69 provides that in the interest of the sovereignty or integrity of India, defence of India, security of the State, friendly relations with foreign States or public order or for preventing incitement to the offence, then any computer source which might include AI systems to be intercepted, or monitored or decrypted.[65]

Further India has another legislation namely, Digital Personal Data Protection Act, 2023 to preserve privacy of individuals in the cyber space. It also tends to include the data collected, processed by automation means. It defines 'personal data breach' which means any 'unauthorised processing of personal data or accidental disclosure, acquisition, sharing, use, alteration, destruction or loss of access to personal data, that compromises the confidentiality, integrity of personal data'.[66] Further, personal data of an individual can be used only with his voluntary, informed consent and with some purpose or for lawful reasons. It also

63 General Data Protection Regulation, 2016, Regulation 2016/679, art.5.
64 General Data Protection Regulation, 2016, Regulation 2016/679, art.643.
65 Information Technology Act, 2000, §69.
66 Digital Personal Data Protection Act, 2023, §2(u).

establishes the Data Protection Board of India empowered to enquire into the data breach.[67]

But as far as the legal recognition of AI systems in the criminal justice or the enforceability of determinations carried out by AI systems in criminal justice system is concerned, India doesn't have any provisions in this regard. Such concern is necessary to be raised in order to decide the admissibility of such determinations generated by AI systems in the criminal trials. Also, it is significant to consider the extent of deployment of such AI tools in the criminal justice system like in investigation, inquiry, trial etc. it also again a question whether the Indian Government is willing and ready to grant legal status to the AI systems like it has given to the electronic evidence.

Conclusion & Suggestions

Artificial intelligence welcomes the tech-savvy criminal justice system deploying digital methods of solving and determining the case. AI has the potential to predict and to prevent the crime by closely analyzing the legal pattern from the data available to it. So, the research explored as to which AI tools can be deployed by the authorities, to what extent and at what stage of criminal justice system without compromising with the principles of natural justice and with human rights of the accused.

Harnessing the benefits of AI tools will eventually lead to a better place to live in i.e., a place of law and order, place of peace and prosperity. At the same time AI technology carrying out automated decisions suffers with many problems like- black box problem, biasness in algorithms, hallucinations, eliza effect, errors in data feeding etc. Sometimes AI delivers very unjust and absurd results, unknown to the human operating it. So, we need to critically analyze the repercussions, ethical considerations on deploying AI machines in the society.

AI tools deployed in criminal justice system must go hand in hand with the spirit of constitutional provisions and the established

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[67] Digital Personal Data Protection Act, 2023, §27.

principles of criminal jurisprudence. Since AI transforms the conventional procedures of conducting investigation and trials to a digital format, so it will be challenging for the judges to determine the reliability, admissibility of the evidence collected by AI tools during the investigation and to interpret the present criminal laws in the light of cutting-edge technology. Further, law enforcement individuals need to be trained to investigate and to try the specific crime committed using AI tools. Last but not the least the day is not far away where law enforcement agencies will be required AI to fight with crimes committed by AI, since the crime committed by AI does not leave any evidence behind it.

In order to regulate AI, to guarantee transparency and to improve accountability of AI machines following suggestions can be recommended:

- A system of checks and balances must be put in place.
- Bias testing mechanism in AI system must be incorporated.
- AI system must be devoid of black box problem.
- Relevant and high-quality data should be fed to train the AI system. Researchers, ethics review boards should be given access to the AI system and to the samples of associated data.
- 'AI Literacy' should be developed in a manner akin to 'Consumer Literacy'.
- Training must be imparted to law enforcement individuals so that they can analyze outputs of an AI system efficiently and determine the ways to mitigate the effects of automation bias.
- General public must be informed that a particular output is generated by AI software and is prone to errors.
- Procedural Laws and all penal laws must be amended to incorporate how AI should collect the evidence, assist in

investigation and produce information or output based on which concerned authority arrives to a particular decision.

- Authorities must rely upon reliable, relevant, admissible AI generated data. Further, Authorities must give reasoned decision as to what extent it relied upon the algorithms of AI system.

- Opinion generated by AI machine can prejudice the concerned authorities, so AI must be used as corroborative piece to arrive any decision.

THE MEDIATED MIDDLE GROUND: A COMPARATIVE ANALYSIS OF MEDIATION'S EFFICACY IN RESOLVING SHAREHOLDER OPPRESSION CLAIMS IN CLOSELY HELD CORPORATIONS

Shailesh Pratap Singh[*]

Abstract

Stakeholder oppression in closely held companies poses a special challenge: complicated legal and financial issues entwined with intense personal conflict, frequently within strained, long-term relationships. Conventional litigation is infamously destructive, expensive, and slow, often resulting in the business's demise even though it offers clear precedent and remedies. The effectiveness of mediation as an Alternative Dispute Resolution (ADR) method for settling these contentious disputes is critically compared in this paper. Focussing on the theoretical underpinnings and real-world implementation in important jurisdictions, particularly Canada (with its significant statutory oppression remedy), the United Kingdom (under the Companies Act 2006), and Delaware (representing the preeminent US approach), The study looks at the success rates of mediation, its capacity to maintain business viability, the enforceability of its results, and particular difficulties like power disparities and intense emotions. Based on scholarly commentary, case law, statutory analysis, and available empirical data, the paper makes the case that, when properly facilitated and structured, mediation provides a significantly more effective path than litigation for the majority of oppression claims in closely held corporations. It provides customised solutions, saves money and time, provides psychological closure, and, when feasible, maintains the business entity and

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relationships. Effectiveness, however, depends on resolving innate difficulties with the help of judicial assistance, competent mediator selection, and procedural safeguards.

In order to promote mediation's greater use as a primary, rather than merely alternative, route to justice in the closely held corporate context, the paper ends by offering best practices for incorporating mediation into oppression dispute resolution frameworks.

Key Words: Shareholder Oppression, Mediation, Alternative Dispute Resolution (ADR), Comparative Corporate Law, Minority Shareholder Protection

I. Introduction: The Quagmire of Oppression in Closely Held Corporations

Often bound by family, social, or deep business ties, the closely held corporation (CHC) is the backbone of many economies and usually expects active management involvement as well as a share in profits. Unlike their publicly traded counterparts, CHCs lock minority shareholders into the corporate structure and find it challenging to exit because they lack an active market for shares.[1] This natural dynamic provides rich ground for shareholder oppression behavior by directors or controlling owners that unfairly rejects, prejudices, or undermines the reasonable expectations of minority shareholders.

Claims of oppression are famously complicated and destructive. Allegations of broken fiduciary duties loyalty, care, good faith financial misbehavior withholding dividends, syphoning profits, too generous compensation exclusion from management, denial of information, or forced deadlock abound. The emotional toll is great because of the breakdown of trust in past personal

[1] See generally Douglas K. Moll, *Shareholder Oppression in Close Corporations: The Unanswered Question of Perspective*, 53 Vand. L. Rev. 749, 752–58 (2000) (discussing the unique dynamics of closely held corporations).

relationships[2]. The conventional answer, litigation, often proves pyrrhic. The corporate equivalent of a nuclear option, destroying the business entity and the underlying relationships totally, it is prohibitively expensive, agonisingly slow, publicly adversarial, and usually results in court-ordered dissolution. While preserving the company, remedies like fair value buyouts sometimes involve bitter valuation battles and may leave the minority feeling underpaid after years of conflict.

Particularly mediation, Alternative Dispute Resolution (ADR) shows great appeal in this turbulent terrain. A voluntary, private process, mediation is whereby a neutral third party the mediator helps disputing parties negotiate to produce a mutually acceptable agreement. Its fundamental values of party autonomy, confidentiality, adaptability, and emphasis on interests instead of merely legal positions fit perhaps perfectly the relational and pragmatic demands of CHC oppression conflicts. This paper asks: "How successful is mediation as a mechanism for resolving shareholder oppression claims in closely held corporations across major common law jurisdictions?"

This paper will methodically assess mediation's effectiveness by a comparison of Delaware (the epicentre of US corporate law), the United Kingdom (with its statutory "unfair prejudice" remedy), and Canada (a pioneer in the statutory oppression remedy).[3] We will define oppression within each jurisdiction, investigate the theoretical and practical advantages mediation offers over litigation, critically analyse its limitations and challenges (including power imbalances and enforceability), examine jurisdictional nuances in adoption and success, review empirical data where available, and finally propose best practices for maximising mediation's potential in this important area of corporate conflict. The main argument is that, for most of the

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2 See F. Hodge O'Neal & Robert B. Thompson, O'Neal and Thompson's Oppression of Minority Shareholders and LLC Members § 1:3 (Rev. 3d ed. 2023) (defining shareholder oppression).

3 See Mary Siegel, *Fiduciary Duty Myths in Close Corporate Law*, 29 Del. J. Corp. L. 377, 410–12 (2004) (detailing the destructive nature of oppression litigation).

oppression claims in CHCs, mediation despite its difficulties showcases clearly more efficiency than litigation. primarily due to its capacity to preserve the business, tailor solutions, reduce destructiveness, and address underlying relational fractures.

II. Defining the Beast: Shareholder Oppression Doctrines Compared

Knowing the legal characteristics of oppression in each jurisdiction serves as the basis for assessing mediation's effectiveness. Although the fundamental issues for minority protection are shared, the doctrinal frameworks vary greatly, so affecting the nature of conflicts that develop and maybe the fit of mediation.

A. Delaware: The "Reasonable Expectations" Standard

Typical Delaware depends on common law fiduciary duties and the Court of Chancery's equitable jurisdiction because it lacks a specific statutory remedy for oppression. Nixon v. Blackwell[4], a landmark case, established the "reasonable expectations" doctrine as the benchmark for protecting minority shareholders in closely held companies. When the majority acts in a way that "frustrates the minority's reasonable expectations" that were held at the time of investment, it is considered oppression. Employment, management involvement, dividend distribution, information access, and the company's ongoing viability are a few examples of these expectations. Delaware courts frequently look beyond formal documents to the substance of the relationship, emphasising the special agreements and understandings among shareholders in a close corporation. Remedies include dissolution (rarely granted), injunctive relief, or a court-ordered buyout at fair value (e.g., In re Kemp & Beatley, Inc.[5]). The focus is heavily on the specific understandings within the particular corporation.

B. United Kingdom: The Statutory "Unfair Prejudice" Remedy

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4 Nixon v. Blackwell, 626 A.2d 1366, 1376–80 (Del. 1993).

5 In re Kemp & Beatley, Inc., 473 N.E.2d 1173, 1179 (N.Y. 1984) (adopting Delaware’s reasonable expectations standard).

Through Section 994 of the Companies Act 2006[6] (which replaced Section 459 of the Companies Act 1985), the UK offers a thorough statutory framework. If the company's operations are being, have been, or are anticipated to be carried out in a way that is "unfairly prejudicial" to the interests of members in general or of a portion of them (including the petitioner), a member may file a petition with the court. The term "unfair prejudice" is broad and can refer to violations of shareholder agreements, articles of association, or equitable considerations. The remedy is flexible (s. 996), most commonly involving a court-ordered buyout of the petitioner's shares at fair value, but also including regulation of future conduct, damages, or ordering specific actions. The UK approach is arguably more structured and predictable than Delaware's, focusing on objectively unfair conduct violating established terms.

C. Canada: The Broad Statutory "Oppression Remedy" (CBCA s. 241, Provincial Equivalents)

One of the most comprehensive and adaptable oppression remedies in the world is offered by the federal Canada Business Corporations Act (CBCA)[7] and comparable provincial laws (s. 241 CBCA). In the event that corporate conduct or actions are "oppressive or unfairly prejudicial to or that unfairly disregards the interests" of the complainant, it permits a complainant (including shareholders, directors, officers, and occasionally creditors) to seek relief. The remedy is contextual and expressly equitable. Famous cases such as BCE Inc. v. 1976[8] A two-part test was established by the debenture holders: (1) Do the alleged acts amount to unfair disregard, unfair prejudice, or oppression? and (2) What remedy is appropriate?

Courts weigh the complainant's "reasonable expectations" against the corporation's legitimate business interests while taking into account the particular corporation and relationships. Injunctions, conduct regulations, designating receivers, amending

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6 Companies Act 2006, c. 46, § 994 (UK).

7 Canada Business Corporations Act, R.S.C. 1985, c. C-44, § 241 [hereinafter CBCA].

8 BCE Inc. v. 1976 Debenture holders, [2008] 3 S.C.R. 560, 58 (Can.).

articles, and, most frequently, share purchase orders are among the incredibly broad remedies (s. 241(3)). The Canadian remedy is purposefully broad, giving equity and fairness precedence over rigid legal rights.

D. Comparative Synthesis: Implications for Mediation

These doctrinal differences shape the mediation landscape:

Scope of Disputes: Compared to Delaware's narrow focus on "reasonable expectations" or the UK's "unfair prejudice" linked to the terms of association, Canada's broad "unfair disregard" and explicit creditor standing may draw a greater variety of disputes under the oppressive ambit. Mediation needs to be flexible enough to accommodate different kinds of claims.
Focus: Delaware and Canada place a strong emphasis on "reasonable expectations" that are grounded in the particular relationship; this is in line with mediation's emphasis on underlying needs and interests. A slightly more objective baseline is provided by the UK's emphasis on "unfairness" and "terms" violations.

Remedial Flexibility: The incredibly expansive remedial powers in Canada offer a compelling analogy to the adaptable resolutions that mediation can offer. The courts in the UK are also very flexible. Despite having equitable powers, Delaware favours buyouts as the main non-dissolution remedy. When it comes to creating custom solutions, mediation can both mimic and possibly surpass the judicial flexibility (e.g., phased buyouts, modified roles, specific future).

Judicial Philosophy: Compared to a strictly rigid legal system, the Canadian and Delaware courts' explicit adoption of equitable, contextual analysis fosters a more accommodating atmosphere for mediation's similarly contextual and interest-based approach.

III. The Litigation Labyrinth: Why Traditional Adjudication Fails in CHC Oppression

Understanding mediation's appeal requires a frank

assessment of litigation's shortcomings in resolving CHC oppression disputes:

Destructiveness: The nature of litigation is hostile. Pleadings aggressively and publicly air grievances, solidifying positions and destroying any remaining goodwill or trust. Parties are forced to relive the dispute in great detail during the costly and invasive discovery process. Trials' public nature can harm people's reputations and business opportunities.[9]

Cost and Delay: Because of intricate financial forensics, valuation disputes, expert witnesses, and drawn-out proceedings, oppression litigation is infamously costly. Years-long delays are typical, during which the company frequently stagnates, loses value, and management's attention is diverted. A sizable amount of the company's assets or the minority's possible recovery could be consumed by legal fees.

Remedial Limitations: Legal precedent and doctrine place restrictions on courts. Although buyouts and other similar remedies are frequently used, figuring out "fair value" is difficult and expensive.[10] The court frequently lacks the practical capacity or desire to implement truly innovative solutions that could maintain the company or relationships (such as altered governance structures or specific performance of non-financial expectations).

Win/Lose Mentality: In litigation, the conflict is presented as a contest in which one side wins and the other loses. The underlying relationship breakdown or the parties' complex interests such as the need for respect, acknowledgement, or a respectful departure are rarely addressed by this. The 'loser' frequently feels bitter and vindictive as a result.

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9 See Edward B. Rock & Michael L. Wachter, *Waiting for the Omelet to Set: Match-Specific Assets and Minority Oppression in Close Corporations*, 24 J. Corp. L. 913, 936–40 (1999).

10 See John H. Matheson & R. Kevin Maler, *A Simple Statutory Solution to Minority Oppression in the Closely Held Business*, 91 Minn. L. Rev. 657, 663–65 (2007).

Relationship Annihilation: Any chance of future cooperation or even cordial communication between the parties is nearly always destroyed by litigation. This personal cost is incalculable for families or lifelong friends.

IV. The Mediation Alternative: Theoretical Advantages for Oppression Disputes

Mediation offers a fundamentally different paradigm, theoretically well-suited to the unique challenges of CHC oppression:

Preservation of the Business and Relationships (Where Possible): The ability of mediation to maintain the business and the underlying relationships is a key benefit, especially in shareholder and closely held company disputes.[11] In contrast to adversarial litigation, which is frequently damaging, drawn out, and public, mediation offers a controlled, private setting that promotes productive communication rather than escalating hostility. The procedure itself promotes understanding and communication between parties, which may lead to the reestablishment of professional relationships or, at the very least, their peaceful termination. Crucially, mediation makes it possible to create innovative, workable solutions that let the company carry on. To protect jobs, enterprise value, and stakeholder confidence, this may entail rearranged ownership structures, updated roles, or defined expectations.

Through negotiated terms that are less disruptive and more considerate of the parties' interests, mediation can help ease the transition, even in situations where a buyout is the agreed-upon outcome. In this sense, mediation can accomplish goals that courts are rarely able to accomplish by resolving conflicts, preserving business viability, and minimising collateral damage.

Party Ownership and Autonomy: The parties maintain authority over the procedure and the final product. Mediated

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[11] Carrie Menkel-Meadow, *Toward Another View of Legal Negotiation: The Structure of Problem Solving*, 31 UCLA L. Rev. 754, 789–92 (1984).

agreements are created by the parties themselves, as opposed to a judge dictating a resolution. Buy-in, satisfaction, and compliance all rise as a result. Courts are unable to formally address certain issues, such as non-compete agreements, future communication protocols, and apologies.

Confidentiality: Mediation takes place in private. The terms of the settlement, private complaints, and sensitive financial data are all kept private. Reputations and business secrets are safeguarded, and the company is protected from market volatility and reputational harm brought on by public litigation.[12] Adaptability and Originality of Solutions: Parties can create highly customised solutions when they are not constrained by procedural rules or legal precedent.

Flexibility and Creativity of Remedies: Freed from legal precedent and procedural constraints, parties can devise highly tailored solutions. Examples include:

- **Phased Buyouts**: Structured over time and contingent on future financial performance or agreed benchmarks, allowing smoother financial transitions.
- **Modified Governance Arrangements**: Such as allocation of board seats, enhanced information rights, or veto powers on specific issues to balance influence and oversight.
- **Re-employment or Consultancy Contracts**: Enabling continued engagement with the business in non-owner capacities, preserving reputational or professional ties.
- **Tailored Dividend or Profit-Sharing Mechanisms**: Adjusted to reflect negotiated priorities such as capital reinvestment, exit strategies, or minority interest protections.
- **Forward-Looking Agreements**: Covering conduct, strategic direction, or internal dispute resolution protocols to prevent future conflicts.

[12] Christopher W. Moore, The Mediation Process: Practical Strategies for Resolving Conflict 15–18 (4th ed. 2014).

- **Non-Financial Components**: Including formal acknowledgments, apologies, or agreed public statements-addressing personal or reputational aspects often overlooked in court judgments.

Cost and Time Efficiency: Mediation is usually far less expensive and quicker than litigation, even though it is not always free. A successful mediation can minimise business disruption and save significant legal and expert costs by resolving a dispute in a matter of days or weeks rather than years.

Concentrate on Underlying Interests: Trained mediators assist parties in examining underlying interests (such as "I need financial security," "I want my contribution recognised," "I need to exit with dignity," or "I want the business to survive") rather than rigid legal positions (such as "I want a buyout at X price"). Resolving these interests results in more satisfying and long-lasting solutions.

Better Communication and Less Hostility: The mediator facilitates conversation by establishing a controlled setting. In contrast to a courtroom, this can defuse tension, foster better understanding (even if not agreement), and offer a more secure setting for voicing complaints. Just this procedure has the potential to be healing and lessen lingering hostility.

Possibility of Reconciliation (or Civil Separation): Although it isn't always feasible, mediation gives parties the chance to re-establish trust, which could lead to true reconciliation. Even in cases where separation is unavoidable, mediation reduces the likelihood of continued animosity by enabling a more controlled and polite ending to the relationship.

V. Challenges and Limitations: Why Mediation Isn't a Panacea

Despite its advantages, mediation faces significant hurdles in the oppression context:

Power Imbalances: Majority vs. minority power imbalances are at the heart of oppression. Superior financial

resources, information control, and de facto management authority are frequently possessed by the controller.[13] Knowing that litigation is too costly for the minority, they may use this power to force an unfavourable settlement on them during mediation or to just stall the process. The mediator needs to actively manage these imbalances.

Emotional Intensity and Relationship Disintegration: The process may be overtaken by ingrained feelings of resentment, betrayal, and distrust. It's possible that parties are incapable or unwilling to interact logically. When direct dialogue has failed, the mediator must have extraordinary abilities to control strong emotions and facilitate communication.[14]

The Two-Edged Sword of Confidentiality: Confidentiality shields parties from public scrutiny and possible regulatory action, but it also shields oppressive conduct patterns. It may hinder the establishment of precedent that elucidates legal requirements.

Enforceability Issues: Although mediated settlement agreements are legally binding contracts, it may be more challenging to enforce intricate, unconventional remedies (such as specific conduct agreements) than it is to enforce a standard buyout or a monetary court judgement. Clarity in draughting is crucial.

Locating Qualified Mediators: To effectively mediate CHC oppression, a mediator must possess a thorough understanding of high-stakes negotiation, corporate law, finance (particularly valuation), and intricate family and relationship dynamics. These specialised mediators could be costly or hard to find.

The "Day in Court" Desire: Mediation is unable to satisfy the psychological need of certain harmed parties for public validation through a court ruling.

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13 Owen M. Fiss, *Against Settlement*, 93 Yale L.J. 1073, 1075–78 (1984) (critiquing power imbalances in ADR).

14 Lisa Blomgren Amsler (formerly Bingham), *Dispute Resolution in the Workplace: A Report on the Future of ADR in Closely Held Businesses*, 16 Ohio St. J. on Disp. Resol. 381, 406–08 (2001).

VI. Comparative Jurisdictional Analysis: Mediation in Practice

A. **Delaware: Pragmatism and the Chancery's Shadow**:

The Shadow of the Chancery and Pragmatism Delaware courts value alternative dispute resolution (ADR), including mediation, and strongly support it. The Court of Chancery regularly refers cases to mediation, particularly early on, acknowledging the destructive nature of litigation, even though no specific statute requires mediation for oppression. According to practitioners, mediation plays a big part in the high settlement rate of CHC disputes.[15] The "shadow of the law" is used in mediation; parties bargain with knowledge of the probable court decision in the event that mediation is unsuccessful (e.g., a fair value buyout calculation). A clear framework for negotiation is provided by the emphasis on "reasonable expectations." There are still issues with power disparities and the significant stakes. In Delaware, mediation is ingrained in the corporate dispute resolution culture.[16]

B. **United Kingdom: Statutory Backing and Procedural Integration**

The Civil Procedure Rules (CPR), which actively promote alternative dispute resolution (ADR), have strengthened the UK's long-standing mediation culture. Although recent cases like Lomax v. Lomax[17] demonstrate a trend towards stronger judicial encouragement, Halsey v. Milton Keynes[18] remains influential. Courts have the authority to impose cost sanctions on parties who irrationally refuse to mediate. Although it isn't required for s. 994 petitions specifically,

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15 See William T. Allen et al., *Function over Form: A Reassessment of Standards of Review in Delaware Corporation Law*, 56 Bus. Law. 1287, 1301–02 (2001).

16 Court of Chancery Rule 174, Del. Code Ann. tit. 10 (2023) (authorizing court-annexed mediation).

17 Lomax v Lomax [2019] EWCA (Civ) 1467, [36]–[39] (UK) (endorsing mandatory mediation).

18 Halsey v Milton Keynes General NHS Trust [2004] EWCA (Civ) 576, [9] (UK).

courts are willing to halt proceedings for ADR. Discussions about mediation have a reasonably clear foundation thanks to the UK's "unfair prejudice" framework, which focusses on objective unfairness and violations of agreed terms. There are many specialised commercial mediators. According to empirical research on s. 994 cases, mediation is a major factor in the large percentage of settlements reached before trial.[19] A buyout order is the likely remedy, and its predictability offers a strong baseline for negotiation.

C. **Canada: Breadth of Remedy Meets ADR Enthusiasm**

Canadian courts are some of the world's most ardent supporters of alternative dispute resolution (ADR). Early mediation is frequently required or strongly encouraged by provincial civil procedure rules. In Hryniak v. Mauldin[20], the Supreme Court of Canada expressly supported mediation. Applications for oppression remedies under the CBCA and provincial laws are also influenced by this culture. The scope of the oppression remedy itself, which includes "unfair disregard" and provides incredibly flexible solutions, is exactly in line with mediation's ability to create customised results.[21] The intricate financial and relational dynamics of CHC disputes are well-managed by Canadian mediators. Mandatory mediation programs for civil disputes, including claims of oppression, are well-established in jurisdictions such as Ontario. Practitioner surveys and anecdotal evidence show that mediation is widely used and successful in settling claims of oppression prior to reaching costly trials, leveraging the threat of the court's broad remedial powers.[22]

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19 See A.J. Boyle, *Minority Shareholders' Remedies* 78–82 (Cambridge Univ. Press 2002).

20 Hryniak v. Mauldin, [2014] 1 S.C.R. 87, 27–32 (Can.) (endorsing ADR access).

21 Rules of Civil Procedure, R.R.O. 1990, Reg. 194, r. 24.1 (Ont.) (mandatory mediation).

22 Jeffrey G. MacIntosh, The Oppression Remedy: Personal Law for the Close Corporation 7.220 (2017).

D. Comparative Synthesis: Factors Influencing Efficacy

- **Legal Framework**: Among the major common law jurisdictions, Canada arguably offers the most fertile ground for successful mediation in oppression disputes. Its broad statutory remedy under section 241 of the *Canada Business Corporations Act*, coupled with a strong culture of alternative dispute resolution (ADR), creates ample space for creative, negotiated outcomes. The United Kingdom also provides a supportive legal environment, with its structured "unfair prejudice" remedy under section 994 of the *Companies Act 2006*, complemented by the Civil Procedure Rules (CPR) that actively encourage early settlement. Delaware, while lacking a specific oppression remedy statute, still fosters effective dispute resolution through judicial discretion and a highly experienced commercial bar. Its legal culture values pragmatism, and judges often support settlements. However, the absence of a formal statutory framework like Canada's may slightly narrow the scope of issues that are amenable to structured negotiation.

- **Judicial Attitude**: Courts in all three jurisdictions show strong support for mediation in commercial disputes, including oppression claims. Canadian courts are particularly proactive often mandating or strongly encouraging parties to explore ADR at early stages. UK courts routinely recommend mediation, and Delaware's Chancery Court, while less formal in requiring ADR, has repeatedly emphasized its benefits in managing shareholder disputes.

- **Mediator Expertise**: Across Canada, the UK, and Delaware, there is access to a pool of specialist mediators with deep expertise in corporate and commercial matters. Given the complexity of CHC oppression cases which often involve intricate

valuations, power imbalances, and personal histories experienced mediators play a pivotal role in guiding parties toward durable settlements.

- **Empirical Evidence**: Although comprehensive, jurisdiction-specific statistics focused solely on CHC oppression disputes are limited, broader commercial mediation data is promising. Settlement rates in commercial mediation commonly fall between 70% and 85%. Anecdotal reports from legal practitioners across these jurisdictions strongly suggest that mediation successfully resolves a majority of oppression claims well before trial. In the UK, for example, studies of section 994 petitions consistently indicate a high pre-trial settlement rate, with mediation often playing a decisive role. In practice, mediation not only reduces litigation costs but also helps preserve businesses and relationships that might otherwise be irreparably damaged by adversarial proceedings.

VII. Maximising Efficacy: Best Practices for Oppression Mediation

Based on the comparative analysis and inherent challenges, the efficacy of mediation can be significantly enhanced through deliberate practices:

Early Intervention: Mediation should be started as soon as possible, preferably before or shortly after formal litigation starts. Early intervention keeps business damage from building up, costs from rising, and positions from hardening. Adopting or bolstering pre-action procedures that promote ADR is recommended[23].

Skilled Mediator Selection: Choose mediators with:

- Deep expertise in corporate law, finance, and valuation.

[23] Edna Sussman, *Mediating Shareholder Oppression Cases*, 65 Disp. Resol. J. 60, 62–64 (2010).

- Proven experience in high-conflict, relationship-intensive disputes (family business experience is valuable).
- Strong skills in managing power imbalances and high emotions.
- Knowledge of the specific jurisdictional legal framework.

Pre-Mediation Preparation: Demand thorough mediation statements that detail the relevant facts, legal stances, and underlying interests. When appropriate, level the playing field by facilitating controlled, voluntary information exchange. To establish expectations and comprehend dynamics, have pre-mediation calls with each party or counsel.[24]

Managing Power Imbalances:

- Mediator actively monitors for coercion or bad faith.
- Use of separate caucuses strategically.
- Encouraging parties to have competent legal counsel.
- Exploring BATNAs/WATNAs (Best/Worst Alternatives to a Negotiated Agreement) realistically, highlighting the costs and risks of litigation for *all* parties.
- Potential use of co-mediation (e.g., a legal/financial expert paired with a relationship specialist).

Handling Emotional Dynamics: Expressly acknowledge feelings. Permit controlled venting in a secure setting, usually a caucus. Instead of just repeating the past, concentrate mediation on potential solutions for the future. Make use of strategies to defuse tensions.

Structured but Flexible Process: Give a clear process

[24] Julie Macfarlane, Culture Change? A Tale of Two Cities and Mandatory Court-Connected Mediation, *J. Disp. Resol.* (2002).

roadmap while preserving flexibility. Prior to taking a stance on solutions, concentrate first on determining interests. Promote the generation of innovative ideas.

Strong Settlement Agreements: Verify that contracts are painstakingly written by attorneys, precisely defining all terms (both monetary and non-monetary), deadlines, roles, and penalties for violations. Provide explicit enforcement procedures. Take into account clauses (such as expedited mediation or arbitration) for settling any future disagreements resulting from the agreement.

Judicial Oversight and Support: Courts should:

- Actively promote and, in appropriate cases, mandate early mediation for oppression claims.
- Provide clear guidelines for mediator conduct in these specialised disputes.
- Enforce well-drafted mediated settlement agreements promptly and effectively.
- Respect the confidentiality of the mediation process while ensuring procedural fairness.

VIII. Conclusion: Embracing the Mediated Imperative

In closely held companies, shareholder oppression is a poisonous combination of betrayed trust, financial risk, and complicated legal issues. Conventional litigation is a destructive force that frequently results in a hollow victory at the expense of the company and the relationships that supported it, even though it may be required as a last resort. This comparative study of Delaware, the UK, and Canada shows that mediation provides a clearly more effective means of settling the great majority of these delicate conflicts[25].

[25] See Bruce Welling, Corporate Law in Canada: The Governing Principles 467–69 (4th ed. 2014).

The fundamental advantages of mediation confidentiality, flexibility, focus on underlying interests, party autonomy, and the potential to protect the business and lessen relational harm strongly match the particular requirements of CHC oppression disputes. Even though there are obstacles, such as power disparities and strong emotions, these can be lessened with effective mediation techniques, early intervention, cautious mediator selection, and encouraging legal frameworks. Comparative experience demonstrates that jurisdictions that actively support and incorporate mediation into their oppression remedy systems as is the case in Canada, the UK, and Delaware acquire a number of advantages, including quicker, less expensive resolutions, higher rates of business preservation, and results that, although they may not always bring harmony back, offer a more respectable and less damaging separation than litigation permits.[26]

The commitment of the parties, attorneys, mediators, and the courts is necessary for mediation to be effective. The evidence, however, clearly indicates that mediation is not just a "alternative" to litigation for closely held corporations caught in the cycle of oppression; rather, it is frequently the better and preferred method of reaching a fair and long-lasting resolution. Maintaining the health of closely held companies and the intricate human relationships at their core requires embracing mediation as the primary, not the secondary, method of resolving shareholder oppression. In order to maximise the potential for fairness and effectiveness of mediation, future research should concentrate on producing more solid empirical data on mediation outcomes, particularly in oppression cases across jurisdictions, and further improving best practices.

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26 See generally Jennifer J. Reynolds, *The Vanishing Trial and the Domestication of Federal Procedure: Implications for ADR* (Am. Bar Found., Working Paper No. 2021-03, 2021) (empirical data on ADR efficacy).

REGULATING THE RESOURCE CURSE: LEGAL AND CONSTITUTIONAL DIMENSIONS OF MINING AND ENVIRONMENTAL GOVERNANCE IN INDIA

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Abstract

Mining sector of India is a cornerstone for the nation's rise as a global leader. It empowers the manufacturing, infrastructure, construction and energy sector of the country while contributing to its employment, exports, and GDP. Despite its critical role in the development of the country, Mining operations have also resulted extreme environmental damage including displacement of nearby populations, pollution, deforestation, and loss of biodiversity. This conflict between environmental protection and economic interests emphasizes the complexities of resource governance faced by the country. Though the existing studies majorly focus on economic value and environmental effects of mining, little is known about efforts of India's constitutional and legal framework, taken together with judicial intervention, to balance these conflicts.

By adopting an analytical method of study, the current research paper critically examines the legal framework concerning mining and environmental protection in India. It focuses on constitutional mandates for environmental preservation and its interplay with statutes like the Mines and Minerals (Development and Regulation) Act of 1957 and the Environment (Protection) Act of 1986. The study also examines the judicial approach toward these issues by analysing court rulings, and policy changes through case study method.

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The process through which the judiciary has regulated mining operations by applying environmental principles like the precautionary principle, the polluter pays principle, the public trust doctrine, and the idea of sustainable development is discussed in detail.

The study finds that the Supreme Court has significantly changed the way that environmental obligations are enforced. It has taken measures to tighten the regulatory oversight, encourage environmental rehabilitation by prioritizing sustainable resource management. However, judicial efforts alone are insufficient to address these concerns. The study concludes that stronger legislative action, coherent policy frameworks, and effective administrative enforcement are critical to ensuring that mining activities contribute to economic growth without compromising environmental integrity and social justice.

Key Words: Mining, Supreme court, Environmental Justice, Sustainable development, Resource management.

I. Introduction: India's Mining Economy and The Governance Dilemma

The mining sector is a vital and fundamental pillar of India's economic development. India's mining industry is a major source of inputs for important industries including manufacturing, steel, cement, power generation, and infrastructure because of the country's wealth of natural resources, which include coal, iron ore, bauxite, and precious and semi-precious metals. It is a significant contributor to India's economy, accounting for almost 2.5% of GDP and directly and indirectly generating millions of job possibilities. Mining activities are vital to the rural and tribal economies, especially in mineral-rich areas like Jharkhand, Odisha, Chhattisgarh, and Rajasthan. Furthermore, the sector is crucial for ensuring resource security and reducing dependency on imports in light of India's growing industrialization and energy needs.

In terms of resource security and strategic autonomy, India's mining sector is equally crucial. The increasing drive for industrialization and energy independence is driving up demand for essential minerals such as coal, iron, and rare earth elements. The industry supports the Make in India movement by reducing dependency on imports and providing essential raw materials for homegrown companies. Since the country's transition to renewable energy is also increasing demand for rare minerals like lithium, cobalt, and others that are used in batteries and clean energy technology, mining is a crucial part of India's green energy future. In order to unleash the potential of the mining industry, the government has implemented a number of reforms after realizing the sector's significance to the country's development. These include easing mining regulations, promoting private and foreign investment, digitizing the auction process, and enhancing environmental clearance procedures.

In contrast to their resource-poor counterparts, nations or regions with abundant natural resources, especially non-renewables like minerals and fossil fuels tend to have slower economic growth, weaker democratic institutions, and worse development outcomes. The "resource curse," or paradox of plenty, are other names for this phenomenon. This concept challenges the commonly accepted notion that having an abundance of natural resources directly leads to prosperity. Instead, a reliance on extractive sectors that is too great often leads to corruption, economic instability, rent-seeking, and a disregard for other productive industries such as manufacturing or agriculture. Indian states that are rich in minerals, such as Chhattisgarh, Odisha, and Jharkhand, are excellent illustrations of this dilemma. Despite having abundant natural riches, these states still have high rates of poverty, poor infrastructure, deteriorating environmental conditions, and frequent violations of indigenous land rights. Socioeconomic inequality is mostly caused by exploitative mining practices, inadequate income sharing, and a lack of enforcement of human rights and environmental laws. The resource curse highlights the need for robust governance, legal safeguards, and equitable benefit-sharing structures to ensure that mining fosters sustainable development rather than creating persistent ecological and social harm.

The tension between ecological preservation and industrial nationalism is becoming more and more apparent in India's developmental agenda. In order to support self-reliance, national infrastructure, and energy independence, industrial nationalism places a high priority on the extraction of indigenous resources. This is demonstrated by programs like "Made in India" and the deregulation of the coal and mineral industries[1]. Deforestation, biodiversity loss, and social dislocation are frequently accelerated by this drive for economic growth, especially in areas that are ecologically delicate and dominated by tribes[2]. Conversely, ecological preservation, which is based on environmental jurisprudence and constitutional duties, prioritizes intergenerational equality, sustainable development, and the public trust theory[3]. Courts have maintained these ideas, reaffirming that natural resources are shared heritage that has to be preserved rather than just commodities to be exploited[4]. This dichotomy provides a continuous legal and policy dilemma, how to balance sovereignty over resources with environmental care, especially amid climate change imperatives and international commitments.

In accordance with its obligations under the Paris Agreement, India has committed to achieving net-zero carbon emissions by 2070[5]. Nevertheless, the nation's ongoing reliance on fossil fuels and extensive mineral extraction to meet energy and industrial demands conflicts with this climate ambition[6]. The concepts of decarbonization and sustainable development are at odds with the growth of coal mining, the clearing of forests for mining leases, and the dilution of environmental assessments[7]. A major policy problem is still striking a balance between economic

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1 Ministry of Mines, *National Mineral Policy, 2019* (Gov't of India, 2019).

2 Comptroller & Auditor General of India, *Performance Audit of Mining Activities in Odisha* (Report No. 20 of 2016).

3 *Vellore Citizens' Welfare Forum v. Union of India*, (1996) 5 S.C.C. 647.

4 *M.C. Mehta v. Kamal Nath*, (1997) 1 S.C.C. 388.

5 Press Information Bureau, *India's Updated Nationally Determined Contributions*, Ministry of Environment, Forest and Climate Change (Aug. 2022).

6 Ministry of Coal, *Provisional Coal Statistics 2022–23* (Gov't of India, 2023)

7 Draft Environmental Impact Assessment Notification, 2020, S.O. 1199(E), Ministry of Environment, Forest and Climate Change.

growth and carbon reduction, particularly as extractive industries betray India's ecological pledges and disproportionately impact Indigenous and forest-dependent people[8].

II. Mining and Environmental Governance in India: A Constitutional Conundrum

In India, mining is a vital economic activity that supports state revenue, industrial growth, and creates employment opportunities. However, the exploitation of mineral resources frequently results in infringements of rights, community dislocation, and severe environmental degradation, problems that call for a robust legal and constitutional response. The Indian constitution establishes that the guarantee of sustainable development, safeguard of human rights and the environment, and advancement of social justice are the fundamental principles for regulating mining activities.

Article 21 of the Indian Constitution, which guarantees the right to life and personal liberty, has been extensively interpreted by courts to include the right to a clean and healthy environment. In landmark judgments such as *Subhash Kumar v. State of Bihar*[9] and M.C. Mehta v. Union of India[10], the Supreme Court made it clear that the pollution of air and water, as well as the destruction of land from mining, aren't just environmental issues, and they strike at the heart of fundamental human rights. Therefore, mining operations that harm people's health and means of subsistence or contaminate the air, water, or land may be legally challenged as violating Article 21

Yet, this progressive vision often gets lost in the gap between principle and practice. Weak enforcement, regulatory loopholes, and state indifference, often driven by powerful corporate interests, leave such mining activities unchecked. For many marginalised communities living near these sites, the constitutional promise of Article 21 seems like a distant dream as their health suffers due to

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8 *Samatha v. State of Andhra Pradesh*, (1997) 8 S.C.C. 191.

9 Subhash Kumar v State of Bihar (1991) 1 SCC 598

10 MC Mehta v Union of India (1987) 1 SCC 395

land and water pollution.

Article 14,[11] which guarantees equality before the law, should offer a path to challenge such injustices, especially when it comes to the corrupt or biased allocation of mining leases. The courts have, at times, stepped in to strike down unfair practices. But the broader picture remains troubling. Cronyism, a lack of transparency, and political favouritism continue to shape decisions. The disconnect between what the Constitution promises and how mining is governed exposes a serious crisis of justice and accountability.

Articles 39(b) and 48A of the Directive Principles of State Policy[12] mandate equitable resource distribution and environmental protection, respectively. Article 39(b) seeks to prevent monopolistic control of natural resources, while Article 48A obliges the state to safeguard the environment, which is frequently endangered by mining activities.

These principles, though morally compelling, aren't legally enforceable. They serve as guiding ideals rather than binding rules, which often leaves them sidelined in actual policy decisions. Courts have occasionally leveraged them to interpret environmental legislation, but their impact on mining policy remains limited.

Exploitative mining practices continue, often unchecked. The state's reluctance to regulate harmful operations or promote sustainable alternatives suggests a troubling preference for short-term economic gain over long-term public welfare and environmental sustainability.

Article 51A(g)[13] imposes a fundamental duty on citizens to protect the environment, empowering local communities and activists to challenge destructive mining. However, this participatory framework is largely symbolic when state and corporate interests dominate. The Fifth Schedule and the Panchayats

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11 Constitution of India 1950, art 14

12 Constitution of India 1950, art 39(b) & Art. 48A

13 Constitution of India 1950, art 51A(g)

(Extension to Scheduled Areas) Act, 1996 (PESA) aim to safeguard tribal autonomy in mineral-rich regions like Jharkhand and Odisha. PESA's requirement for Gram Sabha consent is a critical check against exploitation, yet its implementation is routinely flouted. State governments often bypass or manipulate consent processes, sidelining tribal voices to fast-track mining projects.

III. MMDR Act and Federal Jurisdiction: A Flawed Balancing Act

The Indian Constitution's goal of striking a balance between administrative decentralization and national economic interest is the basis for the division between major and minor minerals, as well as their relative placement on the Union and State Lists. The Seventh Schedule of the Constitution, namely Entry 54[14] of the Union List and Entry 23[15] of the State List, provides the constitutional foundation for this division. To the extent that "regulation of mines and mineral development under the control of the Union is declared by Parliament by law to be expedient in the public interest," Entry 54[16] gives the Parliament the authority to enact laws pertaining to this topic. This clause gives the central government authority over strategically and economically important minerals, known as major minerals, which are essential for energy security, heavy industries, national infrastructure, and foreign exchange profits.

In contrast, State Legislatures may regulate mines and mineral development under Entry 23[17] of the State List, but only "subject to the provisions of List I," which means that their authority is restricted in cases where Entry 54[18] legislation has been passed by Parliament. According to Section 3(e) of the Mines and Minerals (Development and Regulation) Act[19], 1957 (MMDR Act), the Central Government defines minor minerals, which are primarily covered by this residual power. These consist of less valuable and

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14 Constitution of India 1950, Sch VII, List I, Entry 54
15 Constitution of India 1950, Sch VII, List II, Entry 23
16 Constitution of India 1950, Sch VII, List I, Entry 54
17 Constitution of India 1950, Sch VII, List II, Entry 23
18 Constitution of India 1950, Sch VII, List I, Entry 54
19 Mines and Minerals (Development and Regulation) Act 1957, s 3(e)

locally accessible resources such as construction stone, sand, gravel, and clay.

By making a distinction between major and minor minerals, it intends to promote decentralisation, but often creates regulatory incoherence. States, granted autonomy over minor minerals, frequently succumb to local political pressures, leading to unchecked illegal mining and environmental degradation. Meanwhile, the central government's oversight of major minerals lacks accountability, with policies skewed toward industrial growth over ecological or social concerns. The MMDR Act's framework, while constitutionally sound, fails to address the practical realities of corruption and mismanagement, exposing the limits of India's quasi-federal structure in ensuring sustainable resource governance.

IV. Environmental Impact Assessment (EIA): Dilution of Participatory Rights in The EIA 2020 Draft

Based on their possible environmental impact, the EIA Notification of 2006, which was published under the Environment (Protection) Act, 1986, requires prior environmental approval for a number of project categories, including mining[20]. It places a strong emphasis on public review and consultation by central authorities, including the State Environment Impact Assessment Authority (SEIAA) and Expert Appraisal Committees (EACs).

The Ministry of Environment, Forests, and Climate Change (MoEFCC) released the Draft EIA Notification, 2020, which caused a great deal of criticism because it limited public input[21] Important issues include:

1) Post-facto clearance: According to the ruling in *Alembic Pharmaceuticals Ltd. v. Rohit Prajapati*, it is legal to grant ex-post permissions for projects that started without clearances[22].

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20 Env't (Protection) Act, No. 29 of 1986, § 3(1), India Code (1986).

21 Draft EIA Notification, S.O. 1199(E) (Mar. 23, 2020), Ministry of Env't, Forest & Climate Change, https://moef.gov.in.

22 *Alembic Pharm. Ltd. v. Rohit Prajapati*, (2020) 12 S.C.C. 92 (India).

2) Reduced compliance reporting: Real-time monitoring was compromised when the reporting interval was changed from six months to a year[23].

3) Exemptions from public hearings: A number of projects are exempt from public consultation[24], especially those in important sectors (such as modernisation and linear infrastructure).

These modifications are viewed as regressive and at odds with the precautionary principle established by Indian courts, as well as the polluter pays principle[25]. Tribal and rural communities that are most impacted by extractive industries run the risk of being ignored at public hearings, which are an essential part of environmental democracy[26].

V. Trusts of The District Mineral Foundation (DMF): The Deceptive Benefit-Sharing

DMF Trusts were established by the MMDR Amendment Act of 2015 in order to formally share benefits with communities impacted by mining[27]. Under the direction of the Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY), these trusts are funded by donations from mining license holders (10–30% of the royalty)[28]. Projects related to drinking water, education, health, and sustainable livelihoods are to be funded.

Nevertheless, numerous audits and evaluations by civil society have shown:

- DMF funding being diverted to unrelated or urban-focused projects[29]

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23 Supra.

24 Draft EIA Notification, supra note 2, 13(1)(b).

25 *Vellore Citizens' Welfare Forum v. Union of India*, (1996) 5 S.C.C. 647 (India).

26 Kanchi Kohli & Manju Menon, *The Draft EIA Notification 2020: A Regime Built on Non-compliance*, 55 Econ. & Pol. Wkly. 13 (2020).

27 Mines & Minerals (Dev. & Regulation) Amendment Act, No. 10 of 2015, §§ 9B & 15A, India Code (2015)

28 Ministry of Mines, *PMKKKY Guidelines* (2016), https://mines.gov.in.

29 Human Rights Law Network, *Adivasi Lives Matter: DMF and Tribal Neglect*

- Despite legal requirements, there is a lack of Gram Sabha consultation, especially in districts covered by the Fifth Schedule[30].
- Underutilization: Less than half of the DMF monies collected have been used by a number of districts[31].

Inconsistencies in DMF planning and execution were discovered by the CAG Performance Audit on Mining in Odisha, indicating a failure to achieve the stated goals[32]. Despite its potential, DMF's implementation is still hindered by administrative opacity and a lack of community involvement, which compromises its ability to redistribute[33].

VI. Mining and the Forest Rights Act of 2006: A Conflict of Statutory Obligations

Individual and collective rights of forest inhabitants, particularly Scheduled Tribes, to use and manage ancestral forestlands are recognised by the Forest Rights Act, 2006 (FRA)[34]. Section 4(5) forbids the removal of the tribes unless all Act rights are acknowledged[35]. Furthermore, the Gram Sabha must give its free, prior, and informed approval before any forest area can be diverted for non-forest uses, such as mining[36].

This clause was upheld in the famous *Vedanta/Niyamgiri case, [Orissa Mining Corporation Ltd. v. Ministry of Environment*

in Chhattisgarh (2021).

30 Supra

31 Vidya Krishnan, *Mining Wealth Eludes Tribals in Mineral-Rich States*, The Hindu (Mar. 8, 2022), https://thehindu.com.

32 Comptroller & Auditor General of India, *Performance Audit of Mining Activities in Odisha*, Report No. 20 of 2016.

33 Aruna Chandrasekhar, *DMF: An Idea Undermined*, The Wire (Aug. 21, 2021), https://thewire.in.

34 Scheduled Tribes & Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, No. 2 of 2007, § 3, India Code (2007).

35 Id. S.4(5).

36 Ministry of Env't & Forests, *Guidelines for Diversion of Forest Land for Non-Forest Purposes*, F. No. 11-9/1998-FC (2009).

& Forests][37]. The Supreme Court gave Gram Sabhas the authority to determine whether mining should continue after ruling that the Dongria Kondh tribe's religious and cultural rights over the Niyamgiri Hills must be protected[38]. The idea was unanimously rejected by all 12 Gram Sabhas, setting a strong precedent for resource governance that respects Indigenous self-determination[39]. In spite of this, a lot of projects move on without obtaining approval from the Gram Sabha or completing claims under the FRA[40]. This is especially true when state governments expedite projects to draw in investment during the forest clearance process. Tribal sovereignty violations, environmental damage, and community resistance have resulted from the ensuing legal disputes[41].

VII. Judicial Oversight in Mining Governance: Environmental Jurisprudence and Institutional Failures

When legislative and administrative monitoring have failed to guarantee sustainable and equitable development, the Indian judiciary has become a powerful force in controlling mining operations and safeguarding the environment. The courts, especially the Supreme Court of India and the National Green Tribunal (NGT)[42], have taken on a crucial role in striking a balance between environmental preservation and economic growth in light of the growing number of cases of illicit mining, environmental degradation, and breaches of tribal and community rights. The constitutional guarantee under Article 21[43], which the judiciary has broadly construed to encompass the right to a healthy and clean environment, is the source of this interventionist strategy.

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37 *Orissa Mining Corp. v. Ministry of Env't & Forests*, (2013) 6 S.C.C. 476 (India).

38 Supra

39 Id.; see also Survival Int'l, *India: Supreme Court Rules in Favor of Dongria Kondh*, https://survivalinternational.org.

40 Kanchi Kohli & Manju Menon, *Forest Rights, Mining, and the Gram Sabha*, CPR Working Paper (2020).

41 Supra

42 National Green Tribunal (established under the National Green Tribunal Act 2010)

43 Constitution of India 1950, art 21

7.1.Samaj Parivartana Samudaya and Ors. v. State of Karnataka and Ors.

In the 2013 case, *Samaj Parivartana Samudaya and Ors. v. State of Karnataka and Ors*.,[44] the Supreme Court of India tackled the serious problem of illicit iron ore mining in the Karnataka districts of Bellary, Chitradurga, and Tumkur. The petition, which was filed as a Public Interest Litigation (PIL) under Article 32 of the Indian Constitution, was started by a number of activists and non-governmental organisations, including the NGO Samaj Parivartana Samudaya. It sought judicial intervention against the state authorities' regulatory failures and widespread illegal mining activities.

The Central Empowered Committee (CEC) was tasked by the Supreme Court to carry out a comprehensive inquiry after becoming concerned about the extent of environmental degradation and infractions of forest laws. The CEC's studies revealed widespread illicit iron ore mining, forest land encroachment, biodiversity loss, and royalties that were not paid. The CEC divided mining leases into three groups based on its findings: Category A, which included the fewest infractions, Category B, which included moderate violations, and Category C, which included significant violations and illegalities.[45]

In order to stop additional ecological harm, the Court responded by outright prohibiting mining activities in the three districts. It allowed for the gradual restoration of mining operations under Category A licenses, provided that strict adherence to environmental regulations was maintained. However, under a revised regulatory framework, Category C leases linked to egregious illegalities were completely cancelled and new auctions were ordered. The ruling upheld the idea that mineral resources belong to the public and should be used responsibly, not for private gain at the expense of the environment and general well-being.

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[44] *Samaj Parivartana Samudaya v. State of Karnataka*, (2013) 8 S.C.C. 154 (India).

[45] Para 27 to 30 of CEC Report dated 03.02.2012)

The Court used the public trust theory[46] to hold that the State had failed in its constitutional and statutory obligations as a trustee of natural resources under statutes like the Forest (Conservation) Act of 1980 and the Mines and Minerals (Development and Regulation) Act of 1957. Additionally, it directed the establishment of a Special Purpose Vehicle (SPV) to carry out social development, afforestation, and rehabilitation projects as well as the formulation of a Comprehensive Environmental Plan for the Mining Impact Zone (CEPMIZ). Funded by donations from mining lessees, the SPV made sure that profits were put back into community welfare and restoration.[47]

The case emphasized the Supreme Court's constitutional duty to safeguard the environment and natural resources under Articles 21 and 48A.[48] The Court reaffirmed the need of sustainable development as a guiding concept in resource governance by striking a balance between regulated economic activity and environmental conservation.

The Supreme Court's intervention though, helped curb rampant illegal mining, the judgment was not without adverse consequences. One of the key criticisms was its economic impact, particularly the blanket ban on mining activities in Category C leases. This led to widespread unemployment and a significant disruption of livelihoods in the affected districts, with little to no economic rehabilitation plan in place. The Court's directions to set up a Special Purpose Vehicle (SPV) and implement a Comprehensive Environmental Plan for the Mining Impact Zone (CEPMIZ) were visionary, but their on-ground implementation has remained weak and inconsistent, undermining the intended restoration efforts. Moreover, the lack of adequate consultation with local stakeholders, such as workers and small leaseholders, created

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46 The public trust theory holds that the State is only a trustee of natural resources and has a duty to safeguard and preserve them for future generations rather than to enable their unsustainable use for private gain

47 Para 14, *Samaj Parivartana Samudaya v. State of Karnataka*, (2013) 8 S.C.C. 154 (India).

48 Para 31, *Samaj Parivartana Samudaya v. State of Karnataka*, (2013) 8 S.C.C. 154 (India).

a top-down regulatory response that failed to acknowledge the socio-economic complexity of mining-affected regions. Critics also raised concerns about judicial overreach, where the Court, through the Central Empowered Committee (CEC), effectively took over regulatory functions traditionally belonging to the executive.

7.2. Goa Foundation vs. Union of India (UOI) and Ors.

The Supreme Court of India addressed the urgent problems of environmental degradation and widespread illicit iron ore mining in the state of Goa in Goa Foundation v. Union of India[49] Citing widespread violations of mining, forest, and environmental laws by mining leaseholders operating in Goa, as well as the cooperation or carelessness of state authorities in enforcing legal standards, the petitioner, Goa Foundation, a well-known environmental NGO, filed a writ petition under Article 32 of the Constitution.

According to the petitioner, hundreds of mining licenses were issued or extended without compliance with the Environmental Impact Assessment (EIA) Notification of 2006, the Forest (Conservation) Act of 1980, or appropriate environmental approvals. Massive environmental damage, including as deforestation, river and aquifer contamination, and negative effects on human health and wildlife, has resulted from these mining operations. The petition contested the legality of leases that were either not legally renewed or that persisted in operating against the rulings of the Supreme Court in previous mining cases.

The Court observed that mining operations in Goa had been conducted with total contempt for legislative safeguards, citing thorough findings from the Justice M.B. Shah Commission[50] and other expert bodies.[51] The public trust theory was once again crucially upheld by the Court.

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49 (2014) 6 S.C.C. 590.

50 Notification No. S.O. 2964(E), Constitution of the Justice M.B. Shah Commission of Inquiry, Ministry of Mines, Gov't of India, Gazette of India, Extraordinary, Part II, Section 3(ii), dated Nov. 22, 2010.

51 Para 67, Goa Foundation v. Union of India, 2014, Judgment dated 21.04.2014)

All mining licenses in Goa had expired on November 22, 2007, the Supreme Court said in a historic ruling, and any operations carried out after that date were unlawful unless they were renewed in compliance with the Mines and Minerals (Development and Regulation) Act, 1957. As a result, the Court ruled that iron ore extraction conducted between 2007 and 2012 was illegal and invalidated all mining lease extensions granted by the Goa government after this date. Based on the region's carrying capacity and the precautionary principle established by environmental law, the ruling also set a 20 million metric ton annual cap on iron ore production in Goa.[52]

Under the close supervision of the Indian Bureau of Mines and the Ministry of Environment and Forests (MoEF), it also ordered the development of a regulatory framework to guarantee future mining operations that are legal, sustainable, and scientific.[53]

This precedent also suffered similar shortcomings to the *Samaj Parivartana Samudaya* judgement, as it failed to address the economic consequences of the cancellation of the mining lease. The judgment created ambiguity around the process of lease renewals and confused legitimate operators with violators, leading to protracted litigation and administrative paralysis. The Court-imposed cap on annual iron ore extraction, while environmentally prudent, lacked a clear scientific basis or flexibility, limiting Goa's ability to recalibrate its economic and environmental strategies

7.3. Orissa Mining Corporation vs. Ministry of Environment & Forest and others

A landmark case in Indian environmental and tribal jurisprudence is *Orissa Mining Corporation Ltd. v. Ministry of Environment & Forest*. It centers on the proposed bauxite mining project in Odisha's Niyamgiri Hills, which Orissa Mining Corporation (OMC) and Vedanta Aluminium Ltd. are working on

[52] Para 57, Goa Foundation v. Union of India, 2014, Judgment dated 21.04.2014)

[53] Para 58, Goa Foundation v. Union of India, 2014, Judgment dated 21.04.2014)

together. The project's goal is to provide raw materials for Vedanta's alumina refinery in Lanjigarh. The Dongria Kondh, a Particularly Vulnerable Tribal Group (PVTG), who revere the Niyamgiri Hills, live in the ecologically delicate region that is situated in the districts of Kalahandi and Rayagada. In addition to destroying the environment, the tribal communities argued that mining would violate their traditional livelihoods, religious and cultural rights, and community forest rights guaranteed by the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA).

The diversion of forest land was first approved by the Ministry of Environment and Forests (MoEF). However, the project was put on hold in 2010 when the MoEF revoked the clearance following findings from the Saxena Committee and the Forest Advisory Committee that highlighted significant infractions of the FRA and environmental standards. The Orissa Mining Corporation appealed this ruling to the Supreme Court, claiming that the project was crucial to industrial expansion and economic development and that the withdrawal was capricious. The petitioners said that the central government's conduct infringed upon state jurisdiction and violated the cooperative federalism principles, and that all required procedures under forest and environmental legislation were followed.

The Supreme Court acknowledged the importance of tribal rights under the Constitution and the Forest Rights Act in its historic 2013 ruling, upholding the MoEF's decision to revoke its forest clearance. The Court ruled that the Gram Sabha, not the State or the Center, should determine the religious and cultural significance of the Niyamgiri Hills to the Dongria Kondh community.[54] Under Section 3(1)(j) of the FRA, it directed the Odisha government to convene Gram Sabha meetings in each of the affected villages within three months to assess whether the planned mining project will infringe upon the community's religious and cultural rights.

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[54] Para 58, Orissa Mining Corporation v. MoEF, 2013, Judgment dated 18.04.2013

In an unprecedented act of democratic self-determination, all 12 Gram Sabhas unanimously rejected the mining proposal, thereby putting Vedanta's plans on hold. This decision made Orissa Mining Corporation a shining example of the application of free, prior, and informed consent (FPIC) in Indian environmental and resource governance. The Court's ruling supported the constitutional objective of participatory democracy, especially in Scheduled Areas controlled by the Fifth Schedule of the Indian Constitution, which recognizes the autonomy and consent of tribal people in decision-making processes affecting land and resources.

The case also balanced ecological preservation and tribal cultural rights while upholding key environmental ideas including sustainable development, the precautionary principle, and the public trust theory. The Supreme Court's decision was widely applauded in India and abroad for giving Indigenous people a voice and upholding their right to preserve their spiritual and ecological connections to the land. It marked a shift away from top-down clearance methods and toward a more decentralized, community-focused approach to environmental decision-making.

From a legal perspective, the case demonstrated the significance of integrating the Forest Rights Act of 2006 into the environmental clearance process. Additionally, it recognized that compliance with environmental laws must consider more than just technical and administrative procedures; it must also consider the substantive rights of affected communities, particularly where their identity and survival are at stake. Numerous Supreme Court and High Court rulings concerning environmental justice, tribal consent, and land acquisition have since cited the ruling.

The cancellation of the mining project based on the verdict of Gram Sabhas, while democratic in form, raised concerns about possible politicisation and external influence on these village bodies. The judgment was also seen by some as an instance of excessive judicial activism, with the Court defining the process and timeline for Gram Sabha deliberations, arguably stepping into executive functions.

7.4.Mineral Area Development Authority v. Steel Authority of India & Ors.,

A historic nine-judge Constitution Bench of the Supreme Court of India rendered a landmark decision in *Mineral Area Development Authority v. Steel Authority of India & Ors.* on July 25, 2024, with an 8:1 majority. The ruling clarified whether royalty, as charged under the Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act), is a tax and whether States retain the autonomy to impose taxes on mining lands or mineral rights under the Seventh Schedule of the Constitution[55]. A three-judge bench referred the case in 2011 because of conflicting precedents: the five-judge Kesoram Industries v. Coal India Ltd. (2004), which indicated the opposite and attributed the earlier finding to a typographical error[56], and the seven-judge India Cement Ltd. v. State of Tamil Nadu (1990), which held royalty to be a tax and therefore outside State competence[57]. There was a great deal of ambiguity around the state's fiscal authority over mining as a result of these contradictory decisions.

Four fundamental legal issues served as the foundation for the dispute.

- First, is a royalty a tax under MMDR Act Section 9?
- Second, after royalty is paid to the Union, does the State lose its ability to impose taxes under List II's Entry 50 (taxes on mineral rights) or Entry 49 (taxes on land and buildings)?
- Third, does state taxation get in the way of the MMDR Act?
- Fourth, in order to maintain budgetary stability, should the new legal interpretation be adopted prospectively or retroactively, resulting in enormous liabilities?[58]

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55 *Mineral Area Dev. Auth. v. Steel Authority of India et al.*, Civil Appeal Nos. 4056–4064 of 1999, 2024 SCC OnLine SC 554 (India).

56 *India Cement Ltd. v. State of Tamil Nadu*, (1990) 1 S.C.C. 12 (India).

57 *State of W.B. v. Kesoram Indus. Ltd.*, (2004) 10 S.C.C. 201 (India).

58 *MADA*, supra note 1; see *Nature of Royalty Paid by Mine Leaseholders*, SC Observer summary

While the Union argued that the verdict should apply prospectively to avoid undue hardship to mining sectors, MADA (Mineral Area Development Authority) and SAIL urged for retrospective validation of State levies, highlighting States' acute income requirements and settled reliance[59].

According to the majority, royalty is a contractual consideration resulting from leasing agreements between the State (or Center) and lessee rather than a tax. [60]It is qualitatively different from a tax, which is a coercive exaction under sovereign power, because it arises as a quid pro quo for the right to acquire locally-owned resources[61]. "Royalty is consideration for parting with the right to win minerals," Chief Justice Chandrachud explained, adding that the legislative authority to impose State taxes under Entries 49 and 50 is still in place[62]. Parliament decided that the MMDR Act does not limit State authorities; in the absence of a specific exception, the constitutional separation of legislative power between the States (Entries 49 & 50 List II) and the Center (Entry 54 List I) remains in place[63].Therefore, mines and mineral-bearing lands are subject to several taxation regimes, including state land taxes (Entry 49) or mineral rights taxes (Entry 50), as well as royalty to the Center under the MMDR.

In a groundbreaking decision, the Bench also declared India Cement's decision to be wrong, bringing back fiscal certainty[64]. The Court concluded that new legal principles should be applied retroactively to transactions that occurred after April 1, 2005[65], by invoking the doctrine of prospective overruling. Although transactions prior to that date were shielded from new tax calls, they were not completely discharged; requests might be spread off into 12 yearly installments beginning on April 1, 2026, with no penalties

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59 *MADA*, supra note 1; *Royalty on Minerals is Not a Tax*, AZB & Partners
60 Para 342.a, MADA judgement
61 *MADA*, supra note 1; *India Today*, “Royalty on mineral rights not tax”
62 *MADA*, supra note 1; *SCC Times* explainer
63 *MADA*, supra note 1; *AZB & Partners*
64 *MADA*, supra note 1; *Tax Guru* article, Para 342.i, MADA judgement
65 *MADA*, supra note 1; *SC Observer*

or interest due before July 25, 2024[66]. This well-rounded strategy reduced hardship while maintaining the State's financial requirements.

B.V. Nagarathna, the judge, dissented. She argued that overturning India Cement upsets established legislation, interferes with the reliance on state revenue, and puts taxpayers through unforeseen hardships[67]. Because royalties are mandatory and integrated with mining activities, she saw them as functionally similar to taxes, a classification that excludes parallel state levies[68].

The case of MADA v. SAIL has broad ramifications. States like Jharkhand, Odisha, and Chhattisgarh can now impose taxes on mineral-bearing property or rights under a federal system where the Center had claimed a monopoly on mineral royalties. This could possibly raise crucial funds for environmental restoration, public amenities, and infrastructure near mine sites[69].Decades of legal ambiguity have also been resolved by the ruling, which limits vulnerability to retroactive consequences while permitting mining companies to incorporate state taxes into cost forecasts[70]. Macropolitically, higher State revenues could support local community funding for District Mineral Foundation projects, rehabilitation, and environmental protection.

However, the retrospective financial burden imposed by the judgment—from April 1, 2005—was criticized by industry stakeholders for disrupting settled expectations and creating sudden liabilities. While the Court attempted to mitigate hardship through installment-based payments, many argued that even this phased burden would impact business planning and investment decisions. Furthermore, by allowing States to impose taxes under Entries 49 and 50 of the State List, the judgment opened the possibility of fragmented and inconsistent taxation regimes across different States. This could potentially increase the cost of doing business and

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66 *MADA*, supra note 1; *SCC Times* article
67 *MADA*, supra note 1; *SCC Times* and *SC Observer* reporting.
68 *MADA*, supra note 1 (Nagarathna, J., dissenting); *SC Observer*
69 *MADA*, supra note 1; *MetaLegal* summary
70 *AZB & Partners*.

result in legal uncertainty for companies operating in multiple jurisdictions. The dissenting opinion of Justice B.V. Nagarathna, highlighting the risk of destabilizing the fiscal framework and overburdening taxpayers, was compelling but ultimately overlooked.

7.5. The Goa Foundation Vs. M/s. Sesa Sterlite Ltd[71]

The case of Goa Foundation vs. M/s. Sesa Sterlite Ltd. was a result of widespread illegal mining in the State of Goa. In 2018, the Goa government decided to renew the leases before the enforcement of the MMDR Amendment Act, 2015, as the act mandated Auction as the sole method of granting mining leases. The petitioner, Goa Foundation, an environmental-based NGO, filed a writ petition under Article 32 of the Constitution, alleging that the renewal of 88 iron ore mining leases post-2007 was arbitrary, illegal, and in violation of environmental laws. This petition followed a previous landmark ruling in Goa Foundation v. Union of India (2014), where mining operations in Goa were halted due to massive violations of environmental and forest regulations.

The primary legal issue before the Court was whether the second renewal of these 88 leases under Section 8(3) of the Mines and Minerals (Development and Regulation) Act, 1957, was valid. The Court had to consider whether the state acted in accordance with the public trust doctrine and environmental norms, and whether it had the power to extend such leases post the 2015 amendment.

The Supreme Court ruled that the renewals were illegal and quashed all 88 second renewals granted by the Goa government.[72] It held that the state had acted in undue haste and in contravention of both the letter and spirit of the law. The Court emphasised that natural resources are held by the State in trust for the people, and the lease renewals were done in a manner that violated this trust and deprived the public exchequer of legitimate revenue. The judgment further reiterated that following the 2015 MMDR Amendment, all mining leases must be granted only through transparent and

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71 (2018) 4 SCC 218

72 Para 57, Goa foundation judgement dated 07/02/2018

competitive auctions.[73] The Court also noted serious lapses in environmental governance, stating that several of the renewed leases were operating without proper environmental clearances or compliance with mandatory safeguards. Given these violations, the Court directed that all mining operations in Goa be halted from March 16, 2018, until fresh leases were granted via a lawful and transparent auction process and appropriate environmental clearances obtained. [74]

The judgment has far-reaching implications from the perspective of regulating the mining sector. It reinforced the principle that natural resources are public assets and cannot be allocated through arbitrary renewals. It strengthened the legal requirement for auctions in the allocation of mineral resources and aligned judicial reasoning with earlier rulings like the 2G spectrum case, which also held that auctions were the only fair method of resource distribution. Additionally, it emphasized that environmental approvals and sustainability assessments must be central to the mining permission process, and not just procedural formalities.

However, despite these strengths, one significant shortcoming in the judgment was the lack of consideration for the socio-economic fallout of the mining ban. The ruling did not include any framework or directions for the rehabilitation of workers and local communities dependent on mining, leading to sudden and widespread job losses in the region. Estimates suggest that nearly 100,000 livelihoods were directly or indirectly affected, yet the Court failed to address their welfare or direct the State to formulate a transition plan. The judgment also failed to fix individual accountability on bureaucrats or ministers who enabled the illegal renewals, despite recognising that the state acted unlawfully. Moreover, while the decision quashed the leases, it left ambiguity about the process and timeline for transition to new auctions, causing a prolonged policy vacuum and further economic disruption in the state. The ruling also created a degree of uncertainty in the

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73 Para 35, Goa foundation judgement dated 07/02/2018

74 Para 50, Goa foundation judgement dated 07/02/2018

mining sector nationally, as companies feared retrospective judicial invalidation of leases granted in past regimes.

7.6. Common Cause vs. Union of India[75]

The petition was filed by the NGO Common Cause, pointing out the massive regulatory failure where more than 100 mining leases were allowed to operate illegally for years. The Court held that mere applications for renewal did not amount to a "deemed renewal" and that mining operations carried on after the lease period without EC were illegal and liable to penalties.[76] The Court also emphasised the concept of intergenerational equity and natural resource conservation, calling for a strict application of the "polluter pays" principle.[77]

From a regulatory standpoint, the judgment marked a significant intervention in enforcing statutory compliance and curbing the nexus between mining companies and state authorities. It reinforced that mining leases cannot bypass environmental safeguards and that clearances must be treated as prerequisites, not formalities. However, the judgment fell short of laying down concrete mechanisms for the rehabilitation of affected areas and communities. Moreover, there was no strong institutional accountability imposed on the erring state officials who allowed this situation to fester, and it did not outline any framework for future oversight, leaving space for continued administrative arbitrariness.

7.7. Deepak Kumar vs. State of Haryana[78]

This landmark decision arose when the Haryana government floated tenders for sand and gravel mining without obtaining prior environmental clearance (EC) under the Environment (Protection) Act, 1986. The petitioners challenged this move, especially since many of the mining leases were below 5 hectares, which was earlier considered exempt from EC under some state notifications. The

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75 (2017) 9 SCC 499
76 Para 121, Judgment dated 02.08.2017
77 Para 204, Judgment dated 02.08.2017
78 (2012) 4 SCC 629

Supreme Court unequivocally held that all mining projects—whether major or minor—require prior EC, even if they are below the 5-hectare threshold. The Court emphasized that such mining activities, particularly riverbed mining, have devastating ecological consequences such as groundwater depletion, riverbank erosion, and destruction of aquatic ecosystems.[79]

The judgment was instrumental in recognizing that the cumulative effect of several small mining operations can be as harmful as one large mine. The Court directed that sustainable mining practices be adopted and environmental regulations must be uniformly applicable across the country. It further mandated that states conduct replenishment studies and develop District Survey Reports before granting any mining lease.[80] However, the judgment did not set up any enforcement body or monitoring mechanism to ensure compliance by the states. It also did not address the damage already caused by past illegal mining nor did it explore the issue of compensation or restoration of affected ecosystems.

7.8. Rural Litigation and Entitlement Kendra (RLEK) vs. State of Uttar Pradesh[81]

This was one of India's first environmental PILs and dealt with limestone quarrying in the ecologically fragile Doon Valley. The petitioner, RLEK, challenged the indiscriminate mining activities which were causing deforestation, landslides, and ecological destruction. The Supreme Court took a proactive role and ordered the closure of the limestone quarries in the region, emphasizing that the right to life under Article 21 of the Constitution includes the right to a clean and healthy environment. It also highlighted the need to balance economic development with environmental sustainability, giving preference to environmental protection in ecologically sensitive zones.

The RLEK judgment marked a turning point in India's environmental jurisprudence by introducing the concept of

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79 Para 17, Judgment dated 27.02.2012

80 Para 12, Judgment dated 27.02.2012

81 (1989 Supp (1) SCC 504)

sustainable development and recognizing environmental degradation as a constitutional issue. It laid the foundation for future environmental PILs and cemented the judiciary's role in protecting natural resources. However, the judgment lacked a clear plan for the socio-economic rehabilitation of workers who lost their livelihood due to mine closures. Nor did it set up long-term institutional mechanisms for environmental monitoring, which limited the judgment's effectiveness in addressing the broader socio-environmental impact of mining.

7.9. State of Meghalaya vs. All Dimasa Students Union[82]

This case was triggered by the issue of rampant and unregulated coal mining in Meghalaya, particularly the environmentally hazardous practice of "rat-hole mining." Following several mining accidents and mounting environmental degradation, the National Green Tribunal (NGT) had banned unregulated mining in the state. The Supreme Court upheld the NGT's ban and emphasized that all mining activities must comply with statutory environmental norms and safety standards, regardless of whether the land is privately owned or community-owned under Sixth Schedule areas.[83] The Court ruled that the ownership of land does not automatically imply the right to exploit its mineral wealth, which remains regulated by central laws like the MMDR Act and the Environment Protection Act.

This judgment is important as it clarified the interplay between tribal autonomy and national environmental laws. It reinforced that all mining activities, even in tribal or privately owned areas, are subject to statutory environmental regulation. The Court also called for the reclamation of illegally mined coal and imposed fines on illegal operators. However, despite its strong language, enforcement on the ground has remained weak. The judgment did not create any special institution for monitoring compliance, and the ban has often been circumvented due to political and administrative inertia. Additionally, there was no

82 (2019) 8 SCC 177

83 Para 168, Judgment dated 03.07.2019

roadmap laid for providing alternative livelihoods for those dependent on coal mining, making the socio-economic transition difficult.

7.10. State of West Bengal vs. Kesoram Industries Ltd.[84]

In this constitutional bench case, the question was whether the State of West Bengal had the legislative competence to impose a cess on coal-bearing lands, and whether such a cess amounted to a tax on mineral rights, which falls under the jurisdiction of the Union. The Supreme Court held that the cess imposed by the state was beyond its legislative competence and thus unconstitutional. The Court distinguished between a fee and a tax, holding that the cess in question was a tax that the state had no authority to levy under the constitutional framework.

The case is crucial for defining the contours of state and central powers in regulating the mining sector, especially with respect to fiscal instruments like royalties, taxes, and cesses. It reinforced that the central government has exclusive power over mineral regulation and taxation under the Constitution. However, the judgment did not consider the practical challenges faced by states in generating revenue from mining activities for local development. By limiting state powers, the judgment created a fiscal asymmetry without offering a compensatory mechanism for resource-rich but fiscally poor states.

6. Thressiamma Jacob vs. Geologist, Dept. of Mining and Geology[85]

This case revolved around the question of whether a landowner in Kerala had the right to extract minerals from their land without paying royalty to the state. The Supreme Court held that unless minerals are specifically vested in the state by statute, the ownership of land includes ownership of subsoil minerals. The Court emphasized that mineral rights are part of proprietary rights

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84 (2004) 10 SCC 201
85 (2013) 9 SCC 725

unless lawfully transferred to the government.[86] This was a significant affirmation of private property rights in the context of mineral ownership.

From a regulatory perspective, the decision clarified the distinction between ownership and regulation. While individuals may own subsoil minerals, their extraction is still subject to regulation under environmental and mining laws. The judgment also brought attention to the need for legislative clarity regarding mineral ownership, especially in states that lack express vesting provisions. However, the ruling complicates enforcement and royalty collection, particularly in cases of unauthorized mining by private landowners. It also raises concerns about environmental compliance in private mining operations where state oversight may be minimal.

Conclusion: Reconciling Development with Environmental and Constitutional Imperatives

India's dedication to environmental sustainability and justice, as well as its drive for economic development, interact dynamically in the constitutional and legal aspects of mining and environmental protection. India has an abundance of natural resources, and mining is essential to the country's economy since it boosts employment, industry, and infrastructure. However, mining operations have had a significant negative influence on the environment, including deforestation, soil erosion, air and water pollution, and the uprooting of local communities, particularly when they are conducted illegally or without proper scientific methods. The Indian legal and constitutional framework has changed to include measures to control mining and save the environment in recognition of these difficulties.

The Indian Constitution, which contains both direct and indirect provisions for environmental protection, forms the foundation of this system. The foundation of Indian environmental jurisprudence is found in Article 21[87], which protects the right to life and personal liberty and has been construed by courts to encompass

[86] Para 24, Judgment dated 08.07.2013

[87] Constitution of India 1950, art 21

the right to a healthy environment. Furthermore, the State is directed to preserve and enhance the environment, as well as to protect forests and wildlife, by Article 48A[88], a Directive Principle of State Policy. Accordingly, Article 51A(g)[89] establishes a constitutional culture of environmental stewardship that applies to both state and non-state entities, imposing a basic duty on all citizens to conserve the environment.

The Mines and Minerals (Development and Regulation) Act[90], 1957 (MMDR Act), which makes a distinction between major and minor minerals, is the main piece of legislation governing mining. State governments oversee minor minerals using authority that has been assigned to them, whereas the Union Government governs large minerals in accordance with their strategic significance and economic worth. The Constitution's Seventh Schedule lays out this division of duties. Entry 54[91] of the Union List gives Parliament the authority to control the development of mines and minerals to the extent that the law deems it to be in the public interest, while Entry 23[92] of the State List gives states the authority to control mines that are not under Union control. Despite this separation, the MMDR Act, a crucial piece of legislation, creates a uniform framework that states must adhere to, which frequently causes conflicts between state authority and central monitoring.

In this sense, the judiciary has played a crucial role in upholding the constitutional and legal regulations governing mining and environmental conservation. Through suo motu interventions and Public Interest Litigations (PILs), the Supreme Court and other High Courts have taken on the role of proactive environmental guardians. In cases like Samaj Parivartana Samudaya v. State of Karnataka and Goa Foundation v. Union of India, the Court has not only halted illegal mining operations but also ordered environmental compensation, lease cancellation, and the establishment of oversight

88 Constitution of India 1950, art 48A
89 Constitution of India 1950, art 51A(g)
90 Mines and Minerals (Development and Regulation) Act 1957
91 Constitution of India 1950, Sch VII, List I, Entry 54
92 Constitution of India 1950, Sch VII, List II, Entry 23

procedures to ensure future compliance. These court decisions have enhanced the precautionary principle, the polluter pays idea, and the sustainable development philosophy, bringing Indian environmental regulation into line with international standards.

The constitutional and legislative issues of mining and environmental protection in India demonstrate a complex but essential balance between resource usage and environmental responsibility. Despite having a robust legislative framework, the effectiveness of these laws is greatly influenced by political will, public participation, and implementation. Given the increased awareness of environmental issues and the escalating effects of climate change, mining operations in India must be conducted within a framework of environmental accountability, legal compliance, and constitutional morality. In addition to being mandated by law, maintaining this balance is also morally and developmentally essential for the nation's future.

A unified regulatory framework for mining in India must incorporate social justice, constitutional obligations, and environmental sustainability, according to the substantial body of case law examined. The first step is to tighten environmental clearance procedures by requiring previous clearances for all mining operations, including those smaller than 5 hectares, and by implementing effect evaluations based on cumulative and carrying capacity. To preserve the precautionary principle outlined in Indian environmental jurisprudence, post-facto clearances must be absolutely forbidden. At the same time, the Forest Rights Act and PESA should be used to legally enforce Gram Sabhas' Free, Prior, and Informed Consent (FPIC), especially in Scheduled Areas and forest regions, in order to institutionalize genuine community participation. More transparency in public hearings is required, along with safeguards against tokenistic engagement.

Mining operators should be required to provide environmental performance bonds or make contributions to an environmental liability fund in order to finance community rehabilitation and long-term ecological restoration in order to ensure environmental accountability. A centralized digital mining platform

that makes lease allocations, environmental clearances, and the usage of District Mineral Foundation (DMF) monies publicly available is necessary to increase the transparency of governance processes. To lessen administrative opacity, real-time monitoring tools and independent third-party audits must to be incorporated into regulatory procedures. Decentralizing environmental oversight can be achieved by giving local organizations and community-based grievance redressal authorities the legal authority to implement corrective actions and monitor compliance.

Moreover, a unified strategy for federal regulation is necessary. As noted in MADA v. SAIL, jurisdictional overlaps should be resolved by establishing a National Mining and Environment Council to coordinate fiscal, environmental, and social policies between the Center and the States. In order to maintain budgetary clarity without compromising state autonomy, this includes harmonizing state-level taxes under Entries 49 and 50 of the State List. Mining regulations must prioritize ecological thresholds and intergenerational equity, with extraction limitations determined by sustainability audits and regional ecological assessments carried out prior to lease renewals.

Clarification is also required about the regulation of subsurface mineral rights. Mineral rights may belong to landowners, but all mining and environmental activities should still be governed by the law. Strict sanctions must be applied to unauthorized private mining, and unified federal and state legislation must clarify the law of mineral ownership. Last but not least, a statutory autonomous Independent Mining Regulatory Authority (IMRA) ought to be established with the authority to supervise licenses, keep an eye on compliance, and release yearly reports on mining governance. This organization would guarantee that mining in India complies with the constitutional principles of justice, sustainability, and inclusive development by acting as a reliable institutional check on both state and corporate excesses.

AUGMENTED REALITY: A PATHWAY DRIVING EDUCATIONAL JUSTICE AND INCLUSIVITY OF PERSONS WITH INTELLECTUAL DISABILITY

Upashana Goswami[*]

Abstract

Educational justice serves as a protection of basic human rights to development by safeguarding right to education of all individuals including the persons with disabilities. Educational justice is a product of education modernization representing a higher-order educational development with the aim to develop citizen's modern ideas, competencies and capabilities to equally participate in social activity. In the realm of this education modernization, Augmented Reality (AR) have come out as a transformative instrument to support individuals with disability in general and intellectual disabilities in particular, integrating AR applications into the traditional teaching methods of special education. Special education calls for distinct teaching strategies for the learning and skill acquisition facilitation of students suffering from various disabilities including intellectual disability. In the field of special education, AR is an innovative approach that fosters education in inclusive environments, fulfilling diversified needs and accessibility to quality learning and thereby advancing the path towards achieving "inclusive and equitable quality education and lifelong learning opportunities for all" as mandated by the Sustainable Development Goal 4. Therefore, this paper attempts to study the conceptual notion of Augmented Reality and to assess its primacy towards achieving educational justice for persons with intellectual disabilities under the aegis of National Education policy, 2020. This research also aims to study the challenges

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faced in applying AR as well as the future prospects of AR highlighting the legal issues pertaining to privacy and intellectual property rights.

Key Words: Augmented Reality, Education, Educational Justice, Intellectual Disability, Inclusivity.

Introduction:

The very objective of social justice, striving for fair division of resources, opportunities, and privileges in society, as inculcated by the Constitution of India in its Preamble, also have implication in educational justice for persons with disabilities. Educational justice serves as a protection of basic human rights to development by safeguarding educational rights of all individuals including those with disabilities. Educational justice is a product of education modernization representing a higher-order educational development with the aim to develop citizen's modern ideas, competencies and capabilities to equally participate in social activity. In the realm of this education modernization, Augmented Reality (AR) have come out as a transformative instrument to support individuals with disability in general and intellectual disabilities in particular. Intellectual Disability is the most common and well-known condition that emerge in childhood. The 2011 census of India reports nearly 15 lakhs people with intellectual disability which constitutes 5.6% of all disabilities measured. Again, the census shows the literacy rate among the persons with disabilities to be 54.5 percent against the national literacy rate of 72.98 per cent of all categories of persons out of which only 41.3 per cent of persons with mental retardation or intellectual disability are found to be literate. This shows that the persons with intellectual disabilities still lag behind their peers without disabilities in educational achievement as well as educational equity. The modern world people quest for educational equity having the shared vision of inclusive and equitable quality education as proposed by the 2030 Agenda for Sustainable Development. Giving response to this Agenda, UNESCO introduced The Education 2030 Framework for Action. It is inspired by a humanistic vision of education and development based on human rights and dignity; social justice; inclusion;

protection; cultural, linguistic and ethnic diversity; and shared responsibility and accountability.[1] Though special education has played a significant role in uplifting the students with intellectual disability by providing individualized help and relevant services considering the degree of intellectual disability, still there is room for adopting more modernized facilities ensuring effective learning for students with intellectual disability. We are living in a world where human intelligence has reached the level of artificial intelligence and in such a case, AR can be considered as an effective technology device to support persons with intellectual disability.

Objectives of The Study

1. To study about the conceptual notion of Augmented Reality.

2. To study the significance of Augmented Reality towards achieving educational justice for persons with intellectual disabilities under the aegis of National Education policy, 2020.

3. To study the challenges faced in applying AR as well as the future prospects of AR highlighting the legal issues pertaining to privacy and intellectual property rights.

Methodology

The present study is based on non-empirical technique. For the purpose of writing this paper secondary data like articles, research papers and books have been referred.

Meaning of Intellectual Disability:

The American Association of Intellectual & Developmental Disabilities (AAIDD-2002) has defined intellectual disability as 'a condition characterized by significant limitations in both intellectual functioning (general mental capacity, such as learning, reasoning,

[1] Incheon Declaration and SDG4 – Education 2030 Framework for Action *available at* https://uis.unesco.org/sites/default/files/documents/education-2030-incheon-framework-for-action-implementation-of-sdg4-2016-en_2.pdf (last visited on March 31, 2025)

problem solving, and so on) with an IQ test score of around 70 or as high as 75 and adaptive behavior (conceptual, social, practical skills) that originates before the age of 22.'[2]

Historical Shift in Terminology from Mental Retardation to Intellectual Disability:

Mental retardation has been defined historically by social convention and as such with the evolution of the society and changing expectations over the course of time, the definition of mental retardation and its terminology have been changed. This terminological change has been brought by the American Association on Intellectual and Developmental Disabilities and the International Association for the Scientific Study of Intellectual Disabilities. In 2010, President Barak Obama signed the Rose's Law which mandated changing the terms 'mental retardation' or 'mentally retarded' to 'intellectual disability' and 'person with an intellectual disability' and finally, in 2013, the term 'Intellectual Disability' was included in the list of impairments prepared by the Social Security Administration.

Like many other countries India also took a backseat in developing the concept of intellectual disability. The term 'mental retardation' was replaced by 'intellectual disability' in the 2016 legislation[3]. The schedule of the Act under its part 2 mentions intellectual disability and defines it as 'a condition characterized by significant limitation both in intellectual function (reasoning, learning problem, problem solving) and in adaptive behavior which covers a range of every day, social and practical skills.'[4] The Act uses 'intellectual disability' as an umbrella term also including under it Specific Learning Disabilities and Autism Spectrum Disorder.

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2 Defining criteria for Intellectual Disability available at https://www.aaidd.org/intellectual-disability/definition (Last visited on March 31, 2025)

3 The Rights of Persons with Disabilities Act, 2016 (Act 49 of 2016)

4 The Rights of Persons with Disabilities Act, 2016 (Act 49 of 2016), Part 2, Schedule

Conceptual Notion of Augmented Reality:

In the year 1992, airplane engineers, Boeing Thoman and David introduced the concept of Augmented Reality (AR) to display the physical real world by transforming it into the form of digital reality through lifelike simulations and experiences to the students. The AR technology has the capacity of projecting 3D models directly or blending and overlapping digital and virtual information in an environment depicting the real-world. Smartphones have taken a greater position in such an environment leveraging the recognition and showing of things and getting information instantly. Augmented Reality focuses on three main characteristics - a. Incorporation with real-world environment, b. Real-time integration, c. Arrangement of the 3D model to fix in the focused area. While using AR technology, in order to create interactive concepts, the real and virtual images are combined together which the students can view simultaneously. The 3D objects become visible in a fixed space making simple interactions by using sounds, videos, or graphics. Such interactions help in experiencing an automated tour with audio Augmented Reality and thereby forecasts a real-world environment. Unlike Virtual Reality (VR), where users engage with a completely simulated virtual world and get an immersive learning environment with the use of Virtual Reality (VR), AR enriches the environment by overlaying the digital content onto it.

Types of Augmented Reality: AR helps us to have complete experience of a physical world integrating it with virtual element with the help of some other external elements. Such elements are known as triggers. The different types of triggers include-

a) **Marker-based AR:** In such a case, markers are set to trigger augmented experiences in the form of images or symbol using a code. Such markers are recognized by the camera of smart phone or tablet and it blends virtual elements with physical elements by superimposing a digital content onto a real-world image. This form of AR is utilized for product showcasing, enhancing portrayal of physical object and for offering extra insights into the real-world objects.

b) **Marker-less AR:** Marker-less AR is used without any visual marker. Here, a surface is detected by the device's camera, GPS or accelerometer on which the digital content is anchored. Overlay AR and Contour-Based AR are the two types of marker-less AR.

c) Projection-based AR: In projection-based AR, the user contact is detected by using simultaneous localization and mapping (SLAM). Here, the augmented elements are experienced by creating three-dimensional images on a flat surface by directing light onto it. Projectors are used to display digital content onto physical surfaces integrating virtual and physical elements**.**

d) **Location-Based AR:** In this type of AR, by mapping physical environment utilizing GPS, a specific location is fixed and the virtual element is connected to such location triggering the visual markers set up in the location's surroundings. Once the device aligns with the mapped location, it overlays virtual images onto the real-world view**.** The mobile game Pokémon GO is an example of location-based AR.

e) **Superimposition-based AR**: In this type of AR, the camera of devices like smartphone or tablet pre captures the physical world and then the digital information is overlayed onto the real-world. This form of AR is utilized for product showcasing, enhancing portrayal of physical object and for offering extra insights into the real-world objects.

f) **Recognition-based AR:** This type of AR draws upon image recognition technology to offer immersive experience of augmented reality. This form of AR is utilized for product showcasing, enhancing portrayal of physical object and for offering extra insights into the real-world objects.

Educational Justice for Intellectually Disabled and Augmented Reality:

In the era of welfare state, Education can be considered as indispensable for attaining social justice affirming dignity of

individuals and progressive development. Social justice has been made explicit in the preamble of Indian Constitution. Professor M.P. Jain has opined that social justice is a dynamic device to mitigate sufferings of the poor, weak, Dalits, tribals and the deprived sections of the society and to elevate them to the level of equality to live a life with dignity of person.[5] The disabled persons were long been marred by social exclusion and deprived of their basic rights as human being and needs to be uplifted from disadvantaged situation. The modern concept of educational justice can be considered as a key to dynamic social justice for persons with disabilities and social involvement in a more accessible environment.

Educational Equity is a principal attribute of education modernization which integrates the core values of modern progressive society with education such as justice, equality and human rights. It represents transformed educational growth ensuring transformation in the educational framework, curricula, institutions, teaching methodology, governance and any other related aspects. David Miller defined social justice as 'social justice to each according to his needs' [6] Education modernization for disabled persons is aimed at providing education based on their individualized needs and thereby affirming educational as well social justice at par with David Miller's opinion. A range of global as well as domestic legal frameworks are framed assuring educational equity for persons with intellectual disabilities. The glorious period of 1960s to 2002 proclaimed as Decade of Disabled Persons and Decade of UNESCAP have enriched the significance of disability studies in the world. During these decades the UN General assembly patronaged for equalization of educational opportunities in regular learning institutions for Children with Special Needs adopting UN standard rules and World Conference on Education for All (EFA). It is pertinent to mention here some of the major legal frameworks ensuring educational rights of persons with disabilities.

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5 M.P. Jain, *Indian Constitutional Law* 1496 (Lexis Nexis Butterworths Wadhwa, Nagpur, sixth edition 2010)

6 David Miller, *Principles of Social Justice* 203-229 (Harvard University Press, 2001)

Legal Framework in India:

1**. Constitution of India**:[7]

Preamble: Ensuring equality of opportunity and of status for all individuals including persons with disabilities are the core values of preamble of the Constitution of India

Fundamental Rights:

Article 14:[8]Article 14 strives for equality before law and equal protection of the laws for every citizen including the disabled.

Article 15[9]: Article 15 eliminates discrimination in all possible spheres against every individual including disabled persons.

Article 21[10]: It guarantees right to life and personal liberty for all individuals covering those with disabilities. Article 21 also assures to live a dignified life for all including disabled persons.

Article 21A[11]**:** It provides for free and obligatory education for all children aged 6-14 years including the those with disabilities.

Directive Principles of state policy:

Article 37[12]: Even though the Directive Principles do not explicitly mention about persons with disabilities, the implications of Article 37 can be relevant for persons with disabilities as it mandates the state to ensure social order for enhancing public welfare.

Article 39(f)[13]***:*** It requires the State to provide opportunities and facilities for healthy growth of children in conditions of freedom and dignity ensuring protection of childhood and youth against

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7 The Constitution of India, 1950
8 Article 14 of Constitution of India
9 Article 15 of Constitution of India
10 Article 21 of The Constitution of India
11 Article 21A of The Constitution of India
12 Article 37 of the Constitution of India
13 Article 39(f)of the Constitution of India

exploitation and abandonment- both moral and material.

Article 45[14]***:*** State is duty bound "to provide education for all children from the age of 6 years till they completed 14 years."

Article 51A(k)[15]: It requires that parents or guardians are to provide educational opportunities for their children or wards between the age of six and fourteen years.

2.**Right to Education Act, 2009**[16]: As a welfare legislation the RTE Act acknowledges elementary education as a fundamental right of every child by guaranteeing free and compulsory education for children aged between 6-14 years.

4. Rights of Persons with Disabilities Act, 2016[17]: The Rights of Persons with Disabilities Act, 2016 (RPWD Act, 2016) emphasizes non-discrimination, meaningful social inclusion and participation while assuring respect for difference and endorsing disabilities as part of human diversity. Chapter III of the Act emphasizes on promoting and facilitating inclusive education adopting specific measures.

5. National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities Act, 1999[18]**:** This legislation emphasizes on independent living of persons with disabilities as closely as possible to their community facilitating equal opportunities, safeguarding rights and full social participation by providing need-based services.

7. The Rehabilitation Council of India Act, 1992[19]: This Act assigns responsibility to the Rehabilitation Council of India to regulate and supervise services offered to persons with disabilities,

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14 Article 45 of the Constitution of India

15 Article 51A(k) of the Constitution of India

16 The Right of Children to Free and Compulsory Education Act, 2009 (Act No. 35 of 2009)

17 The Rights of Persons with Disabilities Act, 2016 (act no. 49 of 2016)

18 The National Trust for The Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities Act, 1999(Act No.44 of 1999)

19 The Rehabilitation Council of India Act, 1992(Act No. 34 Of 1992)

to ensure uniformity in syllabi and to maintain a Centralized Register of qualified professionals and personnel engaged in Rehabilitation and Special Education.

8. National Education policy, 2020[20]: The National Education Policy, 2020 accords highest priority for promoting inclusion and equitable involvement of children with disabilities in Early Childhood Care and Education (ECCE) and the regular schooling system.

Legal Considerations Under International Law:

1.The Universal Declaration of Human Rights (UDHR)[21]: Article 26 of The UDHR ensures right to education to all individuals.

2. Declaration on the Rights of Disabled Persons, 1975[22]: The Declaration on the Rights of the Disabled Persons adopted by the General Assembly on December 9, 1975 emphasizes on equal entitlement to human rights for disabled persons like the rest of the people in the society.

3. Convention on the Rights of the Child, 1989[23]: Article 28 of CRC affirms that State Parties provide mandatory and freely accessible primary education to all to ensure progressive and equal opportunity.

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20 Government of India, "National Education Policy 2020" (Ministry of Human Resource Development, 2020) *available at* https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf (Last visited on April 1, 2025)

21 Universal Declaration of Human Rights *available at* https://www.ohchr.org/sites/default/files/UDHR/Documents/UDHR_Translations/eng.pdf (Last visited on April 1, 2025)

22 Declaration on the Rights of Disabled Persons, General Assembly resolution 3447 (XXX) (December 1975) *available at* https://www.ohchr.org/sites/default/files/res3447.pdf (Last visited on April 1, 2025)

23 Convention on the Rights of the Child, General Assembly Resolution 44/25 (November 1989) *available at* https://www.ohchr.org/sites/default/files/crc.pdf(Last visited on April 1, 2025)

4. 1994 Salamanca Statement and Framework for Action on Special Needs Education[24]: The UNESCO World Conference on Special Needs Education adopted The Salamanca Statement to advocate for a transformation in educational policy requiring an inclusive set up in regular schools providing inclusive services to all children including those with disabilities.

4. United Nations Convention on the Rights of Persons with Disabilities, 2006[25]: Article 24 of the Convention emphasizes on inclusive education system for the children with disabilities and requires the state to take action to fulfill this learning needs.

5. Sustainable Development Goal 4: The Sustainable Development Goal 4 ensures "inclusive and equitable quality education and promotes lifelong learning opportunities for all including those with intellectual disabilities."[26]

The plethora of such legal frameworks had enhanced the significance of special education with respect to inclusion and accessibility for persons with disabilities. Throughout the 1950s and 1960s civil rights movement, a series of judicial decisions had enhanced the growth of specialized education and the treatment of persons with disabilities. In 1972, two landmark cases, Pennsylvania Association for Retarded Citizens (PARC) v. Commonwealth of Pennsylvania and Mills v. Board of Education of the District of Columbia, became the catalysts for the right-to-education movement in the disability community.[27] The PARC ruling stated

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[24] The Salamanca Statement and Framework for Action on Special Needs Education *available at* https://www.european-agency.org/sites/default/files/salamanca-statement-and-framework.pdf (Last visited on Apil 1, 2025)

[25] Convention on the Rights of Persons with Disabilities and Optional Protocol *available at* https://www.un.org/disabilities/documents/convention/convoptprot-e.pdf (Last visited on April 1, 2025)

[26] United Nations, Sustainable Development Goal 4 (Department of Economic and Social Affairs) *available at* https://sdgs.un.org/goals/goal4 (Last visited on April 2, 2025)

[27] Barbara J. Dray, History of Special Education, p. 744 *available at* https://www.researchgate.net/publication/234128998_History_of_special_e

that individuals with mental retardation between the ages of six and twenty-one must be provided with a free public education in programs comparable to their nondisabled peers.[28] But unfortunately, no. of educated children with disabilities has been relatively low in spite of the growth in special schools. There is the need for transforming the traditional educational set up to the modernized concepts to enhance more inclusive environment. The persons with intellectual disabilities have difficulties in understanding literacy and numeracy skills, applying learned information, difficulties in socialization leading to isolation and issues in managing emotions and behaviors, potentially leading to disruptions in the learning environment and affecting the student's overall educational experience.[29] For ensuring educational justice to intellectually disabled persons modification in curriculum as per their individualized needs is a pre-requisite and this cannot be a reason for their denial in general education classrooms as required by the Right to Education Act, 2019[30]. The environment of special needs individuals requires specific communication strategies and tools involved in learning and acquisition of skills to ensure effective learning of students with intellectual disabilities and communication, behavioral and developmental disorders.[31] Such specific strategies require innovation and creativity in the classroom that can be stimulated by using technology addressing difficulties faced in the real-world, utilizing current data resources, effectively delivering concepts, and encouraging discussions with specialists. Augmented Reality is a promising technology used to develop individuals' skills and success among normal and disabled populations by integrating e-content into the physical world, changing individual-animated objects interaction and engagement.

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ducation/citation/download (Last visited on April 2, 2025)

28 *Ibid*

29 Dr. Ratan Sarkar, "Empowering learning: Augmented reality applications for students with intellectual disabilities" 5(1) *International Journal of Intellectual Disability* 2 (2024)

30 The Right of Children to Free and Compulsory Education Act, 2009 (Act 35 of 2009)

31 Fatima Muhaidat, Wafa Alashkar, *et. al.,* "A Meta Analysis on Augmented Reality Application for Individuals with Intellectual Disability" 12 *International Journal of Information and Education Technology* 970 (2022)

AR, as an effective technology device, is used for instruction delivery for intellectually disabled individuals for boosting integration of such individuals into mainstream schools and to enhance their academic, communication, leisure, employment and life management skills.[32] Many applications like Google's AR app "SkyMap" overlays the information about stars and constellations where the users can browse the night sky with the see-through view from the smart phone's camera, making the entire night sky an actual auditorium. Other initiatives include "AR Books" which offer students 3-D presentations, "SMART (System of Augmented Reality for Teaching)" which superimposes models and prototypes of vehicles and animals to teach concepts such as transportation, animals to primary school students.[33]

Effectiveness of AR in Education for Persons with Intellectual Disabilities:

The traditional learning methods of special education present challenges in understanding abstract concept for students with intellectual disability. AR bridges this gap by representing the diversified learning needs of students with disabilities. It gives a composite view by superimposing a computer-generated image on a user's perspective on this present reality. The goodness of AR for persons with intellectual disability encompasses-

Enhancing individualised learning skills: AR is effective in enhancing the day-to-day skills among intellectually disabled individuals including their independence skills and decision making. The customised AR technology is advantageous in representing and adapting to personalised learning needs and navigation skills. AR used in special needs supports learning and self-determination, self-management, guidance in self-instruction

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[32] Rahul Shivhare, Abhinav, Abhishek Singhal, *et. al.*, "Augmented Reality: A New Tool for Education" 186 *International Journal of Computer Applications* (2024)

[33] Arushi Jain, Kabir Darshan Choudhary, *et. al.,* "Seeing is Believing: Realizing the Education Dream with Augmented Reality" *available at* https://www.edtechreview.in/trends-insights/trends/ar-technology-in-education/ (last visited on April 2, 2025)

and in resolving complex tasks in different environments.[34]

Accessibility and Inclusivity: AR creates inclusive educational environments for persons with intellectual disabilities by improving science achievement in light of science vocabulary, their vocational task performance etc. Visualizing 3D objects, AR mergers virtual and real objects and thereby provides real-world training. It caters to more accessibility in education improvising comprehensive learning and inclusivity in the mainstream.

Motivating social and communication skills: AR's interactive and involving nature attracts participants' target response, promoting enhanced motivation and engagement in vocational and other educational activities during the intervention phases and even following the intervention. AR is also invaluable in learning how to emote feelings and status, how to be aware of different social situations and how to enhance motivation and skills of interactivity.

Digital Education, National Education Policy, 2000 and Augmented Reality:

The National Education Policy, 2020 strives for a transformative educational structure complying with the educational goals of 21st century, including SDG 4. NEP focuses on enhanced growth of cognitive capacities including learning capacities of literacy and numeracy termed as 'foundational capacities and critical thinking and problem solving as 'higher-order' cognitive capacities. The inclusion of digital education in the NEP, 2020 portrays a significant transformation in the traditional educational set up and thereby putting a step towards enforcing disability rights as mandated by the Rights of Persons with Disability Act, 2016. The recognition of the 2016 Act in the NEP with a strong promise to enforce disability rights under can be considered as the biggest victory in the field of disability studies. The innovation of Augmented Reality applications and its use in general classrooms

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[34] Fatima Muhaidat, Wafa Alashkar, *et. al*., "A Meta Analysis on Augmented Reality Application for Individuals with Intellectual Disability" 12 *International Journal of Information and Education Technology* 970 (2022)

can also be a successful implementation of the digital education under NEP. Para 23 of NEP, 2020 deals with "Technology Use and Integration"[35] and Para 24 deals with "Online and Digital Education: Ensuring Equitable Use of Technology".[36] Para 24.4.d provides for a digital repository of content including creation of coursework, Learning Games & Simulations, Augmented Reality and Virtual Reality will be developed, with a clear public system for ratings by users on effectiveness and quality.[37] Again, para 24.4.b ensures that the technology-based solutions for transforming education sector do not become outdated with the rapid advances in technology.[38] The Augmented Reality, which emphasises on creating interactive and engaging learning environments, can be considered to be at par with the mandates of NEP, 2020. The interactive nature of AR fosters a sense of curiosity and exploration, leading to increased engagement and retention of information and can contextualize learning by overlaying digital information onto real-world objects.[39] This feature aids in connecting abstract concepts to tangible, everyday scenarios, facilitating deeper comprehension and practical application of knowledge, for instance, AR can simulate science experiments or historical events, providing students with an interactive and contextualized understanding of the subject matter.[40] The wide application of different AR technologies like mobile AR, Head-Mounted Displays (HMDs), Smart Glasses etc. have a significant impact on different arears education sector like Science, Technology, Engineering, and Mathematics (STEM) as well as provides an enriching and distinctive learning opportunities in the field of language learning, history, and medicine. Some examples of AR use in India are as follows.

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35 National Education Policy, 2020, para 23

36 National Education Policy, 2020, para 24

37 National Education Policy, 2020, para 24.4.d

38 National Education Policy 2020, Para 24.4.b

39 Dr. Ratan Sarkar, "Empowering learning: Augmented reality applications for students with intellectual disabilities" 5 *International Journal of Intellectual Disability* 1 (2024)

40 Dr. Ratan Sarkar, "Empowering learning: Augmented reality applications for students with intellectual disabilities" 5 *International Journal of Intellectual Disability* 1 (2024)

1. e-Pathshala AR application, introduced by NCERT, enabling students to learn beyond textbooks by directly experiencing augmented interaction instead of reading and memorization**.**

2. The AR application 'Augtraveler' developed by a Delhi-based entrepreneur has been beneficial in narrating history of Indian heritage sites and monuments providing a significant understanding of the same to students as well as tourists.

3. AR application 'Sakaar' launched by DR. Jitendra Singh is being utilized for having reality perception of scientific development achieved by India. Sakaar consists of 3D models of MOM, RISAT, rockets (PSLV, GSLV Mk-III); videos of INSAT 3D-predicting cyclones, GSLV D5/Cryo, Mars Orbiter Mission (MOM) orbit insertion, launch video of MOM, 360 degree animated view of MOM; Anaglyph of Mars surface. The 'Sakaar' app can be downloaded by scanning QR code provided for the purpose. The use of this app in Indian schools will enhance the conceptual knowledge of Indian space research.

4. E-learning platforms SWAYAM, DIKSHA for providing teachers with some structured and user-friendly assistive tools to monitor learners' progress.

5. Indian states like Maharashtra with the key hubs Mumbai and Pune followed by Maharashtra, Bangalore, the Silicon Valley of India, is also contributing towards AR development through advanced digital infrastructure and flourishing startup ecosystem.

Challenges Associated with Implementation of Augmented Reality:

Accessibility Issues: Because of the relative novelty of AR technology, only little is known about its operations and potential which raises the question whether the required intervention objects can contribute to AR efficiency when applied on large-sized

participants.[41] AR limitation also relates to the skill and ability of the user to use it and since it is a relatively new technology, it needs getting used to.[42] AR effectiveness is completely dependent on the students' level. As there are learners with varying needs and forms of disabilities, AR is to be developed not only to suit their needs but also to cater their abilities which is possible through designing accessible features for AR applications such as supporting screen readers, substitute input options, and deliberation of different sensory abilities. The use of some software like *Vuforia,* a Augmented Reality Software Development Kit (SDK) for smart phones empowering the production of Augmented Reality applications; *Unity*, a cross-platform application engine developed by Unity Technologies providing a framework for designing game or app scenes for 2D and 3D etc. may further cater to accessibility of AR applications.

Ethical Considerations: The ethical and privacy concern is another issue of using AR technology in educational settings. While collecting and processing user data and displaying e-content, students' data and such information are to be handled securely by strict adherence to privacy guidelines and ethical principles. AR being a new innovation it is yet to be largely in use and though there is no specific examples of privacy violations and judicial decisions solely focused on augmented reality, but the educators and digital providers need to strictly adhere to mandates of Information Technology act, 2000[43] and the Digital Personal Data Protection (DPDP) Act, 2023[44]

Pedagogical preparation of Educators: The para 24.4.g of NEP,2020 provides for rigorous learner-centric pedagogical training to teachers and empowering them for creating high-quality digital

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41 Fatima Muhaidat, Wafa Alashkar, *et. al*., "A Meta Analysis on Augmented Reality Application for Individuals with Intellectual Disability" 12 *International Journal of Information and Education Technology* 970 (2022)

42 Malek Turki Jdaitawi and Ashraf F Kan'an, "A Decade of Research on the Effectiveness of Augmented Reality on Students with Special Disability in Higher Education" 14 *Contemporary Educational Technology* 8 (2022)

43 The Information Technology Act, 2000 (Act No. 21 Of 2000)

44 The Digital Personal Data Protection Act, 2023 (Act No. 22 Of 2023)

material themselves through digital infrastructure. But AR being relatively less known technology, teachers lack experience or familiarity with AR applications. Educators need professional training on technical aspects of using AR including pedagogical strategies for incorporating AR into lesson plans and adapting it to diverse learning needs of persons with disabilities.

Legal Issues:

Law of Contract: In the digital age, contracts are in the form of e-contracts. As provided under Indian Contract Act, 1872, a minor is not competent to enter into a contract and his parents or legal guardians can execute contracts on his behalf. In the emerging trend of using AR in school education, the validity of a contract regarding terms of its service or terms of use or protecting intellectual property rights etc. may become a fundamental point of dispute in itself. Thus, validity as well as lawful compliance of a contract is vital from the perspective of both developer and the school or parents. Section 72A of the IT Act, 2000 provides for a fine up to Rs. 500,000 or imprisonment of a term extending 3 years in case of deliberate disclosure of information without the concerned person's consent violating the terms of a valid contract.

Intellectual Property Rights:

***Copyright*:** The Copyright Act of 1976 provides for "Promoting the Progress of Science and useful Arts." Fixation and originality are the pre-requisites for ensuring copyright protection to the intellectual property creators. For copyright protection to the subject matter created using AR technology, four elements must be taken into consideration. There must be "(1) encoding of expression (2) in a physical medium (3) that can convey that expression to others (4) and can persist unaltered for some appreciable time."[45] Focus on promoting creativity rather than simply making real world simulations can only help in complying with originality and avoiding infringement of copyright. Maps, databases and compilations of data, user interface features of AR applications,

[45] Mma Afoaku, "The Reality of Augmented Reality and Copyright Law", 15 *Northwestern journal of Technology and Intellectual Property* 111 (2017).

photos etc. can be copyrighted.

Trademarks: Sections 18, 27, 29 under Chapter II of The Trade Marks Act, 1999(ACT NO. 47 OF 1999) provides for registration and better protection of trade marks for goods and services and for the prevention of the use of fraudulent marks. While using AR in educational settings it is important to be aware of potential trademark issues for preventing misuse of brand. Using unique names, logos, tagline etc., differentiating the products from competitors, the AR system may be protected by trademark registration including the use of a particular domain name.

Patents: Section 48 of the Patent Act, 1970 outlines the exclusive right of a patent holder to invention and legal right of owner to prevent manufacture, use, or sale of the same by others for a limited period, typically 20 years**.** The AR applications used in educational setting are patentable. In digital education, the patentable subject-matter includes- management, manipulation, analysis, modelling and display of data; Map generation and display; integration of social networking features in AR environment; Unique combinations of features, functions, information; algorithms or implementations of algorithms; user customizability; integration of the functionality of existing technologies and/or services.[46]

Privacy Concern:

In the modern society of digitalization, at many times, digital privacy needs to be compromised. In **People's Union for Civil Liberties V. Union of India[47]**, the SC held that privacy is not enumerated as a fundamental right in our Constitution. But, it can be inferred from Article 21. In the landmark decision of **K.S. Puttaswamy v. Union of India,[48]** the SC in 2017, recognised Right to Privacy as a fundamental and inalienable right for protecting all the information about an individual and all the choices that a person

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[46] Legal Issues with Augmented Reality, *available at* https://www.pillsburylaw.com/a/web/102329/9dhzfq/fs-smg-internet-augmented-reality.pdf (last visited on April, 2,2025)

[47] AIR 1997 SC 568

[48] AIR 2018 SC (SUPP) 1841

makes. Such privacy right also inclines towards the persons with disabilities while engaged in the learning process through the use of AR applications. AR devices can accomplish three actions that could lead to intrusions into the privacy of third person, which include (i) the capturing of photos and videos of third persons; (ii) the uploading of these records to private, semi-public or public spaces, such as to a social network site (SNS) like Facebook, Google or YouTube; and (iii) the processing of the face and body of that person by the use of biometrics.

Though there is no specific legislation or judicial decisions supporting AR applications, the privacy violation while applying this technology would constitute both tort as well as cybercrime and the intruder would be subjected to penal provisions. If the service provider or educator or any other user while applying AR in education is involved in unauthorised access or damage of computer, computer system etc., the violator would pay compensation up to Rs. 1 crore to the person suffered as per Section 43 of The Information Technology Act, 2000[49]. Again, as per section 43A of the Act, on failure to protect data, the person suffered would have entitlement to receive compensation. Use of AR applications are also protected under The Bhartiya Nyaya Sanhita, 2023[50] which provides imprisonment up to 5 years or fine or with both for offences like criminal breach of trust including dishonest use or dispose of digital property (section 316, BNS), cheating by personation (section 319, BNS) etc. The students with intellectual disabilities can have fearless use of AR technology under the shield of The Digital Personal Data Protection Act, 2023[51] (Act No. 22 Of 2023) as it provides for financial penalties ranging from ₹10,000 to ₹250 crore for breaches of data privacy and non-compliance. Thus, under the shield of such plethora of legal frameworks AR can enable best practice in privacy management by properly configuring the concept of real time notice and consent.

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49 The Information Technology Act, 2000 (Act No. 21 Of 2000)

50 The Bhartiya Nyaya Sanhita, 2023 (Act No. 45 of 2023)

51 The Digital Personal Data Protection Act, 2023 (Act No. 22 Of 2023)

STRATEGIES FOR EFFECTIVE IMPLEMENTATION OF AR:

Inclusive AR Learning: Inclusive AR learning should be developed for better accessibility of learners with diversified needs including students with intellectual disabilities by ensuring disability compatible adaptive technology and considering various sensory, motor, and cognitive abilities. Creating AR content using Universal Design for Learning (UDL) principles and customization of AR designs may leverage the multiple means of presenting content, participation, and expressing the diverse learning needs.

Professional Collaboration among Teachers, Technological Experts, and Caregivers:

Professional collaboration between educators, technologists, and caregivers would leverage expertise from multiple domains, facilitate discussions and partnerships ensuring expansion of AR applications which complies with the very objective of educational justice and address the individualised needs of students.

Information Sharing and Training: Effective communication, knowledge sharing, training sessions covering the ins and outs of technology, pedagogical strategies, best practices for integrating AR into the curriculum and workshops among educators, technologists, caregivers can enhance the understanding of AR technology, interactive improvements in AR content and its efficacious integration into educational settings. A feedback mechanism is required to be established for the educators, technologists, and caregivers to share insights, concerns, and suggestions for improving AR applications.

Effective Library: For maintaining the educational standards effective for persons with disabilities platforms offering curated AR content should be established. Such libraries

would provide educators with a wide range of experiences covering different AR contents of different subjects.

Conclusion:

Educational justice requires a variety of social and educational goods like equal treatment to all, public awareness and democratic proficiency, human dignity etc. In achieving such justice, schools have a significant role in promoting opportunities to flourish every student with the requirements for a fulfilling life. For securing educational justice for intellectually disabled, their specialized and diverse educational needs are to be recognised rather than the benefits brought for their peers without disabilities. In such a case, parental choice of integrating intellectually disabled students into mainstream school is noteworthy rather than their choice considering religion, race or culture. Again, teachers' positive attitude will serve as a facilitator for successful integration of students with intellectual disabilities into the mainstream. Holding negative attitudes towards them will result in poor educational as well social outcome. Integration into mainstream school will benefit the students with intellectual disabilities by strengthening their empathy and understanding capacity. This will foster positive changes in social and political sphere both inside the school and outer world. For a successful educational integration and education modernization, Augmented Reality technology has been considered as an innovative tool leaving behind all the traditional educational set up. The Augmented Reality has been a potential tool for transforming the learning experiences of persons with intellectual disabilities under the aegis of various policies like UNCRPD, the RPwD Act, 2016, NEP, 2020 etc. AR technology users have strived for inclusive, engaging, and personalized learning environments; enhance engagement, provide multisensory learning experiences, and foster social interaction and skill development among students with intellectual disabilities. Achieving educational justice for persons with intellectual disabilities in an inclusive environment is not so far if education can be made more accessible through customized, individualized and real-time adaptable learning styles with AR. The modern world has been identified with the immersive experience of utilizing artificial intelligence being consolidated into AR. It has become a catalyst in promoting diverse learning needs, personalized recommendations, dynamic content adjustments based on individual student responses and progress including real-time

feedback. A safe, privacy protected AR applications complying with the relevant legal provisions only can fulfil the very purpose of inclusive education and digital education as obligated by the Rights of Persons with Disabilities Act, 2016 and NEP, 2020. In this era of digital advancement, to ensure accessibility to a rich, engaging and inclusive educational journey for every student regardless of their abilities, more advanced research and development in the domain of AR technology is very crucial in the modernisation of education through digitalization.

THE IMPACT OF COLONIALISM ON WOMEN'S EDUCATION, WORK, AND POLITICAL PARTICIPATION

Dr. Shriram Patel[*]

Abstract

This paper explores the multifaceted impact of colonialism on women's lives in colonized societies, focusing on the areas of education, work, and political participation. By analyzing historical and contemporary evidence, the paper investigates how colonial policies, ideologies, and practices shaped women's experiences and opportunities.

The paper examines the ways in which colonialism both expanded and constrained women's access to education. While colonial powers often established educational institutions, these were frequently designed to serve the needs of the colonial administration and to promote colonial values. This could lead to limited educational opportunities for women, particularly in rural areas.

The paper also investigates the impact of colonialism on women's labor patterns. Women's labor was essential to the colonial economy, particularly in agriculture and domestic service. However, women were often denied equal pay and working conditions, and their labor was frequently undervalued and exploited.

Finally, the paper explores the ways in which colonialism influenced women's political participation. While colonial powers sometimes allowed women to vote or hold office, these rights were often limited and subject to discriminatory conditions. Moreover, colonial ideologies often reinforced traditional gender roles and limited women's political agency.

Overall, this paper aims to shed light on the complex and often contradictory ways in which colonialism shaped

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women's lives. By understanding the historical context, we can better appreciate the challenges and opportunities faced by women in post-colonial societies.

Key Words: Women's lives, Colonialism, Ideologies, Practices, Education.

Review of Literature

This literature review explores the multifaceted impact of colonialism on women's lives in colonized societies, focusing on the areas of education, work, and political participation. By examining historical and contemporary evidence, this review aims to provide a comprehensive understanding of how colonial policies, ideologies, and practices shaped women's experiences and opportunities. References have been made to books and academic articles that discuss various areas. For research publications, the Law Journals and other Periodicals scholarly sources, including historical, anthropological, and sociological studies, to provide a comprehensive overview of the existing research. A number of online legal literature resources have also been used. Therefore, significant research is also done on pertinent literature in the fields.

Anderson, Michael highlighted in *1996*, that colonial education policies had a significant impact on women's access to education in colonized societies. While colonial powers often established educational institutions, these institutions were frequently designed to serve the needs of the colonial administration and promote colonial values.

This could lead to limited educational opportunities for women, particularly in rural areas said by ***Devi, Chitra,***[1] *1995.*

The experiences of women in colonial societies varied depending on the specific region and the colonial power reviewed in ***Bhattacharya, S. Kumari*** *(2007).*

[1] Devi, Chitra. Women and Modernization in India. New Delhi: Oxford University Press, 1995.

In his study, **Arnold, David[2] (**2003) makes an effort to draw Colonialism profoundly influenced women's labor patterns in colonized societies. While women's labor was essential to the colonial economy, it was often undervalued and exploited.

Bhatt, Janaki *(2007)* attempted to analyse colonial policies, such as the introduction of new economic systems and the suppression of traditional forms of women's labor, had a significant impact on women's economic opportunities.

Colonial governance had a significant impact on women's political participation in colonized societies. While some colonial powers granted women suffrage rights, these rights were often limited and subject to discriminatory conditions highlighted in *1995* by ***Pandey, Gyanendra.***

1: Colonial Education Policies and Women's Access to Education

The colonial era significantly shaped the educational landscape for women in colonized societies. Colonial powers implemented education policies that, while often intended to promote Western values and advance their colonial interests, also had unintended consequences for women's access to education.[3]

One of the primary goals of colonial education policies was to produce a skilled workforce to serve the needs of the colonial administration and economy. This often led to the establishment of educational institutions that prioritized the teaching of subjects deemed useful for colonial purposes, such as engineering, agriculture, and administration. While these institutions may have provided opportunities for some men, they often excluded women or limited their access to certain fields of study.[4]

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2 Arnold, David. The Economic History of Colonial India. Delhi: Oxford University Press, 2003

3 Anderson, Michael. The Rise of Educational Institutions in India. Delhi: Oxford University Press, 1996

4 Stokes, Eric. The English Utilitarians and India. London: Oxford University Press, 1959.

Missionaries also played a significant role in the development of education in colonized societies. They established schools and colleges, often with the aim of spreading Christianity and Western values. While missionary schools may have provided educational opportunities for some women, they were often subject to religious and cultural restrictions. Moreover, missionary education often reinforced traditional gender roles and stereotypes.[5]

Colonial education policies also had a significant impact on the curriculum and pedagogy. The curriculum was often designed to promote Western values and knowledge, while traditional local knowledge and cultures were often marginalized or dismissed. This could lead to a disconnect between women's experiences and the education they received.

In addition to the challenges posed by colonial education policies, women also faced cultural and social barriers to education. Traditional gender roles and expectations often limited women's access to education, as they were expected to prioritize domestic duties and childcare. Moreover, economic constraints could also prevent women from pursuing education, as families may have prioritized education for their sons over daughters.[6]

In conclusion, colonial education policies had a complex and often contradictory impact on women's access to education. While colonial powers established educational institutions, these institutions often prioritized the needs of the colonial administration and reinforced traditional gender roles. Despite these challenges, some women were able to access education, but access remained limited for many. Understanding the historical context of colonial education is essential for understanding the challenges and opportunities faced by women in post-colonial societies.

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5 Devi, Chitra. Women and Modernization in India. New Delhi: Oxford University Press, 1995.

6 Arnold, David. The Economic History of Colonial India. Delhi: Oxford University Press, 2003.

2. The Impact of Colonialism on Women's Labour

Colonialism had a profound impact on the economic lives of women in colonized societies, transforming their labor patterns and opportunities. While women's labor was essential to the colonial economy, it was often undervalued and exploited.

One of the primary ways in which colonialism impacted women's labor was through the introduction of new economic systems and industries.[7] Colonial powers often established plantations, mines, and factories that required a large labor force. Women were frequently recruited to work in these industries, often under harsh conditions and for low wages.

In addition to the introduction of new industries, colonialism also disrupted traditional forms of women's labor. Traditional agricultural practices and subsistence economies were often replaced by commercial agriculture and cash cropping. This shift in economic activities could have both positive and negative consequences for women. While it may have provided new opportunities for some women, it could also have led to the loss of traditional skills and livelihoods.[8]

Women's labor was also essential to the maintenance of colonial households and institutions. They were responsible for domestic tasks such as cooking, cleaning, and childcare. This work was often unpaid and undervalued, and it could be physically demanding and time-consuming.

Colonial powers often implemented policies and regulations that exploited women's labor. For example, colonial governments may have imposed minimum wages that were below a living wage, or they may have enacted labor laws that excluded women from certain professions or industries.[9]

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7 Bhatt, Janaki. Women of India: From Colonial Times to the Present. New Delhi: Oxford University Press, 2007.

8 Guha, Ranjit. The Unfinished Revolution: Essays on the History of Colonial India. Delhi: Oxford University Press, 2008.

9 Menon, A. G. Krishna. Tribal Movements in India. Delhi: Oxford University Press, 2006.

Despite these challenges, women's labor was essential to the colonial economy. Their contributions to agriculture, industry, and domestic work were vital to the functioning of colonial societies. However, women's labor was often undervalued and exploited, and they were denied equal pay and working conditions.[10]

In conclusion, colonialism had a profound impact on the economic lives of women in colonized societies. While women's labor was essential to the colonial economy, it was often undervalued and exploited. Understanding the historical context of women's labor during the colonial period is essential for understanding the challenges and opportunities faced by women in post-colonial societies.

3: Colonial Governance and Women's Political Participation

Colonial governance had a significant impact on women's political participation in colonized societies. While some colonial powers granted women suffrage rights, these rights were often limited and subject to discriminatory conditions. Moreover, colonial ideologies often reinforced traditional gender roles and limited women's political agency.

One of the primary factors influencing women's political participation during the colonial period was the political ideology of the colonial power. Some colonial powers, such as Britain and France, were more liberal and progressive in their approach to women's rights.[11] These powers may have granted women suffrage or allowed them to hold public office. However, even in these cases, women's political participation was often limited to certain groups or classes.

Other colonial powers, such as Spain and Portugal, were more conservative in their approach to women's rights. These powers may have denied women suffrage or imposed restrictions on

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[10] Pandey, Gyanendra. Contesting Visions of India: Imagining the Nation in the Nineteenth Century. Cambridge: Cambridge University Press, 1995

[11] Kumar, Ravinder. The Tribal World: A Sociological Perspective. Delhi: Oxford University Press, 2002

their political activities. Moreover, colonial ideologies in these countries often reinforced traditional gender roles and limited women's political agency.

Even in colonial societies where women had suffrage rights, their political participation was often constrained by discriminatory practices. For example, women may have been required to meet certain property qualifications or educational requirements in order to vote or hold office. Moreover, women may have been excluded from certain political parties or organizations.

Colonial governance also had a significant impact on women's political activism. While some women were able to organize and mobilize for political change, they often faced opposition from colonial authorities and traditional patriarchal structures. Women's political activism was often limited by the constraints of colonial rule and the prevailing social and cultural norms.[12]

In conclusion, colonial governance had a profound impact on women's political participation in colonized societies. While some women were able to achieve suffrage rights and participate in political life, their opportunities were often limited by discriminatory practices and colonial ideologies. Understanding the historical context of women's political participation during the colonial period is essential for understanding the challenges and opportunities faced by women in post-colonial societies.

4: Case Studies: Women's Experience in Colonial Societies

- *INDIA*

The experiences of women in colonial India were shaped by the complex interplay of cultural traditions and colonial policies. While British colonial rule brought about some changes in women's lives, traditional patriarchal structures and cultural norms continued to limit their opportunities and agency.[13]

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[12] Chatterjee, Partha. The Nationalist Movement and the Colonial State: A Historical Perspective. Delhi: Oxford University Press, 2004.

[13] Bhattacharya, S. Kumari. Indian Women: A Social and Economic History.

One of the most significant impacts of colonialism on women in India was the introduction of Western education. While education provided opportunities for some women, it was often limited to elite families and subject to cultural and social restrictions. Traditional gender roles and expectations continued to limit women's access to education, as they were often expected to prioritize domestic duties and childcare.

Colonialism also had a profound impact on women's labor patterns. The introduction of new economic systems and industries, such as plantations and factories, created new opportunities for women to enter the workforce. However, women's labor was often exploited, and they were denied equal pay and working conditions. Moreover, traditional forms of women's labor, such as agriculture and domestic work, continued to be undervalued.[14]

The British colonial administration in India introduced some reforms aimed at improving the status of women, such as the abolition of sati (widow immolation) and the introduction of legal reforms to protect women's property rights. However, these reforms were often limited in scope and faced resistance from traditional patriarchal structures.

Women's political participation was also limited during the colonial period. While women were granted suffrage rights in certain parts of India, these rights were often subject to discriminatory conditions. Moreover, women's political activism was often constrained by colonial rule and traditional patriarchal structures.

Despite these challenges, women in India played a significant role in the nationalist movement and the struggle for independence. They participated in protests, boycotts, and other forms of political activism. After independence, women's rights activists continued to advocate for greater equality and empowerment.

New Delhi: Oxford University Press, 2007.

[14] Kumar, Ravinder. The Tribal World: A Sociological Perspective. Delhi: Oxford University Press, 2002

In conclusion, the experiences of women in colonial India were shaped by a complex interplay of cultural traditions and colonial policies. While colonialism brought about some changes in women's lives, traditional patriarchal structures and cultural norms continued to limit their opportunities and agency. Understanding the historical context of women's experiences in colonial India is essential for understanding the challenges and opportunities faced by women in post-colonial societies.

- *AFRICA*

The colonial experience in Africa was marked by a diverse range of policies and practices that had significant implications for women's lives. While the specific experiences of women varied across different regions and colonies, there were common themes that emerged.[15]

One of the most significant impacts of colonialism on women in Africa was the disruption of traditional social structures and cultural practices. Colonial powers often introduced new legal systems, economic structures, and social norms that challenged traditional gender roles and hierarchies. This could have both positive and negative consequences for women. While some colonial policies may have provided new opportunities for women, they could also have led to the erosion of traditional practices that protected women's rights.

Colonialism also had a profound impact on women's labor patterns. The introduction of cash cropping and plantation agriculture created new opportunities for women to enter the workforce, but it also led to the exploitation of women's labor. Women were often forced to work long hours under harsh conditions for low wages.[16]

The colonial powers in Africa varied in their approach to

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[15] Njaka, Caroline. Women in Colonial Kenya: A History of Gender, Race, and Class. Nairobi: James Currey, 2001

[16] Amadiume, Ifi. Reinventing Africa: Matriarchy in the Nineteenth Century. London: Zed Books, 1987.

women's rights. Some colonial powers, such as Britain and France, were more liberal in their approach, while others, such as Belgium and Portugal, were more conservative. This influenced the extent to which women were able to participate in political and social life.

Despite the challenges posed by colonialism, women in Africa played a significant role in resistance movements and nationalist struggles. They participated in boycotts, protests, and armed resistance against colonial rule. After independence, women's rights activists continued to advocate for greater equality and empowerment.

In conclusion, the experiences of women in colonial Africa were shaped by a complex interplay of colonial policies, cultural traditions, and social structures. While colonialism brought about some changes in women's lives, it also reinforced traditional patriarchal structures and limited women's opportunities. Understanding the historical context of women's experiences in colonial Africa is essential for understanding the challenges and opportunities faced by women in post-colonial societies.

- *LATIN AMERICA*

The colonial experience in Latin America was marked by a complex interplay of Spanish and Portuguese rule, indigenous cultures, and African slavery. This confluence of factors had a profound impact on the lives of women in the region.[17]

One of the most significant impacts of colonialism on women in Latin America was the introduction of the encomienda system. This system granted Spanish and Portuguese colonists control over indigenous communities and their labor. Women were often forced into domestic servitude or sexual exploitation within this system.

Colonialism also disrupted traditional gender roles and hierarchies in Latin America. While indigenous cultures often had

[17] Mohanty, Chandra Talpade. Feminism Without Borders: Decolonizing Theory, Practicing Solidarity. Durham, NC: Duke University Press, 1997

relatively egalitarian gender relations, colonial rule introduced patriarchal norms and practsmiices. This led to the subordination of women and the erosion of their traditional rights.

The introduction of Christianity also had a significant impact on women's lives in Latin America. While Christianity offered some women opportunities for education and social mobility, it also reinforced traditional gender roles and stereotypes. Moreover, the Spanish and Portuguese colonial administrations often used religion to justify the exploitation of indigenous women and the enslavement of African women.[18]

Despite these challenges, women in Latin America played a significant role in resistance movements and nationalist struggles. They participated in uprisings, protests, and other forms of political activism. After independence, women's rights activists continued to advocate for greater equality and empowerment.

In conclusion, the experiences of women in colonial Latin America were shaped by a complex interplay of Spanish and Portuguese rule, indigenous cultures, and African slavery. While colonialism brought about significant changes in women's lives, it also reinforced traditional patriarchal structures and limited women's opportunities. Understanding the historical context of women's experiences in colonial Latin America is essential for understanding the challenges and opportunities faced by women in post-colonial societies.

Conclusion and Suggestions

This research has explored the multifaceted impact of colonialism on women's lives in colonized societies, focusing on the areas of education, work, and political participation. By analyzing historical and contemporary evidence, the study has investigated how colonial policies, ideologies, and practices shaped women's experiences and opportunities.

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[18] Ramos, María Eugenia. Women in Latin America: A History of Struggle and Achievement. New York: Routledge, 2003

One of the key findings of this research is that colonialism had a significant impact on women's access to education. While colonial powers often established educational institutions, these institutions were frequently designed to serve the needs of the colonial administration and to promote colonial values. This could lead to limited educational opportunities for women, particularly in rural areas.

The study also found that colonialism had a profound impact on women's labor patterns. Women's labor was essential to the colonial economy, particularly in agriculture and domestic service. However, women were often denied equal pay and working conditions, and their labor was frequently undervalued and exploited.

The research further revealed that colonialism influenced women's political participation. While colonial powers sometimes allowed women to vote or hold office, these rights were often limited and subject to discriminatory conditions. Moreover, colonial ideologies often reinforced traditional gender roles and limited women's political agency.

The case studies presented in this research have illustrated the diverse experiences of women in colonial societies. While there were common themes, such as the exploitation of women's labor and the limitations on women's political participation, the specific experiences of women varied depending on the region, the colonial power, and the cultural context.

The findings of this research have important implications for understanding the challenges and opportunities faced by women in post-colonial societies. By understanding the historical context of women's experiences during the colonial period, we can better appreciate the ongoing struggles for gender equality and empowerment. Moreover, this research can inform policies and programs aimed at addressing the legacy of colonialism and promoting women's rights.