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"Tomorrow is being built faster than it is being governed."



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FOREWORD

There is a familiar pattern with technology. Something new arrives, society adopts it faster than anyone expected, and only then does the law begin asking what rules should apply. By the time those questions are answered, the technology has often moved again.

That tension lies at the heart of this issue of The Legal Journal on Technology.

The contributions in this volume deal with very different subjects; from artificial intelligence and global governance to online gaming, biotechnology, consumer protection and copyright. Yet they are connected by one larger question: can the law keep pace with technologies that are constantly changing the world around it?

What makes this issue particularly valuable is the seriousness with which its contributors have approached that question. The articles do not simply describe new laws or technological developments. They question whether existing frameworks actually work, compare approaches across jurisdictions, examine their practical consequences, and identify the gaps that remain. Considerable research has gone into each contribution, but the objective has remained simple: to make difficult questions of law and technology understandable, relevant and worth discussing.

Perhaps the most interesting thing about technology law today is that many of its biggest questions still have no settled answers. Who should bear responsibility when artificial intelligence causes harm? How far should the State regulate digital markets? What happens when technology challenges traditional ideas of authorship, identity or even personhood?

These are no longer questions about some distant future. They are questions the law must answer now.

This issue is our small contribution to that conversation :)

With Love

Rudraditya

(The Publisher and Chief Editor)

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Incorporating Positive Lessons from the Montreal Protocol into a Global Treaty on Artificial Intelligence (AI) Governance

Special Note From - Angshuman Kaushik (Former Judge)

I. INTRODUCTION

In the last couple of years we have seen a proliferation of Artificial Intelligence (AI) products and services hitting the market such as ChatGPT, Claude, Perplexity etc. Although they have brought about better customer experiences and increased efficiency to the users by way of delivering more personalized responses and saving time, they nevertheless pose considerable risks to society. Some of them include, bias and discrimination, lack of transparency, economic inequality, misinformation and disinformation etc. In such a scenario, there have been clarion calls from various quarters to come up with an international treaty on AI governance, but to no avail. It is because it is not easy to reach agreement on such a multifaceted issue by a diverse set of players involved, often at loggerheads and with conflicting agendas. The problem is further compounded by the fact that there is a lack of cooperation, commitment, innovative approach and leadership amongst the key decision makers who could steer the international community towards reaching consensus on the issue. Therefore, this paper aims to identify key attributes not only from the Montreal Protocol (Protocol) but also from the negotiating process which preceded it, that could be incorporated into a possible international treaty on AI governance.

II. THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEplete THE OZONE LAYER 1987

The success of the Protocol can be gauged from the fact that without it there would have occurred large-scale depletion of the ozone layer with severe consequences, including hundreds of millions of skin cancer cases, and millions of deaths in the United States alone. For example, one global model focused on health effects in people born in the USA between 1890 and 2100 estimates that protecting the ozone layer will have prevented a total of approximately 443 million cases of skin cancers and 2.3 million skin cancer deaths in the USA alone. This includes

A. Introduction

The Montreal protocol is a global agreement to protect the earth's ozone layer by phasing out the consumption and the production of ozone-depleting substances (ODSs) such as chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), hydrofluorocarbons (HFCs) etc. It was signed on 16 September 1987 and entered into force in 1989. It provides a set of practical and actionable tasks to phase out ODSs that were universally agreed upon and is also unique in having the flexibility to respond to new scientific

information. Most importantly, it is one of the most successful treaties ever put into practice. The reason for its success was the negotiation process, which witnessed an unprecedented level of cooperation and commitment from the international community. That is why it is called ‘the world’s most successful environmental agreement’. Quite interestingly, the Protocol has been ratified by all the 197 UN member states, a first for any multilateral treaty and highlighting the strong commitment to it by the international community.

8-10 million cases of malignant melanoma. Further, failure to control ozone depletion effectively would have led to almost 63 million additional cataract cases in people born in the USA between 1890 and 2100.

III. KEY FEATURES OF THE PROTOCOL

One highly notable similarity between the risks posed by the depletion of the ozone layer and AI is that both affect the entire humanity. Therefore, the Protocol assumes significance and is worth looking into. In fact, the negotiating process prior to the framing of the Protocol has a lot to offer when it comes to laying down the groundwork for an international agreement on AI. It can definitely help in breaking the ice and setting the tone for the agenda for negotiations. Other areas where it can lend a helping hand include zeroing on issues such as the nature of the problem, agreeing to a plan to be followed for the negotiations etc. Moreover, it can shed light on matters such as how to convince the disagreeing parties to join the table.

To begin with, the negotiations leading up to the final agreement on the protocol, did not take up a global character from the outset as initially it took place amongst the developed nations with the highest consumption of ODSs and gradually bringing the developing nations - with less contribution towards the depletion of the ozone layer - to the fold.

Nonetheless, it started off on the basis of a strong leadership, which was instrumental in steering the deliberations towards the right direction.

However, in the case of AI, there seems to be a clear lack of leadership when it comes to taking a lead in formulating a global treaty on the governance of AI. Issues like AI Arms race, strategic rivalry and geopolitical dynamics have proved to be the main obstacles in the path. The countries that have the might, both politically and economically, are purposefully shying away from sitting at the negotiations table and are busy in the process of formulating or have successfully negotiated an agreement on AI, for domestic purposes. This does not bode well, not only for the creation of a global treaty on AI but also for a harmonized, uniform standard on AI. To illustrate my point, I would like to take the example of the US, EU and China. The reason for choosing the above countries is that they, apart from having the capability to take up a leadership role have also adopted distinct models for regulating AI. For instance, the US has embraced a very cautious approach which is pro-innovation, encouraging private sector investments with limited guardrails. Contrast this with the

European Union (EU), which has pursued a more citizen-centric and technology restrictive model. However, China has adopted a state control model with extensive surveillance and censorship capabilities. These fragmented approaches will drive the possibility of any chance that is there with respect to deliberations on formulating a global treaty on AI to a halt and add to the confusion by bringing in heterogeneity in the manner in which AI is regulated in different jurisdictions.

Another noticeable factor regarding the negotiations on a global agreement on AI not making any headway is that the politicians cutting across party lines and ideologies have not shown any interest in leading the conversation. This is critical because it is the politicians who have to lead from the front and make things happen. Inaction on their part can prove costly for any hope left for a possible global treaty. They need to wake up from their slumber, shed off their dormant character and put on an active role if they want to take the negotiations to its desired end. This is where valuable lessons can be learned from the strong leadership shown during the negotiations for the Protocol.

Further, an outstanding feature that contributed to the success of the Protocol is the adoption of innovative procedures in its negotiations. They were held in small and unofficial groups which allowed for a frank and sincere dialogue among the participants. For instance, the development of the Multilateral Fund under the Protocol was built on trust gained during these informal group talks. The objective of the Fund was to provide financial and technical assistance to developing country parties to the Protocol to aid them in meeting their compliance targets. Notably, it proved to be a feather in the cap for the negotiators. We have not seen that happening when it comes to myriad discussions relating to regulating AI. They suffer from the lack of an explicit agenda, coordination and direction. Considering the very complicated and multiple issues involved in negotiating an international treaty on AI governance, it becomes indispensable for the negotiating parties to adopt a procedure which is ingenious and unique. This is where the Protocol can assist to a great extent. Its emphasis on talks in informal groups, devoid of any formal character, led to a meaningful participation and positive outcomes.

One vital reason for the success of the Protocol was the extensive participation of scientists in the negotiation process. It was unlike any other treaty negotiations seen thus far and most importantly, lent credence to the negotiations. It is important to bear in mind that although AI is an emerging technology, its scientific roots are entrenched in the past and it is the scientists who have nurtured it over the years and as such, have had a big role to play in its development. Therefore, it is paramount to include them in the negotiation process. Generally speaking, negotiations are carried out by politicians and bureaucrats who are not trained experts in the subject-matter of negotiation. Consequently, many agreements fail miserably to reach its intended objective and only remain as a paper tiger. This flawed scheme of things needs to be addressed by including the scientists who are well acquainted with the

technology, in the discussion. If an overarching international treaty on the governance of AI is the goal then, making the scientists a major part of the negotiations is a key to reaching that goal. Crucially, their presence in the talks would help infuse trust.

Another striking feature of the negotiation process for the Protocol was the establishment of an independent and expert technology and economics advisory body called the Technology and Economic Assessment Panel (TEAP) which helped the negotiating parties reach firm decisions on complicated matters.

It is imperative to note here that negotiations for the Protocol commenced at a time when the science on the subject was not precise. Nevertheless, the negotiators moved fast as the stakes were high and developed an extremely flexible framework that could be adapted to the latest findings on science. For instance, the measures to reduce HFCs as a result of their high global-warming potential were adopted later on through the Kigali Amendment in 2016. In fact, the science became clearer and stronger subsequent to the negotiation of the initial agreement, bringing into focus the considerable underestimation of the prior conclusions pertaining to the extent of depletion of the ozone layer. The position with respect to AI is similar if not the same. Here, the science on the subject is almost settled in that AI systems apart from having benefits are known to cause risks. However, there are two schools of thought, one stressing upon

Another reason for the Protocol's success was its compliance procedure which was non-focusing on long-term risks and the other on short-term risks. A major lesson to be learned from the Protocol is that instead of quibbling amongst themselves on which issues need to be taken care of first, the negotiators decided to move forward. They took the decision in spite of the fact that a lot of scientific evidence was still buried under the ground and needed to be unearthed. This is a testament to their proactiveness and commitment. Risks from AI, like the depletion of the ozone layer are a collective action problem, and needs to be tackled in a unified manner. Further, the negotiators of the Protocol decided to take the plunge early on considering their shared responsibility towards the problem. They realized that the consequences of remaining inactive can be literally deadly. In the case of AI, someone has to lead from the front and face the issue head-on. Moreover, the negotiators of the Protocol not only moved swiftly but also came up with a flexible framework. This is vital considering the fact that the science on the subject was ambiguous and they had to make provision for incorporating any subsequent developments.

Punitive by design from the very beginning. It focused on helping uncooperative countries back into compliance. A global treaty on AI is likely to have obligations on different nations and in order to implement those obligations, there will be compliance measures mandated for the parties to perform.

It is an established fact that all the nations of the world are not similarly placed, economically, technologically and in other identical ways. Thus, countries which

lag behind must be supported with technical and economic assistance and provided with other capacity building measures so that they are in a position to comply with their respective obligations. Hence, like the Protocol there shall be an endeavor not to deal with non-compliance in a stern manner but rather, the approach should be to help achieve compliance through cooperation.

One further achievement of the negotiations for the Protocol was that developing countries were given more time to phase out ozone-depleting substances with the result that all 142 developing countries had phased out 100% of CFCs, halons and other ozone-depleting substances by 2010. Taking a leaf out of the Protocol, a global treaty on AI can have a provision whereby countries that are not in a position to abide by their obligations under the treaty, are given extended time to do so. This will help them to adhere to their commitments and perform them accordingly.

A noteworthy factor for the success of the Protocol was the public support generated by scientists-turned-advocates. Many of the scientists started talking about the effects of the depletion of the ozone layer on the planet which led people to begin boycotting products containing (ODSs). This is one of the most vital lessons from the Protocol. As the risks from AI encompass the entire planet, everyone has to play their part to mitigate it. Any endeavor in this regard will not be successful without the active participation of the people who are quite expectedly, unaware of the nature of the problem and its consequences. This is where the scientists have to step in and apprise the public in this regard. They will have to don the mantle of educators and garner the support of civil society. The public will definitely lend their ears to concerns that are coming straight from the horse's mouth. As a result, it will lead to the formation of public opinion, which will put pressure on the politicians to work in this respect. The above is exactly what the Protocol managed to attain and was its 'crowning glory'. The same needs to be emulated in the case of AI, as public pressure can act as a precursor to an international treaty on AI.

Another key provision of the Protocol is that the parties were obligated to promote research, development and exchange of information on best technologies for reducing emissions, possible alternatives to controlled substances etc., taking into account in particular the needs of developing countries. The Parties were also required to co-operate in promoting public awareness of the environmental effects of the emissions of controlled substances and other substances that deplete the ozone layer. Moreover, each party was directed to submit to the Secretariat a summary of the activities it has conducted pursuant to the aforesaid obligations after every two years. The incorporation of a provision on undertaking research, dissemination and exchange of new findings on ways to prevent or mitigate risks from AI and other associated matters in a global treaty on AI would make it easier for the parties to solve the problem. Moreover, keeping the public in the loop through the promotion of public awareness campaigns would help them in coming to grips with the matter. Furthermore, the Protocol's directive to submit to the Secretariat a

summary of activities if borrowed to an international agreement on AI would serve the purpose of keeping the officials in the know.

One interesting fact was that the negotiations were successful in spite of the fact that the ozone layer is invisible, and its depletion does not result in direct local consequences. To make matters worse, clear benefits from any efforts to protect and heal it was conspicuous by its absence for involved parties. Furthermore, as the time required for the ozone layer to recover was long, there was not enough incentive for the parties that wished immediate gains. The thorny issues confronting a global treaty on AI seem to pale in comparison compared to what has been stated above. If we look at the risks from AI, they are 'visible' and it directly affects people. For example, the repercussions of a biased algorithm on health, finance, employment etc. is for everyone to see. Secondly, clear gains from mitigating the risks originating from AI are discernible. With the AI-related incidents on the rise with each passing day, there are enough reasons to act without undue delay.

In their book, 'Fixing the Climate: Strategies for an Uncertain World', Charles F. Sabel and David G. Victor argue that the Protocol's success lies in its design, and the way it's characterized by experimentalism and learning by doing. They state that the Protocol emerged from a 'thin' consensus at the beginning as there was limited agreement among negotiators on the risks of damage to the ozone layer, but the uncertainty provided fertile ground for innovation from the outset. According to the authors, progress was not always linear, but regular monitoring supported cooperation. They also stressed that the world has a lot to learn from the 'experimentalist governance' which was a unique characteristic of the Protocol and which can guide other areas of cooperation. They also lamented the fact that for too long people have learned the wrong lessons as they haven't focused enough on the special role that the Protocol played in pushing experimentalism and helping the parties learn which experiments worked.

IV. CONCLUSION

It goes without saying that it is not easy to solve a global issue as it necessitates parties to agree to the nature of the problem, negotiate a binding agreement to solve the problem, and then make the agreement work. Empirical research and past experience on the subject-matter has shown that it is difficult to achieve these for a number of reasons. For instance, there is the difficulty of agreeing to a negotiating agenda in the sense that, even when most parties concur that a topic is a matter of grave concern, they often have contradictory views on how the issue should be framed and which solutions should be followed. Moreover, any discussion on a global matter involves all the countries of the world and contains a wide range of issues under different policy areas. To add to the above is the level of uncertainty, as the parties are not aware in the beginning as to whether the solutions put forward will work or not, how it will affect their interests etc. Furthermore, each party comes with its own basket of interests and this can cause a lot of chaos and confusion.

Having said that, the protocol was designed and put into practice in a way that it has not only successfully prevailed over a plethora of tricky challenges but also has stood the test of time. Some of the complicated issues that it has dealt with effectively include, how to collaborate in a diverse global setting, how to attract adequate participation, how to strengthen commitments over time, how to leverage public opinion in favor of the objectives of the treaty negotiations, how to encourage compliance and administer non-compliance, -how to make the costs of implementation affordable for all the parties concerned, how to bring about attitudinal and policy changes required to resolve the problems and attain the desired objectives and how to persuade the opposing parties to come to the table for deliberations and winning them over. Last but not the least, arrangements such as treaty reviews, regular meetings and scheduled expert assessments also had a major role to play in the success of the Protocol. In fact, these are some of the issues that are also standing in the way of negotiations for a global treaty on AI. Other matters such as leadership, adoption of innovative procedures and engagement of scientists are also proving to be quite complicated. Under the circumstances, any deliberations on a global treaty on AI can take a cue from the Protocol and its negotiation process.

To conclude, in the words of one of the greatest US Presidents, Ronald Reagan; *“The Montreal protocol is a model of cooperation. It is a product of the recognition and international consensus that ozone depletion is a global problem, both in terms of its causes and its effects. The protocol is the result of an extraordinary process of scientific study, negotiations among representatives of the business and environmental communities, and international diplomacy. It is a monumental achievement”.*

PRESIDENT RONALD REAGAN 1988

THE PROMOTION AND REGULATION OF ONLINE GAMING BILL 2025: A DEATH KNEEL TO THE ONLINE REAL MONEY GAMING INDUSTRY

Vaibhav Raut and Jacob N J¹

Abstract

“Online Real Money Games would have been a bigger problem than drugs”, this is how the Electronics and IT Minister, Ashwini Vaishnaw, introduced the Promotion and Regulation of Online Gaming bill in the parliament on 19 August 2025. This bill was passed on 21 August 2025, thereby enacting the Promotion and Regulation of Online Gaming Act 2025. This article examines whether what would have been a ‘bigger problem’ has been solved post the prohibition of Online RMGs through the introduction of the Act. It examines whether the Parliament was able to achieve consumer protection, reduce addiction, and ensure financial integrity through the act. The authors conduct a critical examination of the transition from regulation to prohibition and contend that prohibition has neither extinguished the demand nor mitigated the user harm. On the contrary, demand has displaced activity to black markets, eroded consumer safeguards, and increased enforcement burdens after the enactment of the act. Conducting a comparative analysis of the gaming frameworks in the UK and Australia, the article demonstrates that structural licensing, independent oversight, and compliance mechanisms enabled through technology provide for a more effective governance framework. While many solutions, such as risk-tiered licensing and stakeholder limitations, have been proposed in the existing literature, the authors of the article propose a structured, multifaceted solution that blends innovative legislative design, institutional independence, and a multi-stakeholder governance model. The paper contends that in digital markets, prohibition is less effective for sustainable governance, but transparent and accountable regulation is.

I. INTRODUCTION

The online real money gaming (RMG) industry in India has witnessed exponential growth, riding on the wave of the country’s digitalisation, owing to inexpensive internet availability, smartphone penetration, and flourishing acceptance of digital payments. Skill-based gaming platforms, particularly in segments such as fantasy sports and online rummy, emerge as key factors for this growth, bringing significant domestic and foreign investment, resulting in direct and indirect employment, and substantially contributing to the tax revenues through GST and income tax.²

The government first attempted to regulate by substituting rulemaking and compliance mechanisms. However, the trend changed with the enforcement of the Promotion and Regulation of Online Gaming Act, 2025,³ which prohibited online real money gaming altogether because such activities were addictive, financially ruinous and needed consumer protection.⁴ However, this article

¹ Authors are Second-year Law Students at Maharashtra National Law University, Mumbai.

² Sachin P Kumar & Associates, ‘Online Gaming in India and the Tax Conundrum’ (Sachin P Kumar & Associates, 2025) <https://sachinpkumar.com/online-gaming-in-india-and-the-tax-conundrum/> accessed 09 February 2026.

³ Promotion and Regulation of Online Gaming Act 2025.

⁴ Promotion and Regulation of Online Gaming Act 2025, ch III.

contends that the chosen instrument prohibition is poorly calibrated to achieve these goals. This regulatory change has transformed the industry, moving demand to offshore platforms, reducing the visibility of regulation and consumer protections.

This article interrogates India's re-orientation from regulation to prohibition. The article, through comparative analysis along with a critique of policy instruments, posits that a well-designed regulatory framework is more effective in several ways for the governance of digital markets.

II. INDIA'S ONLINE GAMING FRAMEWORK:

A. Evolution of the Online Real Money Gaming Industry in India

The evolution of the Online Real Money Gaming (RMG) Industry in India is closely related to the country's broader digital transformation and the rise of a platform-based economic activity. In its early phase, online gaming emerged through internet cafes and browser-based games.⁵ It remained a niche form of entertainment constrained by limited internet penetration, high data costs, and an underdeveloped digital infrastructure. During its growth phase, the proliferation of smartphones and social networks created a fertile ground, while monetisation opportunities were minimal because of the weak payment system.⁶

The entry of Reliance Jio changed India's internet economy.⁷ Post 2016, the cost of mobile data fell sharply. Whilst digital payment systems like UPI and e-wallets have become widely adopted, making micro-level transactions possible. RMG platforms such as Dream11, MPL, etc. reaped the benefits of these conditions to build profitable businesses.⁸ By 2020, FDI in Indian gaming surpassed \$1.5 billion, backed by Sequoia Capital, Tiger Global, and Tencent. The sector witnessed an annual growth rate of about 28% from FY20 to FY23, reaching a market size of Rs16,428cr, with RMG making up the largest share of monetisation.⁹ This rapid growth brought increased regulatory and societal scrutiny. Concerns around addiction, financial losses, and youth exposure rose, leading to policy discussions and varying state-level actions.

B. Evolution of Gaming Laws in India:

Betting and gambling are found on the state list in the Indian constitution (entry 34, schedule VII) and give states the main legislative ability to regulate games.¹⁰ This has created a fragmented regulatory environment because some states have

⁵ Anirudh Koul and S Subramanian, 'Understanding Online Gaming Ecosystems and Policy Challenges' (2023) Proceedings of the ACM on Human-Computer Interaction <<https://dl.acm.org/doi/10.1145/3543873.3585572>> accessed 11 February 2026.

⁶ Dr. Hitesh Vaswani, 'The Rise and Fall of "Online Money Gaming" Industry in India' (2025) 12(8) International Journal of Management and Social Science Research Review 58 <<http://ijmsrr.com/downloads/260820257.pdf>> accessed 13 February 2026.

⁷ Tanya Daga, Vipul Chandra and Anas Malik, 'Effect of Reliance Jio on Digital India' (2018) 6(6) International Journal of Advanced Research 395 <https://www.researchgate.net/publication/326402460_EFFECT_OF_RELIANCE_JIO_ON_DIGITAL_INDIA> accessed 11 February 2026.

⁸ Vaswani, 'The Rise and Fall of "Online Money Gaming" Industry in India' (n 6).

⁹ EY India, 'New frontiers - Navigating the evolving landscape for online gaming in India' (EY, 8 December 2023) <https://www.ey.com/en_in/insights/media-entertainment/new-frontiers-navigating-the-evolving-landscape-for-online-gaming-in-india> accessed 11 February 2026.

¹⁰ Constitution of India, sch VII, List II, entry 34.

laws that allow skill-based games, while others have restrictive or prohibitive laws. These states have the right to pass laws to regulate these activities under their respective jurisdiction. However, this legislative power is limited by fundamental rights, including article 19(1)(g), which provides for an individual to have the right to engage in a profession or run a business.¹¹

The Supreme Court has repeatedly made a distinction between games that involve chance versus those which involve skill; therefore, games of skill are outside the definition of gambling and are considered a legitimate form of economic activity. The apex Court recognised that competing in competitions which require significant amounts of skill is a business activity and cannot be characterised as *res extra commercium*, meaning a thing outside commerce, as stated in *State of Bombay v. RMD Chamarbaugwala*.¹² The Court reaffirmed this principle in *K. R. Lakshmanan v. State of Tamil Nadu* by specifically stating that games that are primarily composed of skill require protection under Article 19(1)(g).¹³ In its analysis, the Court also noted that the presence of elements of chance does not eliminate the consideration of skill. On the contrary, the determination of whether the game is predominantly based on chance or skill should be based on whether the game is largely determined by skill.

These precedents are given a new lease of life in the context of online gaming. Indian courts have increasingly held that the mode of activity does not alter its essential character, and games of skill are constitutionally protected irrespective of the mode. This context raises potential constitutional concerns regarding a blanket ban on online real money gaming under the Promotion and Regulation of Online Gaming Act, 2025. A blanket ban that fails to distinguish between skill and chance may be challenged as an unreasonable restriction under Article 19(6),¹⁴ especially where it is disproportionate to its professed goals of consumer protection and harm prevention.¹⁵

The rising trend in online gaming had prompted the Indian government to consider regulatory oversight and develop a framework for regulating online gaming through legislation: the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Amendment Rules, 2023, was the first step in creating formal regulation of this sector.¹⁶ As per the rules, the only type of online game allowed to be available for playing must have obtained permission from one of the Self-Regulatory Bodies designated (SRB).¹⁷ The regulations were meant to try and create a balance between innovation and protecting consumers by imposing accountability on platforms and creating compliance frameworks for those platforms.¹⁸ However, the impact of these regulations was limited.

¹¹ Constitution of India, art 19(1)(g).

¹² *State of Bombay v R M D Chamarbaugwala* AIR 1957 SC 699.

¹³ *K. R. Lakshmanan v State of Tamil Nadu* (1996) 2 SCC 226.

¹⁴ Constitution of India, art 19(6).

¹⁵ *Internet and Mobile Association of India v Reserve Bank of India* (2020) 10 SCC 274.

¹⁶ Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Amendment Rules 2023.

¹⁷ Press Information Bureau, 'Government ushers in new era of responsible online gaming through strict guidelines for ensuring safety of Digital Nagriks and accountability of online gaming industry' (Press Release, Delhi, 20 April 2023).

¹⁸ Mobile Ecosystem Forum, 'Online Gaming in India: An Evolving Landscape' (Mobile Ecosystem Forum, 1 November 2024) <<https://mobileecosystemforum.com/2024/11/01/online-gaming-in-india-an-evolving-landscape/>> accessed 13 February 2026.

The ongoing use of the skill and chance distinction, which the courts have continually used to protect skill gaming, continued to create uncertainties and inconsistencies in enforcement.¹⁹ In addition, there were various issues associated with foreign-registered platforms, including tax evasion and money laundering, which the framework failed to address, creating additional regulatory gaps for the government.²⁰ To make matters even worse, the government imposed a 28% GST on the total value of the bet placed on an event, which placed economic pressure on operators without correcting the underlying structural issues.²¹ These cumulative deficiencies surfaced the shortcomings of fragmented regulation and paved the way for more rigorous legislation, ultimately resulting in the prohibition-oriented approach that is now in place pursuant to the 2025 Act.

C. The Promotion & Regulation of Online Gaming Act, 2025

The Act was enacted against the backdrop of the rising online gaming industry in India. The industry was then characterised by concerns over addiction, financial fraud, money laundering, and consumer protection on the gaming platforms. It lays down a comprehensive framework aimed at promoting the gaming industry while prohibiting the harmful practices in connection with online betting and gambling. Numerous reasons accounted for why the Parliament decided to enact the Act; The key reasons included the increasing addiction and financial ruin of individuals, spike in cases of depression and suicides as a result of money loss, misuse of online gaming for engaging in illegal activities such as money laundering, terror financing and so on.²² Further closing the legal loopholes was also a key motive; gambling and betting were already restricted under the BNS, 2023, but the online domain was largely unregulated. The Act was also introduced to promote the e-sports industry and social and educational games. However, the Act failed to fulfil its purpose.

The Act of 2025²³ introduced several key provisions. A few of the key provisions are related to the establishment of the National Online Gaming Commission, the establishment of the Online Gaming Appellate Tribunal, licensing of platforms, classification of games, consumer protection, compliance of platforms with PMLA, 2002²⁴ and FEMA, 1999,²⁵ development of e-sports infrastructure, and finally the prohibition of Online RMG and services. The article shall only engage with the provision concerning the prohibition of RMGs, as depicted under Chapter III of the Act.²⁶

¹⁹ K. R. Lakshmanan (n 12).

²⁰ Financial Action Task Force, Money Laundering Risks in the Betting Sector (FATF 2021) <<https://www.fatf-gafi.org>> accessed 13 February 2026.

²¹ Annapoorna, 'GST on Online Gaming, Casinos and Horse Racing' (ClearTax, 29 August 2025) <<https://cleartax.in/s/gst-on-online-gaming>> accessed 12 February 2026.

²² Press Information Bureau, 'Promotion and Regulation of Online Gaming Bill, 2025' (Press Information Bureau, 21 August 2025) <<https://static.pib.gov.in/WriteReadData/specificdocs/documents/2025/aug/doc2025821618101.pdf>> accessed 12 February 2026.

²³ Promotion and Regulation of Online Gaming Act 2025 (n 1).

²⁴ Prevention of Money Laundering Act 2002.

²⁵ Foreign Exchange Management Act 1999.

²⁶ Promotion and Regulation of Online Gaming Act 2025, ch III (n 2).

III. ECONOMIC CONSEQUENCES OF PROHIBITION

A. Persistence of Demand in Real Money Gaming

Although the Act was enacted with the intent to mitigate addiction, its outcomes are subject to debate, as it may have reduced visible participation while also creating unintended market distortions. A fundamental flaw of the prohibition of RMGs is that eliminating consumer demand is not possible, as the market is demand-inelastic. The demand at large is driven by factors such as entertainment values, competitive incentives and digital accessibility. The empirical evidence available is clearly contradictory to a key claim of the Parliament that the Act will lead to the mitigation of user addiction.²⁷ The ban only pushes the users to offshore platforms. This is clear evidence of the persistence of real demand in the country despite the legal constraints imposed. Although intended to curb addiction, the sudden ban can result in a negative impact on the habitual gamers, with them suffering from withdrawal symptoms and switching to harder-to-monitor platforms, continuing their activity.²⁸

B. Expansion of Black Markets & Erosion of Consumer Protection

It has been reported that after the introduction of the Act of 2025, there has been an upward spike in offshore betting platforms up to 14%²⁹ owing to the ban on online domestic RMGs. In the absence of legitimate online RMGs, the users rely on foreign platforms, which are beyond the jurisdictional reach of India. There have been several past examples where prohibition in markets characterised by persistent demand has led to the emergence of black markets. The pattern is consistent across sectors: the emergence of alcohol black markets in Gujarat following its declaration as a dry state,³⁰ and the proliferation of vaping markets in major cities despite its banning,³¹ illustrate how demand is displaced rather than eliminated.

The most relevant example in the context of the paper is the Telangana government's 2017 ban on RMGs, the first state in India to adopt such a measure.³² It is one of the most instructive domestic examples of prohibition in a demand-driven digital market. Despite the ban, empirical evidence suggests that over 94% of players continue to access offshore or illicit applications through

²⁷ Sohom Banerjee and Pratyush Banerjee, Access to Offshore Betting Websites after the Online Gaming Ban: A Survey-Based Analysis (Delhi NCR) (CUTS International, December 2025) <<https://cuts-ccier.org/pdf/research-report-access-to-offshore-betting-websites-after-the-online-gaming-ban.pdf>> accessed 10 February 2026.

²⁸ Yogonet International, “The Indian online gaming regulatory landscape is complex, with a mix of outdated central laws and fragmented state regulations” (Yogonet International, 27 May 2025) <<https://www.yogonet.com/international/news/2025/05/27/106028--34the-indian-online-gaming-regulatory-landscape-is-complex-with-a-mix-of-outdated-central-laws-and-fragmented-state-regulations-34>> accessed 10 February 2026.

²⁹ Prabhanu Kumar Das, ‘Offshore Betting Platform Usage Increased Nearly 14% After Online Gambling Ban: CUTS Survey’ (MediaNama, 5 December 2025) <<https://www.medianama.com/2025/12/223-offshore-betting-rise-after-proga-ban-cuts-survey/>> accessed 12 February 2026.

³⁰ Asha Jadeja, ‘Gujarat is anything but a dry state. Decriminalise liquor, use tax revenue for development’ (ThePrint, 13 January 2023) <<https://theprint.in/opinion/gujarat-a-dry-state-decriminalise-liquor-use-tax-revenue-for-development/1310697/>> accessed 13 February 2026.

³¹ Amanda Sealy and Dr. Sanjay Gupta, ‘Black market THC vaping products linked to lung illnesses’ (CNN, 24 December 2019) <<https://www.cnn.com/2019/12/24/health/black-market-vapes>> accessed 13 February 2026.

³² Anchal Verma, ‘India’s Telangana issues legal notices to real money gaming operators’ (SiGMA, 15 May 2025) <<https://sigma.world/news/indias-telangana-legal-notices-real-money-gaming-operators/>> accessed 13 February 2026.

VPNs, Telegram groups, and similar channels.³³ It shows that the prohibition measure did not eliminate participation but rather displaced it into opaque and unregulated channels. This consumer behaviour characterized by persistence, highlights the inelasticity of demand in the RMG sector, where the consumers are steered not merely by legality but by accessibility, incentives, and platform design. This shift to offshore platforms significantly eroded consumer protection safeguards. Contrary to the licensed domestic operators, these platforms operate beyond Indian jurisdiction and are not obligated to statutory obligations related to KYC verification, AML compliance, or responsible gaming measures.³⁴ Consequently, users face heightened risks of fraud, unfair practices, and financial exploitation, with no efficient grievance redressal mechanisms.

From the lens of enforcement, Telengana's case study underscores structural limitations in regulating cross-border digital markets. While the prohibition erased compliant domestic operators, it did not prevent the continued operation of offshore entities, thereby giving birth to a regulatory asymmetry. The Telengana example thus illustrates a border governance paradox, where prohibition results in a reduction of formal market visibility without reducing participation, in the end amplifying the very risks it was meant to mitigate. Notably, while authorities retain some jurisdiction in the other analogous markets of vapes, alcohol, etc., the digital nature of online gaming further complicates enforcement. The resulting black market is characterised by opacity in financial flows and significantly heightened consumer risk.

These illegal entities operate outside Indian jurisdiction and are not subject to statutory compliance requirements, so core safeguards such as age verification, KYC protocols, and mandatory harm-mitigation tools are absent. The user vulnerability is further fuelled by the absence of grievance redressal mechanisms. In a regulated market, consumers may approach the institutional authorities; in the case of illegal markets, this option is not available to the users. Ironically, all the harms that the Parliament seeks to mitigate are flourishing with the loss of regulatory visibility. Instead of limiting harm exposure, the prohibition removes the regulatory architecture made to manage the exposure.

C. Economic Leakage & Enforcement Costs

In fiscal terms, the prohibition of RMGs has led to substantial economic leakage. As of the reports from FY 2024, RMG held a major chunk of the online gaming economy's revenue, accounting for 85.7% of the total shares valued at \$3.2 billion.³⁵ The segment was further expected to reach \$7.3 billion by FY 2029.³⁶ Within 90 days of the introduction of the Act, RMG platforms in India reported

³³ Sanjay Sahay, 'Was ban on online gaming a masterstroke? What really happened next?' (ETGovernment, 4 November 2025) <<https://government.economictimes.indiatimes.com/blog/the-fallout-of-indias-online-gaming-ban-a-deep-dive-into-the-after-math/125056955>> accessed 13 February 2026.

³⁴ Financial Action Task Force, Money Laundering Risks in the Betting Sector (n 19).

³⁵ Kunal Doley, 'In online gaming, real money games are where the moolah is' (Financial Express, 10 July 2025) <<https://www.financialexpress.com/business/industry/in-online-gaming-real-money-games-are-where-the-moolah-is/3910117/>> accessed 12 February 2026.

³⁶ *ibid.*

asset losses of over \$840 million³⁷ and the government faced an estimated shortfall of \$670 million in GST, TDS and income-tax collections.³⁸ Experts warn that the bill would cost the exchequer an estimated Rs. 15-20k Cr. in lost tax revenues annually.³⁹ Secondary losses in advertising, fintech integration, and employment generation also accompany the loss of revenue. The industry, before the enactment, had directly employed over 1 lakh people and supported over 2 lakh jobs, but the picture changed after 21 August 2025, resulting in huge job losses.⁴⁰ In the fintech industry, major industries like Paytm and Mobikwik also suffered huge losses. Paytm's net profit fell 98% after recording an impairment of Rs 1.9 billion tied to First Games Technology.⁴¹ Mobikwik saw an eightfold rise in losses.⁴² According to the NPCI data, UPI transactions suffered a steep decline, with the transactions linked to gaming plunging from 351 million in July 2025 to 270 million in August 2025.⁴³

Further, from the standpoint of enforcement costs, policing a ban on online RMG requires significant investment in terms of blocking technologies, monitoring cross-border traffic, and surveillance of user behaviour. The offshore operators often host servers in foreign jurisdictions, thereby protected from the reach of the domestic authorities. The platform blocking methods are easily surpassed by the users through mirror websites and encrypted networks, and the restriction on payment through cryptocurrencies and layered transaction systems.⁴⁴ Thereby imposing high enforcement costs on the state. This would require intensive use of resources and would divert the regulatory focus from other economic priorities. This regulatory divide between the domestic enforcement capability and the transnational digital markets results in a persistent governance deficit.

IV. COMPARATIVE ANALYSIS: FOREIGN JURISDICTIONS

The jurisdictions of the United Kingdom and Australia are chosen for comparative analysis to demonstrate that effective regulation leads to efficiency in consumer protection, revenue generation, and oversight.

³⁷ Marjorie Preston, 'India real-money gaming sector writes down \$840m in assets since August ban' (iGaming Business, 17 November 2025) <<https://igamingbusiness.com/gaming/online-casino/india-real-money-gaming-ban-industry-losses/>> accessed 12 February 2026.

³⁸ Viviana Chan, 'India's real-money gaming industry loses over \$840M amid regulatory limbo: report' (Asia Gaming Brief, 17 November 2025) <<https://agbrief.com/news/india/17/11/2025/indias-real-money-gaming-industry-losses-over-840m-amid-regulatory-limbo-report/>> accessed 12 February 2026.

³⁹ Sampurna Panigrahi, 'All bets off as online gaming bill shakes industry & key players suspend "gambling" on their platforms' (The Print, 28 August 2025) <<https://theprint.in/economy/all-bets-off-as-online-gaming-bill-shakes-industry-key-players-suspend-gambling-on-their-platforms/2730293/>> accessed 13 February 2026.

⁴⁰ Shreya Maheshwari Goel, 'India's Online Gaming Market: Growth, Regulation, and the Ban's Economic Fallout' (India Tracker, 11 October 2025) <<https://www.indiatracker.in/story/indias-online-gaming-market-growth-regulation-and-the-bans-economic-fallout>> accessed 13 February 2026.

⁴¹ Chan, 'India's real-money gaming industry loses over \$840M amid regulatory limbo' (n 33).

⁴² *ibid.*

⁴³ Ritu Singh, 'UPI gaming transactions value fall 26% in August after new law takes effect' (CNBC-TV18, 5 September 2025) <<https://www.cnbctv18.com/business/finance/upi-gaming-transactions-fall-26-pc-in-august-after-new-law-takes-effect-ws-l-19668233.htm>> accessed 13 February 2026.

⁴⁴ U Sudhakar Reddy, 'Inside the mirror maze: How banned betting apps stay one step ahead' (Times of India, 5 February 2026) <<https://timesofindia.indiatimes.com/city/hyderabad/inside-the-mirror-maze-how-banned-betting-apps-stay-one-step-ahead/articleshow/127917324.cms>> accessed 11 February 2026.

A. United Kingdom: A Mature Regulatory Model

One of the clearest examples of how online RMG can be regulated through integration rather than exclusion is provided by the UK. Rather than treating gambling as something that can simply be eradicated, UK law adopts the view that it is an enduring economic and social fact of life. This is the philosophy behind the Gambling Act 2005, which created a liberalised and well-regulated online gambling market, with operators all subject to a licensing regime that focused on managing harm rather than constraining demand.⁴⁵

The UK's online RMG framework is based on the idea that regulation is about managing risk, not limiting demand. The Gambling Act 2005 sets three licensing goals that stop gambling from being a source of crime, ensuring gambling is done fairly and openly, and keeping children and other vulnerable people safe.⁴⁶ The Act makes it illegal to provide services without a license. However, they allow people to participate in the regulated market.⁴⁷ Regulatory implementation is entrusted to the Gambling Commission, an independent statutory authority whose 'License Conditions and Codes of Practice' impose binding obligations on operators, including anti-money laundering compliance, age and identity verification, and responsible-gambling controls.⁴⁸ In particular, Social Responsibility Codes require robust customer due diligence, self-exclusion mechanisms, deposit limits, and real-time behavioural monitoring.⁴⁹ Taken together, Regulated environments reduce gambling harm, not prohibition.

B. Benefits to the State

Structured oversight can have a significant positive financial impact, as demonstrated by the UK's regulation of real-money online gaming. According to the UK Gambling Commission, the '*Gross Gambling Yield*' of the gambling industry was approximately £16.8 billion in 2024–2025, of which the online sector contributed approximately £7.8 billion.⁵⁰ Online casino gaming generates billions of pounds annually through authorised operators, accounting for a sizable portion of this revenue. In addition to ensuring regulatory visibility and converting private gaming into measurable public economic benefit, stringent licensing and compliance requirements have also stopped illegal offshore penetration.

C. Why India Should Learn from the UK?

In fact, it is admitted that there is a demographic difference between the UK and India. However, the policies are on a similar line, which can be applied in India.

⁴⁵ Gambling Act 2005.

⁴⁶ Gambling Act 2005, s 1.

⁴⁷ Gambling Act 2005, ss 33 and 67.

⁴⁸ Gambling Commission, Licence Conditions and Codes of Practice (Gambling Commission, 2025) <<https://www.gamblingcommission.gov.uk/licensees-and-businesses/lccp>> accessed 13 February 2026.

⁴⁹ Gambling Commission, Licence Conditions and Codes of Practice (Gambling Commission, 2025) paras 3.2.1, 3.3.1, 3.4.1, 3.5.1 and 3.8.1.

⁵⁰ Gambling Commission, Industry Statistics - Annual Report - Financial Year April 2024 to March 2025 (Gambling Commission, 25 November 2025) <<https://www.gamblingcommission.gov.uk/statistics-and-research/publication/industry-statistics-annual-report-financial-year-april-2024-to-march-2025>> accessed 11 February 2026.

The UK model clearly points to the demonstration of the need for regulation rather than prohibition policies with reference to demographic weakness and addiction potential. The models promise fiscal gains, protection of citizens, and channelling public demand into the system rather than allowing it to leak out into the external environment, and it is hoped that some economic and rational sense might be seen by the authorities and policymakers in India to replicate the same.

D. Australia: Restrictive but Regulated

The regulation of online gambling in Australia is governed by the Interactive Gambling Act 2001 (Cth) (IGA).⁵¹ Although the legislation bans online casino gambling services targeted at Australian residents, it allows and regulates online sports betting and wagering services provided by licensed operators. The regulation is, however, subject to rigorous compliance. The Australian Communications and Media Authority (ACMA) is mandated to enforce the regulations regarding the IGA.

E. Australia's Online RMG Framework

The state regulators issue licences under local gambling statutes, for example, the Betting and Racing Act 1998⁵² (NSW), which establishes a dual federal-state regulatory structure. At the federal level, the IGA, 2001 (Cth) bans the supply of certain unlicensed interactive gambling services to Australian residents, section 15–15C permits licensed wagering subject to strict compliance arrangements.⁵³ Licensees also have anti-money-laundering and counter-terrorism financing obligations under Parts 2 and 3 of the Anti-Money Laundering and Counter-Terrorism Financing Act 2006 (Cth), including obligations about customer due diligence and reporting.⁵⁴ The IGA requires identity verification,⁵⁵ while, as a further national measure, harm-minimisation tools include a National Self-Exclusion Register established under the Interactive Gambling Amendment (National Self-Exclusion Register) Act 2019 (Cth).⁵⁶ But, unlike the blanket prohibition model, Australia acknowledges enduring consumer demand and channels it into a controlled and supervised wagering ecosystem, regulating supply through licensing and compliance, rather than criminalising participation.

(i) Benefits to the State

In Australia, there is a significant amount of public revenue collected from controlled gambling activities. According to the state treasury reports and the data collected by the Australian Bureau of Statistics, the gambling tax revenues collected more than 6 billion AUD for the state and the federal government.⁵⁷ A

⁵¹ Interactive Gambling Act 2001 (Cth).

⁵² Betting and Racing Act 1998 (NSW).

⁵³ Interactive Gambling Act 2001 (Cth) ss 15–15C.

⁵⁴ Anti-Money Laundering and Counter-Terrorism Financing Act 2006 (Cth) pts 2-3.

⁵⁵ Interactive Gambling Act 2001 (Cth) (n 53).

⁵⁶ Interactive Gambling Amendment (National Self-Exclusion Register) Act 2019 (Cth).

⁵⁷ Australian Bureau of Statistics, Taxation Revenue, Australia (Australian Bureau of Statistics, 2025) <<https://www.abs.gov.au/statistics/economy/government/taxation-revenue-australia>> accessed 13 February 2026.

significant amount of the revenues is collected from the licensing of online gambling.

Further, Australia regulates the visibility of financial transactions and prevents leakage offshore through a legal wagering market. Efforts to crack down on offshore unlawful wagering sites continue unabated, and ACMA's enforcement reports authenticate the authority of the state to monitor and not restrict online wagering.⁵⁸

(ii) Comparative lessons for India from Australia

Australia demonstrates that even in a jurisdiction with high gambling participation rates and strong moral concerns, the response is controlled regulation, not elimination. The first step to protect vulnerable populations requires the implementation of specific harm-minimisation methods instead of enforcing an outright ban. The second point establishes that federal and state parties work together to create clear regulatory frameworks which enable proper responsibility distribution. The state uses licensing to gain financial advantages while maintaining its right to control unlicensed businesses. The Australian experience shows India that structured regulations, which include AML compliance, independent oversight and technological enforcement, can protect consumers while balancing economic needs and preventing governance gaps that result from total bans.

(iii) Lessons from the U.K. and Australia

Effective transplantation of the regulatory models of the UK and Australia is conditional upon certain institutional preconditions, including an independent and technically competent regulator, surveillance systems that are financially robust, and coordinated at the federal and subnational levels. In the UK, the Gambling Commission operates with high institutional autonomy and enforcement competence, while the Australian model relies on coordination between the federal and state governments and on strong compliance ecosystems. In India, these conditions are partially existent in its existing digital public infrastructure, consisting of UPI-enabled financial traceability, Aadhar-based identity systems, and sector-specific regulatory experience in securities and telecommunications. However, disparities remain in regulatory coordination across states and in specialised oversight capacity for online gaming. Accordingly, adaptation, rather than replication, is necessary for India. India would necessarily need a unified statutory regulator, clearer jurisdictional allocation, and integration of technology-enabled compliance tools to align these models with domestic institutional realities.

The regulatory models demonstrate that prohibition is not necessary to combat demographic vulnerability and moral concerns, but structured regulation. Irrespective of social contexts, both jurisdictions convert the persistent demand

⁵⁸ Australian Communications and Media Authority, 'ACMA blocks more illegal offshore gambling websites' (Australian Communications and Media Authority, 20 June 2024) <<https://www.acma.gov.au/articles/2024-06/acma-blocks-more-illegal-offshore-gambling-websites>> accessed 13 February 2026.

for gaming into licensed and supervised systems, valuing harm reduction, transparency, and regulatory oversight. The UK model highlighted the effectiveness of independent regulation and licensing in generating fiscal gains while safeguarding consumers. Meanwhile, the Australian framework demonstrates that, even in jurisdictions with high participation, balancing moral concerns is possible through controlled access, federal-state coordination, and tailored compliance mechanisms. Combined, the models illustrate that regulation

Aspects	UK	Australia	India
Legal status of Online RMG	Legal, Licensed, and Regulated	Permitted by licensing, regulated under IGA	Prohibited
Regulatory Process	The Gambling Commission	Federal and State licensing	Statutory Prohibition
State Revenue	Higher profits (Taxes and Fees Charged)	Profit through Taxation	Foregone
Consumer Protection	Strong and Enforceable for licensed operators	AML, Self-exclusion, mandatory licensing	No regulation lacks such protection

V. RECOMMENDATIONS

A. Why Should Regulation be Adopted?

In digital markets, prohibition does not essentially extinguish demand but merely displaces it beyond the regulatory oversight. In contrast, the adoption of regulation will result in the formalisation of persistent consumer behaviour in an ecosystem subjected to supervision. The licensing of markets, rather than suppression, leads to the replacement of opacity in the market with transparency. It will also help in the tracking of financial flows, increase accountability from operators, and enable the measurement of consumer activity. The formalisation by providing a domestic alternative helps in reducing the incentive for offshore migration, thereby shrinking illegal platforms. Regulatory oversight enables harm reduction tools, such as ID verification, spending controls, and grievance redressal, tools that are unavailable in the black markets.

Regulation aligns economic reality with institutional control, converting the RMG industry into a taxable revenue, and further inculcates consumer protection. All these essentially suggest that in digital markets, plagued with cross-border accessibility and technological evasion, it becomes a necessity rather than a preference.

B. Implementation Feasibility

While moving from prohibition to regulation seems like a step, it can actually be done in a practical way using the systems and technology India already has. India has shown it can handle digital systems through step-by-step approaches. For example, the Reserve Bank of India's Regulatory Sandbox framework lets them test things in a controlled way before launching them. This approach has worked well.⁵⁹ India's Aadhaar system for verifying identities and the National Payments Corporation of India's UPI system for payments are already in place. These can be used for checking identities, monitoring transactions and making sure rules are followed in time, thus creating a regulator to oversee the sector is also possible.⁶⁰ The Securities and Exchange Board of India is an example of this kind of regulator.⁶¹ A step-by-step licensing model can also help refine the system over time, so changing to a system is not just a good idea; it can actually be done by using and adapting the systems India already has. The existing frameworks can be used in a way to make it work.

C. Regulatory Alternative

1. Structural Design for Regulation

The reformed framework should start by recognising statutorily Online RMGs as a regulated digital economic activity in place of a prohibited service. In place of a blanket ban, the Act should include provisions establishing an Independent Online Gaming Regulatory Authority, establishing differential classification and licensing tied to regulatory obligations, rather than prior proposals tying it to risks⁶², tech-enabled oversight, which facilitates real-time reporting, and targeted harm reduction mechanisms like caps on deposits, assessments on affordability, and grievance redressal forums that are transparent.

2. Suggested Amendments

The Current scenario under PROGA, 2025.	Suggested Amendment	Result
Prohibition of Online Gaming Services under Chapter III. ⁶³	Substitute Chapter III with 'Licensing & Regulation of Online RMG'. Allow licensed RMG, provided compliance conditions are fulfilled.	Reduction in offshore migration and black markets as a result of the conversion from prohibition to supervised channelisation.
Absence of a structured classification mechanism for games.	Insert: New Section 8A: Classification of games based on (i) skill, (ii) randomness, & (iii) behavioural risk, allowing a multi-faceted reclassification by the regulator.	Provides for calibrated regulation in place of blanket bans, which provides for the preservation of legitimate skill gaming.

⁵⁹ Reserve Bank of India, Enabling Framework for Regulatory Sandbox (RBI 2019).

⁶⁰ National Payments Corporation of India, UPI Product Overview (NPCI 2025); Unique Identification Authority of India, Aadhaar Ecosystem (UIDAI 2025).

⁶¹ Securities and Exchange Board of India Act 1992.

⁶² Ananya Sonakiya and Anisha Tripathi, 'Promotion in Name, Prohibition in Practice: Reality of India's Online Gaming Law' (Tech Law Forum @ NALSAR, 10 September 2025) <<https://techlawforum.nalsar.ac.in/promotion-in-name-prohibition-in-practice-reality-of-indias-online-gaming-law/>> accessed 13 February 2026.

⁶³ Promotion and Regulation of Online Gaming Act 2025, ch III (Prohibition of Online Gaming Services).

The Current scenario under PROGA, 2025.	Suggested Amendment	Result
Licensing Model, which is devoid of any tech integration.	To amend the licensing provisions under Section 8(2) to introduce digital conditional licenses embedded with compliance obligations such as AML, harm monitoring, and data reporting.	This shall result in agile enforcement, auto-tracking of compliance, and a reduction in regulatory delay.
Limited Transparency Obligations	Insert new section 14 A: Mandating the logging of bets and results, which requires certified RNG audits and tamper-proof digital ledgers.	It enhances trust, prevents fraud, and enables regulatory auditability.
The uniform GST on RMGs, although this is external to the Act, is of high relevance.	Insert a new section, imposing a revenue and differential levy clause that empowers the Centre to notify graded levies corresponding to risk classification.	This will encourage innovation in low-risk games, further economically disincentivise harmful formats.
Grievance redressal relies on courts or voluntary mechanisms.	Insert a new chapter VI-A, establishing Statutory Online Gaming. It shall be the first digital ombudsman with binding powers.	It is faster and more transparent. It reduces the burden of litigation.
Enforcement via blocking powers and penalties.	Amend the Chapter dealing with the offences and penalties to add a section that provides for a real-time regulatory data interface.	This provides for algorithm-based AML detection and harm alerts. Inducing proactive enforcement.
Absence of structured industry participation.	Insertion of a new section, which provides for self-regulatory organisations and an advisory council.	Creates a multi-stakeholder governance model and an informed decision-making model.

VI. CONCLUSION

The culmination of all the impacts of banning online RMGs can be termed the *prohibition paradox*. The measures adopted by the parliament with the intention of protecting the consumers have inadvertently led to the intensification of user risk by pushing participation into spaces devoid of regulation. At the same time, the state suffers from a decrease in revenue, a fall in employment generation, a loss of visibility in the market, and increased enforcement costs. Focused on displacing the demand rather than regulating it, the prohibition changed an economically regulatable activity into a governance failure. The efforts of the government taken to mitigate the harm have externalised it, beyond the boundaries of supervision, accountability and fiscal capture.

The multi-faceted solutions suggested in the article thus seek to mitigate all the externalisation that has taken place as a result of the prohibition. The solutions provide for a transition to a regulatory model and to maximise the benefits of

the transition. The approach helps the Parliament in realising its goal of consumer protection and promotion of the industry.

The article serves as a reminder that prohibition should not become the default legislative response to regulatory complexity. Complexities involving economic and technological realities are to be governed diligently.

COSMETIC REPLICATION AND THE LAW: THE CLONE AS CONSUMER, COMMODITY, AND CRIME IN THE SUBSTANCE

Kumar Satyam¹

Abstract

This research examines a movie, The Substance (2024), as a cinematic case study to explore the intersection between consumer protection, biotechnology regulation, and legal philosophy. While being a fiction, it presents a credible nuance to analyse the regulatory challenges posed by emerging biotechnologies, which highlights a grim picture of a black market when combined with an exploitative beauty market. The movie exemplifies the open violation of consumers under Indian Law through misbranding, serious manufacture, and adulteration under the Drugs and Cosmetics Act, 1940, and misleading advertising under the Consumer Protection Act, 2019. This violation is easy to commit with the help of celebrity endorsement, where liability becomes ambiguous. Through this analysis, the project demonstrates that the film is not a mere futuristic fiction but a modern legal allegory depicting the failure of regulatory enforcement when illicit science converges with extreme social pressure. Further, the project critically assesses the act of reproductive cloning depicted in the film, contextualising it within India's regulatory frameworks, conventions, and international declarations based on UN guidelines. The research reveals a doctrinal vacuum, which poses questions on the morality of cloning and its medical condemnation. At last, the study explores the clone's legal status through an ethical and jurisprudential dilemma. This unresolved legal identity crisis symbolises the broader inadequacy of existing law to address rapidly advancing biotechnology and the commodification of the human body.

I. INTRODUCTION

Title: The Substance (2024)

Director: Coralie Fargeat

Cast: Demi Moore, Margaret Qualley, Dennis Quaid

Synopsis

Coralie Fargeat's 2024 body horror film, *The Substance*, is not merely a piece of cinematic entertainment; it functions as a critical, contemporary legal parable. The narrative follows Elisabeth Sparkle (Demi Moore),² a celebrated Hollywood icon who, upon being unceremoniously fired on her 50th birthday for being too old, turns to a black-market product simply called "The Substance." This product, delivered in a sleek, three-stage kit, promises to create a "younger, more beautiful, more perfect" version of herself. The process is one of grotesque cellular division: a new, "perfect" entity, "Sue" (Margaret Qualley), is "birthed" from Elisabeth's own back, leaving the original Elisabeth a comatose husk. The system requires a constant transfer of stabilizing fluid from Elisabeth to Sue and a temporal balance between the two consciousnesses. But this balance is quickly

¹ Author is a student at Maharashtra National Law University, Nagpur.

² Coralie Fargeat, *The Substance* (Working Title Films, Blacksmith, A Good Story and Mubi 2024).

corrupted by Sue's newfound success and Elisabeth's addiction to the validation she receives as Sue, leading to the neglect of the original body and a horrific, symbiotic decay that culminates in mutation and death.

"The Substance" is a perfect narrative device that functions as a *legal nexus*, forcing two historically distinct bodies of law to collide: 1. The Law of Products: The regulatory frameworks governing *what* can be manufactured, marketed, and sold to consumers.³

2. The Law of Persons: The complex bioethical and legal frameworks governing *how* human life can be created, controlled, or commodified.⁴

II. IDENTIFICATION OF CORE THEMES: FROM SCREEN TO SOCIETY

The legal analysis of "The Substance" is incomplete without first analysing the motive for its use. The law is breached not in a vacuum, but as a direct consequence of unbearable societal pressure. The film's inciting incident is the firing of Elisabeth Sparkle by her producer, Harvey (Dennis Quaid). His justification, "We need her young. We need her hot. We need her now", is a brutal summation of the systemic ageism that commodifies women's bodies. Elisabeth's firing on her 50th birthday is a "*Social Death*" that precedes her physical one, reinforcing the message that an aging woman has no value in her industry.

This cinematic portrayal reflects a well-documented psychological phenomenon: the "*Double Standard of Aging*". In society, and particularly in media, men often gain respect, gravitas, and are seen as more successful as they age, while women are marginalized and told their value lies primarily in their appearance. This pressure, fuelled relentlessly by the beauty industry's "*Anti-Aging*" narrative and media's underrepresentation of older women, creates a state of "Internalized Ageism". This psychological toll makes a consumer like Elisabeth desperate and, in legal terms, a vulnerable consumer. The demand for a product like "The Substance" is not born from vanity, but from a terror of erasure, creating a market that black-market science is eager to fill.⁵ The film's central mechanism the creation of "Sue" is not a simple mother/clone relationship. The film's internal logic, as noted by critics, suggests a "Jekyll and Hyde" schism, where the same consciousness is spread across two bodies that develop separate personalities and a mutual hatred. This dynamic is best understood as a metaphor for substance use disorder. Elisabeth, appalled by her aging original form, becomes addicted to the validation, success, and hedonism she experiences as "Sue". This framing is legally significant. It reframes Elisabeth's character from a high-concept criminal perpetrator (one who

³ Ayush Kulshresth and Rhythm Kataria, 'Product Liability Laws in India' (Manupatra Articles, 27 December 2021) <www.manupatra.com/article-details/Product-Liability-Laws-in-India> accessed 1 October 2025.

⁴ Vivek Bajaj, Sonakshi Sharma and Kaavya Raghavan, 'India: Product Liability' (AZB & Partners, 1 April 2019) <www.azbpartners.com/bank/india-product-liability/> accessed 1 October 2025.

⁵ Maddie Crozier, 'Coralie Fargeat's The Substance and Its Critique of Hollywood's Toxic Beauty Standards' (UCL Pimedia, 7 November 2024) <<https://uclpimedia.com/online/https://www.wallpapercom/art/the-substance-film-review>> accessed 1 October 2025.

engages in illegal human cloning) to a victim of a harmful, addictive, black-market product. This narrative structure serves as a modernization of Oscar Wilde's *The Picture of Dorian Gray*.⁶

In Wilde's novel, a portrait bears the cost of individual moral corruption. In *The Substance*, this concept is inverted and feminized. There is no portrait; Elisabeth's own original body becomes the canvas that absorbs the decay, accelerating into a "*deformed, hag-like hunchback*" as "Sue" refuses to switch back. This shift from an external painting to a woman's own flesh is a powerful systemic critique. It is not Elisabeth's soul that is corrupt, but the society that demands she sacrifice her physical self to maintain an impossible standard of beauty.⁷

III. LEGAL AND REGULATORY ANALYSIS

Part A: The "Harsh Reality" – Regulating the Beauty Industry in India

Legal autopsy of "*The Substance*" as a tangible product, analysing it under India's robust, albeit often circumvented, consumer protection laws.

1. The Illegality of the Product: The Drugs and Cosmetics Act, 1940 "*The Substance*" is marketed as a cosmetic procedure, but its biological mechanism places it squarely within the definition of a "drug" or "cosmetic" under Indian law. As a product sold on the market, it is illegal on multiple, overlapping grounds under Chapter IV of the Drugs and Cosmetics Act, 1940.

Application of Section 17C: "Misbranded Cosmetic" A cosmetic is deemed "misbranded" if "it is not labelled in the prescribed manner" or if its label "bears any statement which is false or misleading in any particular". "*The Substance*" is a black-market product, arriving with no manufacturer details, ingredient list, or statutory warnings, thus violating all prescribed labelling rules. Furthermore, its promise of a "perfect" you are demonstrably "*false or misleading*",⁸ as it omits the fatal side effects.⁹ **Application of Section 17D: "Spurious Cosmetic"** A cosmetic is "spurious" if it is "manufactured under a name which belongs to another cosmetic" or if its label "bears the name of an individual or a company... which... is fictitious or does not exist". The product is sold by an anonymous, untraceable entity, making it a "counterfeit or fake product designed to deceive customers" and, by definition, spurious.¹⁰

Application of Section 17E: "Adulterated Cosmetic" This is the most critical and graphic violation. A cosmetic is deemed "adulterated" if it "consists in whole or in part, of any filthy, putrid or decomposed substance" or, most relevantly, if it

⁶ Cy Alcala, 'The Substance (2024): A Multifaceted Analysis of Beauty, Identity, and Morality in Cinema' (Medium, 12 October 2024) <<https://medium.com/@cycalca7/the-substance-2024-a-multifaceted-analysis-of-beauty-identity-and-morality-in-cinema-db310aeaceea>> accessed 1 October 2025.

⁷ Winter Szarabajka, 'Granny? More Like Mommy: The Prevalence of Ageism in Beauty' (Hopkins School News, 24 April 2024) <www.hopkins.edu/news-detail?pk=1584647> accessed 1 October 2025.

⁸ The Drugs and Cosmetics Act 1940 (India).

⁹ ELTAdmin, 'Misbranded vs Spurious Cosmetics: Key Differences, Examples, and Penalties in India' (Cosmetics Regulatory, 22 September 2025) <<https://cosmeticsregulatory.com/blog/misbranded-vs-spurious-cosmetics-india/>> accessed 9 December 2025.

¹⁰ *ibid*

"contains any harmful or toxic substance which may render it injurious to health". The film's entire plot is a literal dramatization of this clause. The "Substance" is a toxic agent that causes Elisabeth's body to decay, rapidly age, and ultimately mutate into the "*Monstro Elisa sue*", a grotesque being that explodes into "*viscera*". This is the very definition of a product "injurious to health."

While the Act prescribes severe penalties for manufacturing or selling such products, including imprisonment for up to life and substantial fines, its enforcement mechanisms reveal a structural weakness. The Act is primarily a licensing and standards regime, built to regulate legitimate manufacturers through inspections and quality control.¹¹ It is inherently powerless against a product like "The Substance," which exists entirely on the black market. This highlights the practical limitation of regulatory law in the face of criminal enterprise.

2. The Deception of the Promise: The Consumer Protection Act, 2019

Where the Drugs and Cosmetics Act govern the product's *composition*, the Consumer Protection Act (CPA), 2019, governs its *marketing* and the *liability* for its failures.

- **Misleading Advertisements and the CCPA** The CPA, 2019, was enacted to modernize consumer protection, granting new powers to a Central Consumer Protection Authority (CCPA) to proactively investigate and penalize "*misleading advertisements*". The promise of "The Substance" is the platonic ideal of a misleading ad: an "*exaggerated claim*" that preys on a consumer's known vulnerabilities (in this case, ageism) and omits all material facts about its risks. The CCPA is empowered to impose penalties of up to 10 lakh rupees (and more for subsequent offenses) and ban such advertisements.¹²
- **IMA v. Union of India (Patanjali)** The 2024 *Patanjali* case is a watershed moment in Indian consumer law,¹³ demonstrating a new judicial intolerance for health-related misinformation. The Supreme Court's crackdown on Patanjali for "disseminating false and disparaging claims" against allopathy and its decision to initiate contempt proceedings for continued non-compliance signals a major shift. Courts are no longer content to allow "puffery"; they are demanding *scientific substantiation* for health and wellness claims.¹⁴ The marketing of "The Substance" would fail this new, heightened standard of veracity immediately.¹⁵
- **Celebrity Endorser Liability** The film's plot, where Elisabeth is fired and "Sue" is hired to replace her, is fundamentally a story of *celebrity endorsement*. "Sue" becomes the walking, talking advertisement for the product. This directly implicates the **Guidelines for Prevention of Misleading**

¹¹ Central Drugs Standard Control Organization, 'Guidance Document on Cosmetics'.

¹² Kavita Solanki and Naresh Singh, 'The Consumer Protection Act, 2019: A Shield Against False/Misleading Advertisements' (2025) 7(3) International Journal for Multidisciplinary Research 7.

¹³ Indian Medical Association v Union of India [2024] INSC 406.

¹⁴ Diwanshi Rohatgi and Tuhina Sinha, 'The Dark Side of Marketing: Unmasking Misleading Advertisements to Empower Indian Consumers' (2024) 5(2) Chanakya Law Review 36.

¹⁵ Indian Medical Association v Union of India [2024] INSC 406.

Advertisements, 2022.¹⁶ These guidelines, along with the *Patanjali* ruling, explicitly state that endorsers are "equally responsible" for misleading ads. They mandate that an endorser must perform "due diligence" to "actively verify and document" the veracity of the claims being made. An endorser can no longer claim ignorance; they must ask for regulatory approvals, safety data, and scientific substantiation. This creates a fascinating legal paradox within the film. "Sue" (the endorser) is incapable of performing due diligence because she *is* the product. Her very existence is the claim. However, if Elisabeth, as the original, had survived and endorsed the product, she would be unequivocally liable under Indian law. The *Patanjali* case and the CCPA guidelines mean that the celebrity-industrial complex, which the film satirizes, now carries tangible legal and financial risks for its participants.¹⁷

Part B: The "Prohibited Act" – Regulating Human Cloning

The analysis now shifts from "The Substance" as a *product* to the *procedure* it enables: the creation of a "better" human. This act is unequivocally defined in scientific and legal terms as *reproductive cloning* the creation of a whole, genetically identical human being.

1. The Indian Legal Position: A Firm but "Unenforceable" Prohibition

The primary document governing cloning in India is the **National Guidelines for Stem Cell Research (NGSCR) 2017**, issued by the Indian Council of Medical Research (ICMR) and the Department of Biotechnology (DBT).¹⁸

These guidelines are explicit. They categorize all research into "permissible," "restrictive," and "prohibited" areas. The "Prohibited" category unequivocally lists "human germline gene therapy and reproductive cloning". Therefore, the procedure Elisabeth undertakes in her apartment is *explicitly* banned by India's top medical research bodies.

However, a critical legal gap exists. As noted in legal analysis, the ICMR guidelines "*are not legally binding and are seen as unenforceable because of the large population and lack of specific criminal laws to act as a deterrent*". India has no single,¹⁹ overarching "Biotechnology Act" that assigns specific criminal penalties (like imprisonment) for the act of reproductive cloning. This legal vacuum is precisely the vulnerability that a real-world "Substance" would exploit.²⁰

2. Filling the Gap: The Surrogacy (Regulation) Act, 2021 as a Statutory Analogy

¹⁶ Diwanshi Rohatgi and Tuhina Sinha, 'A Bird's Eye View of the Consumer Protection Act, 2019 in Combating Misleading Advertisements' (2024) 4(6) International Journal for Multidisciplinary Research 142.

¹⁷ Central Consumer Protection Authority, 'Guidelines for Prevention of Misleading Advertisements and Endorsements for Misleading Advertisements' (2022).

¹⁸ Indian Council of Medical Research and Department of Biotechnology, 'National Guidelines for Stem Cell Research' (October 2017).

¹⁹ Adv Rakesh Vishan and Swati Vishan, 'Human Cloning: Perspectives, Ethical Issues and Legal Implications' [2017] Bharati Law Review 70.

²⁰ Genetic Literacy Project, 'India: Germline / Embryonic – Global Gene Editing Regulation Tracker' <<https://crispr-gene-editing-regs-tracker.geneticliteracyproject.org/india-germline-embryonic/>> accessed 1 October 2025.

In the absence of a specific *Cloning Prohibition Act*, how would an Indian court respond to the creation of "Sue"? It would look for *legislative intent* in analogous areas of law.

The clearest analogy is **The Surrogacy (Regulation) Act, 2021**. This Act explicitly *bans* "commercial surrogacy" and imposes "stringent punishments" for the "sale of human embryos or gametes". The legislative and moral intent of this law is clear: to prevent the *commodification* of human reproduction and the exploitation of women's bodies.²¹

A court would apply the principles of the Surrogacy Act to the case of "Sue." It would reason that if Parliament has already criminalized the *commercialization of a womb* (surrogacy), it logically follows that the *outright manufacture and sale of a complete human being* (cloning) is also prohibited. The latter is a far more extreme act of human commodification, and the court would find no difficulty in extending the legal principle to cover it.

3. The International Consensus: A "Crime Against Human Dignity"

India's non-binding prohibition is supported by a near-universal *global consensus* that reproductive cloning is an affront to human rights and dignity.

- **UNESCO Universal Declaration on the Human Genome (1997):** This foundational document sets the global *moral* and *political* baseline²². Its Article 11 states that "Practices which are contrary to human dignity, such as reproductive cloning of human beings, shall not be permitted".²³
- **Council of Europe's Oviedo Convention (1998):** This (and its Additional Protocol) operationalizes the UNESCO principle into *binding regional law*. It explicitly bans "any intervention seeking to create a human being genetically identical to another".²⁴ This powerful international consensus reinforces the Indian position, making any attempt to legalize reproductive cloning politically untenable and cementing its status as a prohibited act.

IV. ETHICAL AND SOCIETAL IMPLICATIONS: THE RIGHTS OF THE CLONE

The previous section established the *illegality* of the product and the procedure. This section addresses the most profound and horrifying legal question raised by the film: If the procedure *succeeds* and "Sue" exists as a viable, conscious entity, *what is she at law?*

²¹ Zairu Nisha, 'Negotiating "Surrogate Mothering" and Women's Freedom' (2022) 14(3) Asian Bioethics Review 271.

²² Avishi Shukla, 'Human Cloning: Navigating Ethical Dilemmas and Legal Frameworks' (The Legal Journal on Technology, 12 October 2024) <www.thelegaljournalontechnology.com/post/human-cloning-navigating-ethical-dilemmas-and-legal-frameworks> accessed 9 December 2025..

²³ 'UNESCO's International Bioethics Committee Resumes Debate on Human Cloning' (UNESCO, 7 October 2025) <<https://www.unesco.org/en/articles/unescos-international-bioethics-committee-resumes-debate-human-cloning>> accessed 9 December 2025.

²⁴ Convention on the Rights of the Child (Council of Europe ETS No 157, opened for signature 25 January 1996, entered into force 1 July 2000).

1. The Legal Status of "Sue": Person, Property, or Product?

This question exposes a deep flaw in our legal architecture, which is built on a binary of "person" or "property."

- **The "Natural Person" Problem:** Legal theory and precedent almost universally tie the status of a "natural person" to the act of *being born from a womb*. "Sue" is not "born" in any legally recognizable sense; she is "birthed" from a slit in Elisabeth's back. She does not have the potential to develop from an embryo into a whole human organism; she is *created* as one.
- **The Horrifying Legal Conclusion:** A strict interpretation of current law would mean "Sue" *is not a natural person*. She is also not a "juridical person" (a legal fiction like a corporation). She is, therefore, a legal *nothing*. She exists in a legal void. In the absence of personhood, she would default to the status of *chattel* or *property*, belonging to her creator and genetic original, Elisabeth.
- **The Legal Paradox of the Climax:** This redefinition of "Sue's" status forces a terrifying re-evaluation of the film's climax.
- When Elisabeth, horrified at her own decay, attempts to inject Sue with the termination serum, this is *not* attempted murder. Legally, it is the *destruction of one's own property*.
- Conversely, when "Sue" (the property) beats Elisabeth (the natural person) to death to save herself, this *is* murder. However, it is a crime for which no one can be prosecuted. The *perpetrator* ("Sue") has no legal personhood. She cannot be arrested, charged, or tried. She possesses no *men's rea* (guilty mind) that the law can recognize.

2. Instrumentalism and the Kantian Failing

The film's plot is a perfect illustration of the primary *bioethical* objection to reproductive cloning: *instrumentalism*. This argument, rooted in Kantian philosophy, holds that it is a violation of human dignity to treat a person as a *means* to an end, rather than as an *end* in themselves.²⁵

"Sue" is the ultimate *"instrument"*. She is not created out of love or a desire for a child; she is *manufactured* for a single, selfish purpose: to reclaim Elisabeth's fame. She is a tool. The film literalizes this instrumental status: "Sue" is not an autonomous being. She is physically dependent on "*stabilizer fluid*" extracted from Elisabeth, making her less a person and more a "research product" or a parasite, created solely for the "benefit of others".²⁶

3. Autonomy and the "Right to an Open Future"

A second core ethical argument against cloning is that it denies the clone a "right to an open future" and a "right to a unique genetic identity". The clone's life is forever shadowed by the expectations and life of the "original".

²⁵ Leon R Kass (chair), *Human Cloning and Human Dignity: An Ethical Inquiry* (President's Council on Bioethics 2002) 350.

²⁶ Timothy Caulfield, 'Human Cloning: Laws, Human Dignity and the Poverty of the Policy-Making Dialogue' (2003) 4 *BMC Medical Ethics* 2.

The Substance dramatizes this violation perfectly. "Sue's" future is *literally* not open; it is *physically* constrained by Elisabeth's actions. When Elisabeth engages in "*unhealthy binge-eating*", "Sue's" "perfect" body presumably bears the cost. "Sue" can never be free. Her autonomy is a fiction, as her very existence is contingent on the survival of the "original" she grows to hate. This symbiotic, parasitic relationship is a graphic violation of the fundamental right to individual autonomy.

V. CRITICAL REFLECTION

This analysis reveals that the legal frameworks in India (and internationally) are *reactive*. The Drugs and Cosmetics Act, the Consumer Protection Act, and the ICMR Guidelines are all tools designed to investigate, regulate, and punish violations after they have occurred.

The film's satirical critique, however, is aimed at the *proactive* forces of culture. The "social death" threatened by Harvey, the "double standard of aging",²⁷ and the media's obsession with youth are presented as *more terrifying* to Elisabeth than the *physical death* and *legal risks* promised by "The Substance".²⁸

The law can ban a product, but it cannot ban the *desire* for that product, especially when that desire is manufactured and reinforced by an entire media and industrial ecosystem. The true horror of *The Substance* is not that the law fails, but that it is rendered *irrelevant*. The law is trying to stop "*bad products*" and "*bad science*", but it is utterly powerless to stop the *bad culture* that creates the billion-dollar demand for them.²⁹

VI. CONCLUSION

The Substance presents a narrative that is, at its core, a case of dual illegality, exposing profound gaps between law, culture, and bioethics.

First, "The Substance" as a *product* is unequivocally illegal under India's existing regulatory framework. It is simultaneously:

- **Misbranded** under Section 17C of the Drugs and Cosmetics Act, 1940, for its false and misleading claims.
- **Spurious** under Section 17D, as it is a counterfeit product sold by a fictitious entity.
- **Adulterated** under Section 17E, as it is a toxic substance that proves to be "injurious to health," leading to grotesque mutation and death. Its marketing is a "misleading advertisement" under the **Consumer Protection Act, 2019**, and

²⁷ HJ Coelho-Junior, R Calvani, A Picca, F Landi and E Marzetti, 'The Influence of Ageism on the Hallmarks of Aging: Where Age Stigma and Biology Collide' (2024) 90 Ageing Research Reviews 101999 <<https://doi.org/10.1016/j.arr.2024.101999>> accessed 9 December 2025.

²⁸ Kaytee Gillis, 'The Double Standard of Aging for Women' (Psychology Today, 22 November 2024) <<https://www.psychologytoday.com/us/blog/invisible-bruises/202411/the-double-standard-of-aging-for-women?eml>> accessed 9 December 2025.

²⁹ Ana Carolina Diehl, 'How the New Cult Movie The Substance Reflects Our Obsession with Beauty and Youth' (Istituto Marangoni, 13 November 2024) <<http://www.istitutomarangoni.com/en/maze35/community/how-the-movie-the-substance-reflects-our-obsession-with-beauty>> accessed 9 December 2025.

any celebrity who endorsed it (be it "Sue" or Elisabeth) would face severe liability under the new "due diligence" standards established by the CCPA Guidelines and the landmark *Patanjali* case. Second, "The Substance" as a *procedure* is a "prohibited" act of human reproductive cloning under India's **NGSCR 2017 Guidelines**. It violates a deeply held global consensus that such acts are "contrary to human dignity". While India's guidelines lack a specific *criminal* deterrent, this report argues that an Indian court would fill this gap by applying the clear anti-commodification principles of the **Surrogacy (Regulation) Act, 2021**, to prohibit the outright manufacture of a human being. Finally, and most critically, the film's horror culminates in a question of legal philosophy. The "clone" "Sue," having not been "born of a womb", would exist in a state of legal-philosophical terror: lacking "natural personhood," she would be mere *property* at law. She would have no rights, no agency, and no legal protection. Her murder of Elisabeth would be a crime without a criminal, and Elisabeth's attempt to kill her would be nothing more than the destruction of property. The film's final, haunting image Elisabeth's original face detaching from the gore, crawling to her Walk of Fame star, and dissolving into a puddle of blood, only to be "erased" by an industrial cleaner serves as the report's closing metaphor. She has been successfully reduced from a person, to a product, to, finally, *hazardous waste*. This is a final, commodified status that our current legal frameworks are unequipped to remedy, or even to recognize.

TRAINING IN THE DARK – WHY COPYRIGHT LAW NEEDS DATASET TRANSPARENCY IN THE AGE OF GENERATIVE AI

Noor Bansal and Mishti Bansal¹

Abstract

Before artificial intelligence can dream, it must first consume, and what it consumes may belong to someone else. This paper analyses the copyright implications arising at the training stage of Artificial Intelligence models, where datasets may include copyrighted content depending on their composition and licensing, and examines how these issues are interpreted across various jurisdictions, with a focus on Ghibli Studios as a Case Study. By examining the laws of the various countries, the article sheds light on how different jurisdictions define and interpret ‘authorship’ and the legality of data mining practices. While several nations have taken meaningful steps and initiatives to address the issue of AI-generated works, significant ambiguity persists especially regarding the extent of infringement, fair use, and the protection of original creators, as courts are yet to definitively resolve these issues, especially in relation to the training stage of AI models. This article will further go on to explore how in the case of rapid developments in generative AI, the questions of legal compliance have moved from theoretical to urgent. In conclusion, the article critiques the current legislative landscape and argues that regulatory transparency at the training stage is essential.

I. INTRODUCTION

Alan M. Turing defines Artificial Intelligence as “the development of computer systems capable of performing tasks that require human-like intelligence.”² Since the debut of ChatGPT in late 2022, policymakers around the world have been engaged and captivated by generative AI, i.e., the models which can generate various types of content, including text, images, audio, and video.³ Generative AI is seen as a groundbreaking technology with the potential to transform industries. Many experts believe it could contribute trillions of dollars to the global economy in the coming decade.⁴ Although there have been AI models that are somewhat “generative” for decades, the latest generation of well-known generative AI models, including OpenAI’s GPT series and Stability AI’s image creator, relies on a specialized category of machine learning called ‘deep learning.’ Similar to other machine learning approaches, deep learning employs ‘neural networks,’ which are interconnected nodes designed to mimic the architecture of the human brain. As information moves through these deep layers, it undergoes processing at various levels of complexity. The initial layers focus on detecting simple patterns, while the later layers build upon this groundwork to identify more complex patterns. This hierarchical approach

¹ Authors are Second-Year B.A. LL.B. (Hons.) Students at National Law University, Jodhpur.

² A.M. Turing, ‘Lecture to the London Mathematical Society’ in DC Ince (ed), *Mechanical Intelligence: Collected Works of A M Turing* (North Holland 1992).

³ Adam Zewe, ‘Explained: Generative AI’ (MIT Schwarzman College of Computing, 9 November 2023) <<https://computing.mit.edu/news/explained-generative-ai/>> accessed 14 January 2026.

⁴ Douglas Broom, ‘How generative AI could add trillions to the global economy’ (World Economic Forum, 14 July 2023).

allows AI models to effectively learn from vast amounts of data.⁵ Data is a crucial component of the process, and is required to train models to understand and generate new text. Applications include translation, information extraction, and question answering.⁶ The deep learning-based generative AI model, identifies the patterns and principles during training which are utilized to produce new content.

The machine learning algorithms also utilise statistics to find insights hidden in massive amounts of data.⁷ A machine learning algorithm identifies patterns from past data and produces a model that encapsulates these patterns. The process begins with defining the problem (i.e., determining what the model should predict). *“An AI developer must collect data, prepare the data (including labelling or annotating), choose a model architecture; train the model with the annotated data (training data) using a machine learning algorithm, and test the model with new data (testing data).”*⁸ For instance, a developer aiming to teach a computer to identify a surgeon’s hand movements during surgery would begin with a model previously trained on ImageNet, which includes over 14 million images of everyday objects such as cats, dogs, and cars. In addition to the promised opportunities, however, generative AI also presents significant challenges, such as replicating or training data on copyrighted content and endangering the livelihood of human workers (especially in the creative industries).⁹ Copyright law protects the originality and creativity of human authors.¹⁰ In India, the protection of copyright is governed by The Copyright Act, 1957, while at the international level, the Berne convention, TRIPS Agreement, and the WIPO Copyright Treaty govern it. However, this established legislative policy has been disrupted by the emergence of generative AI and its involvement in creating diverse forms of work, such as artistic or literary works.¹¹ The main issue is that AI-generated content often uses the largest training datasets comprising millions of texts, images, audio samples, or other forms of content. The training stage input is often scraped from the internet, which includes both copyrighted and public domain material, raising legal concerns regarding reproduction rights under copyright law. Consequently, numerous rightsholders have filed lawsuits against AI developers across various jurisdictions, claiming that the unapproved use of their intellectual property amounts to copyright infringement.¹²

⁵ Ian Goodfellow, Yoshua Bengio and Aaron Courville, *Deep Learning* (MIT Press 2016).

⁶ KR Chowdhary, *Fundamentals of Artificial Intelligence* (Springer 2020) 604.

⁷ Yufeng G, ‘What Is Machine Learning?’ (Towards Data Science, 24 August 2017) <<https://medium.com/data-science/what-is-machine-learning-8c6871016736>> accessed <28 January, 2026>.

⁸ Zaid Alissa Almaliki, ‘Do You Know How to Choose the Right Machine Learning Algorithm Among 7 Different Types?’ (Towards Data Science, 19 March 2019) <<https://medium.com/data-science-collective/do-you-know-how-to-choose-the-right-machine-learning-algorithm-among-7-different-types-295d0b0c7f60>> accessed <28 January, 2026>.

⁹ Ozge Demirci, Jonas Hannane and Xinrong Zhu, ‘Who Is AI Replacing? The Impact of Generative AI on Online Freelancing Platforms’ (CESifo Working Paper No 11276, 2024).

¹⁰ Jane C Ginsburg, ‘The Concept of Authorship in Comparative Copyright Law’ (2003) 52 DePaul L Rev 1063, 1066; Amar Nath Sehgal v Union of India [2005] 30 PTC 253 (Del); Copyright Act 1957, s 57 (India).

¹¹ Mark A Lemley, ‘How Generative AI Turns Copyright Upside Down’ (2024) 25(2) Columbia Science & Technology Law Review 190.

¹² CISAC, ‘Australian Creators Welcome Establishment of Copyright and AI Reference Group’ (12 December 2023) <<https://www.cisac.org/Newsroom/society-news/australian-creators-welcome-establishment-copyright-and-ai-reference-group>> accessed <28 January, 2026>; Mishcon de Reya, ‘Generative AI – Intellectual Property Cases and Policy Tracker’ (12 August 2024) <<https://www.mishcon.com/generative-ai-intellectual-property-cases-and-policy-tracker>> accessed <3 February, 2026>.

II. THE LEGAL FOUNDATIONS: COPYRIGHT AND DATA MINING

Copyright protection has two main objectives which is to encourage the creative efforts of writers and artists and to promote public benefit by ensuring access to creative works.¹³ In return for their literary and artistic creations, authors and artists are granted certain exclusive rights.

The right of paternity, for instance, allows authors to claim authorship under their name, a pseudonym, or anonymously, while the right of integrity permits them to resist alterations that might reasonably be seen as damaging to their reputation.¹⁴ Copyright holders have the right to take legal action against those they believe have infringed their rights to seek monetary compensation. This includes the possibility of statutory damages, which can vary significantly from \$200 to \$150,00 for each work based on the severity and intent behind the infringement.¹⁵ Artificial intelligence and copyright law intersect when the generative AI system uses copyright-protected material, absent a license or other defence, and infringes one or more rights of the author. Given the large volume of data, AI models often scrape the publicly available data from the internet en masse.¹⁶ The automated tools “scrape” data from online sources, such as deploying stream ripping software to extract substantial quantities of video or subtitle files from platforms such as YouTube.¹⁷

Another method entails downloading entire databases, such as comprehensive copies of Wikipedia, via the regularly provided backups offered by the site.¹⁸ A frequently utilized source of training data is text obtained from web crawlers, particularly from resources like Common Crawl.¹⁹ Additionally, developers may incorporate data from third-party sources or non-public repositories.²⁰ It has been suggested that AI models, having been trained on vast corpora of copyrighted material, may themselves function as derivative works under the Copyright Act, capable, as they are, of reproducing verbatim content from their training data.²¹ The output generated by Generative AI violates the author’s reproduction rights, as well as the rights to create derivative works based on original material. In the case of *Dow Jones & Co., Inc. v. Perplexity AI*, it was highlighted that, depending on the nature of the content and its intended

¹³ Melville B Nimmer and David Nimmer, Nimmer on Copyright (2021) § 1.03.

¹⁴ Sam Ricketson And Jane C. Ginsburg, International Copyright and Neighboring Rights: The Berne Convention and Beyond, 87, 586 (New York: Oxford University Press, 2nd edn., 2006).

¹⁵ 17 USC § 504.

¹⁶ *Brammer v Violent Hues Prods LLC* 922 F3d 255 (4th Cir 2019) 266; See, e.g., Anthropic, ‘Initial Comments’ 5; OpenAI, ‘Initial Comments’ 5; GenLaw Participants, ‘Initial Comments’ 44–45.; IBM Research, Granite Foundation Models (2024) <https://www.ibm.com/downloads/cas/X9W4O6BM> accessed <28 January, 2026>.

¹⁷ Samantha Cole, ‘Leaked Documents Show Nvidia Scraping “A Human Lifetime” of Videos Per Day to Train AI’ (404 Media, 5 August 2024) <https://www.404media.co/nvidia-ai-scraping-foundational-model-cosmos-project/> accessed <29 January, 2026>; Leo Gao and others, ‘The Pile: An 800GB Dataset of Diverse Text for Language Modeling’ (2020) 26.

¹⁸ Wikimedia, ‘Wikimedia Downloads’ <https://dumps.wikimedia.org/> accessed <29 January, 2026>; Tom B Brown and others, ‘Language Models Are Few-Shot Learners’ (2020) 8–9.

¹⁹ Common Crawl, <https://commoncrawl.org/> accessed <30 January, 2026>.

²⁰ Thomas Heldrup, Report on Pirated Content Used in the Training of Generative AI (Rights Alliance 2025) 5–6 <https://rettighedsalliancen.dk/wp-content/uploads/2025/03/Report-on-pirated-content-used-in-training-ofAI.pdf> accessed <30 January, 2026>; Ashley Belanger, ‘Meta Claims Torrenting Pirated Books Isn’t Illegal Without Proof of Seeding’ (Ars Technica, 20 February 2025) <https://arstechnica.com/tech-policy/2025/02/meta-defends-its-vast-book-torrenting-were-just-a-leech-no-proof-of-seeding/> accessed <29 January, 2026>.

²¹ News/Media Alliance, White Paper: How the Pervasive Copying of Expressive Works to Train and Fuel Generative Artificial Intelligence Systems Is Copyright Infringement and Not a Fair Use (31 October 2023) <https://www.newsmediaalliance.org/generative-ai-white-paper/> accessed <31 January, 2026>.

audience, AI systems may also engage issues related to public display and public performance rights.²² With the growing focus on AI training data, developers have become noticeably more secretive about what their datasets contain, a change that many consider intentional. Consequently, organizations advocating for rightsholders globally are demanding legal requirements for AI developers to disclose information about their training datasets. This transparency is aimed at helping rightsholders assert their rights over their content.²³ Further, to better understand the real-world implications of these issues, we now turn to an illustrative case study of Ghibli Studios. It offers an insight into how opacity in training data and algorithmic design can produce ethically and legally fraught outcomes, reinforcing the need for stronger transparency norms and regulatory oversight.

III. STYLE VS. SUBSTANCE: CASE STUDY OF GHIBLI STUDIOS

Generative AI has considerably altered how creative works are produced, distributed, and consumed. Tools such as ChatGPT, DALL-E, Midjourney, and Leonardo now allow users to generate high-quality imagery that replicates recognizable artistic styles with striking accuracy.²⁴ Yet many of these models are trained on unlicensed internet data, often including artists' work without their knowledge or consent.²⁵ This tension came into sharp relief in early 2025, when a viral trend saw users generating images in the distinctive visual style of Studio Ghibli, the celebrated Japanese animation house behind *Spirited Away* and *My Neighbour Totoro*, using OpenAI's image generation tools.²⁶ The trend attracted significant public attention and placed considerable strain on OpenAI's infrastructure.²⁷ Beyond the technical disruption, it exposed deeper questions around copyright, artistic identity, and the limits of existing regulatory frameworks, particularly given the prevalence of similar AI-generated aesthetics across platforms such as Instagram and TikTok.²⁸ At the heart of these concerns lies a structural gap: copyright law, designed for human authors of fixed works, appears ill-equipped to address AI outputs that reproduce artistic style without copying expression directly.²⁹ Studio Ghibli's films are characterised by hand-drawn animation, soft colour palettes, fluid motion, and recurring

²² Dow Jones & Co Inc v Perplexity AI Inc No 24-cv-7984 (SDNY, 21 October 2024).

²³ Professional Photographers of America, 'PPA's Comments on the Copyright Office NOI on Generative Artificial Intelligence' (17 November 2023) accessed <31 January, 2026>; News/Media Alliance, 'Global Principles on Artificial Intelligence (AI)' (6 September 2023) < <https://www.newsmediaalliance.org/global-principles-on-artificial-intelligence-ai/> > accessed <31 January, 2026>.

²⁴ B M Nagapushpa, P Kanchana and P Monish, 'Revolutionizing Art and Design Through AI: Balancing Innovation, Ethics, and Future Preparedness' (2024) International Journal of Scientific Research in Engineering and Management.

²⁵ W Vivaldi and I Sutedja, 'Using Deep Learning and CBIR to Address Copyright Concerns of AI-Generated Art: A Systematic Literature Review' (2024) 5(10) Devotion.

²⁶ Tulisha Srivastava, 'Spirited Away, Totoro & More Unite in New Official Studio Ghibli Design for TOHO Movie Theater Campaign' (CBR, 12 April 2026) <https://www.cbr.com/studio-ghibli-new-design-toho-movie-theater-campaign/> accessed 15 April 2026.

²⁷ James Vincent, 'OpenAI Says "Our GPUs Are Melting" as It Limits ChatGPT Image Generation Requests' (The Verge, 28 March 2025) <https://www.theverge.com/news/637542/chatgpt-says-our-gpus-are-melting-as-it-puts-limit-on-image-generation-requests> accessed < February 19, 2026 >.

²⁸ Adil S Al-Busaidi and others, 'Redefining Boundaries in Innovation and Knowledge Domains: Investigating the Impact of Generative Artificial Intelligence on Copyright and Intellectual Property Rights' (2024) 9(4) Journal of Innovation & Knowledge 100630 <https://doi.org/10.1016/j.jik.2024.100630> accessed < February 19, 2026 >.

²⁹ W Vivaldi and I Sutedja, 'Using Deep Learning and CBIR to Address Copyright Concerns of AI-Generated Art: A Systematic Literature Review' (2024); Chris Stokel-Walker, 'Studio Ghibli and the Legal Gray Zone of AI-Generated Art' (Business Insider, 29 March 2025) accessed <31 January, 2026>.

thematic preoccupations, among them childhood innocence, environmental stewardship, and quiet resilience, that together lend their works a visual and narrative distinctiveness widely associated with the studio.³⁰ While the phrase “Ghibli aesthetic” has gained currency in popular discourse, it is worth noting that artistic style, as such, does not attract copyright protection; what the law may protect, if anything, is the specific expressive elements through which that style is realised.³¹ Advances in generative AI, particularly in diffusion and transformer-based models such as DALL-E, Midjourney, and Leonardo.AI, allow users to create original images in the Ghibli style by submitting simple text prompts.³² These models are developed using extensive datasets filled with artistic images, allowing them to recognize the patterns, textures, and emotional signals that define particular styles. Tools like the Ghibli Diffusion model are specifically designed to replicate Studio Ghibli’s artistic features, including pastel brushwork, watercolours, and childlike facial expressions.³³ Culturally, the replication of the Ghibli aesthetic speaks to the nostalgic allure and emotional impact of the studio’s work. The incorporation of Ghibli-inspired elements by AI image generators brings up questions about attribution, since these systems typically do not produce original creative work. The main problem stems from the outdated criteria for determining authorship according to current legal standards. The U.S. Copyright Office enforces copyright protection only for human-authored works according to their current established policy.³⁴ Therefore, currently, AI-generated images remain unprotected by conventional laws because courts recognize them as machine-produced rather than human works; thus, there is an unprotected space with ownership challenges. Under established copyright doctrine, protection attaches to specific fixed expressions rather than to style itself, meaning that visual characteristics such as color palette, line quality, or compositional mood remain, in principle, freely replicable.³⁵ Applied to the Ghibli context, this suggests that AI-generated imagery evoking the studio’s recognizable visual language may not constitute infringement, provided no particular protected work is directly reproduced.³⁶ Whether this outcome reflects sound policy is another matter; critics argue that the doctrine, however internally coherent, leaves studios like Ghibli practically defenseless against systematic stylistic appropriation at scale. The legal permissibility of style imitation does not fully explain why Ghibli-style AI imagery spread as rapidly as it did. Several platform-level dynamics appear to have accelerated its circulation. Algorithmic recommendation systems on Instagram and TikTok tend to prioritise visually distinctive content, and Ghibli-derived imagery, with its soft palettes and immediately legible aesthetic,

³⁰ MotionCue, ‘5 Animation Lessons from Studio Ghibli’ <<https://motioncue.com/animation-lessons-from-studio-ghibli/>> accessed <30 January, 2026>.

³¹ *Nichols v. Universal Pictures Corp.*, 45 F.2d 119 (2d Cir. 1930).

³² Xinyue Fan and Yifan Liang, ‘The Research on the Characteristics of AI Application in Art Field and Its Value’ in *Proceedings of the International Conference on Advances in Computer Science and Communication Technology*.

³³ Getimg.ai, ‘Studio Ghibli Free AI Generator’ <<https://getimg.ai/models/ghibli-diffusion>> accessed <20 January 2025>.

³⁴ US Copyright Office, *Copyright and Artificial Intelligence, Part 2: Copyrightability* <<https://www.copyright.gov/ai/Copyright-and-Artificial-Intelligence-Part-2-Copyrightability-Report.pdf>> accessed <28 January 2025>.

³⁵ *Ibid.*

³⁶ W Vivaldi and I Sutedja, ‘Using Deep Learning and CBIR to Address Copyright Concerns of AI-Generated Art: A Systematic Literature Review’ (2024) 5(10) *Devotion*.

lends itself well to this kind of amplification.³⁷ Equally significant is the ease of generation itself: users require no artistic training to produce studio-quality imagery, lowering the barrier to participation and broadening the pool of contributors. Meme-like replicability, combined with the nostalgic resonance of the Ghibli visual language, likely reinforced sharing behavior, images of this kind activate something recognizable and emotionally familiar, which platforms reward with reach.³⁸ The result is a self-sustaining content cycle, in which visibility drives participation, and participation drives further visibility. Viral content trends carry consequences that extend well beyond the social. The computational demands of generative AI, spanning both training and inference, are considerable, and a surge in image generation requests can deplete GPU capacity rapidly, degrading system performance and increasing energy expenditure.³⁹ The 2025 Ghibli trend offered a concrete illustration: OpenAI publicly acknowledged the strain on its infrastructure as requests spiked. It is worth pausing on what this implies. Viral AI content is not merely a cultural phenomenon; it is a resource-intensive event, with environmental and infrastructural costs that tend to go unacknowledged in public discourse around creative AI.⁴⁰ Returning to the legal dimension, the absence of protection for style leaves artists in a structurally weak position. Training datasets routinely incorporate artists' work without consent, and the outputs those datasets enable can replicate a creator's distinctive visual identity without triggering any enforceable claim. For Studio Ghibli, a studio whose aesthetic is among the most recognizable in contemporary animation, this gap is particularly acute. Existing frameworks were not designed with generative AI in mind, and their application to these circumstances remains unsettled, a point that courts and legislators across jurisdictions are only beginning to confront.⁴¹

IV. LEGAL UNCERTAINTIES: WHO IS THE AUTHOR?

A. The Human-Centric Premise of Copyright

The reverberations of the AI applications to create literary and artistic works are palpable in the ongoing discourse surrounding the intricate matter of 'authorship' of the works generated by AI.⁴² Traditionally, the notion of authorship has sought to promote and protect the uniqueness of human writers. The Berne Convention, a foundational international convention for copyright protection, assures that literary and creative works are protected worldwide, with advantages extended to writers and their successors in title.⁴³ However, this protection is not necessarily extendable to AI generated works, as even though

³⁷ Dinesh Deckker and Subhashini Sumanasekara, 'Dreams and Data: Ghibli-Style Art, Copyright, and the Rise of Viral AI Imagery' (TechRxiv, 1 April 2025) <<https://www.techrxiv.org/doi/full/10.36227/techrxiv.174353158.87082654/v1>> accessed <28 January 2025>.

³⁸ Xinyue Fan and Yifan Liang, 'The Research on the Characteristics of AI Application in Art Field and Its Value' in Proceedings of the International Conference on Advances in Computer Science and Communication Technology (2023).

³⁹ Supra note 26.

⁴⁰ Trebor Scholz (ed), *Digital Labor: The Internet as Playground and Factory* (Routledge 2013).

⁴¹ Peng Xiang and others, 'The Impact of the COVID-19 Pandemic on Nostalgic Social Media Use' (2024) 15 *Frontiers in Psychology* art 1431184.

⁴² Berne Convention for the Protection of Literary and Artistic Works (4 May 1896, entered into force 29 January 1970) 828 UNTS 221.

⁴³ Gaffar H and S Albarashdi, 'Copyright Protection for AI-Generated Works: Exploring Originality and Ownership in a Digital Landscape' (2025) 15(1) *Asian Journal of International Law* 23, 31.

the Berne Convention does not clearly define the word “author”, the assumption to include the AI-generated works in the realm of authorship will be detrimental.⁴⁴ The Convention shadows a humanist nature, and granting copyright to the AI-generated work will lose the soul of copyright. AI should be viewed as a tool used by the human author, rather than an autonomous creator in its own right.⁴⁵ The *Feist Publications, Inc. v. Rural Telephone Service Company* case has affirmed that an “author” refers to a human writer and composer of an original creative work. The work must showcase a ‘modicum of creativity’ and originality traceable to the author. It indicates that factual information or data aggregation without the requisite creative input does not fulfil the threshold for copyright protection.⁴⁶ The case of *University of London Press Ltd v University Tutorial Press Ltd* has defined originality as, “an expression of ideas in the original form, i.e., it originates from the author in the sense that the work must not be a copy of another work.”⁴⁷ Moreover, Section 9(3) of the UK Copyright, Designs and Patents Act (CDPA) of 1988 stipulates that the authorship of the person who makes the necessary arrangements for the creation of computer-generated work should be regarded under copyright protection.⁴⁸ There is a possibility that ‘necessary arrangement’ refers to the original undertakings of the author who created the copyrighted work, used as an input in the training process of AI. In *Thaler v. Perlmutter*, the court ruled that content generated by AI, lacking human creation, cannot receive copyright protection due to the requirement that legal authorship belong to natural persons.⁴⁹ The technical nature of human input, combined with the automated processes of AI algorithms, which are still evolving and lack clarity, does not sufficiently justify copyright protection for AI-generated works.⁵⁰ This perspective is also reflected in the legislation of other countries such as New Zealand,⁵¹ Hong Kong,⁵² Ireland,⁵³ and China.⁵⁴ So this fills a gap in defining the term “author”, and continues the tradition of prohibiting nonhuman authors from holding copyright in order to promote the social purpose of the Copyright Law. The Copyright Law also reflects certain exceptions, which are encoded in the US Copyright clause. The interpretation of Title 17 of the U.S. Code has consistently maintained the stance that copyright protection is limited to works created by human authors.⁵⁵ The title 17 USC § 107 of the 1976 Copyright Act also incorporates a “fair use doctrine” to determine copyright infringement of the new work.⁵⁶ In *Harper & Row Publishers v. Nation Enterprises*, the court observed that the fair use should not be interpreted broadly as to swallow the commercial value of a copyrightable work.⁵⁷ It must ensure that

⁴⁴ Paul Goldstein, *International Copyright: Principles, Law, and Practice* (OUP 2001).

⁴⁵ Sam Ricketson and Jane C Ginsburg, *International Copyright and Neighboring Rights: The Berne Convention and Beyond* (2nd edn, vol 1, OUP 2005) 358.

⁴⁶ *Feist Publications Inc v Rural Telephone Service Co* 499 US 340 (1991).

⁴⁷ *University of London Press Ltd v University Tutorial Press Ltd* [1916] 2 Ch 601.

⁴⁸ Copyright, Designs and Patents Act 1988, s 9(3).

⁴⁹ *Thaler v Perlmutter* 130 F4th 1039 (DC Cir 2025).

⁵⁰ WIPO Secretariat, ‘Revised Issue Paper on Intellectual Property Policy and Artificial Intelligence’ (WIPO/IP/AI/2/GE/20/1 Rev, 11 June 2022) para 23.

⁵¹ Copyright Act 1994 (NZ), s 5(1)–(2)(a).

⁵² Copyright Ordinance (Cap 528) (HK), s 11(3).

⁵³ Copyright and Related Rights Act 2000 (Ireland), s 21(f).

⁵⁴ China IPR SME Helpdesk, *Copyright Protection in China: A Guide for European SMEs* (European Commission 2010).

⁵⁵ 17 USC § 107.

⁵⁶ *Ibid.*

⁵⁷ *Harper & Row Publishers Inc v Nation Enterprises* 471 US 539, 562–63 (1985).

the new work has a distinct purpose and character and is not merely transformative in character. Generative AI focuses on capturing the specific expressive choices made by the author, such as the words an author used rather than their abstract ideas, and this can raise legal concerns, as it may involve copying protected expression, potentially violating the reproduction right and, in some cases, the derivative works right.⁵⁸ The 2025 judgment in *Thomson Reuters Enterprise Centre GmbH v. Ross Intelligence Inc.* significantly undermined the “fair use” defence frequently invoked by AI companies. It reinforced that training AI on publicly accessible, commercially licensed content that embodies intellectual labour may constitute copyright infringement. This results in a shift from the era of unchecked web scraping to an age of accountability for the AI companies.⁵⁹ The United States Copyright Office recently cancelled the copyright protection of the AI-generated images within the graphic novel “*Zarya of the Dawn*”. The copyright protection was rejected because the images were not a product of human authorship.⁶⁰ In India, the case of *Amar Nath Sehgal v. Union of India* advances Section 57 of the Copyright Act, 1957, stating that the thoughts and sentiments of the human author, and not AI, influence moral rights. There is no exception under copyright law for text and data mining without obtaining a license from copyright owners.⁶¹ The usage of the “sweat of the brow doctrine,” which recognized that the labor of the author is sufficient for granting copyright protection, has been discarded. It has instead, adopted the approach of “modicum of creativity” from 2008, which accepts a work to be original if there is some substantive and subjective variation.⁶² The work created by AI is an objective output that is based on the subjective qualifications and the prompts of the authors, who should be thereby granted a copyright protection.⁶³ It is advanced by Locke’s labor theory as a justification to copyright, emphasizing the “individual’s right to the fruits of their labor.” The creator of a text prompt puts their creativity, much like effort, into developing the prompt. As a result, they ought to have rights to copyright protection for the resulting output generated by AI.⁶⁴ Therefore, an analysis of copyright protection of AI-generated work and its ownership involves the examination of the element of originality and the identification of the author of the work. As mentioned in the preceding paragraphs, AI tools generate work by relying on data that they have been trained on. They are trained on the data which is already available on the internet and the pre-existing data which may be copyrighted. The fact that an individual can claim copyright over the originality of the work used as an input in the AI-generated work does not automatically confer protection over the AI output. Hence, the copyright law should be protected by defining the term

⁵⁸ Authors Guild v Google Inc 804 F3d 202 (2d Cir 2015).

⁵⁹ Congressional Research Service, Generative Artificial Intelligence and Copyright Law (2026) <https://www.congress.gov/crs-product/LSB10922> accessed <February 18, 2026>.

⁶⁰ Barton Beebe, ‘An Empirical Study of US Copyright Fair Use Opinions, 1978–2005’ (2008) 156 University of Pennsylvania Law Review 549, 605 https://scholarship.law.upenn.edu/penn_law_review/vol156/iss3/1 accessed < February 18, 2026 >.

⁶¹ Amar Nath Sehgal v Union of India [2005] 30 PTC 253 (Del).

⁶² Alexander D Northover, ‘Enough and as Good in the Intellectual Commons: A Lockean Theory of Copyright and the Merger Doctrine’ (2016) 65 Emory Law Journal 1363, 1376.

⁶³ Darin Glasser, ‘Copyrights in Computer-Generated Works: Whom, if Anyone, Do We Reward?’ (2001) 1 Duke Law & Technology Review 1.

⁶⁴ Emmanuel Salami, ‘AI-Generated Works and Copyright Law: Towards a Union of Strange Bedfellows’ (2021) 16(2) Journal of Intellectual Property Law & Practice 124.

“authorship” with the originality and creativity of human authors, who should be accorded protection.

Legal Gaps and Policy Dilemmas in Attributing Authorship to Artificial Intelligence As a starting point, the vast majority of the material used to train most generative AI models is typically safeguarded by copyright law.⁶⁵ The content on Wikipedia is protected by copyright and is available under Creative Commons (CC) or similar ‘copyleft’ licenses, which may allow for its use in training generative AI models. The CC License provides an identification of the creator(s) of the licensed material and permits the use of copyrighted material. However, since these licenses provide access to only a limited portion of copyright-protected content, it’s improbable that state-of-the-art generative AI models could be developed solely with CC-licensed material.⁶⁶ This creates an infringement of the copyright law in the training process of AI content. A report by the Washington Post in April 2024 revealed that numerous companies engaged in AI development avoid maintaining internal records of their training data due to concerns that this information could serve as proof of copyright violations or breaches of data protection regulations.⁶⁷ Taking the example of OpenAI, it has shifted from the detailed explanations of the training data used to train a particular model to single-sentence descriptions. The method that offers the greatest level of transparency is for AI developers to make the training datasets for a specific AI model completely open to the public. With this ‘full access’ strategy, third parties, including rights-holders, can examine the training data directly and verify its content independently. Additionally, enhancing transparency can foster public trust in AI models by narrowing the information gap between model creators and users, thus preventing a ‘market for lemons’ situation where the demand for generative AI models diminishes.⁶⁸ The recent working paper on Generative AI and Copyright, released by the Department for Promotion of Industry and Internal Trade (DPIIT), has anchored a “one nation, one license, one payment” principle to collect royalties from AI systems trained on copyrighted content. A government-appointed committee will fix the royalties and distribute them to the right holders. Moreover, Section 2(d)(vi) of the Indian Copyright Act has an important significance towards human creation of work.⁶⁹ It provides an attribution to the creative human input that directly contributes to the output of the work generated by AI tools like ChatGPT, Google Bard, DeepAI, etc. The developer/programmer who programs and trains the AI can be considered to have “caused the work to be created” and would have a better claim than the user under Section 2(d)(vi).⁷⁰ A further comparison is also made between the way AI operates and human creativity. It is believed that

⁶⁵ Paris Act Relating to the Berne Convention for the Protection of Literary and Artistic Works (9 September 1886, entered into force 15 December 1972) 3 UNTS 1.

⁶⁶ Aaron Gokaslan and others, ‘Common Canvas: Open Diffusion Models Trained on Creative-Commons Images’ in Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (2024) 8250.

⁶⁷ US Copyright Office, Copyright and Artificial Intelligence, Part 1: Digital Replicas (2024) 53–56 <<https://www.copyright.gov/ai/Copyright-and-Artificial-Intelligence-Part-1-Digital-Replicas-Report.pdf>> accessed < February 19, 2026 >.

⁶⁸ George A. Akerlof, ‘The Market for “Lemons”: Quality Uncertainty and the Market Mechanism’ (1970) 84 Quarterly Journal of Economics 488.

⁶⁹ Copyright Act 1957 (India), s 2(d).

⁷⁰ Naithani P, ‘Issues of Authorship and Ownership in Work Created by Artificial Intelligence – Indian Copyright Law Perspective’ (2022) 11(1) NTUT Journal of Intellectual Property Law & Management 7.

humans are creative, whereas AI relies on human creativity for the generation of work. The court in India, through the case of *Rupendra Kashyap v. Jiwan Publishing House Pvt. Ltd.* has presented that AI does not require any incentive to generate work, unlike humans.⁷¹ Therefore, the motivation and stimulation that humans seek through copyright protection and authorial rights to undertake various innovations do not apply to AI.⁷² It reserves the concept of authorship to humans and not only affirms basic human values but also stands as a welcome reminder of human individuality and uniqueness. The Copyright Office or the judiciary has not yet claimed AI tools as an author, and humans have also not attempted to register copyright for the AI-generated works.⁷³ In India, though there is a rumour that the Copyright Office has registered an AI-generated poem under the name of “AI-Dada”, however, there is still no confirmation.⁷⁴ Therefore, the granting of authorship rights to the AI-generated works does not seem to be possible in the near future. The copyright law still recognizes the concept of authorial rights to humans in AI-generated works if they are original, as there still exists human involvement in the work creation process.⁷⁵

B. Evolving Notions of Originality and Copyrighted Content

Countries like the UK, Hong Kong, Ireland, New Zealand, and India have made meaningful progress in tackling the challenges associated with AI-generated works. These nations have proactively revised their laws to recognize the copyrightability of works that incorporate both computer-generated elements and human contributions.⁷⁶ In doing so, they have taken a more advanced stance than the international legal community, offering clearer legal guidance in this field.⁷⁷ Despite this, the existing laws do not fully tackle situations where a computer produces a work with only minimal or indirect human participation, which may create a gap in the legal system.⁷⁸ In comparison, many jurisdictions around the globe continue to find it challenging to confront the intricate issue of authorship and often remain mute on this controversial topic.⁷⁹ As AI becomes an increasingly active participant in the creative process, the question of who or what qualifies as an “author” demands reconsideration. There is a broadening of the term “author” based on ideas of labour, personality, and communication,

⁷¹ *Rupendra Kashyap v Jiwan Publishing House* 1996 (38) DRJ 81.

⁷² Gerald Dworkin, ‘The Moral Right of the Author: Moral Rights and the Common Law Countries’ (1994–95) 19 *Columbia-VLA Journal of Law & the Arts* 229.

⁷³ US Copyright Office, Copyright Protections for Press Publishers (2022) <https://www.copyright.gov/policy/publishersprotections/202206-Publishers-ProtectionsStudy.pdf> accessed <3 February 2026 >.

⁷⁴ Ibid.

⁷⁵ Michel A, ‘AI-Generated Creations: Challenging the Traditional Concept of Copyright, a Research into the Question of Whether Works Created by an Artificial Intelligence Program Have Copyright Protection in the Netherlands and the European Union’ (Thesis, Tilburg University 2018) 27–28 <http://arno.uvt.nl/show.cgi?fid=148002> accessed < 3 February 2026 >.

⁷⁶ Nattapong Suwan-In, ‘Copyright Protection on AI-Generated Work: The Case Study of the US, UK, and Thailand Copyright Laws’ (2021) *Journal of Law, Public Administration and Social Science* 131, 142; Copyright Act 1968 (Cth); IceTV Pty Ltd v Nine Network Australia Pty Ltd [2009] HCA 14.

⁷⁷ Copyright, Designs and Patents Act 1988 (UK), s 9(3); Copyright Act 1994 (NZ), s 5; Copyright Ordinance (Cap 528) (HK), s 11(3); Copyright and Related Rights Act 2000 (Ireland), s 21(f).

⁷⁸ Comparative Law Library Unit, European Parliamentary Research Service, Copyright Law in the EU: Salient Features of Copyright Law Across the EU Member States (European Parliament 2018) [https://www.europarl.europa.eu/RegData/etudes/STUD/2018/625126/EPRS_STU\(2018\)625126_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2018/625126/EPRS_STU(2018)625126_EN.pdf) accessed < 5 February 2026 >.

⁷⁹ Daniel Böttcher, ‘Copyright Protection for Artificial Intelligence Output’ (Master’s thesis, University of St Gallen 2019) 33–35.

which is suggested by *Burrow Giles Court*.⁸⁰ This formula is an evolution, as opposed to the death of the copyright author. The judgment of *Urantia Foundation v. Maaherra*, which has elaborated upon the element of human creativity, has been moulded to include AI authorship.⁸¹ It has been stated that the end user communicates to the AI, which infuses its labour, communication, and personality to create the work.⁸² It balances and recognizes the authorship of AI along with human originality and creativity. The Berne Convention has outlined a ‘three-step test’ indicating that any exceptions to the reproduction of copyrighted material must serve a specific purpose, must not interfere with the usual exploitation of the work, and must not unjustly harm the legitimate interests of the author.⁸³ This implies that exceptions allowing the unauthorized use of copyrighted content for training generative AI models should not be intended for commercial purposes.⁸⁴ Artist Rembrandt van Rijn’s recent project *Rembrandt*, has aimed to create a completely new art piece through AI generation, .⁸⁵ seeking to acknowledge the copyrightability of artificial intelligence by attributing a certain level of personality to it. Additionally, it emphasizes that human contributions to the creation and processing of such works will receive appropriate recognition and copyright ownership.⁸⁶ In June 2023, the European Parliament approved a measure that would mandate generative AI providers to create and publicly share a detailed summary of their use of training data that is protected by copyright.⁸⁷ The critique of this approach was further incorporated into Article 53(1)(c), which mandates that providers of general-purpose AI models deliver a summary that is broadly comprehensive rather than overly technical.⁸⁸ This aims to assist parties with legitimate interests, including copyright holders, in exercising and enforcing their rights under Union law. For instance, it should include a listing of the primary data collections or datasets utilized for training the model, such as significant private or public databases or data archives, along with a narrative explanation detailing other data sources employed.⁸⁹ Even with this guidance, there is still significant uncertainty regarding what is expected from GPAI model providers. Although AI is not yet recognized as an independent legal author in most legal systems, its functional contribution is increasingly being taken into account in legislative reforms and judicial reasoning. This indicates an emerging willingness to consider AI-related interests within the copyright framework, even as human creativity remains the central normative foundation.

⁸⁰ *Burrow-Giles Lithographic Co v Sarony* 111 US 53 (1884).

⁸¹ *Urantia Foundation v Maaherra* 114 F3d 955, 964 (9th Cir 1997).

⁸² Andres Guadamuz, ‘Artificial Intelligence and Copyright’ (WIPO Magazine, 2017) https://www.wipo.int/wipo_magazine/en/2017/05/article_0003.html accessed < 7 February 2026 >.

⁸³ Berne Convention for the Protection of Literary and Artistic Works (9 September 1886) art 9(2); Eleonora Rosati, ‘No Step-free Copyright Exceptions: The Role of the Three-step Test in Defining Permitted Uses of Protected Content (Including TDM for AI-Training Purposes)’ (2024) 46 *European Intellectual Property Review* 262.

⁸⁴ Salitorn Thongmeensuk, ‘Rethinking Copyright Exceptions in the Era of Generative AI: Balancing Innovation and Intellectual Property Protection’ (2024) *The Journal of World Intellectual Property* 278, 284.

⁸⁵ Péter Mezei, ‘From Leonardo to the Next Rembrandt – The Need for AI-Pessimism in the Age of Algorithms’ (4 May 2020) 7 <https://ssrn.com/abstract=3592187>.

⁸⁶ Pamela Samuelson, ‘AI Authorship?’ (2020) 63(7) *Communications of the ACM* 22.

⁸⁷ European Parliament, Amendments Adopted on 14 June 2023 on the Proposal for a Regulation of the European Parliament and of the Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) art 28b(4)(a).

⁸⁸ *Ibid.*

⁸⁹ Proposal for a Regulation of the European Parliament and of the Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) (14 June 2023) recital 107.

V. TOWARD A FAIRER FUTURE: TRANSPARENCY AND REFORM

AI and copyright laws are a strange mix, and there is a need to figure out how to deal with these tricky issues and make rules about them. This article shows that while training data and transparency requirements have some good points, they don't work the same way in different countries because of their own copyright laws. These rules alone can't solve the problem with using copyrighted stuff to train generative AI models. Transparency is important for accountability and public trust in AI training data. There is a need for laws that force AI developers to tell us what kind of data they use, how much, and where it came from. But we also need to come up with new ways to do this that are more effective. The current laws don't address the main flaws in how we use copyrighted content with AI. Some countries have copyright laws that say the person who created the original work is the author. But these laws weren't made with generative AI in mind. The transparency rules in the AI Act are unlikely to help individual authors much. At present, we must determine the appropriate strategies to modify copyright laws in order to harmonize the interests of all stakeholders impacted by generative AI.

There is no universally applicable solution, as the most effective approach will vary depending on the unique legal frameworks, economic conditions, and cultural norms of each nation. Policymakers worldwide can team up with key stakeholders to figure out the best policies for their specific situations. With AI developing quickly, these policies need to be checked regularly to make sure they are still relevant and effective. This is all while dealing with the sometimes-overblown hype about AI's economic potential and the growing backlash against AI technology from the public, especially those in creative industries. Artists are at risk of having their unique artistic styles copied by AI systems without their permission, especially when those styles are used to make derivative works that look and feel almost exactly like the original. Policymakers should propose new laws that provide clear and specific protections for unique, identifiable artistic styles.

This means figuring out what counts as originality and coming up with other ways to account for the special nature of these works. International cooperation is crucial for setting consistent standards and guidelines across different countries that make sure everything works well, allows for cross-border recognition, and protects AI-generated works. Standardized licensing and attribution systems for AI-generated works can be created to make it easy to recognize, own, and give credit to human creators and AI systems. Finally, raising public awareness through education initiatives is crucial for helping creators, users, and the general public grasp the nuances of AI-generated content, including its implications as well as their rights and responsibilities. By focusing on these recommendations, policymakers and researchers can establish a flexible and supportive framework that fosters innovation, safeguards rights, and encourages the responsible application of AI in creative pursuits.