UTILIZATION OF DIGITAL MEDIA IN THE IMPLEMENTATION OF NEP 2020 CONCERNING THE LAWS RELATED TO INTELLECTUAL PROPERTY IN INDIA

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ABSTRACT

Implementation of the New Education Policy is a reform in the existing education system of India. After the affirmation of the New Education Policy by the Union Cabinet of India on 29th July 2020 a new revolution came into existence in the Indian education system after 34 years. Many significant changes would be seen drastically after the upgradation of the education policy. Only making a policy does not solve its purpose until a successful implementation of such policies doesn't come into force. It is necessary to update existing education policy so that students or youth will become future-ready. The future of a nation is vested in the education system of that country. The education system plays a key role in the economic and social growth of any nation. Thus, when we talk about the reform of the education system; it becomes more important to upgrade/revise the existing education policies from time to time so that the education being given to the student may serve its actual purpose as per the need of time and development. The purpose of education is not to be focused on the mere distribution of Degrees or diplomas to the students neither its purpose should be limited to reaching a hundred percent of literacy rate in the world's literacy index. The actual purpose of providing education to students must be focused on making education more effective and skill-based so that after completion of school/higher education, a student may become efficient to earn his livelihood and can contribute to the economic and social growth of the nation. The implementation of a new education policy in the education system of India is a need of time while the education system in the whole world is upgrading faster, India was running on a stuffy education system and policies. Thus, revision of existing education policy is indispensable for the students of the future generation. Where the world is suffering from a pandemic and the economic sector of maximum countries is unstable, we need to provide a kind of education to the students so that however worst the situation would be, they'll find a way to earn their livelihood and could contribute in the economic growth of the nation with the help of the skills being taught in the school's /colleges. Digital media also has a huge role to

play in the creation of new job opportunities, especially in rural areas where people don't have access to quality education. The government should promote the use of digital media among school children so that they can learn at a faster pace and help them gain knowledge about various topics. In the new education policy, there are provisions prescribed for the use of digital media to make new education policy more effective and more reachable to the students residing in remote areas as well as those who belong to poor economic backgrounds. The government is taking initiative to provide access to digital media in rural areas and has also made it mandatory for all schools to have a computer lab so that students can learn at their own pace, without any disturbances. The syllabus under the new education policy, 2020 is designed for students and is now focused on providing them with skill-based education so that after the completion of their school education the student could become more independent to earn their livelihood and can contribute to the society as a whole. Under the other key areas of focus, new education policy is concerned with providing education related to the professional education, promotion of Indian languages, art and culture, intellectual property, use of technology and integration, and online and digital education. This paper will discuss implication of the role of the digital media in the implementation of National Education Policy, 2020 concerning with laws related to intellectual property in India.

Keywords: New Education Policy, Digital Media, Intellectual property, Copyright, Fair Use, Open Educational Resources, EdTech.

1. Introduction

The National Education Policy 2020 (NEP 2020) signifies a crucial juncture in India's educational development, intending to comprehensively reform the education system to address the requirements of the 21st century, emphasising accessibility, equity, and quality at all levels.¹ A fundamental aspect of this ambitious agenda is its strong focus on utilising technology and digital media to improve learning outcomes, increase access, and promote innovation. ² The Policy promotes the extensive implementation of online education, digital content production, and technology-driven teaching methods, particularly highlighted by the global transition to remote learning that accelerated during recent health emergencies.³ This paradigm change aims to close geographical gaps, offer adaptable learning routes, and

¹ Ministry of Education, National Education Policy 2020 (2020), at 1-3.

² *Id.* at 4.

³ *Id.* at 5.

customise educational experiences for millions of learners, from foundational levels to higher education.

The National Education Policy 2020 (NEP 2020) in India aims for a thorough overhaul of the education system, with a strong focus on digital learning, online resources, and the integration of technology. This paradigm shift, albeit offering improved access and quality, inevitably interacts with the complex framework of Intellectual Property (IP) regulations. This article examines the diverse consequences of utilising digital media for the implementation of NEP 2020, specifically regarding copyright, fair use, open educational resources (OERs), data protection, and other pertinent intellectual property considerations within the Indian legal context. It examines the opportunities offered by digital platforms, the limitations imposed by current intellectual property laws, and suggests solutions to cultivate an atmosphere that promotes innovation and information sharing while protecting the rights of creators.

The extensive use of digital media in education presents challenges, particularly with the current legal structure of Intellectual Property (IP) in India.⁴ The expansion of digital content, such as e-books, online courses, interactive simulations, and collaborative platforms, raises significant issues concerning copyright ownership, usage rights, digital rights management, the intricacies of fair use in a virtual learning context, and the mitigation of digital piracy.⁵

This paper aims to examine the interdependent relationship between the digital initiatives of NEP 2020 and India's intellectual property laws, highlighting the significant opportunities presented by this synergy, including enhanced access to quality content, as well as the inherent challenges that require meticulous legal and policy deliberations to avert potential abuses and maintain a sustainable ecosystem. The objective is to deliver a thorough analysis of the efficient use of digital media for NEP implementation, while maintaining adherence to and enhancement of IP protection in India, thereby achieving a balance between information distribution and the rights of artists.

1.1 Historical Evolution of Educational Policies in India

India's educational framework has experienced substantial changes since independence,

⁴ Pankaj Kumar Singh & Ashish Bharadwaj, Intellectual Property Rights in the Digital Age: Challenges and Opportunities, 15 J. Intell. Prop. Rts. 210, 215-217 (2010)

⁵ Nandan Nawn, Intellectual Property Rights and Education: An Indian Perspective, 4 J. Educ. L. 120, 122-124 (2017).

influenced by numerous commissions and policies designed to establish a strong and equal system. The groundwork for contemporary Indian education was established during the colonial period; but, after 1947, significant efforts were undertaken to integrate education with national ambitions and developmental objectives.

A significant milestone was the University Education Commission (1948-49), presided over by Dr. S. Radhakrishnan, which concentrated on the reform of higher education. The Secondary Education Commission (1952-53), referred to as the Mudaliar Commission, subsequently sought to restructure secondary education in the nation. The most thorough examination was conducted by the Education Commission (1964-66), commonly referred to as the Kothari Commission, under the chairmanship of Dr. D.S. Kothari. This Commission issued extensive recommendations for all educational tiers, endorsing a unified educational framework (the 10+2+3 system), advancing science and technology, highlighting vocational education, and underscoring the significance of national integration.

The inaugural National Policy on Education (NPE) was enacted in 1968, following the recommendations of the Kothari Commission. This policy seeks "radical restructuring" and the promotion of equitable educational opportunities, highlighting the completion of obligatory education for children up to 14 years and the execution of the "three-language formula" for linguistic cohesion.⁷

The National Policy on Education 1986 was subsequently implemented by the Rajiv Gandhi administration, emphasising the elimination of gaps and the equalisation of educational opportunities, especially for women, Scheduled Castes, and Scheduled Tribes. This resulted in efforts such as 'Operation Blackboard' to enhance primary education and the expansion of the open university system through the Indira Gandhi National Open University. The strategy was subsequently amended in 1992 by the P.V. Narasimha Rao administration to correspond with the contemporary economic changes.⁸

The Right of Children to Free and Compulsory Education (RTE) Act, 2009, represents a pivotal legal advancement in education, establishing education as a fundamental right for children aged

⁶ Education Commission (1964-66), Report of the Education Commission 1964-66: Education & National Development (1966).

⁷ Ministry of Education, *National Policy on Education 1968* (1968).

⁸ Ministry of Human Resource Development, *National Policy on Education 1986 (with modifications in 1992)* (1992).

6 to 14 years, thereby providing a legal foundation for universal elementary education and delineating standards for school infrastructure and teacher qualifications.⁹

The preceding policies and commissions established a foundation by tackling access, fairness, quality, and curriculum development, thereby preparing for the more extensive and technology-oriented vision outlined in the National Education Policy 2020.

2. National Education Policy 2020 and it's Digital Thrust

NEP 2020 expressly acknowledges the transformative capacity of technology in education, perceiving it as a significant facilitator for attaining its overarching objectives of equal access, quality improvement, and comprehensive development.¹⁰ It promotes the establishment of a specialised unit to construct comprehensive digital infrastructure, enhance the creation of high-quality digital material, and implement significant capacity building for online education nationwide.¹¹ Proposed key activities to actualise this digital vision encompass:

2.1 SWAYAM (Study Webs of Active Learning for Young Aspiring Minds)

This portal, providing Massive Open Online Courses (MOOCs) across various fields from primary to tertiary education, would see substantial expansion. The policy anticipates SWAYAM evolving become a primary collection of high-quality, peer-reviewed educational materials available to anyone, offering both credit-bearing and non-credit courses. ¹² The expansion seeks to accommodate a variety of learners, including individuals in remote locations, working professionals, and lifelong learners, by offering flexible and cost-effective educational possibilities.

2.2 DIKSHA (Digital Infrastructure for Knowledge Sharing)

DIKSHA is designed as a nationwide digital infrastructure to enhance access to and the creation of engaging educational experiences for instructors and students. It functions as a repository for textbooks, lesson plans, videos, and interactive resources, allowing educators to employ

⁹ The Right of Children to Free and Compulsory Education Act, 2009, No. 35, Acts of Parliament, 2009 (India).

¹⁰ Ministry of Education, supra note 1, at 20

¹¹ Id. at 21.

¹² Available at: https://swayam.gov.in/about

digital tools for pedagogical innovation and students to participate in self-directed learning. Its open architecture facilitates collaboration among diverse content developers and educators.¹³

2.3 The National Educational Technology Forum (NETF)

NETF is an autonomous entity established to facilitate the unrestricted exchange of ideas regarding the appropriate application of technology to enhance learning, assessment, planning, and administration. NETF will serve as a catalyst for research and innovation in educational technology, recognising emerging technologies and advocating for their integration into the education system, while also addressing legislative and regulatory dimensions of EdTech. ¹⁴

2.4 Blended Learning

The policy advocates for a hybrid model that integrates both online and offline learning methods, highlighting blended learning as a practical strategy to optimise the advantages of traditional classroom instruction and digital resources. This methodology facilitates enhanced flexibility, individualised learning trajectories, and optimal resource utilisation, accommodating the varied requirements and circumstances of learners throughout India. The policy anticipates a future in which digital content is integral to the educational framework, fostering universal access to superior educational resources.

This requires the creation and distribution of a wide range of digital assets, such as interactive e-books, captivating video lectures, immersive virtual reality simulations, adaptive online assessments, and collaborative learning tools, all of which are subject to intellectual property rights, necessitating careful attention to their creation, ownership, and allowable use.

3. Intellectual Property Framework in India

India's intellectual property rights framework is strong, comprehensive, and predominantly aligned with international treaties and conventions, particularly the TRIPS Agreement (Agreement on Trade-Related Aspects of Intellectual Property Rights). ¹⁶ This framework seeks to reconcile the safeguarding of authors' rights with the overarching public interest in the

¹³ Available at: https://diksha.gov.in/about/

¹⁴ Available at: https://netf.aicte-india.org/

¹⁵ Available at: https://www.theknowledgeacademy.com/blog/what-is-blended-learning/

¹⁶ Available at: https://www.wipo.int/wipolex/en/treaties/details/231

sharing of knowledge. The principal intellectual property regulations pertinent to digital educational content and its application within the framework of NEP 2020 encompass:

3.1 The Copyright Act of 1957

This foundational Act safeguards unique literary, theatrical, musical, and creative creations, encompassing computer programs, databases, and multimedia content.¹⁷ Educational information, including text-based modules, video lectures, interactive software, or digital art, is often subject to copyright protection. The Act delineates authors' rights, encompassing exclusive rights to reproduction, distribution, public performance, public communication, and adaptation.

Any unauthorised utilisation of such works, including digital reproduction or distribution, may constitute infringement, rendering comprehension of these requirements essential for digital education.¹⁸

3.2 The Patents Act of 1970

Although not directly pertinent to conventional educational materials such as textbooks or course content, is significantly relevant to patented educational technologies, novel software algorithms that drive learning platforms, and innovative pedagogical methods that exhibit industrial applicability.¹⁹ A novel algorithm for adaptive learning or a patented apparatus utilised in virtual laboratories would be safeguarded under this Act, affecting the development and implementation of EdTech solutions inside the NEP framework.

3.3 The Trademarks Act of 1999

This Act safeguards brands, logos, names, and slogans linked to educational institutions, online learning platforms, particular courses, or educational products.²⁰ As digital learning proliferates, robust trademarks are essential for brand recognition, reputation, and mitigating consumer misunderstanding, particularly as more entities introduce online courses and platforms within the NEP 2020 framework.

¹⁷ The Copyright Act, 1957, No. 14, Acts of Parliament, 1957 (India), s. 13.

¹⁸ Id. at §§ 14-18

¹⁹ The Patents Act, 1970, No. 39, Acts of Parliament, 1970 (India), s. 3(k).

²⁰ The Trademarks Act, 1999, No. 47, Acts of Parliament, 1999 (India), s 2(1)(zb).

3.4 The Information Technology Act, 2000

Although not an intellectual property law in itself, it is crucial in the digital realm. It examines multiple facets of electronic commerce, digital transactions, cybercrime, and data protection, all of which are inherently connected to the creation, distribution, and consumption of digital media in education.²¹ It ensures legal recognition of electronic records and digital signatures, while also incorporating measures to combat digital piracy, hacking, and unauthorised access to computer systems, thereby strengthening the enforcement of intellectual property rights in the digital domain.²²

The principle of 'fair dealing' as outlined in Section 52 of The Copyright Act, 1957, is especially relevant to education.²³ This clause delineates some actions that do not amount to copyright infringement, even when they incorporate copyrighted content, as long as they serve goals such as study, criticism, review, and reporting on current events. This permits restricted replication for educational purposes or personal research.²⁴

The interpretation and application of 'fair dealing' regarding large-scale digital dissemination, online platforms, and MOOCs under NEP 2020 is a crucial area for analysis, as the parameters of this exception frequently become contentious in the context of contemporary digital learning practices.

3.5 Provisions Related to Intellectual Property enshrined in NEP 2020

While NEP 2020 is a broad policy document rather than a legal statute, it implicitly and explicitly addresses intellectual property rights (IPR) through its emphasis on fostering innovation, research, and indigenous knowledge. The policy aims to cultivate a culture of creation and discovery, which naturally leads to the generation of intellectual assets.

Key aspects related to IPR within NEP 2020 include:

• **Promotion of Research and Innovation:** The policy strongly advocates for strengthening research ecosystems in higher education institutions, encouraging faculty and students to

²¹ The Information Technology Act, 2000, No. 21, Acts of Parliament, 2000 (India).

²² Id. *Id.* at §§ 65, 66.

²³ The Copyright Act, 1957, *supra* note 15, at § 52.

²⁴ Id.

engage in cutting-edge research. This focus on innovation is directly linked to the generation of new knowledge, inventions, and creative works that are protectable under various IP laws, particularly patents and copyrights. The emphasis on interdisciplinary research and critical thinking is expected to lead to more novel outputs. ²⁵

- Emphasis on Indigenous Knowledge Systems (IKS): NEP 2020 highlights the rich heritage of ancient and traditional Indian knowledge. It calls for the integration of Indian Knowledge Systems (IKS) into the curriculum and promotes research into these traditional practices. While IKS often falls outside conventional IP frameworks, the policy's recognition implicitly raises questions about its protection, documentation, and equitable benefit-sharing, encouraging a dialogue on how traditional knowledge can be acknowledged and safeguarded.²⁶
- Encouragement of Original Content Creation: The policy's push for digital learning platforms like SWAYAM and DIKSHA inherently promotes the creation of original digital educational content by educators and institutions. This necessitates an understanding of copyright and licensing to ensure that these newly created works are appropriately protected and disseminated.²⁷
- **Building a 'Knowledge Economy':** NEP 2020 aims to position India as a "global knowledge superpower." This vision implies a strong emphasis on intellectual capital, which is directly tied to a robust IPR regime that incentivizes and protects innovative output. The policy fosters an ecosystem where intellectual contributions are valued and leveraged for national development.²⁸
- IPR Awareness: Although not explicitly detailing IP laws, the policy's overall thrust on research, innovation, and ethical conduct in academia necessitates a heightened awareness of IPR among all stakeholders—students, faculty, and administrators. This implicit need is crucial for preventing plagiarism, promoting ethical research practices, and ensuring that intellectual creations are recognized and protected. Several academic interpretations of

²⁵ Ministry of Education, *supra* note 5, at 26-27 (emphasizing research and innovation).

²⁶ *Id.* at 4.27 (referring to the traditional knowledge of India).

²⁷ *Id.* at 22-23 (on SWAYAM and DIKSHA promoting digital content).

²⁸ Id. at 1 (aiming for India to become a global knowledge superpower).

NEP 2020 underscore the imperative to create IPR awareness within educational institutions to enable faculty and students to protect their innovative work.²⁹

These provisions, while foundational, set the stage for how India's existing IP laws must adapt and be interpreted to support the ambitious digital transformation envisioned by NEP 2020, particularly concerning the generation, ownership, and dissemination of educational content and technological innovations.

4. Confluence of Digital Media, NEP 2020, and Intellectual Property Challenges

The convergence of NEP 2020's lofty digital objectives with India's current intellectual property legislation poses numerous substantial issues that necessitate meticulous management to guarantee both policy efficacy and legal adherence.³⁰

4.1 Copyright Infringement and Piracy

The intrinsic simplicity of digital replication, alteration, and immediate global distribution significantly amplifies the likelihood of extensive copyright violations and digital piracy.

Once educational content—such as e-books, video lectures, software, or multimedia presentations—is digitised and uploaded to online platforms or shared through networks, it can be easily replicated, modified, and disseminated by unauthorised individuals or entities without the copyright holder's consent.³¹

This pervasive piracy undermines the economic and moral rights of creators, such as authors, educators, and content developers, while also substantially disincentivising the production of original, high-quality educational materials, potentially stifling innovation and investment in the EdTech sector. The problem is to create strong technology and legal frameworks to efficiently detect, prevent, and prosecute such infringements on a national level.

²⁹ Journal of Intellectual Property Rights (JIPR), Vol 27, No 6 (2022), (discussing IPR awareness in context of NEP 2020).

³⁰ Shyam Sunder Singh & Anil Kumar, Digital Piracy and Copyright Law in India: An Analysis, 3 Int'l J. Res. Rev. 345, 347-349 (2016).

³¹ G.R. Raghuveer, Challenges of Copyright Infringement in the Digital Era, 8 J. Intell. Prop. L. Prac. 780, 782-784 (2013)

4.2 Fair Use v. Commercialisation

The 'fair dealing' exception in Section 52 of the Copyright Act, 1957, intended to reconcile author rights with public interest, necessitates precise and sophisticated interpretation within the evolving landscape of digital education.³²

While traditional classroom usage, research, and private study are typically regarded as fair use, the distinction becomes ambiguous when educational institutions or EdTech businesses engage in the commercialisation of digital courses that heavily utilise third-party copyrighted content.³³

The extensive digital dissemination under NEP 2020, especially via platforms such as SWAYAM, complicates the identification of permissible boundaries for copying, adapting, and distributing content for educational purposes as opposed to instances that may unintentionally verge on commercial exploitation, thereby requiring more precise statutory definitions or authoritative guidelines.

4.3 Ownership of Faculty-Generated Content

As faculty and educators are increasingly urged to produce a diverse range of digital content—including pre-recorded video lectures, interactive e-modules, online quizzes, digital simulations, and extensive online course curricula—complicated issues of intellectual property ownership inevitably emerge.³⁴

The essential question is: does the intellectual property in this content belong to the individual faculty member (as the author), the educational institution (under a "work-for-hire" doctrine or special employment agreements), or is there a model of shared ownership? In the absence of explicit institutional intellectual property protections, conflicts may emerge concerning the rights to future commercialisation, adaption, or public access to significant educational

³² Lawrence Liang, The Copyright Act, 1957 and its Implications for Digital Education in India, 20 J. World Intell. Prop. 1, 5-8 (2017)

³³ M.C. Mehta, Fair Use Doctrine in the Digital Age: A Comparative Study, 7 Indian J. Intell. Prop. Rts. 45, 48-50 (2012)

³⁴ V.K. Singh, Ownership of Intellectual Property Created by Academics in Universities: A Legal Perspective, 12 J. Acad. L. 200, 203-205 (2015).

resources, thus obstructing their broader utilisation and the impact anticipated by NEP 2020³⁵.

4.4. Open Educational Resources (OERs) and Licensing

The NEP 2020 robustly advocates for the development and extensive utilisation of Open Educational Resources (OERs) to foster equitable access to education³⁶.

Although OERs serve as a potent instrument for democratising information, their successful adoption requires careful consideration of licensing. Open Educational Resources (OERs) generally utilise open licenses, such as various Creative Commons (CC) licenses, to stipulate the conditions for the free use, adaptation, and dissemination of content, while maintaining appropriate attribution to the original creator³⁷.

Misunderstanding, misapplication, or non-compliance with these specific license restrictions (e.g., neglecting to attribute or utilising a "non-commercial" OER for commercial purposes) may result in inadvertent intellectual property breaches, compromising the fundamental principles of open access and ethical sharing that OERs represent.

4.5. Data Protection and Privacy

The widespread utilisation of digital educational platforms entails the collecting, processing, and storage of substantial quantities of sensitive student data, encompassing academic performance, personal information, and behavioural analytics.³⁸

While not exactly classified as an intellectual property right, data protection and privacy issues are crucial for fostering trust in digital learning settings and assuring the ethical use of digital assets. The prolonged absence of a comprehensive data protection law in India, highlighted by the Personal Data Protection Bill, 2019, which has since been superseded by the Digital Personal Data Protection Act, 2023, posed a considerable obstacle. Strong legal frameworks and rigorous security measures are essential to avert data breaches, misuse of personal

³⁵ Rahul Singh, Developing Intellectual Property Policies for Educational Institutions, 9 Nat'l J. L. 150, 155-158 (2014).

³⁶ Ministry of Education, *supra* note 1, at 28.

³⁷ Jane Namasaka, *Open Educational Resources and Intellectual Property Rights: A Balancing Act*, 6 J. OER 90, 93-95 (2019).

³⁸ Amrita Singh, Data Privacy Concerns in Online Education Platforms in India, 5 J. Cyber L. 60, 62-64 (2021).

information, and to assure adherence to emerging data protection rules, thereby protecting the rights of students and educators in the digital realm³⁹.

5. Opportunities and Best Practices

Notwithstanding the intrinsic hurdles, the incorporation of digital media presents substantial opportunity for the effective execution of NEP 2020, while concurrently cultivating an environment that honours and safeguards Intellectual Property Rights. Intelligently utilising technology can unveil novel opportunities for education, collaboration, and content development.

5.1. Improved Accessibility and Outreach

Digital platforms have a unique capacity to democratise access to high-quality education, extending their reach to students in remote locations and those who may be barred from conventional educational institutions due to numerous obstacles.⁴⁰

This connects seamlessly with the basic objective of NEP 2020 to universalise education and guarantee that learning opportunities are accessible to all learners, irrespective of their geographical location or socio-economic status. Digital resources are accessible on demand, providing a flexibility that conventional systems frequently lack.

5.2. Promotion for Creative Commons and Open Educational Resources

By actively advocating for the adoption and comprehension of Creative Commons (CC) licensing, educational institutions can cultivate a dynamic culture of sharing, collaboration, and innovation within the academic community, while ensuring appropriate attribution to the original creators⁴¹.

Open Educational Resources (OERs), created under such licenses, can substantially enhance the availability of educational information, lower expenses for students, and allow educators to modify and tailor resources to accommodate varied learning requirements. This

³⁹ Digital Personal Data Protection Act, 2023, No. 22, Acts of Parliament, 2023 (India).

⁴⁰ N.K. Sharma, Digital Transformation of Education in India: Opportunities and Challenges, 10 Int'l J. Educ. Tech. 110, 112-114 (2018).

⁴¹ Sarojini Rao, Creative Commons Licensing and Open Access in Indian Academia, 15 J. Libr. Inf. Sci. 70, 73-75 (2020).

methodology promotes a 'build-on-existing-foundations' mindset, expediting content creation without perpetual reinvention.

5.3. Intellectual Property Awareness and Education

The widespread digital transformation in education presents a crucial opportunity to incorporate extensive intellectual property awareness and digital ethics into the fundamental curriculum for students and instructors across all levels⁴².

Comprehending the intricacies of copyright, patenting, trademarking, plagiarism, and the ethical utilisation of digital content is essential for cultivating a generation that is both technologically literate and conscientious regarding intellectual property rights in the digital world. This teaching can avert unintentional violations and promote creative invention.

5.4. Comprehensive Digital Rights Management (DRM)

Implementing robust Digital Rights Management (DRM) solutions is an essential technological best practice for safeguarding copyrighted digital educational content from unauthorised duplication, distribution, and exploitation⁴³.

This encompasses several techniques, including secure digital watermarking for traceability, encryption mechanisms to restrict access to authorised users, and sophisticated access controls that limit views, downloads, or sharing capabilities. Although DRM is not infallible, it acts as a substantial deterrent and offers mechanisms for monitoring and administering digital assets, therefore protecting the commercial and ethical interests of content providers.

5.5. Explicit Institutional Intellectual Property Policies

Educational institutions, including universities and school boards, must develop explicit, thorough, and transparent intellectual property policies⁴⁴.

⁴² R.K. Gupta, Importance of IP Education for Students in the Digital Age, 11 J. Intell. Prop. Stud. 85, 88-90 (2016).

⁴³ P. Kumar, Digital Rights Management Technologies: An Overview and Their Application in Content Protection, 4 J. Inf. Sec. 120, 123-125 (2011).

⁴⁴ Rajeev Kumar & Anjali Singh, Formulating Robust IP Policies for Indian Universities, 6 J. Res. Higher Educ. 210, 215-218 (2019).

These policies must comprehensively cover essential aspects, including the ownership of faculty-generated content (distinguishing between 'work-for-hire' and faculty ownership), frameworks for revenue sharing from commercialised educational intellectual property, explicit guidelines for licensing third-party copyrighted material (encompassing fair use criteria), and defined protocols for recognising and resolving intellectual property infringement. These regulations offer clarity, reduce conflicts, and encourage teachers and staff to innovate and develop useful educational tools.

6. Recommendation for Policy and Implementation

To adeptly traverse the intricate convergence between NEP 2020's digital aspirations, the expanding realm of digital media, and the complexities of Indian intellectual property regulations, the following ideas are put forth to establish a supportive, legally compliant, and innovation-fostering educational environment:

6.1. Legislative Precision Regarding Fair Dealing

The Copyright Act of 1957, although providing a fair dealing exception, requires reassessment and possible amendment or, at a minimum, the addition of explicit, unequivocal principles. These recommendations must clearly delineate the extent and applicability of 'fair dealing' concerning extensive digital education, online learning platforms, MOOCs, and the utilisation of AI in content creation⁴⁵.

This clarity would offer essential legal assurance for educators, content creators, and platform providers, mitigating litigation risks and promoting increased use of digital resources without the apprehension of unintentional infringement.

6.2. National Intellectual Property Guidelines for Educational Institutions

The Ministry of Education, in conjunction with the Department for Promotion of Industry and Internal Trade (DPIIT) and the Intellectual Property Office, shall formulate a comprehensive framework of national intellectual property norms specifically designed for all educational

⁴⁵ S.P. Arora, Revisiting Fair Use in Indian Copyright Law for the Digital Classroom, 14 Indian J. Intell. Prop. 95, 98-101 (2022).

institutions in India⁴⁶.

These guidelines must be detailed, encompassing clear content ownership policies (including distinctions for faculty, students, and collaborative projects), standardised licensing frameworks for the sharing and adaptation of educational materials (including OERs), comprehensive plagiarism prevention mechanisms, and effective enforcement procedures for addressing intellectual property violations within academic environments.

6.3. Capacity Building and Training

Comprehensive, continuous, and obligatory training programs must be formulated and implemented for all principal stakeholders: educators, content creators, academic administrators, and students⁴⁷.

These programs should emphasise the practical dimensions of intellectual property legislation, digital rights management tools and methodologies, ethical content production, appropriate utilisation and attribution of digital resources, and the navigation of open licenses such as Creative Commons. This extensive capacity building is essential for cultivating an IP-aware and IP-compliant digital educational environment.

6.4. Advancement of Indigenous Content Production

To diminish dependence on imported information and assure cultural pertinence, substantial incentives and thorough support systems must be instituted to promote and facilitate the development of original, high-quality, and contextually appropriate indigenous digital educational materials.⁴⁸

This encompasses financing for content development initiatives, delivering technical expertise, facilitating IP registration support, and guaranteeing that creators receive appropriate acknowledgement and fair remuneration for their intellectual contributions, thus fostering a self-sustaining ecosystem of Indian educational content.

⁴⁶ Department for Promotion of Industry and Internal Trade, National IPR Policy 2016 (2016).

⁴⁷ NITI Aayog, Strategy for New India @75 (2018).

⁴⁸ Ministry of Education, supra note 1, at 30.

6.5. Streamlining Licensing Mechanisms

A centralised platform or a standardised framework should be established to facilitate the legitimate use of third-party copyrighted information by educational institutions. This will enable universities to efficiently license copyrighted material from publishers, content providers, and individual creators for digital utilisation inside their courses and platforms.⁴⁹

This may entail bulk licensing agreements, transparent royalty frameworks, and streamlined digital permissions procedures, thereby minimising administrative obstacles and facilitating lawful content procurement.

6.6. Enhanced Enforcement Mechanisms

Although prevention is essential, effective deterrence necessitates more robust enforcement tools against digital piracy and copyright violations in the educational sector⁵⁰.

This entails augmenting the capacities of cybercrime units, facilitating prompt investigation and punishment of intellectual property infringements concerning educational content, and instituting specialised grievance redressal systems for artists whose rights have been violated. An effective enforcement framework will convey a definitive message that intellectual property rights in digital education are regarded with utmost seriousness.

6.7. Incorporation of Intellectual Property Education into the Curriculum

In addition to specialised training programs, it is essential to explicitly incorporate fundamental intellectual property awareness and digital citizenship as a compulsory element in the curriculum at all educational levels, from primary education to higher education.

This guarantees that students cultivate an intrinsic comprehension of respect for intellectual property, the ramifications of plagiarism, and the ethical obligations linked to the creation and consumption of digital information from a young age.

⁴⁹ Cyber Crime Cell, Delhi Police, *Annual Report on Cyber Crimes* (various years).

⁵⁰ National Council of Educational Research and Training, National Curriculum Framework for School Education (2023).

7. Conclusion

The National Education Policy 2020 envisions a digitally empowered, accessible, and high-quality education system in India, which is revolutionary and crucial for the nation's future development and global competitiveness. The successful realisation of this ambitious ambition depends greatly on a sophisticated knowledge, proactive management, and effective protection of Intellectual Property Rights. Digital media provides unparalleled opportunities for democratised access to knowledge, innovative pedagogy, and improved learning experiences; however, it concurrently presents intricate intellectual property challenges associated with widespread copyright infringement, unclear fair use interpretations in a digital framework, and the essential concern of content ownership in a swiftly changing educational environment.

By proactively formulating explicit legislative frameworks that accommodate digital realities, instituting strong and transparent institutional policies, enhancing widespread intellectual property awareness through thorough training and curriculum integration, and advocating ethical digital practices, India can fully leverage the potential of digital media. This strategic approach will facilitate the achievement of NEP 2020 objectives, ensuring extensive information diffusion while safeguarding and incentivising authors' rights. The optimal integration of technological progress and a clearly articulated, flexible intellectual property framework will be essential for establishing a genuinely equitable, innovative, and sustainable learning ecosystem for the nation, positioning India as a frontrunner in digital education while maintaining the integrity of intellectual property.