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From Policy to Practice: Optimizing IP Management for Innovation in Academic Institutions

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The adoption of the National IPR Policy in 2016 prompted a wave of institutional responses across India's academic landscape, with numerous universities and research institutions drafting their own IP policies. While this proliferation reflects increased awareness and formalization of IP governance, the implementation of these policies often remains superficial, lacking the operational depth required to drive genuine innovation. Concurrently, a growing emphasis on intellectual property metrics—particularly patent filing counts—has led to a focus on quantity over quality, encouraging number-driven reporting at the expense of real-world impact. This paper examines the intersection of these trends through a case study of an Institute of National Importance (INI) in India. It analyzes the institutional mechanisms adopted to translate policy into practice, focusing on the role of the Intellectual Property Management Cell (IPMC). By unpacking the challenges and strategies involved in meaningful IP policy execution, the study highlights the need for a shift from symbolic compliance to substantive outcomes in institutional IP ecosystems.

Keywords: Intellectual Property, IP Management, Academic Institutions, Inventor Declarations, IP Attribution, Policy Framework, Case Studies

The release of the National Intellectual Property Rights (IPR) Policy in 2016 marked a significant shift in India's approach to innovation and IP management. In response, numerous academic institutions across the country began formulating their own institutional IP policies, signalling a commendable intent to align with national priorities. However, having an IP policy in place is only the first step. The true challenge lies in its effective implementation. The gap between policy on paper and action on the ground remains a critical area that is often overlooked in academic discourse.

Simultaneously, the increased emphasis on IP filing, especially patents, brought with it an unintended consequence: the emergence of a numbers-driven culture. Institutions began measuring success through the sheer volume of IP filings, often without equal attention to the quality or commercial viability of those filings. This trend risks reducing the process of innovation to a quantitative exercise, where the pressure to show results overshadows the pursuit of meaningful, high-impact inventions.

The paper explores how these two dynamics intersect. It critically examines how an Institute of National Importance (INI) in India attempts to move beyond symbolic policymaking and address real implementation challenges through its IP Management Cell (IPMC). By doing so, it sheds light on the delicate balance between institutional policy frameworks and the quality-driven objectives of innovation. Figure 1 shows the basic outline of the paper.

Method

The study uses a case study approach to examine the implementation of the IP Policy at an Institute of National Importance (INI) in India through qualitative analysis of both policy documents and real-world practices.

The study explores policy components, assesses their effectiveness in practice like IPMC-handled challenges, including ownership disputes, revenue sharing, compliance, etc. and identifies replicable best practices for academic institutions.

The study was validated by benchmarking against other institutional IP policies and through expert feedback from faculty inventors, collaborators, and legal advisors to ensure alignment with researcher needs.

However, the findings may have limited generalizability due to the institution-specific context and reliance on available case data.

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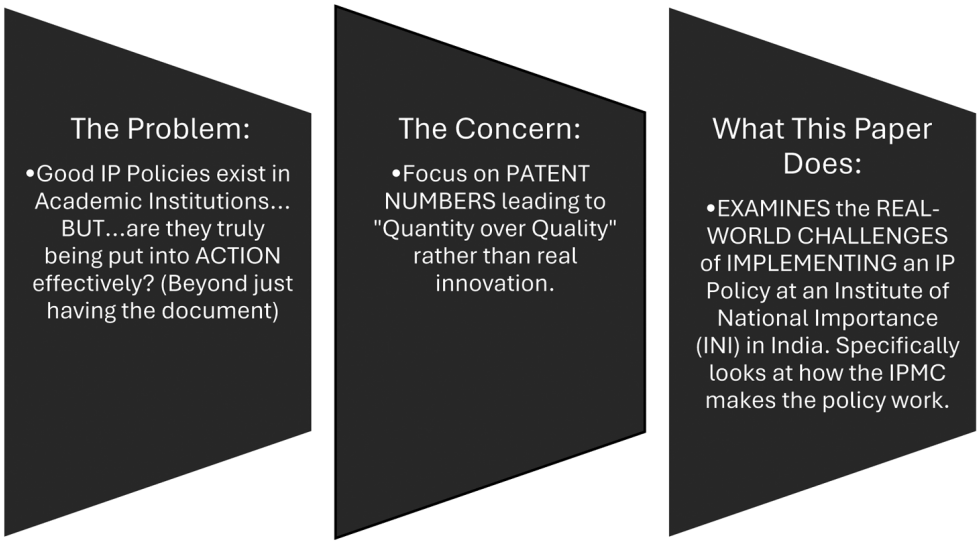

Fig. 1 — Basic outline of the paper

Discussion

General Challenges in Academic IP Management

Academic institutions encounter various hurdles in effectively managing their IP[1], [2]. Figure 2 lists the regular challenges faced by an academic institution during the course of its IP management process. These are the issues that appear in the course of filing, protecting, and commercializing an invention.

Institutional Profile

The case study focuses on an Institute of National Importance (INI) in India, with a legacy of nearly a century. The institute offers UG, PG, and PhD programs across engineering, sciences, management, and humanities. It is actively engaged in high-impact, nationally aligned research in areas like energy, sustainability, digital technologies, and industrial safety. Supported by advanced labs, Centres of Excellence, and national funding agencies (DST, SERB, CSIR, etc.), it promotes applied research and real-world innovation. An in-house Innovation and Incubation Centre fosters entrepreneurship and industry-academia collaborations. In recent years, the institution established an IPMC and adopted a comprehensive IP policy to strengthen innovation protection and commercialization.

Evolution of IP Management at the Institution

The IPMC was established in 2015, initially without any dedicated personnel to oversee its functioning. Instead, IP activities were handled through an outsourced model. One external consultant was engaged, and a law firm was empanelled to manage filings. The process was largely reactive—any invention disclosure or IP application was first reviewed by the external consultant. If deemed suitable, it moved up the approval chain: first to the Dean, and then to the Director. Upon final approval, the law firm proceeded with the drafting and filing. While this setup provided a basic framework for IP handling, the absence of internal expertise and institutional coordination posed limitations on proactive IP strategy and capacity building.

Due to limited IP awareness, many faculty members filed patents independently in their own names, without mentioning the institute. As a result, these filings were not credited in institutional metrics such as NIRF rankings. In collaborative projects, there were also instances where the institute unknowingly signed agreements that excluded it from ownership or revenue-sharing—despite all inventors belonging to the institute. These oversights weakened the institute's claim over its own innovations and highlighted the urgent need for a structured, policy-driven IP framework.

In 2023, the institute secured support from a Govt-funded scheme, enabling the recruitment of two dedicated IP professionals in 2024. Their inclusion marked a turning point in the institutional approach to IP management. With their expertise, the IPMC began streamlining key aspects of the IP ecosystem — from designing a structured Invention Disclosure Form (IDF) and drafting a comprehensive IP Policy to conducting regular IP awareness programs for researchers. Additionally, efforts were made to

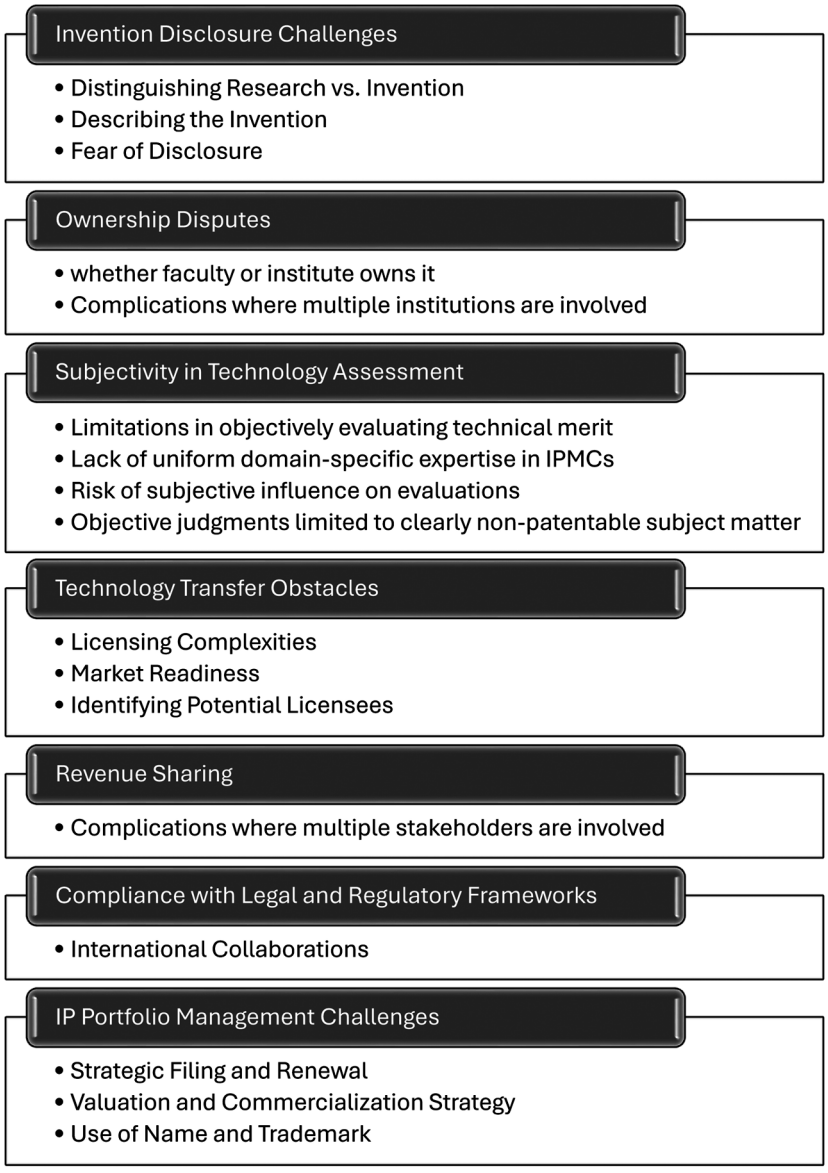

Fig. 2 — Challenges faced by an academic institution

standardize research agreements with external organizations, ensuring clearer IP ownership, compliance, and alignment with national best practices. Table 1 shows the comparative analysis of the newly adopted IP policy with other best practices.

Enhancing the Use of Invention Disclosure Form

The INI's IP policy also outlines the process for inventors to disclose their inventions using an IDF. However, initial implementation of this process revealed several challenges—faculty and students often struggled to complete the IDF due to:

(i) Lack of understanding of legal declarations
(ii) Difficulty in defining protectable subject matter
(iii) Varied needs across departments
(iv) Confusion between research papers and invention protection
(v) Concerns about pre-publication disclosure
(vi) Difficulties in understanding ownership shares

To address these challenges, and enhance the IDF process, the IPMC implemented a multi-faceted approach:

(i) Department-specific workshops to clarify IP concepts and IDF requirements.
(ii) The development of a "Guide to Inventors" to provide practical guidance on describing inventions and conducting prior art searches.

Training sessions on using AI-powered patent search tools to assess novelty and identify the invention landscape.

(iii) Refinement of the IDF based on feedback from inventors and stakeholders.

Furthermore, to ensure institutional visibility, proper attribution, and inventor accountability, the institute has incorporated the following key requirements and structured declarations into its IDF:

Mandatory Inventor and Affiliation Information

To ensure institutional visibility, proper attribution, search ability of institute-associated patents in global databases, and performance assessment, it is mandatory for inventors to include the name and address of the institute in all patent applications where the invention is conceived and/or reduced to practice at the Institute. This ensures clarity in ownership, particularly when inventors are affiliated with multiple institutions, as the locus of inventive activity (where the invention was conceived and developed) is the determining factor. Also it strengthens the Institute's position in legal, licensing, and commercialization contexts.

Structured Declarations

To ensure procedural uniformity and enhance inventor accountability, the IDF includes a structured declaration framework (Table 2). These declarations serve as formal affirmations by inventors and foster legal and procedural awareness critical for effective IP management.

These structured declarations have significantly improved the quality of invention disclosures and increased inventor confidence.

Table 1 — Comparison of key parameters between the INI in India and other premier Institutes

Parameter	INI (our use case)	IIT Bombay	IIT Kanpur	IIT Madras	IIT Delhi
Ownership of IP	The institution owns IP if developed using its resources or funding. Co-ownership is allowed under agreements.	IIT Bombay owns IP if significant resources are used; otherwise, the inventor retains rights.	Multiple ownership models exist, including industry-first rights.	IIT Madras owns IP created using its resources unless otherwise stated in agreements.	Institution retains ownership if developed using Institute funds/resources. Inventor may share rights based on agreement.
Revenue Sharing	70% to inventors, 30% to institution.	First ₹1 Cr: 70% inventor, 30% IIT Bombay; After ₹1 Cr: 50%-50%; Beyond ₹2 Cr: 30%-70%.	Royalties and fees are mutually decided with industry partners.	70% to Inventor(s), 30% to Institute.	60% to Inventor(s), 40% to Institute.
Licensing & Assignment	Allows exclusive, sole, and non-exclusive licenses. MoUs can be signed for commercialization.	IIT Bombay assists in commercialization and licensing.	Industry partners may license or own IP under agreements.	High patent filing rate with commercialization focus. Allows sub-licensing along with other licesnse	Allows exclusive, non-exclusive, and sole licensing. Requires due diligence and defined financial structure.
IP Filing & Renewal	Institute funds patent renewals for up to 10 years subject to its commercial potential. Commercial viability assessment starts from 5th year onwards.	Covers costs for first 10 years; renewal supported if revenue is generated.	Not specifically available.	Similar to IIT Delhi, with renewal fee support for commercialized patents.	Covers patent costs initially; post-commercialization, costs may be deducted from revenue.
Use of Name & Trademark	Third parties must obtain approval before using the institution's name or logo.	Approval required before third-party use of IIT Bombay's name.	Not specifically available.	Not specifically available.	Not available.
Dispute Resolution	Disputes are addressed by the IPMC Advisory Body, which evaluates the case and makes recommendations. Final decisions are made by the Director of the institution.	IIT Bombay's IP committee reviews disputes related to ownership and commercialization.	Disputes are handled through internal IP conflict resolution mechanisms in collaboration with legal advisors.	A designated IP Review Committee assesses conflicts and recommends resolutions.	IIT Delhi's IP Office and Legal Cell mediate disputes, with arbitration as a final step if unresolved.

Table 2 — List of declarations in IDF

S. No.	Declaration Statement	Rationale
i.	I affirm the accuracy of the information provided herein and acknowledge the legal consequences of any falsification.	Establishes personal responsibility for the veracity of the submission, enhancing the credibility and reliability of the disclosed invention.
ii.	I affirm my role as the 'true and first inventor' of the disclosed invention, agree to maintain confidentiality, commit to full cooperation in patent prosecution, and acknowledge the patentability requirements outlined in the Indian Patent Act.	Reinforces inventor awareness regarding statutory obligations, confidentiality expectations, and collaborative responsibilities during prosecution.
iii.	If submitting a provisional specification now, I confirm that I will promptly approach the Institute for filing a complete specification within 12 months.	Encourages timely action in accordance with statutory deadlines under the Patents Act, reducing risks of abandonment due to procedural lapses.
iv.	I agree to abide by the Institute's IP Policy.	Ensures alignment between inventor conduct and institutional IP governance mechanisms, facilitating coherent policy implementation.
v.	I declare that all contributors to the invention have been included in the inventor list here.	Promotes transparency and equitable attribution of inventorship, mitigating potential conflicts or disputes.
vi.	I ensure that no inventor shall be removed during patent prosecution if they contributed during the filing of the complete specification.	Safeguards the integrity of inventorship and preempts unauthorized or unethical alterations during prosecution.
vii.	I commit to cooperating fully in the patent prosecution process, even post-departure from the Institute, understanding the legal repercussions of non-cooperation.	Facilitates continuity in prosecution, especially when inventors transition out of the Institute, protecting institutional and individual interests.
viii.	I understand that the Institute shall not intervene in inventorship disputes. Any dispute regarding inventorship shall be amicably resolved by the inventors.	Clarifies institutional boundaries and encourages inventors to self-regulate and maintain collaborative resolution mechanisms.
ix.	I understand that the Institute shall not be liable for any office action from the Indian Patent Office.	Reinforces individual accountability for responding to statutory communications, minimizing liability risks for the Institute.
x.	I declare that I have not modified or deleted any part of the original Invention Disclosure Form (IDF) provided by the Institute.	Maintains document integrity and ensures traceability, critical for formal evaluation and procedural consistency.

Unique Features Added to the IP Policy

The following are the unique features added in the IP policy in response to real-time challenges encountered by the IPMC.

Differentiated Cost-Sharing for Joint Ownership

- In cases of joint IP ownership involving entities (excluding startups, MSMEs, and educational institutions), any filing, prosecution, or maintenance costs exceeding the proportionate statutory costs applicable to educational institutions shall be borne entirely by the entity.
- Ensures equitable financial responsibility and protects institutional resources.

Patentability Evaluation by IPMC with Independent Filing Option

- The IPMC conducts patentability assessments.
- In cases where the IPMC deems an invention non-patentable, inventors may pursue independent filing at their own cost.
- If a patent is subsequently granted through this independent route, Institute retains the option to assume ownership and provide reimbursement for the inventor's filing expenses.
- This approach effectively balances institutional quality control with the autonomy of inventors.

Mandatory Revenue Sharing Declaration at Filing

- Revenue-sharing ratios for jointly owned IP must be declared in the Invention Disclosure Form (IDF) at the time of filing.
- Promotes transparency and avoids post-filing conflicts.

Clear IP Ownership in cross-institutional Mentorship-Based Research

- When Institute faculty mentor external students, the resulting IP is jointly owned by the institute and the external entity, subject to a formal agreement.
- Conversely, when external faculty mentor Institute students, joint ownership is maintained, but Institute will not bear the cost of IP filing unless an internal faculty member is formally involved.
- This clarity pre-empts ownership disputes, fosters structured collaboration, and reflects a mature, proactive approach to managing academic-industry and inter-institutional engagements.

Inventor-Centric Revenue Distribution Model

- Adopted 70:30 revenue distribution model (Inventors: Institute's IPMC) incentivizes

disclosures and ensures sustained inventor engagement.
- Notably, inventors continue to receive their entitled share even after their association with the institution concludes, ensuring sustained recognition and motivation.
- This equitable and forward-looking model fosters a culture of innovation, institutional trust, and long-term engagement in the IP ecosystem.

Performance-Based dynamic IP portfolio management Strategy

- Institute funds patent renewals up to 10 years based on commercial potential assessed from the 5th year.
- Ensures judicious use of institutional funds and prioritizes high-impact IP.

Collectively, these practices position Institute's IP framework as a model of institutional IP governance that bridges policy with practical, innovation-driven outcomes.

Impact Assessment and Outcomes

The adoption of an institutional IP policy and the operationalization of the IPMC have contributed to a noticeable shift in the awareness, engagement, and output of faculty, researchers, and students in the area of innovation and IP protection as mentioned below.

i. **Increased IP awareness and disclosures:** One of the most visible impacts has been the rise in invention disclosures submitted by researchers. Targeted sensitization programs, workshops, and personalized guidance sessions have led to an enhanced understanding of IP rights. This has created a stronger foundation for quality disclosures.
ii. **Growth in patent filings:** There has been a marked increase in the number of patent applications filed through institutional channels. Prior to the establishment of a formal IP framework, patent filings were sporadic and largely individual-driven. Post-policy, a centralized and financially supported filing process has encouraged more researchers to seek protection for their work. The number of patent filings increased from 33 last year to 106 this year, marking a remarkable growth of over 221%; however, the institution stresses that quality and strategic value, assessed by the IPMC's patentability evaluation (section 3.5), are paramount to avoid a mere rise in low-value patent numbers.
iii. **Faculty and student engagement:** The policy has also facilitated broader participation across academic levels. Faculty members from diverse departments, including engineering, environmental sciences, and management, have engaged with the IP process, while student-led innovations, particularly those emerging from hackathons, startup competitions, and research internships, have also contributed to IP creation.
iv. **Technology commercialization and industry connect:** While the commercialization pipeline is still in its early stages, the institution has initiated formal steps toward licensing and transfer of technologies developed in-house. The IPMC has supported early engagement with industry partners, startups, and incubators, fostering a translational research culture.

Despite these positive outcomes, challenges remain in scaling up technology transfer, incentivizing commercialization, and creating long-term industry partnerships. The institute is addressing these through policy refinements, capacity building, and participation in national innovation networks.

Challenges and Lessons Learned

The journey toward institutionalizing IP management at the INI has not been without its challenges. Establishing a culture of innovation protection and commercialization within an academic environment requires both systemic change and sustained engagement across all levels of the institution. The experience has provided valuable insights into the gaps, resistance, and opportunities that characterize IP governance in higher education institutions in India.

Challenges Faced

(i) Limited Initial Awareness and Engagement: A major hurdle was the lack of awareness and understanding of IP rights among faculty and researchers in the early stages. Many viewed IP filing as a legal burden rather than a strategic opportunity, leading to under-reporting of potentially patentable innovations.

(ii) Perception vs. Practice Gap: While there was broad acknowledgment of the importance of IP at a policy level, translating this into consistent action at the department and individual level took time. The academic focus on publications often outweighed considerations of patentability or technology transfer.

(iii) Administrative and Procedural Bottlenecks: Drafting, reviewing, and processing IDF and applications required building institutional

workflows from scratch. Limited availability of trained staff and professional IP support services within the institute initially slowed down implementation.

(iv) Commercialization Challenges: Transitioning from IP creation to technology licensing or startup formation remains an area of difficulty. Weak industry-institute linkage, lack of IP valuation expertise, and absence of dedicated licensing professionals continue to restrict the commercial outcomes of institutional IP.

Lessons Learned

(i) Need for early-stage awareness and mentoring: Regular sensitization, faculty development programs, and inclusion of IP in academic orientation have proven effective in embedding IP thinking early in the research process.

(ii) Need for central monitoring of IP clauses of all collaborative projects: The institute recognizes the need for centralized oversight of collaborative agreements to align with its IP Policy—ensuring joint IP ownerships in all collaborations.

(iii) Policy as an enabler, not just a document: A well-structured IP policy, with clear incentives and procedural clarity, plays a critical role in encouraging researchers to engage with IP protection. However, it must be accompanied by active implementation and responsiveness to evolving needs.

(iv) Dedicated support structures are essential: The creation of a functional and proactive IPMC with trained personnel has been central to improving turnaround times, supporting inventors, and managing compliance and documentation.

(v) Culture change is a long-term process: Building an innovation-driven, IP-conscious academic environment is gradual. It requires consistent leadership support, recognition of inventors, and integration of IP thinking into the broader academic and research strategy.

This reflective understanding of challenges and lessons shows the institute's ongoing efforts to strengthen its IP ecosystem and contribute meaningfully to national innovation goals.

Conclusions

This study has provided valuable insights into the 'policy to practice' dynamic in IP management within an INI in India. The findings highlight the critical importance of not only having a well-defined IP policy but also ensuring its effective implementation to maximize innovation outcomes. The research has identified several key success factors for bridging the gap between IP policy and practice, including:

(i) Clear and consistent communication of the IP policy to all stakeholders.

(ii) Active engagement of researchers in the IP management process, particularly in the invention disclosure stage.

(iii) Efficient operational processes for IP protection and commercialization.

(iv) Flexible and equitable mechanisms for revenue sharing.

(v) Continuous monitoring and evaluation of the IP management system.

(vi) Providing comprehensive support and training to inventors, especially in the invention disclosure process.

Based on these findings, a practical and adaptable framework for optimizing IP management in Indian academic institutions is proposed. This framework emphasizes a holistic approach that integrates policy design, implementation strategies, and performance measurement to enhance the translation of research into innovation. Future research should focus on further validating this framework in other institutional contexts and exploring the role of national IP policies in shaping institutional practices. The refined framework further emphasizes the importance of clear inventor declarations, centralized agreement oversight, and mandatory institutional attribution to ensure robust IP governance and compliance.

References

1 Gargate G, Chowdhury A R & Jain K, IP policy framework-A tool for IP policy development, *Journal of Intellectual Property Rights*, 27 (2022) 277.

2 Savitha K S & Krishnamurthy C, intellectual property rights issues among academia: An overview, in *67th Annual Conference of Indian Library Association International Conference on Open access sources and information services during post-Covid times: Challenges and opportunities* , 2024, 1255–1262.

3 Gargate G & Jain K, Role of IP policy in innovation and entrepreneurship development : Case study of HEI in India, *Udyog Pragati-The NITIE*, no. March 2017, 2013.

4 Gupta U & Bhattacharya S, India's policy shift towards innovation, entrepreneurship, and self-reliance: Implications for india's intellectual property policy, *Journal of Intellectual Property Rights*, 29 (4) (2024) 337.