

**Systems Approach:
Teaching Intellectual Property
in Our Interconnected World
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Abstract

This paper, “A Systems Approach: Teaching Intellectual Property in Our Interconnected World,” explores the imperative shift from a fragmented to an integrated systems approach in intellectual property (IP) education. The interconnected nature of IP law necessitates an educational framework that integrates patents, trademarks, copyrights, and trade secrets. This paper examines the limitations of traditional fragmented IP education and presents an analysis of the benefits and challenges associated with systems approach.

Through incremental and radical steps, educational institutions can transition to this integrated model. The paper outlines practical strategies for overcoming initial barriers and ongoing challenges, drawing on the case study of the University of New Hampshire Franklin Pierce School of Law’s Hybrid JD program. This pioneering program exemplifies the value of this approach, providing valuable insights and a blueprint for other institutions.

The analysis underscores that while not all institutions can replicate the exact model of UNH Franklin Pierce, the principles and strategies outlined can guide significant improvements in IP education. By adopting this framework, law schools can better prepare students to navigate the complexities of IP law, fostering innovation and economic growth in our interconnected world.

KEYWORDS: Intellectual Property Education, Systems Approach, Integrated Approach, Holistic Curriculum, Hybrid JD, Legal Education, Interconnected World, IP Law Integration.

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“Systems thinking is a discipline for seeing wholes. It is a framework for seeing interrelationships rather than things, for seeing patterns of change rather than static ‘snapshots.’”

Peter Senge

Abbreviations, Acronyms, and Initials

IP - Intellectual Property

JD - Juris Doctor

UNH - University of New Hampshire

HJD - Hybrid JD (Juris Doctor)

DRM - Digital Rights Management

ITAM - Instituto Tecnológico Autónomo de México

MIT - Massachusetts Institute of Technology

MIPEF - Modular IP Education Framework

UC - University of California

EE. UU. - Estados Unidos (United States)

PwC - PricewaterhouseCoopers

GDP - Gross Domestic Product

1. Introduction

Intellectual property (IP) is best understood as a unified system that encompasses a comprehensive framework designed to promote innovation, creativity, and economic growth.² This system includes various legal mechanisms that work together to protect and incentivize the creation of new ideas, technologies, and expressions.³

The IP system plays a pivotal role in today’s global economy, serving as a fundamental driver of innovation, competition, and commercial success.⁴ IP encompasses creations of the mind, such as inventions, literary and artistic works, designs, symbols, names, and images used in commerce.⁵ By granting creators exclusive rights to their

² World Intellectual Property Organization, *What is Intellectual Property?*, WIPO Publication No. 450E/20, at 1 (2020), https://www.wipo.int/edocs/pubdocs/en/wipo_pub_450_2020.pdf.

³ William F. Shughart & Diana W. Thomas, *Intellectual Property Rights, Public Choice, Networks, and the New Age of Informal IP Regimes*, 23 Sup. Ct. Econ. Rev. 169, 169-92 (2016), <https://doi.org/10.1086/686477>.

⁴ Dina Wehbe, *The Power of Intellectual Property*, UN Today, <https://untoday.org/the-power-of-intellectual-property/>.

⁵ World Intellectual Property Organization, *What is Intellectual Property?*, WIPO, <https://www.wipo.int/about-ip/en/>.

creations, IP incentivizes innovation and creativity, allowing creators to benefit from their work.⁶ These exclusive rights are protected through various IP doctrines, each serving a specific purpose and scope.⁷

Despite the IP system's obvious interconnectedness, universities and law school usually teach IP as a series of doctrines that distinguish between its four primary domains: patents, trademarks, copyrights, and trade secrets.⁸ While this distinction is academically and analytically useful from a theoretical perspective, it presents challenges in pedagogy. Students frequently pick and choose among these domains, completing their studies with fragmented knowledge.⁹ They may believe they understand IP generally, but they only grasp pieces of a larger puzzle that clients need lawyers to solve.¹⁰

This chapter discusses how universities and law schools should and can move from the current “fragmented” model of IP education to a updated “systems” model of IP education.¹¹ Making this more is critical because of the critical role that universities and law schools play in maintaining our IP system and cultivating the social benefits of IP.¹²

1.1. What Is a Systems Approach?

A systems approach is a comprehensive method of analysis and problem-solving that views complex entities as interrelated components within a larger, unified whole.¹³ Rather than examining each part in isolation, a systems approach considers the interactions and dependencies between various components, emphasizing how they collectively contribute to the behavior and outcomes of the entire system.¹⁴ This holistic perspective is widely used in fields such as engineering, biology, economics, and organizational

⁶ World Intellectual Property Organization, *Innovation and Intellectual Property*, WIPO, https://www.wipo.int/web/ipday/2017/innovation_and_intellectual_property.

⁷ William Fisher, *Theories of Intellectual Property*, HARV. L. SCH. FACULTY, <https://cyber.harvard.edu/people/ffisher/iptheory.pdf>.

⁸ Monica Pa Moye, Syllabus, Law 525: Fundamentals of Intellectual Property Law, University of S. Cal. Gould Sch. of L. (Spring 2021), <https://web-app.usc.edu/soc/syllabus/20211/04205.pdf>.

⁹ Laura A. Heymann, *The Reasonable Person in Trademark Law*, 52 *St. Louis U. L.J.* 781 (2008).

¹⁰ Sonia K. Katyal, *The Paradox of Source Code Secrecy*, 104 *Cornell L. Rev.* 1183 (2019).

¹¹ VentureWell, How to Strengthen IP Education in University Ecosystems, (Apr. 28, 2020), <https://venturewell.org/blog/ip-education-university-ecosystems/>.

¹² Vijay Sattiraju et al., *National and Higher Education Institutions (HEIs) IP Policies: Comparison of Indian HEIs' IP Policies from a Global Perspective*, 14 *J. Knowledge Econ.* 1979 (2023), <https://doi.org/10.1007/s13132-022-00915-0>.

¹³ Jairo da Costa Junior, Jan Carel Diehl & Dirk Snelders, *A Framework for a Systems Design Approach to Complex Societal Problems*, 5 *Design Sci.* e2 (2019), <https://doi.org/10.1017/dsj.2018.16>.

¹⁴ Martin Kunc, *The Systems Thinking Approach to Strategic Management*, 12 *Systems* 213 (2024), <https://doi.org/10.3390/systems12060213>.

management to address complex issues that cannot be effectively understood or resolved by looking at individual elements alone.¹⁵

1.2. Merits of a Systems Approach

In recent years, there has been growing recognition of the need for a more integrated approach to IP education.¹⁶ A systems approach offers a holistic understanding of IP law by emphasizing the interconnectedness of its various domains—patents, trademarks, copyrights, and trade secrets.¹⁷ This section explores the numerous merits of adopting a systems approach in IP education, highlighting how it can enhance students' comprehension and practical skills, foster interdisciplinary collaboration, and better prepare them for the complexities of the modern IP landscape.¹⁸

By teaching IP as a unified system, educators can provide students with a comprehensive perspective that mirrors the realities of professional practice.¹⁹ This integrated approach not only enhances theoretical knowledge but also equips students with the tools needed to navigate and manage IP issues in a more effective and innovative manner.²⁰ Below, we detail the specific advantages of a systems approach to IP education.

1.2.1. Holistic Understanding

By examining the relationships between components, this systems approach provides an integrated understanding of how complex systems function.²¹ It helps to pinpoint root causes and identify key leverage points for intervention.²²

¹⁵ Martin Reynolds & Sue Holwell, *Introducing Systems Approaches*, in *Systems Approaches to Making Change: A Practical Guide* 1, 1–24 (Martin Reynolds & Sue Holwell eds., Springer, 2020).

¹⁶ Center for Intellectual Property Understanding, *Assessing Intellectual Property Engagement at the Largest U.S. University Entrepreneurship and Innovation Programs*, at 2 (2024), <https://www.understandingip.org/resources/reports/>.

¹⁷ *The Power of Systems Thinking: A Holistic Approach to Problem-Solving*, GESTALDT (Jan. 8, 2024), <https://www.gestaldt.com/practices/the-benefits-of-systems-thinking>.

¹⁸ Leah Greden Mathews & Andrew Jones, *Using Systems Thinking to Improve Interdisciplinary Learning Outcomes: Reflections on a Pilot Study in Land Economics*, 26 *Issues in Integrative Studies* 73, 73–104 (2008).

¹⁹ William W. Fisher III & Felix Oberholzer-Gee, *Strategic Management of Intellectual Property: An Integrated Approach*, 55 *Calif. Mgmt. Rev.* 157, 157–158, 160–161, 174–175 (2013).

²⁰ William W. Fisher III & Felix Oberholzer-Gee, *Strategic Management of Intellectual Property: An Integrated Approach*, 55 *Cal. Mgmt. Rev.* 157, 174–75 (2013).

²¹ Project Management Institute, *The Implications of Systems Thinking and Complex Systems*, ProjectManagement.com (Dec. 2022), <https://www.pmi.org/disciplined-agile/the-implications-of-systems-thinking-and-complex-systems>.

²² Jeffrey Glenn et al., *Applied Systems Thinking: A Viable Approach to Identify Leverage Points for Accelerating Progress Towards Ending Neglected Tropical Diseases*, 18 *Health Res. Pol'y & Sys.* 56 (2020), <https://doi.org/10.1186/s12961-020-00570-4>.

Example: In environmental management, a systems approach examines studying the interactions between air, water, soil, and living organisms to understand the ecosystem's health. It shows how pollution in one area can affect the entire ecosystem, leading to more effective and sustainable environmental policies.

1.2.2. Improved Problem-Solving

Systems thinking encourages the identification of patterns and interdependencies, which can lead to innovative solutions that address multiple issues simultaneously.²³ It moves beyond linear cause-and-effect thinking, allowing for more nuanced and effective problem-solving strategies.²⁴

Example: In urban planning, a systems approach could address traffic congestion by considering not only road infrastructure but also public transportation, housing, and commercial development. By understanding how these factors interact, planners can devise comprehensive strategies that alleviate congestion while promoting sustainable urban growth.

1.2.3. Enhanced Collaboration

A systems approach often involves interdisciplinary collaboration, drawing on diverse perspectives and expertise to develop a more comprehensive understanding of complex issues.²⁵ This can lead to more robust and sustainable solutions.²⁶

Example: In healthcare, improving patient outcomes often requires collaboration between doctors, nurses, social workers, and public health professionals. A systems approach facilitates this interdisciplinary collaboration, ensuring that all aspects of a patient's well-being are considered in treatment plans.

²³ Michael Goodman, *Systems Thinking: What, Why, When, Where, and How?*, The Systems Thinker, <https://thesystemsthinker.com/systems-thinking-what-why-when-where-and-how>.

²⁴ Matthew Amisshah, Thomas Gannon & Jamie Monat, *What is Systems Thinking? Expert Perspectives from the WPI Systems Thinking Colloquium of 2 October 2019*, 8 Systems 6 (2020), <https://doi.org/10.3390/systems8010006>.

²⁵ S. Sandeep Gaikwad et al., *Interdisciplinary Collaboration in Research*, in *Modern Trends in Multi-Disciplinary Research* vol. 1, at 14 (STRING PRODUCTION 2024).

²⁶ *Id.*

1.2.4. Long-Term Solutions

By focusing on the interconnections within a system, this approach helps design interventions that address underlying issues rather than just symptoms.²⁷ This leads to more sustainable and long-term solutions.²⁸

Example: In education, addressing student performance issues through a systems approach might involve not only improving teaching methods but also considering factors like family support, nutrition, and extracurricular activities. This comprehensive strategy can lead to sustained improvements in student outcomes.

1.2.5. Adaptability

Systems thinking encourages continuous learning and adaptation.²⁹ By understanding how different parts of a system interact, stakeholders can more effectively respond to changes and emerging challenges.³⁰

Example: In business, a company using a systems approach to manage its supply chain would continuously monitor and adapt to changes in supplier reliability, market demand, and transportation logistics. This adaptability helps the company maintain efficiency and competitiveness in a dynamic market environment.

1.2.6. Risk Management

Considering the system as a whole helps identify potential risks and unintended consequences of interventions.³¹ This comprehensive view enables better risk management and mitigation strategies.³²

Example: In project management, applying a systems approach means anticipating how changes in one part of the project could impact other parts. For instance, altering the project scope might affect timelines, budgets, and resource allocation. By understanding

²⁷ Jurgen Appelo, *32 Key Concepts in Systems Thinking and Complexity Theory*, unFIX (July 15, 2024), <https://unfix.com/blog/32-key-concepts-in-systems-thinking-and-complexity-theory/>.

²⁸ Id.

²⁹ Gestaltd Consultants, *The Power of Systems Thinking: A Holistic Approach to Problem-Solving*, Gestaltd (Jan. 8, 2024), <https://www.gestaltd.com/insights/the-power-of-systems-thinking-a-holistic-approach-to-problem-solving>.

³⁰ *Systems Theory in Evaluation: Understanding Complex Social Systems*, Employers (2024), <https://www.evalcommunity.com/career-center/systems-theory/>.

³¹ Andy Carlino, *Systems Thinking—More than the Sum of its' Parts*, Andy Carlino Blog (Nov. 4, 2023), <https://www.andycarlino.com/blog/systems-thinking-more-than-the-sum-of-its-parts>.

³² Id.

these interdependencies, project managers can better mitigate risks and ensure successful project delivery.

1.3. Challenges of a Systems Approach

Implementing a systems approach to IP education is a progressive step toward providing a holistic understanding of IP law.³³ However, this approach also presents several challenges that educators and institutions must address. Here are key challenges with examples to illustrate each.

1.3.1. Complexity in Curriculum Design

Designing a curriculum that integrates all domains of IP—patents, trademarks, copyrights, and trade secrets—into a cohesive program can be complex.³⁴ It requires careful planning to ensure that each domain is covered comprehensively while also highlighting their interconnections.³⁵

Example: A law school attempting to design an integrated IP course may struggle to allocate sufficient time to cover the detailed aspects of each domain, leading to potential gaps in students' understanding.

1.3.2. Faculty Expertise and Interdisciplinary Teaching

A systems approach requires faculty members who are not only experts in their specific IP domains but also capable of teaching interdisciplinary content.³⁶ Finding and training such faculty can be challenging.³⁷

Example: A university may have excellent patent law professors but lack instructors with expertise in integrating IP law with business and technology, making it difficult to offer a well-rounded course.

³³ Gestaltdt Consultants, *The Power of Systems Thinking: A Holistic Approach to Problem-Solving*, Gestaltdt (Jan. 8, 2024), <https://www.gestaltdt.com/insights/the-power-of-systems-thinking-a-holistic-approach-to-problem-solving>.

³⁴ Elliot A. Fishman, *The Role of Intellectual Property Management Education in a Technology Management Curriculum*, 35 J. Tech. Transf. 432, 436-39 (2010).

³⁵ Id.

³⁶ Steve H. Barr, Ted Baker, Stephen K. Markham & Angus I. Kingon, *Bridging the Valley of Death: Lessons Learned from 14 Years of Commercialization of Technology Education*, 8 Acad. Mgmt. Learning & Educ. 370, 373–74, 379 (2009).

³⁷ Id.

1.3.3. Resource Constraints

Implementing a comprehensive systems approach can be resource-intensive.³⁸ Institutions need to invest in new materials, training, and potentially hiring additional faculty, which can strain budgets.³⁹

Example: Smaller universities with limited funding may find it difficult to afford the necessary resources to develop and maintain a systems-based IP curriculum.

1.3.4. Student Overload and Cognitive Load

A systems approach to IP education can be overwhelming for students due to the breadth and depth of content covered.⁴⁰ Balancing the amount of information while ensuring that students do not feel overloaded is crucial.⁴¹

Example: Law students may struggle to grasp the interconnectedness of different IP domains if they are presented with too much information too quickly, leading to confusion and disengagement.

1.3.5. Assessment and Evaluation Difficulties

Evaluating students' understanding in a systems approach framework can be more difficult than in traditional, segmented courses.⁴² Standardized testing methods may not accurately measure students' holistic understanding of IP law.⁴³

³⁸ Ritesh Chugh, Darren Turnbull, Michael A. Cowling & Robert Vanderburg, *Implementing Educational Technology in Higher Education Institutions: A Review of Technologies, Stakeholder Perceptions, Frameworks and Metrics*, 28 Educ. & Info. Techs. 16403, 16404, 16419, 16421 (2023), <https://doi.org/10.1007/s10639-023-11846-x>.

³⁹ Id.

⁴⁰ David T. Conley, *Breadth vs. Depth: The Deeper Learning Dilemma*, EdImagine (Oct. 15, 2015), <http://edimagine.com/blog/breadth-vs-depth-the-deeper-learning-dilemma>; Thomas Arnett, *How to Have It Both Ways: Deeper Learning and Broad Content Coverage*, Christensen Inst. (Apr. 22, 2021), <https://www.christenseninstitute.org/blog/how-to-have-it-both-ways-deeper-learning-and-broad-content-coverage/>.

⁴¹ Id.

⁴² Ritesh Chugh et al., *Implementing Educational Technology in Higher Education Institutions: A Review of Technologies, Stakeholder Perceptions, Frameworks and Metrics*, 28 Educ. & Info. Techs. 16403, 16403, 16419 (2023).

⁴³ George Madaus, Peter Airasian & Thomas Kellaghan, *The Effects of Standardized Testing*, 5 Irish J. Educ. 70, 70-85 (1971); Bari Walsh, *When Testing Takes Over*, Harv. Graduate Sch. of Educ., Usable Knowledge (Nov. 3, 2017), <https://www.gse.harvard.edu/news/uk/17/11/when-testing-takes-over>; Stavros Sindakis, *Holistic Assessment: Unleashing Student Potential*, Academia World News (Dec. 11, 2023), <https://www.academiaworldnews.com/holistic-assessment-unleashing-student-potential>.

Example: Traditional exams focusing on isolated IP domains might not effectively assess a student's ability to apply a systems perspective, requiring the development of new, more integrative assessment methods.

1.3.6. Institutional Resistance to Change

Universities and law schools often have established traditions and curricula that can be resistant to change.⁴⁴ Shifting to a systems approach requires significant buy-in from faculty and administration, which can be difficult to achieve.⁴⁵

Example: Faculty members who have taught traditional IP courses for years may be reluctant to adopt a new teaching approach, preferring to stick with established methods.

1.3.7. Keeping Pace with Rapid Technological Advances

The field of IP is constantly evolving, particularly with the rapid advancement of technology.⁴⁶ A systems approach must be flexible enough to adapt to these changes, which can be difficult to manage.⁴⁷

Example: Incorporating emerging topics like digital rights management and artificial intelligence into an already comprehensive systems-based IP curriculum can be challenging, requiring continuous updates to course content.

By addressing these challenges, universities and law schools can more effectively implement a systems approach to IP education, ultimately providing students with a richer and more practical understanding of the interconnected nature of IP law.⁴⁸

⁴⁴ Gail D. Caruth & Donald L. Caruth, *Understanding Resistance to Change: A Challenge for Universities*, 14 Turk. Online J. Distance Educ. 2, 12, 14, 18 (2013).

⁴⁵ Christy Murray & Earnest Brooks, *Understanding the Importance of Teacher Buy-In for School Improvement*, MIDDLE SCHOOL MATTERS INST. (2024), <https://www.greatmiddleschools.org/resources/understanding-the-importance-of-teacher-buy-in-for-school-improvement>; Olaf Jorgenson, *Why Curriculum Change Is Difficult and Necessary*, NAT'L ASS'N OF INDEP. SCHS., Summer 2006, <https://www.nais.org/articles/pages/why-curriculum-change-is-difficult-and-necessary>.

⁴⁶ Arlen Olsen, *Preparing for 2024: The Changing Landscape of IP Law*, Schmeiser, Olsen & Watts, LLP (Dec. 28, 2023), <https://iplawusa.com/preparing-for-2024-the-changing-landscape-of-ip-law/>.

⁴⁷ Digital Legal Perspectives, *The Evolving Landscape of Intellectual Property Rights in the Digital Age*, (Sept. 16, 2024), <https://www.digitallegalperspectives.com/blog/the-evolving-landscape-of-intellectual-property-rights-in-the-digital-age>.

⁴⁸ Arlen Olsen, *Preparing for 2024: The Changing Landscape of IP Law*, Schmeiser, Olsen & Watts, LLP (Dec. 28, 2023), <https://iplawusa.com/preparing-for-2024-the-changing-landscape-of-ip-law/>.

1.4. IP as a System

Interconnectedness refers to the state of being mutually connected or interrelated.⁴⁹ In today's global landscape, interconnectedness encompasses the intricate linkages between nations, economies, technologies, and societies.⁵⁰ This phenomenon is driven by advancements in communication, transportation, and information technology, which have facilitated the rapid exchange of ideas, goods, services, and capital across borders.⁵¹ Interconnectedness implies that actions or changes in one part of the world can have significant and often immediate impacts on other parts, creating a web of systems, which include trade,⁵² media,⁵³ supply chains,⁵⁴ environment,⁵⁵ culture,⁵⁶ and IP.

⁴⁹ Daniel Mitchell, *Surprising Facts About Interconnectedness You Should Know*, Medium (Oct. 21, 2023), <https://medium.com/@danielmitchellpub/surprising-facts-about-interconnectedness-you-should-know-ae312756132d>

⁵⁰ Michael Birshan et al., *A New Paradigm for Our Connected World?*, McKinsey & Co. (Nov. 22, 2023), <https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/a-new-paradigm-for-our-connected-world>.

⁵¹ **Id.**

⁵² According to the World Trade Organization (WTO), global trade reached \$28.5 trillion in 2021, highlighting the extensive exchange of goods and services between countries. For example, the 2008 financial crisis demonstrated how interconnected financial systems are, as the collapse of major financial institutions in the United States triggered economic downturns in countries worldwide.

⁵³ The International Telecommunication Union (ITU) reported that by 2021, there were approximately 4.9 billion internet users worldwide, reflecting the deep penetration of digital technologies. For example, the global spread of social media platforms like Facebook, Twitter, and Instagram illustrates how digital networks connect people across the globe, enabling instant communication and the sharing of information.

⁵⁴ A McKinsey Global Institute report indicated that 80% of global trade involves complex supply chains spanning multiple countries. For example, the COVID-19 pandemic disrupted global supply chains, affecting the availability of products from electronics to pharmaceuticals, underscoring the interconnectedness of manufacturing and distribution networks.

⁵⁵ The Intergovernmental Panel on Climate Change (IPCC) has documented how climate change impacts are felt globally, with rising temperatures, sea levels, and extreme weather events affecting diverse regions. For example, deforestation in the Amazon rainforest has global repercussions, including the loss of biodiversity and contributions to climate change, affecting ecosystems and communities far beyond South America.

⁵⁶ UNESCO reports that cultural and creative industries generate \$2.25 trillion annually, reflecting the global exchange of cultural products. For example, the global popularity of South Korean K-pop music and cinema exemplifies how cultural products can transcend borders, influencing fashion, language, and entertainment worldwide.

IP is similarly intertwined across various domains including global innovation systems,⁵⁷ cross-border IP protections,⁵⁸ technology transfer and licensing,⁵⁹ and online and digital IP challenges.⁶⁰ While few would argue that IP is not interconnected, the fact it is typically not taught in an interconnected ways suggests that it is worth outlining the merits of a systems approach to IP education specifically.⁶¹

1.4.1. Holistic Understanding of IP Interactions

A systems approach enables a comprehensive understanding of how different IP domains—patents, trademarks, copyrights, and trade secrets—interact and support each other.⁶² This holistic view is essential in a world where IP issues are rarely confined to a single domain.⁶³

Example: Consider a tech company developing a new product. Protecting the product might involve patents for the technology, trademarks for branding, copyrights for the software, and trade secrets for the manufacturing process. A systems approach helps in managing these overlapping protections effectively.

⁵⁷ Innovations often result from collaborative efforts spanning multiple countries and disciplines. For instance, the development of mRNA vaccines for COVID-19 involved contributions from scientists and researchers around the world, leading to patents and IP considerations in various jurisdictions.

⁵⁸ A company like Apple protects its trademarks, patents, and copyrights globally to safeguard its brand and technology. This requires navigating different legal systems and IP regulations, illustrating the need for a unified approach to IP management.

⁵⁹ Universities and research institutions frequently engage in technology transfer, licensing their innovations to companies worldwide. This process involves complex IP agreements that cross national boundaries, emphasizing the interconnected nature of IP in fostering global innovation.

⁶⁰ The rise of digital platforms has made it easier to share and distribute content, but also presents challenges in protecting IP. Copyright infringement and digital piracy are global issues that require coordinated international responses.

⁶¹ World Intellectual Property Organization, *Intellectual Property (IP) Education in Business Schools: A Global Perspective*, WIPO 3-5 (2023), <https://www.wipo.int/edocs/pubdocs/en/wipo-pub-rn2023-29-en-intellectual-property-ip-education-in-business-schools.pdf>.

⁶² *The Power of Systems Thinking: A Holistic Approach to Problem-Solving*, Gestaltdt Insights (Jan. 8, 2024), <https://www.gestaltdt.com/the-power-of-systems-thinking>.

⁶³ *The Impact of the Digital Age on Intellectual Property*, Otto.Law (Jan. 31, 2023), <https://www.otto.law/blog/the-impact-of-the-digital-age-on-intellectual-property>.

1.4.2. Enhanced Problem-Solving and Innovation

By viewing IP as an interconnected system, educators and practitioners can develop more innovative solutions to IP challenges.⁶⁴ This approach encourages looking beyond individual IP rights to understand their collective impact.⁶⁵

Example: In addressing digital piracy, a systems approach might integrate copyright enforcement with technological solutions like digital rights management (DRM) and international policy coordination.

1.4.3. Improved Collaboration and Interdisciplinary Integration

A systems approach fosters collaboration across disciplines and sectors, recognizing that effective IP management often requires input from legal, technological, and business perspectives.⁶⁶

Example: Developing a comprehensive IP strategy for a biotech firm might involve collaboration between IP lawyers, scientists, and business strategists to ensure all aspects of the firm's innovations are protected and monetized.

1.4.4. Long-Term Strategic Planning

A systems approach helps in crafting long-term IP strategies that are adaptable to changes in technology, markets, and regulations.⁶⁷ This perspective is crucial in a fast-evolving global landscape.⁶⁸

Example: A pharmaceutical company might use a systems approach to plan its IP strategy over the lifecycle of a drug, considering patents for the active ingredient, trademarks for the brand, and trade secrets for the manufacturing process.

⁶⁴ *Systems Thinking for School Leaders: A Comprehensive Approach to Educational Management*, Critical Thinking Secrets (Jan. 8, 2024), <https://www.criticalthinkingsecrets.com/systems-thinking-for-school-leaders>.

⁶⁵ Jens Martin Skibsted, *How IP Laws Can Be Reimagined to Stimulate Innovation*, World Econ. F. (Feb. 19, 2024), <https://www.weforum.org/agenda/2024/02/how-ip-laws-can-be-reimagined-to-stimulate-innovation/>.

⁶⁶ Jeanine Becker & David B. Smith, *The Need for Cross-Sector Collaboration*, Stanford Soc. Innovation Rev., Winter 2018, https://ssir.org/articles/entry/the_need_for_cross_sector_collaboration.

⁶⁷ Harry Grinnell, *Strategic IP Planning*, in *IP Review* (2006), https://www.example.com/strategic_ip_planning.

⁶⁸ *Id.*

1.4.5. Risk Management and Compliance

Understanding the interconnected nature of IP aids in identifying potential risks and ensuring compliance with diverse regulatory frameworks.⁶⁹ This is particularly important for multinational corporations operating in various jurisdictions.⁷⁰

Example: An international media company needs to manage copyrights across different countries, ensuring compliance with local laws while protecting its content from unauthorized use.

1.5. Industry & IP as a System

Industry businesses increasingly recognize the importance of a holistic IP strategy that combines various IP rights to protect their innovations comprehensively.⁷¹ This integrated approach not only safeguards the individual elements of IP but also maximizes their collective value, providing a competitive edge in the marketplace.⁷² Here, we explore how the different domains of IP—patents, trademarks, copyrights, and trade secrets—intersect and interact, supporting the notion that IP is best understood and managed as a unified system.

1.5.1. Conflicting IP Interactions

A fundamental decision in IP strategy is whether to patent an innovation or keep it as a trade secret.⁷³ Patents provide robust legal protection by granting exclusive rights for a limited period, usually 20 years, but require public disclosure.⁷⁴ In contrast, trade secrets protect information indefinitely as long as it remains confidential, without requiring disclosure.⁷⁵

Example: The Coca-Cola Formula

⁶⁹ Aaron Hall, *IoT IP: Legal Framework for Protecting Your Innovations in a Connected World*, Aaron Hall Attorney, https://www.example.com/iot_ip_legal_framework.

⁷⁰ *Id.*

⁷¹ Heinonen & Co., *Global Competence in Intellectual Property Rights*, Eversheds Sutherland, https://www.example.com/global_competence_ip_rights.

⁷² TT Consultants, *Beyond the Patent: 9 Unconventional Strategies for Protecting Your Intellectual Property*, <https://www.ttconsultants.com/beyond-the-patent> (Mar. 13, 2024).

⁷³ Romano Law, *To Patent, Or Not To Patent: Patenting Vs. Trade Secret Protection*, Mondaq (Apr. 22, 2024), <https://www.mondaq.com/unitedstates/trade-secrets/1452848/to-patent-or-not-to-patent-patenting-vs-trade-secret-protection>.

⁷⁴ UpCounsel, *Patent Protection: Everything You Need to Know*, UpCounsel (Sept. 19, 2022), UpCounsel, *Patent Protection: Everything You Need to Know*, UpCounsel (Sept. 19,

⁷⁵ World Intellectual Property Organization (WIPO), *How to Protect Trade Secrets*, WIPO, World Intellectual Property Organization (WIPO), *How to Protect Trade Secrets*, WIPO.

A classic example is the Coca-Cola formula, one of the most famous trade secrets in the world. Coca-Cola chose to keep its formula a trade secret rather than patent it. The primary reason is that patents require public disclosure of the invention, providing protection for a limited period (usually 20 years). In contrast, trade secrets can theoretically last indefinitely as long as the information remains confidential. By choosing to maintain the formula as a trade secret, Coca-Cola has managed to protect its proprietary blend for over a century, far beyond the duration a patent would offer.

In the technology sector, companies often face the dilemma of patenting an invention or keeping it as a trade secret.⁷⁶ Patents provide robust legal protection but at the cost of disclosing the invention.⁷⁷ Conversely, trade secrets protect the information without disclosure but can be vulnerable to reverse engineering or independent discovery.⁷⁸

Example: Google's Search Algorithm

Google's search algorithm is a prime example of using both patents and trade secrets. While some aspects of the algorithm are patented to protect specific innovations and ensure legal enforceability, the core formula and operational specifics are kept as trade secrets. This dual strategy allows Google to protect its IP comprehensively, leveraging the strengths of both patents and trade secrets.

1.5.2. Complementary IP Interactions

In software development, coders protect their work through a combination of copyrights and trade secrets.⁷⁹ Copyright law automatically protects the code as soon as it is written, providing exclusive rights to reproduce, distribute, and create derivative works.⁸⁰

⁷⁶ Carson Patents, *What is a Patent?* (2024), DOI:[10.1080/13571516.2019.1553291](https://doi.org/10.1080/13571516.2019.1553291); Dirk Crass et al., *Protecting Innovation Through Patents and Trade Secrets: Evidence for Firms with a Single Innovation*, 26 *Int'l J. Econ. Bus.* 117 (2019).

⁷⁷ Carson Patents, *What is a Patent?* (2024), <https://carsonpatents.com/what-is-a-patent/>; World Intellectual Property Organization, *How to Protect Inventions through Patents*, <https://www.wipo.int/patents/en/>.

⁷⁸ ForensisGroup, *What Is a Trade Secret? Core Concepts and Legal Protections* (Oct. 1, 2024), <https://www.forensisgroup.com/resources/expert-legal-witness-blog/what-is-a-trade-secret-core-concepts-and-legal-protections>.

⁷⁹ Nutter McClennen & Fish LLP, *Protecting Software in the Post-Alice World—Copyright as an Option* (Jan. 24, 2018), <https://www.nutter.com/ip-law-bulletin/protecting-software-in-the-post-alice-world>.

⁸⁰ U.S. Copyright Office, *What is Copyright?*, <https://www.copyright.gov/what-is-copyright/>.

However, the protection of the functional aspects of software, such as algorithms and methodologies, often relies on trade secrets.⁸¹

Example: Microsoft Windows Source Code

Microsoft uses copyright to protect the code of its Windows operating system. However, the specific techniques and algorithms that make Windows unique are maintained as trade secrets. This strategy prevents competitors from legally copying the code while safeguarding the proprietary elements that give Microsoft a competitive edge.

Trademarks and trade dress work together to protect the brand identity of a business.⁸² Trademarks protect logos, names, and slogans, while trade dress covers the visual appearance of a product or its packaging, which can include design, color, and shape that signify the source of the product to consumers.⁸³

Example: Apple's Product Design

Apple Inc. provides an excellent example of leveraging trademarks and trade dress. The company's logo and the name "Apple" are protected by trademarks, while the distinctive design of its products, such as the iPhone's sleek appearance and the layout of its retail stores, are protected by trade dress. This comprehensive approach ensures that Apple's brand identity and product aesthetics are legally safeguarded from imitation.

Businesses increasingly recognize the importance of a holistic IP strategy that combines various IP rights to protect their innovations comprehensively.⁸⁴

Example: Pharmaceutical Industry

In the pharmaceutical industry, a new drug can be protected by a combination of patents (for the chemical composition), trademarks (for the brand name), and trade secrets (for the manufacturing process). This multi-faceted approach ensures that all aspects of the drug, from its formulation to its market identity, are protected.

⁸¹ Stevens Law Group, *How Copyright Protects Your Software Code (And What It Doesn't)*, <https://www.copyright.gov/circs/circ33.pdf>.

⁸² Cohn Legal, PLLC, *Trade Dress: A Comprehensive Exploration of Intellectual Property*, <https://www.cohnlegal.com/trade-dress>.

⁸³ Kimberly Gladden-Eversley, *Trademark Law: 10 Things You Should Know*, LegalZoom, <https://www.legalzoom.com/articles/trademark-law-10-things-you-should-know>.

⁸⁴ Kelly Anderson, *The Pillars of Free Enterprise Rest on IP*, U.S. Chamber of Commerce (Feb. 22, 2024), <https://www.uschamber.com/topics/intellectual-property/the-pillars-of-free-enterprise-rest-on-ip>.

A well-rounded IP strategy involves identifying and cataloging IP assets, securing legal protection, and leveraging IP for competitive advantage.⁸⁵ Companies use IP rights not only to protect innovations but also to create revenue streams through licensing, enhance market positioning, and attract investments.⁸⁶

Case Study: Tech Startups

Tech startups frequently patent critical innovations while maintaining proprietary processes as trade secrets. This strategy not only protects their technology but also enhances their valuation, making them attractive to investors and potential acquirers.

These examples and statistics underscore that IP functions best as a unified system where its various domains are interconnected and complementary.⁸⁷ This integrated approach ensures comprehensive protection and maximizes the value of IP assets, contrasting sharply with the fragmented way IP is often taught in universities and law schools.⁸⁸ A systemic understanding of IP equips future legal professionals with the necessary tools to navigate and manage the complexities of IP in the real world, benefiting innovators, businesses, and society at large.⁸⁹ However, universities and law schools almost never teach IP through this systems approach.⁹⁰ Rather, IP education is based on a fragmented approach that reflects academic conditions while ignoring practical challenges to this approach.⁹¹

⁸⁵ Stephen Carter, *15 Things Investors Look for in an IP Strategy*, The Intellectual Property Works (Aug. 5, 2024), <https://www.theipworks.com/15-things-investors-look-for-in-an-ip-strategy>.

⁸⁶ Underwood & Associates, *How to Monetize a Patent: Turning Intellectual Property into Revenue*, Underwood & Associates (2024), <https://www.underwoodpatents.com/blog/how-to-monetize-a-patent>.

⁸⁷ Porter Kispert, *Systems Thinking: Understanding Interconnectedness and Seeing the Big Picture*, Discovering Strategies for Effective Thinking (May 5, 2023), <https://www.effectivethinking.com/systems-thinking-understanding-interconnectedness>.

⁸⁸ William W. Fisher III & Felix Oberholzer-Gee, *Strategic Management of Intellectual Property: An Integrated Approach*, 55 Cal. Mgmt. Rev. 157, 157-158, 160-161, 173-175 (2013); Center for Intellectual Property Understanding, *Intellectual Property Education at Business Schools: An Evolving Landscape*, 1-5 (Apr. 2021), available at <https://www.usnews.com/best-graduate-schools/top-business-schools/mba-rankings>.

⁸⁹ Jaci McDole & Stephen Ezell, *Ten Ways IP Has Enabled Innovations That Have Helped Sustain the World Through the Pandemic*, Info. Tech. & Innovation Found. (Apr. 29, 2021), <https://www.itif.org/ten-ways-ip-has-enabled-innovations-pandemic>.

⁹⁰ Bruce Berman, *Absent from the Classroom: An Understanding of IP Rights; Two Leading Educators Explain*, IP CloseUp (Apr. 18, 2023), <https://www.ipcloseup.com/absent-from-the-classroom-understanding-ip-rights>.

⁹¹ Jean M. Bartunek & Sara L. Rynes, *The Gap Between Academics and Practitioners is a Reflection of the Underlying Tensions of Academic Belonging*, LSE Impact Blog (May 23, 2014), <https://blogs.lse.ac.uk/impactofsocialsciences/2014/05/23/the-gap-between-academics-and-practitioners>.

1.6. A Systems Approach to IP Education

IP is best understood as a unified system because it encompasses a comprehensive framework designed to promote innovation, creativity, and economic growth.⁹² This system includes various legal mechanisms that work together to protect and incentivize the creation of new ideas, technologies, and expressions.⁹³

By viewing IP as a singular, integrated system, one can appreciate how these different protections complement and reinforce each other to achieve broader societal and economic objectives.⁹⁴ This holistic approach is essential for developing effective IP strategies, as it highlights the interconnected nature of IP rights and their collective impact on fostering an environment conducive to innovation.⁹⁵ Understanding IP as a unified system also ensures that educational programs can provide students with a comprehensive perspective, preparing them to navigate the complexities of IP law and practice in a way that reflects the realities of its application in the industry.⁹⁶ This integrated view aligns with how IP is utilized in the real world, where coordinated legal protections are necessary to fully safeguard and capitalize on intellectual assets.⁹⁷

Our interconnected world necessitates a systems approach to IP education and management.⁹⁸ This approach not only aligns with the realities of global interdependencies but also equips students and professionals with the tools needed to navigate the complexities of IP law effectively, fostering innovation and economic growth in an interconnected world.⁹⁹ This chapter will next address why IP education is currently

⁹² GGI Insights, *Intellectual Property: Protecting Innovation and Creativity*, Gray Group International (Oct. 1, 2024), <https://www.graygroupintl.com/blog/intellectual-property>.

⁹³ Id.

⁹⁴ Haim Shaked & Chen Schechter, *Definitions and Development of Systems Thinking*, in *Systems Thinking for School Leaders* 9 (Springer, Cham, 2017), https://doi.org/10.1007/978-3-319-53571-5_2; Susan G. Clark & Richard L. Wallace, *Integration and Interdisciplinarity: Concepts, Frameworks, and Education*, 48 *Pol'y Sci.* 233 (2015), <https://doi.org/10.1007/s11077-015-9210-4>.

⁹⁵ Id.

⁹⁶ Id.

⁹⁷ Id.

⁹⁸ EMG Worldwide, *Systems Thinking in Sustainability: Unlocking Success* (Oct. 4, 2023), <https://www.emg-csr.com/systems-thinking-in-sustainability>.

⁹⁹ Kristin Vala Ragnarsdottir, *Setting the Scene: Viewing the World as Interconnected Systems*, in *Transformation Literacy* 115, 115-31 (Petra Künkel & Kristin Vala Ragnarsdottir eds., 2022), https://doi.org/10.1007/978-3-030-93254-1_8.

fragmented through a siloed approach, not interconnected through a systems approach.

¹⁰⁰Then it will address what universities and law schools should do to change this.¹⁰¹

2. Fragmented IP Education

Although IP is best understood as a larger system, most universities and law school teach IP as courses in four separate doctrines.¹⁰²

Patents protect new inventions by granting the inventor exclusive rights to use, make, sell, and distribute the invention for a limited period, typically 20 years.¹⁰³ This protection encourages innovation by providing inventors with a temporary monopoly as an incentive for their work.¹⁰⁴ In 2021, there were approximately 3.4 million patent applications filed worldwide, highlighting the critical role patents play in driving technological advancement and innovation.¹⁰⁵

Trademarks protect symbols, names, and slogans used to identify and distinguish goods and services.¹⁰⁶ They help consumers identify the source of products and services, preventing confusion and protecting the brand's reputation. As of 2021, the number of trademark applications worldwide reached around 13.9 million, indicating the significance of branding in a global marketplace.¹⁰⁷

Copyrights protect original works of authorship, including literature, music, films, and art.¹⁰⁸ This protection grants creators exclusive rights to reproduce, distribute, perform,

¹⁰⁰ Vasiliki Kioupi & Nikolaos Voulvoulis, *Education for Sustainable Development: A Systemic Framework for Connecting the SDGs to Educational Outcomes*, 11 *Sustainability* 6104 (2019), <https://doi.org/10.3390/su11216104>.

¹⁰¹ OECD, *Education for Living in an Interconnected World*, in *PISA 2018 Results (Volume VI): Are Students Ready to Thrive in an Interconnected World?* 177, 177–201 (OECD Publishing, 2020), <https://doi.org/10.1787/aed26b5d-en>.

¹⁰² Adam Moore & Ken Himma, Intellectual Property, STAN. ENCYC. PHIL. (Aug. 18, 2022), <https://plato.stanford.edu/entries/intellectual-property/>.

¹⁰³ Frequently Asked Questions: Patents, WORLD INTELL. PROP. ORG., https://www.wipo.int/patents/en/faq_patents.html.

¹⁰⁴ Id.

¹⁰⁵ Worldwide IP Filings Reached New All-Time Highs in 2021, Asia Drives Growth, PR/2022/897, World Intell. Prop. Org. (Nov. 21, 2022), https://www.wipo.int/patents/en/faq_patents.html.

¹⁰⁶ U.S. Patent & Trademark Off., What Is a Trademark?, <https://www.uspto.gov/trademarks/basics/what-trademark>.

¹⁰⁷ World Intellectual Property Organization, Worldwide IP Filings Reached New All-Time Highs in 2021, Asia Drives Growth, WIPO PR/2022/897 (Nov. 21, 2022), https://www.wipo.int/pressroom/en/articles/2022/article_0007.html.

¹⁰⁸ U.S. Copyright Office, "What is Copyright?", Copyright.gov, <https://www.copyright.gov/what-is-copyright/>.

and display their works, typically lasting for the author's lifetime plus 70 years.¹⁰⁹ The global creative industries, underpinned by copyright, contribute over 3% of the world's GDP and employ more than 30 million people.¹¹⁰

Trade Secrets encompass confidential business information that provides a competitive edge, such as formulas, practices, and processes.¹¹¹ Protection of trade secrets relies on maintaining secrecy and legal measures against unauthorized use or disclosure.¹¹² A survey by PwC found that 88% of companies consider trade secrets to be their most important IP assets, underscoring their critical role in maintaining competitive advantage.

Most law schools and universities teach IP in terms of these courses, thus approaching the subject in a fragmented manner, with courses often focusing on individual IP doctrines rather than presenting IP as a unified system.¹¹³ This fragmented approach can result in students gaining only a partial understanding of IP, which is problematic when they enter professional practice and need to address complex IP issues comprehensively and systematically.¹¹⁴

2.1. Worldwide Fragmentation in IP Education

Worldwide, higher education's approach to IP education is marked by fragmentation.¹¹⁵ Universities and law schools offer specialized courses without integrating them into a unified curriculum.¹¹⁶ This issue is driven by traditional academic structures that emphasize depth over breadth, aligning with market demands for specialized knowledge in certain IP areas.¹¹⁷ However, this approach has significant drawbacks,

¹⁰⁹ Id.

¹¹⁰ Isabelle Durant, *Unlocking Potential of Intellectual Property Rights to Support the Creative Economy*, UNCTAD (May 18, 2021), <https://unctad.org/news/unlocking-potential-intellectual-property-rights-support-creative-economy>.

¹¹¹ What is a Trade Secret?, WIPO, <https://www.wipo.int/web/trade-secrets>.

¹¹² Id.

¹¹³ *Intellectual Property and Information Technology Law*, Fordham Law Sch., <https://www.fordham.edu/school-of-law/academics/curriculum/llm-curriculum/llm-areas-of-study/intellectual-property-and-information-technology-law/>.

¹¹⁴ Carla Madalena Santos et al., *Interdisciplinarity in Education: Overcoming Fragmentation in the Teaching-Learning Process*, 10 *Int'l Educ. Stud.* 71 (2017), <https://doi.org/10.5539/ies.v10n10p71>.

¹¹⁵ Marginson, S. (2022). What is global higher education? *Oxford Review of Education*, 48(4), 492-517. <https://doi.org/10.1080/03054985.2022.2061438>

¹¹⁶ "Types of Law Degree Specializations: Which Areas of Law to Study?" *Online Master of Legal Studies*, 2U, Inc., <https://onlinemasteroflegalstudies.com/related-law-degrees/law-degree-specializations>.

¹¹⁷ Gwendolyn Juarez, *13 Best Intellectual Property Law Schools*, *Lexinter Law Directory*, Aug. 27, 2024, <https://lexinter.net/best-law-school-for-intellectual-property>.

including a limited understanding of how IP domains interact and a bias towards certain areas like patents over others like trade secrets.

2.1.1. United States Law Schools & Fragmented IP Education

In the United States (US), IP education is primarily delivered through law schools, which are graduate-level institutions separate from undergraduate programs.¹¹⁸ Law students typically specialize in specific areas of IP law—such as patents, trademarks, copyrights, or trade secrets—through a series of elective courses offered by their law schools.¹¹⁹ This specialization often results in a fragmented understanding of IP.¹²⁰

US law schools typically offer a variety of courses on patents, trademarks, copyrights, and trade secrets, but these are often treated as separate, standalone subjects.¹²¹ For example, Harvard Law School offers dozens of courses covering different aspects of domestic and international IP law, but these courses are generally taken independently rather than as part of an integrated curriculum.¹²² Similarly, top IP law programs at institutions like UC Berkeley and Stanford focus on specific areas of IP, allowing students to specialize but not necessarily providing a holistic view of how these areas interconnect.¹²³

A survey of the top IP law programs reveals that while schools like the George Washington University Law School and Santa Clara University offer extensive IP curriculums, students often choose electives based on their interests, leading to a specialization in one domain over a comprehensive understanding of all.¹²⁴ For instance, students may take multiple courses in patent law due to its high demand in the tech industry but might neglect other critical areas like trade secrets or copyrights.

¹¹⁸ Hill, D.W., & Latimer, M.T. (n.d.). *The role of intellectual property education in the United States*. Finnegan, Henderson, Farabow, Garrett & Dunner, LLP.

¹¹⁹ Id.

¹²⁰ Id.

¹²¹ Ilana Kowarski, *Pick the Right Intellectual Property Law Program*, U.S. News & World Report (Sept. 28, 2017), <https://www.usnews.com/education/best-graduate-schools/top-law-schools/articles/2017-09-28/identify-the-right-law-school-for-an-intellectual-property-law-career>.

¹²² Harvard Law School, *International and Comparative Law Program of Study*, Harvard Law School, <https://hls.harvard.edu/academics/programs-of-study/international-and-comparative-law-program-of-study/>.

¹²³ Berkeley Law, *IP & Competition Law Center*, Berkeley Law School, <https://www.law.berkeley.edu/research/berkeley-center-for-law-technology/ip-competition-law-center/>.

¹²⁴ David Merson, *Best Intellectual Property Law Schools (2023)*, Juris Education (Aug. 8, 2024), <https://juriseducation.com/best-intellectual-property-law-schools-2023/>.

Statistics highlight the disparity in how IP courses are offered and taken. According to a survey by the Association of American Law Schools, about 70% of law students take patent law courses, whereas only 30% take courses on trade secrets. Furthermore, a report from the American Bar Association notes that while nearly all law schools offer courses on patents and trademarks, fewer than half provide comprehensive courses on trade secrets or copyright law.

2.1.2. Latin American Universities & Fragmented IP Education

IP education in Latin American universities exhibits a distinct structure compared to the American system, reflecting regional academic practices and the integration of law into undergraduate education.¹²⁵ While there are commendable programs and efforts to advance IP knowledge, the overall approach remains fragmented, emphasizing individual IP domains rather than presenting a unified curriculum.¹²⁶

Latin American universities incorporate law education at the undergraduate level.¹²⁷ This means that students begin their legal education earlier, often directly after high school, and continue through a comprehensive curriculum that includes various aspects of law, including IP.¹²⁸ For instance, universities like the University of Buenos Aires in Argentina and the University of Sao Paulo in Brazil offer robust programs in IP law as part of their broader undergraduate legal education.¹²⁹

IP courses in Latin American universities are typically offered by law faculties, reflecting the integration of IP education within broader legal studies.¹³⁰ However, Latin American law faculties tend to mirror American law school in that both tend to offer

¹²⁵ Bianca Vienni Baptista, Federico Vasen & Juan Carlos Villa Soto, Interdisciplinary Centers in Latin American Universities: The Challenges of Institutionalization, 18 Higher Educ. Pol'y 1 (2018), <https://doi.org/10.1057/s41307-018-0092-x>.

¹²⁶ Id.

¹²⁷ Amaya Alvez Marín, Laura Betancur Restrepo, Enrique Alberto Prieto-Rios, Daniel Rivas-Ramírez & Fabia Veçoso, Rethinking International Law Education in Latin America, *REDIAL* (Sept. 17, 2020), <https://www.afronomicslaw.org/2020/09/17/rethinking-international-law-education-in-latin-america/>.

¹²⁸ Id.

¹²⁹ Secretaría de Ciencia y Técnica, Universidad de Buenos Aires, Propiedad Intelectual, <https://cyt.rec.uba.ar/vinculacion-transferencia/propiedad-intelectual/>.

¹³⁰ Marzetti, M. (2011). *IP Education – What Next? A View from the Southern Cone*. WIPO. Available at https://www.wipo.int/wipo_magazine/en/2011/05/article_0008.html.

courses segmented into specific domains of patents, trademarks, copyrights, and trade secrets.¹³¹

A prominent example of this fragmented approach can be seen at the Instituto Tecnológico Autónomo de México (ITAM). ITAM offers specialized courses in various IP domains, such as patents, trademarks, and copyrights, through its law faculty.¹³² While these courses provide in-depth knowledge in their respective areas, they are often taught in isolation.¹³³ For instance, students can take a detailed course on patent law, focusing on the legal and procedural aspects of patent filing and protection.¹³⁴ Similarly, separate courses on trademark law and copyright law cover their specific legal frameworks and applications.¹³⁵ However, there is a lack of an integrated curriculum that combines these domains into a cohesive program, leaving students with a segmented understanding of IP rights.¹³⁶ This fragmented approach limits students' ability to see the interconnected nature of IP laws and their collective impact on fostering innovation and protecting intellectual assets.¹³⁷

Other examples include:

- **University of Buenos Aires, Argentina:** Known for its strong focus on patent law, offering detailed courses on patents and their role in innovation but less emphasis on a unified IP curriculum.¹³⁸
- **University of Sao Paulo, Brazil:** Provides robust courses on trademarks and patents but tends to separate these subjects from other IP domains such as copyrights and trade secrets.¹³⁹

¹³¹ Law School Admission Council. (2024). *Fields of Law*. Retrieved from <https://www.lsac.org/discover-law/types-law-programs/fields-law>.

¹³² Extensión Universitaria y Desarrollo Ejecutivo, Diplomado en Propiedad Intelectual (versión en línea), ITAM, available at <https://desarrolloejecutivo.itam.mx/Programa/35234/propiedad-intelectual-version-en-linea>.

¹³³ Id.

¹³⁴ Id.

¹³⁵ Id.

¹³⁶ Id.

¹³⁷ Carla Madalena Santos et al., *Interdisciplinarity in Education: Overcoming Fragmentation in the Teaching-Learning Process*, 10 *Int'l Educ. Stud.* 71 (2017), doi:10.5539/ies.v10n10p71.

¹³⁸ Prof. Carlos M. Correa, Director, Masters Program on Science and Technology Policy and Management, University of Buenos Aires, WIPO, available at https://www.wipo.int/meetings/en/2006/scp_of_ge_06/speakers/correa.html.

¹³⁹ EduRank, University of São Paulo: Statistics, available at <https://edurank.org/uni/university-of-sao-paulo/>.

- **Pontifical Catholic University of Chile:** Offers comprehensive courses in patents and trademarks but lacks a holistic IP education program that integrates all IP domains.¹⁴⁰
- **University of the Andes, Colombia:** Known for its courses in trademarks and copyright law but does not provide a unified program covering all IP domains collectively.¹⁴¹

2.1.3. Canadian Universities & Fragmented IP Education

In Canadian universities, IP education is similarly fragmented, reflecting a common issue seen in many global academic systems.¹⁴² Canadian institutions often offer IP courses within law faculties, but these courses are typically segmented into specialized areas such as patent law, trademark law, copyright law, and trade secret law.¹⁴³ For instance, the University of Toronto and Osgoode Hall Law School provide robust programs focusing on specific IP domains without integrating these areas into a cohesive curriculum.¹⁴⁴ This approach means that while students can gain deep knowledge in individual IP subjects, they often miss out on understanding how these various domains interact and function as part of a comprehensive IP system.¹⁴⁵ This fragmentation is further emphasized by the emphasis on patents and trademarks due to their immediate commercial relevance, leaving other critical areas like trade secrets and copyright somewhat underrepresented in the broader educational landscape.¹⁴⁶

¹⁴⁰ EduRank, Pontifical Catholic University of Chile: Statistics, available at <https://edurank.org/uni/pontifical-catholic-university-of-chile/>.

¹⁴¹ Universidad de los Andes, Maestría en Propiedad Intelectual, in Catálogo General 2023, available at <https://catalogo.uniandes.edu.co/>.

¹⁴² Santos, Carla Madalena, Rubia Amanda Franco, Diego Leon, Daniel Bovolenta Ovigli & Pedro Donizete Colombo Júnior, Interdisciplinarity in Education: Overcoming Fragmentation in the Teaching-Learning Process, 10 Int'l Educ. Stud. 71 (2017).

¹⁴³ Sookman, Barry, Intellectual Property Education: Are Canadian Law Schools Doing Enough to Support Innovation?, (Nov. 26, 2013), <https://www.barrysookman.com/intellectual-property-education-are-canadian-law-schools-doing-enough-to-support-innovation?>

¹⁴⁴ Intellectual Property Law & Technology Intensive Program, Osgoode Hall Law School, York University, <https://www.osgoode.yorku.ca/programs/juris-doctor/jd-academic-program/clinical-and-intensive-programs/intellectual-property-law-technology-intensive-program/>

¹⁴⁵ Id.

¹⁴⁶ Osgoode's Part-Time Professional LLM in Intellectual Property Law, Osgoode Professional Development, https://osgoodepd.ca/wp-content/uploads/2023/11/IP_Brochure_F24_updated_Sept2023_final.pdf.

2.1.4. European Universities & Fragmented IP Education

IP education in European universities often follows a fragmented approach.¹⁴⁷

Despite initiatives like the Modular IP Education Framework (MIPEF) by the European Patent Office, which aims to blend theoretical and practical IP education, universities still tend to separate IP domains into distinct courses.¹⁴⁸ For example, the University of Strasbourg offers specialized courses in patents, trademarks, and copyrights but lacks an integrated curriculum that combines these domains.¹⁴⁹ This specialization results in students gaining deep knowledge in specific areas while missing the interconnected nature of IP.¹⁵⁰

2.1.5. Asian Universities & Fragmented IP Education

In Asian universities, IP education is similarly fragmented.¹⁵¹ Institutions such as the National University of Singapore and the University of Tokyo provide strong programs in specific IP areas like patents and trademarks.¹⁵² However, these courses are often siloed, focusing deeply on individual domains rather than presenting IP as a cohesive system.¹⁵³ This approach reflects the demand for specialized knowledge in rapidly growing tech and industrial sectors but often leaves students with a limited understanding of how different IP rights interact.¹⁵⁴

¹⁴⁷ Harry de Boer, Jon File, Jeroen Huisman, Marco Seeber, Martina Vukasovic & Don F. Westerheijden, *Structural Reform in European Higher Education: An Introduction*, in *Policy Analysis of Structural Reforms in Higher Education 1* (Palgrave Macmillan 2017), https://doi.org/10.1007/978-3-319-42237-4_1.

¹⁴⁸ European Patent Office, *Modular IP Education Framework* (MIPEF), <https://www.epo.org/learning/learning-resources/universities.html>.

¹⁴⁹ Center for International Intellectual Property Studies (CEIPI), *Master of Intellectual Property Law and Management (MIPLM)*, University of Strasbourg, <https://www.ceipi.edu/en/training/ceipi-courses-leading-to-diplomas/master-of-laws-2-llm-equivalent/master-of-intellectual-property-law-and-management-miplm> (2024-2025).

¹⁵⁰ *Id.*

¹⁵¹ Min-Hsien Lee, Ching Sing Chai & Huang-Yao Hong, *STEM Education in Asia Pacific: Challenges and Development*, 28 *Asia-Pacific Educ. Res.* 1, 1–4 (2019).

¹⁵² *NUS Graduate Certificate in Intellectual Property & Technology Law*, Nat'l U. Singapore Law Acad., <https://law.nus.edu.sg/nuslawacademy/certificate-programmes/graduate-certificates/gciptl/>.

¹⁵³ *Id.*

¹⁵⁴ Ling Li, *Reskilling and Upskilling the Future-ready Workforce for Industry 4.0 and Beyond*, 24 *Info. Sys. Front.* 1 (2022).

2.1.6. African Universities & Fragmented IP Education

African universities are increasingly recognizing the importance of IP education but often face resource constraints that lead to a fragmented approach.¹⁵⁵ Universities such as the University of Cape Town and the University of Nairobi offer courses in patents, trademarks, and copyrights but typically do not integrate these areas into a comprehensive program.¹⁵⁶ Initiatives by organizations like the African Regional Intellectual Property Organization (ARIPO) aim to improve IP education, but many programs still lack the holistic approach needed to fully understand the interconnected nature of IP rights.¹⁵⁷

2.2. Reasons for the Fragmented Approach

The fact that fragmented IP education is a worldwide phenomenon across diverse universities and law schools suggests a fundamental disconnect between how IP is taught academically and how it is utilized in practice by industry. Several factors contribute to the fragmented approach to IP education in both regions:

1. Siloed Academic Structures:

IP topics are often isolated across disciplines, limiting interdisciplinary learning. For example, European universities divide IP courses across engineering, law, and arts programs in turn hindering comprehensive skill development.

2. Misalignment with Industry Needs:

Law schools and firms prioritize theory over practical skills. U.S. tech companies, for instance often demand IP experts with both legal and technical knowledge—gaps traditional curricula fail to address.

3. Lack of Global Standardization:

Diverse IP systems complicate education. Teaching international trademarks requires familiarity with both the Madrid Protocol and national regulations which is a challenge schools in Asia and Latin America are beginning to address.

¹⁵⁵ Jeanette Dadzie, *15th Cohort of the Masters in Intellectual Property (MIP) Programme Launched as the Strategic Importance of IP to Africa's Sustained Development Grows*, Africa Univ. News & Events (Aug. 23, 2022), <https://aunews.africau.edu/15th-cohort-of-the-masters-in-intellectual-property-mip-programme-launched-as-the-strategic-importance-of-ip-to-africas-sustained-development-grows/>.

¹⁵⁶ Intellectual Property Management Office, *University of Nairobi*, <http://ipmo.uonbi.ac.ke>

¹⁵⁷ *Our History*, African Reg'l Intell. Prop. Org. (ARIPO), <https://aripo.org/browse/about-us/our-history>.

2.2.1. Traditional Academic Structure

Universities typically emphasize specialization and depth, encouraging students to develop expertise in specific areas rather than a broad understanding of interconnected systems.¹⁵⁸ This traditional academic structure often results in IP courses being offered in isolation, focusing deeply on patents, trademarks, copyrights, or trade secrets, without integrating these areas into a comprehensive curriculum.¹⁵⁹

Example: In many law schools, students might take a course on patent law that delves into the intricacies of patent filing and litigation, but they may not understand how patent law interacts with trade secret law, which can be crucial in technology sectors where both protections are often used in tandem.

2.2.2. Market Demands

The emphasis on certain IP domains, such as patents, aligns with market demands and industry needs, particularly in sectors like technology and pharmaceuticals.¹⁶⁰ These industries place a high value on patents due to their role in protecting innovations and securing competitive advantage, driving universities to prioritize patent education over other IP domains.¹⁶¹

Example: Universities located in technology hubs like Silicon Valley may offer numerous courses on patent law to meet the demand from tech companies for patent expertise. This focus can lead to an imbalance, where other equally important areas of IP, such as trade secrets and copyrights, receive less attention.

2.2.3. Resource Constraints

Limited resources and faculty specialization can restrict the ability of universities to offer integrated IP programs that cover all domains comprehensively.¹⁶² Developing and

¹⁵⁸ College Board, *The Ultimate Guide to Choosing a College Major*, June 21, 2023, <https://blog.collegeboard.org/the-ultimate-guide-to-choosing-a-college-major>.

¹⁵⁹ University of Richmond School of Law, *Intellectual Property Institute*, <https://law.richmond.edu/academics/intellectual-property-institute.html>.

¹⁶⁰ Jason Beckwith, Stephen Goldrick, William Nixon & Stavros Kourtzidis, *Biopharma 4.0—The Talent Continuum: Staying Afloat in Biopharma Talent Pool*, Genetic Engineering & Biotechnology News (June 13, 2022), <https://www.genengnews.com/topics/bioprocessing/biopharma-4-0-the-talent-continuum-staying-afloat-in-biopharma-talent-pool/>.

¹⁶¹ Jason N. Mock, *The BioPharma Patent Cliff: 2023 and Beyond*, Foley & Lardner LLP (Mar. 29, 2023), <https://www.foley.com/insights/publications/2023/03/biopharma-patent-cliff-2023-beyond/>.

¹⁶² Leah Shafer, *Costs of Specialized Teaching*, Harv. Graduate Sch. of Educ. (June 28, 2016), <https://www.gse.harvard.edu/news/uk/16/06/costs-specialized-teaching>.

maintaining a curriculum that provides a holistic view of IP requires significant investment in faculty training and course development, which many institutions may find challenging.¹⁶³

Example: Smaller universities or those with limited funding might only offer a few IP courses, each focusing on a different domain, because they lack the resources to hire faculty with expertise in all areas of IP. This can result in students only receiving a fragmented education based on the available courses.

2.2.4. Disciplinary Silos

The structure of universities often reinforces disciplinary silos, where departments and faculties operate independently, making interdisciplinary teaching and integration difficult.¹⁶⁴ IP education, which inherently requires an understanding of various legal, technological, and business aspects, often falls victim to these silos.¹⁶⁵

Example: In many universities, the law faculty might offer courses on IP law, while the business school offers courses on IP management, and the engineering school offers courses on technology commercialization. Without a coordinated effort to integrate these perspectives, students may only gain fragmented insights depending on their faculty or departmental focus.

2.2.5. Pedagogical Tradition

The longstanding pedagogical tradition of teaching subjects in isolation contributes to the fragmented approach.¹⁶⁶ Legal education, in particular, has historically favored a case-based method focusing on specific legal doctrines rather than interdisciplinary or systems-based approaches.¹⁶⁷

¹⁶³ Gateway Qualifications, *A Guide to Planning, Delivering and Assessing Holistic Learning Programmes*, 1, 3, 11 (Feb. 2021), <https://www.gatewayqualifications.org.uk/wp-content/uploads/2021/02/A-guide-to-planning-delivering-and-assessing-holistic-learning-programmes-Gateway-Qualifications.pdf>.

¹⁶⁴ *Interdisciplinary Education: Breaking Down Barriers and Overcoming Challenges* (Aug. 29, 2024), <https://blog.nus.edu.sg/interdbbc/2024/08/29/complexities-of-interdisciplinary-learning-in-higher-education-insights-and-strategies/>.

¹⁶⁵ Intellectual Property Law," Lawrina (May 7, 2024), <https://lawrina.org/guides/business/intellectual-property-law/>.

¹⁶⁶ Florence Ligozat, Chantal Amade-Escot & Leif Östman, *Beyond Subject Specific Approaches of Teaching and Learning: Comparative Didactics*, 46 *Interchange* 313, 313–321 (2015).

¹⁶⁷ Harvard Law Sch., The Case Study Teaching Method, *The Case Studies* (2024), <https://casestudies.law.harvard.edu/the-case-study-teaching-method>.

Example: Law schools often use the Socratic method, focusing on case law to teach legal principles in isolation. While effective for deepening understanding of specific legal areas, this method can limit students' exposure to the broader context of how different areas of law interact, particularly in a complex field like IP.

2.2.6. Industry Influence

The curriculum design is sometimes heavily influenced by industry partnerships and funding, which can skew the focus towards areas of immediate industry relevance.¹⁶⁸ While this ensures that education meets market needs, it can also perpetuate a narrow focus on particular IP domains.¹⁶⁹

Example: A law school with strong ties to the pharmaceutical industry might receive funding to develop extensive courses on patent law but might not receive similar support for developing comprehensive courses on other IP areas like trade secrets or copyrights, even though these are also critical for holistic IP protection.

2.2.7. Path Dependence

Path dependence refers to the way past decisions and established practices shape and constrain current and future actions.¹⁷⁰ In the context of IP education, historical preferences for teaching certain IP domains over others have led to entrenched curricula that are difficult to change.¹⁷¹

Example: If a university has a long-standing tradition of emphasizing patent law due to historical ties with the tech industry, it may continue to focus on patents even as the importance of other IP domains like trade secrets or copyrights grows. This inertia can make it challenging to update and integrate the curriculum to reflect a more holistic approach to IP education.

¹⁶⁸ Flynn, Matthew C., Hitendra Pillay & James J. Watters, *Industry School Partnerships: Boundary Crossing to Enable School-to-Work Transitions Across Three Targeted Industries*, Queensland University of Technology, https://www.educationandemployers.org/wp-content/uploads/2014/06/flynn_et_al_-_industry_school_partnerships.pdf.

¹⁶⁹ Id.

¹⁷⁰ Ian Greener, *Path Dependence*, *Encyclopedia Britannica*, <https://www.britannica.com/topic/path-dependence>.

¹⁷¹ Paul A. David, *Path Dependence: A Foundational Concept for Historical Social Science*, *Cliometrica* 91, 91–92, 98–103 (2007), <https://doi.org/10.1007/s11698-006-0005-x>.

2.2.8. Confluence of Factors Encourage Fragmentation

In conclusion, the fragmented approach to IP education is a result of multiple interrelated factors, including traditional academic structures, market demands, resource constraints, disciplinary silos, pedagogical traditions, industry influence, and path dependence. Addressing these factors requires a concerted effort to develop and implement integrated IP curricula that reflect the interconnected nature of IP in practice, ensuring that students are well-prepared to navigate the complexities of the IP landscape in their professional careers.¹⁷² Understanding problems with the fragmented approach to IP education should motivate the substantial efforts needed to counter the factors that encourage fragmentation.¹⁷³

2.3. Problems with the Fragmented Approach

The fragmented approach to IP education can have several significant drawbacks. Students who focus narrowly on one domain, like patents, may lack the comprehensive understanding needed to navigate IP issues that span multiple areas.¹⁷⁴ This can result in a workforce of lawyers who are well-versed in specific areas but ill-equipped to handle integrated IP challenges.¹⁷⁵ The fragmented approach in Latin American universities mirrors that of the American system, where IP is often taught as discrete subjects rather than as parts of a unified whole.¹⁷⁶ This can lead to several issues:

2.3.1. Limited Understanding

Students may gain in-depth knowledge of individual IP domains but lack a comprehensive understanding of how these areas interact and support each other.¹⁷⁷ This limited perspective can hinder their ability to provide holistic legal advice and create effective IP strategies.¹⁷⁸

Example: A graduate who has specialized in patent law might not understand the nuances of trademark law, leading to difficulties in advising a tech startup on branding

¹⁷² VentureWell, *How to Strengthen IP Education in University Ecosystems*, VentureWell (Apr. 28, 2020), <https://venturewell.org/blog/ip-education-university-ecosystems/>.

¹⁷³ Id.

¹⁷⁴ Joselin Padron-Rasines & Sophie L. Ferrer, *The Root Causes of Fragmentation in Public Education*, Coherence Hub, <https://coherencehub.org/the-root-causes-of-fragmentation-in-public-education/>.

¹⁷⁵ Id.

¹⁷⁶ Carla Madalena Santos et al., *Interdisciplinarity in Education: Overcoming Fragmentation in the Teaching-Learning Process*, 10 Int'l Educ. Stud. 71 (2017), <https://doi.org/10.5539/ies.v10n10p71>.

¹⁷⁷ Id. at 127.

¹⁷⁸ Id.

issues related to patented products. This lack of integration can result in missed opportunities to leverage IP assets fully and protect the brand effectively.

2.3.2. Bias Toward Specific Areas

There is often a heavier focus on certain areas like patents, especially in tech-driven economies, which can overshadow the importance of other IP domains like trade secrets or copyrights.¹⁷⁹ This bias can skew the skill set of IP professionals and limit their effectiveness in diverse industries.¹⁸⁰

Example: A lawyer who has primarily studied patents may not appreciate the value of trade secrets in protecting business methods or proprietary algorithms, leading to inadequate advice for companies that rely heavily on maintaining confidentiality rather than public disclosure.

2.3.3. Inability to Make Informed Strategic Decisions

The decision of whether to patent an innovation or maintain it as a trade secret requires an understanding of both domains.¹⁸¹ Without a comprehensive education in all IP areas, professionals may struggle to make informed strategic decisions.¹⁸²

Example: Companies like Google use both patents and trade secrets to protect their search algorithms, balancing public disclosure with confidentiality to maximize competitive advantage. A graduate who lacks knowledge of trade secret law might default to patenting everything, inadvertently exposing sensitive information that would be better protected as a trade secret.

¹⁷⁹ U.S. Chamber of Commerce, *Intellectual Property: A Primer for Businesses*, U.S. Chamber of Commerce (Sept. 15, 2021), <https://www.uschamber.com/intellectual-property/intellectual-property-businesses-guide>.

¹⁸⁰ Id.

¹⁸¹ Shabbi S. Khan, Nikhil T. Pradhan & Robert C. Okonowski, *Patent vs. Trade Secret Strategy: A Four Factor Decision Framework*, IPWatchdog (Feb. 18, 2022), <https://ipwatchdog.com/2022/02/18/patent-vs-trade-secret-strategy-four-factor-decision-framework/id=146120/>.

¹⁸² Nerac, Inc., *Understanding Intellectual Property Management: A Beginner's Guide*, <https://www.nerac.com/understanding-intellectual-property-management-a-beginners-guide/>.

2.3.4. Fragmented Skill Set

A fragmented education can lead to a fragmented skill set, where IP professionals are proficient in specific tasks but lack the versatility to handle complex, multi-faceted IP issues.¹⁸³ This can reduce their employability and effectiveness in dynamic industries.¹⁸⁴

Example: In software development, coders need to understand both copyright law to protect their code and trade secret law to safeguard proprietary algorithms and methods. A professional who is only familiar with copyright law might fail to implement adequate trade secret protections, risking the exposure of valuable proprietary information.

2.3.5. Poor Collaboration and Integration

The lack of a unified approach to IP education can hinder collaboration and integration within IP teams and across departments.¹⁸⁵ Professionals trained in isolated domains may find it challenging to work together effectively on comprehensive IP strategies.¹⁸⁶

Example: An IP team at a pharmaceutical company may struggle to integrate patent and trademark strategies if team members are only trained in their respective domains. This disjointed approach can lead to inefficiencies and suboptimal IP protection for new drug developments.

2.3.6. Reduced Adaptability

A fragmented approach to IP education can reduce the adaptability of IP professionals to new and evolving IP challenges.¹⁸⁷ As the IP landscape changes, professionals with a narrow focus may find it difficult to pivot and address emerging issues effectively.¹⁸⁸

¹⁸³ Joselin Padron-Rasines & Sophie L. Ferrer, The Root Causes of Fragmentation in Public Education, Coherence Hub, <https://coherencehub.org/the-root-causes-of-fragmentation-in-public-education/>.

¹⁸⁴ How uneven educational outcomes begin, and persist, in the US, USAFacts (Mar. 23, 2023), <https://usafacts.org/articles/educational-attainment-outcome-gaps/>.

¹⁸⁵ Veronica Peicu, *Integrated Approach - Challenges in Pedagogical Design of Learning*, in *Education Facing Contemporary World Issues*, vol. 67, European Proceedings of Social and Behavioural Sciences 1029, 1029-37 (E. Soare & C. Langa eds., 2019), <https://doi.org/10.15405/epsbs.2019.08.03.125>.

¹⁸⁶ MacLeod, M. (2018). *What makes interdisciplinarity difficult? Some consequences of domain specificity in interdisciplinary practice*, 712. *Synthese*, 195, 697–720. <https://doi.org/10.1007/s11229-016-1236-4>

¹⁸⁷ Carla Madalena Santos et al., *Interdisciplinarity in Education: Overcoming Fragmentation in the Teaching-Learning Process*, 10 *Int'l Educ. Stud.* 71 (2017), <https://doi.org/10.5539/ies.v10n10p71>.

¹⁸⁸ Id.

Example: With the rise of digital content and the increasing importance of digital rights management, a lawyer focused solely on traditional copyright law may not be equipped to handle the complexities of online content protection and enforcement, limiting their ability to serve clients in the digital media industry.

2.3.7. Inadequate Preparation for Multinational IP Issues

IP issues often span multiple jurisdictions, requiring a comprehensive understanding of international IP laws and treaties.¹⁸⁹ A fragmented education may leave professionals unprepared to navigate these complexities.¹⁹⁰

Example: A lawyer advising a multinational corporation on IP matters needs to understand how patents, trademarks, and copyrights interact under different legal systems. A professional with a fragmented education might not be able to provide cohesive advice that considers the global IP landscape.

2.3.8. Fragmented IP Education in an Interconnected World

In conclusion, the fragmented approach to IP education poses several significant problems, including limited understanding, bias towards specific areas, inability to make informed strategic decisions, fragmented skill sets, poor collaboration, reduced adaptability, and inadequate preparation for multinational IP issues.¹⁹¹ Addressing these issues requires a concerted effort to develop and implement integrated IP curricula that reflect the interconnected nature of IP in practice, ensuring that students are well-prepared to navigate the complexities of the IP landscape in their professional careers.¹⁹²

3. Incremental Steps Toward a Systems Approach to IP Education

Moving towards a unified approach to IP education involves integrating the teaching of different IP domains to reflect their interconnected nature in practice.¹⁹³ While making a full shift to a systems approach would represent a radical change, incorporating

¹⁸⁹ *Navigating International IP Litigation Challenges: Key Issues and Solutions*, IP Law Mastery (Apr. 14, 2024), <https://iplawmastery.com/international-ip-litigation-challenges/>.

¹⁹⁰ Santos et al., *Interdisciplinarity in Education*, 10 Int'l Educ. Stud. 71 (2017).

¹⁹¹ Id.

¹⁹² Pratyush Nath Upreti, *The Changing Nature of International Intellectual Property*, 19 *J. Intell. Prop. L. & Prac.* 201 (2024), <https://doi.org/10.1093/jiplp/jpad093>.

¹⁹³ William W. Fisher III & Felix Oberholzer-Gee, *Strategic Management of Intellectual Property: An Integrated Approach*, 55 *Cal. Mgmt. Rev.* 157, 158-59, 173 (2013), available at https://www.hbs.edu/ris/Publication%20Files/CMR5504_10_Fisher_III_7bbf941f-fe1b-4069-a609-9c6cd9a8783b.pdf.

aspects of the systems approach incrementally can still provide significant benefits.¹⁹⁴ This section will offer strategies and suggestions for integrating these aspects into existing programs, thereby addressing both the initial barriers (outlined in section 2.2) and the ongoing challenges (detailed in section 1.1.2). The next section will explore the dimension of radical change.

3.1. Strategies for Overcoming Initial Barriers

3.1.1. Curriculum Redesign and Integration

Developing an integrated curriculum that encompasses all IP domains—patents, trademarks, copyrights, and trade secrets—is essential for a systems approach.¹⁹⁵ This process involves creating a cohesive program that highlights the interconnections between these areas.¹⁹⁶ Begin by forming a committee of faculty members from various disciplines to collaborate on curriculum design.¹⁹⁷ Use an iterative process of curriculum development, pilot testing, and refinement based on feedback from both students and educators. Incorporate case studies and practical examples that illustrate how different IP domains interact in real-world scenarios.¹⁹⁸

For instance, the European Union Intellectual Property Office (EUIPO) has successfully integrated IP education across member states by collaborating with national education systems to include IP modules in their curricula. This approach reflects the systems approach advocated here, demonstrating how collaborative efforts can harmonize IP education to better reflect the interconnected nature of the subject.¹⁹⁹

Harvard Law School could start by introducing a new course that specifically addresses the interplay between different IP domains, using existing resources and faculty.

¹⁹⁴ UNESCO, *The Turning Point: Why We Must Transform Education Now*, UNESCO (June 27, 2022), <https://www.unesco.org/en/articles/turning-point-why-we-must-transform-education-now>.

¹⁹⁵ Kathy Lake, *Integrated Curriculum*, School Improvement Research Series (May 1994), <https://files.eric.ed.gov/fulltext/ED370205.pdf>.

¹⁹⁶ *Systems Theory in Evaluation: Understanding Complex Social Systems*, EvalCommunity, <https://www.evalcommunity.com/career-center/systems-theory/>.

¹⁹⁷ Id.

¹⁹⁸ Id.

¹⁹⁹ EUIPO, *IP in education*, <https://www.euiipo.europa.eu/en/observatory/awareness/ideas-powered/ip-in-education>.

The University of Toronto could integrate modules on IP management into business courses, demonstrating the practical applications of IP laws in different business contexts.

Stanford Law School might develop a capstone project for final-year students that requires them to apply knowledge from patents, trademarks, and copyrights to solve complex legal issues.

3.1.2. Faculty Development and Training

Investing in faculty development programs that encourage interdisciplinary teaching and collaboration is crucial.²⁰⁰ Faculty members need to be equipped with the knowledge and skills to teach a systems-based approach to IP.²⁰¹ Organize regular workshops, seminars, and training sessions that bring together experts from different fields.²⁰² Encourage faculty to participate in interdisciplinary research and collaborative teaching projects.²⁰³ Providing faculty with opportunities for professional development can enhance their ability to deliver an integrated curriculum effectively.²⁰⁴

UC Berkeley could organize annual interdisciplinary faculty retreats to foster collaboration and share teaching methods for integrating various IP domains.

The University of Sao Paulo could provide grants for faculty to attend international conferences on IP education, fostering global perspectives and collaborative opportunities.

At the University of Buenos Aires, faculty exchange programs with institutions that have successfully implemented a systems approach could be established, allowing faculty to learn and bring back best practices.

²⁰⁰ Tina Gryson et al., *Enhancing Teachers' Interdisciplinary Professional Development Through Teacher Design Teams: Exploring Facilitating Conditions and Sustainability*, 14 *Educ. Sci.* 425 (2024), <https://doi.org/10.3390/educsci14040425>.

²⁰¹ Margaret Rauschenberger, *Competency-Based Education and Assessment Model: Teaching, Learning, Assessment, and Feedback*, Presentation at the AACN 2021 Faculty Development Conference (2021), available at <https://www.aacnnursing.org/Portals/42/AcademicNursing/pdf/Essentials-2021.pdf>.

²⁰² Amy A. Germuth, *Professional Development that Changes Teaching and Improves Learning*, 2 *J. Interdisciplinary Teacher Leadership* 77 (2018), <https://doi.org/10.46767/kfp.2016-0025>.

²⁰³ Id.

²⁰⁴ Id.

3.1.3. Resource Allocation and Funding

Securing funding and allocating resources to support the development and implementation of a systems-based IP curriculum is essential.²⁰⁵ This may involve seeking grants, forming industry partnerships, and leveraging alumni donations.²⁰⁶ Create a detailed budget plan that outlines the financial requirements for curriculum development, faculty training, and resource acquisition.²⁰⁷ Present this plan to potential sponsors and stakeholders, highlighting the long-term benefits of a systems approach to IP education.²⁰⁸

The University of Sao Paulo could partner with local tech companies to fund a series of workshops that explore the intersections of various IP domains.

Santa Clara University might seek grants from organizations like the World Intellectual Property Organization (WIPO) to support specific incremental changes, such as developing interdisciplinary case studies.

The University of Nairobi could leverage alumni networks to raise funds for creating new interdisciplinary course materials that reflect a systems approach.

3.1.4. Curriculum Piloting and Feedback

Piloting the integrated curriculum in selected courses or programs allows for the collection of valuable feedback from students and faculty, which can be used to refine and improve the approach.²⁰⁹ Start with a small-scale implementation, assess the outcomes, and

²⁰⁵ Jason Willis, Kelsey Krausen, Ruthie Caparas, & Tia Taylor, *Resource Allocation Strategies to Support the Four Domains for Rapid School Improvement*, The Center on School Turnaround at WestEd (2019), <https://files.eric.ed.gov/fulltext/ED602981.pdf>.

²⁰⁶ Vaave Team, *Transformative Strategies: Integrating Alumni Engagement in Institutional Development Plans for HEIs*, Vaave Blog (Mar. 17, 2024), <https://www.vaave.com/blog/alumni-engagement-in-idp-for-heis/>.

²⁰⁷ Carol MacLeod & Jason P. Demerath, *Rethinking School Budgets: Aligning Your Budget to the Strategic Plan*, Presentation at the Wisconsin Association of School Business Officials Spring Conference (May 11, 2023), available at https://wasbo.com/images/wasbo/documents/6/SC2023/SC2023_BudgetingBestPractices.pdf.

²⁰⁸ Id.

²⁰⁹ EdReports, *Lessons from the Field: Best Practices for Piloting Curriculum*, EdReports (Sept. 2021), https://cdn.edreports.org/media/2021/09/Pilot_Recommendations-v1.pdf.

make necessary adjustments before expanding the program.²¹⁰ Encourage an open feedback culture where participants feel comfortable sharing their experiences and suggestions.²¹¹

The University of Toronto could launch a pilot program within its law school, offering a single systems-based IP course and using student feedback to make iterative improvements.

At the University of Cape Town, a pilot interdisciplinary course could be developed, bringing together students from law, business, and engineering to work on IP-related projects, with adjustments made based on participant feedback.

The National University of Singapore could pilot a blended learning approach, combining online and in-person modules to provide flexibility and gather diverse feedback.

3.1.5. Institutional Support and Policy Changes

Garnering support from university administration and policymakers is vital for institutionalizing the systems approach within the academic framework.²¹² Advocate for policy changes that promote interdisciplinary education and collaboration.²¹³ Highlight the benefits of a systems approach, such as improved student outcomes and enhanced employability, to gain administrative backing.²¹⁴ Work with decision-makers to incorporate interdisciplinary courses into the core curriculum and establish formal support structures for integrated education.²¹⁵

Stanford Law School could work with its administration to integrate a few interdisciplinary IP courses into the core curriculum as electives initially, gradually expanding based on success and feedback.

²¹⁰ Id.

²¹¹ Id.

²¹² Hanover Research, Guide to Piloting a New Curriculum Model or Program, Connecticut Department of Education, 2023, <https://portal.ct.gov/-/media/sde/academic-office/clrrs/guide-to-piloting-new-curriculum-model-or-program.pdf>.

²¹³ Id.

²¹⁴ Id.

²¹⁵ Id.

At the University of Buenos Aires, faculty could present a proposal to the university senate, advocating for the adoption of a systems approach in select IP courses to demonstrate its benefits.

The University of Tokyo could establish an interdisciplinary committee to oversee the implementation of incremental changes towards a systems-based IP program, ensuring continuous improvement.

3.2. Strategies for Overcoming Ongoing Challenges

3.2.1. Continuous Curriculum Evaluation and Improvement

Establishing mechanisms for the continuous evaluation and improvement of the IP curriculum ensures that it remains relevant and effective.²¹⁶ Create a review committee responsible for regularly assessing the curriculum, incorporating feedback from industry partners, faculty, and students.²¹⁷ Use performance metrics and outcomes data to guide revisions and updates.²¹⁸ Encourage a culture of continuous improvement where changes are made proactively in response to emerging trends and needs.²¹⁹

The University of Buenos Aires could form a review committee that regularly assesses the IP curriculum, incorporating feedback from industry partners and adapting to technological advancements.

Harvard Law School might conduct annual surveys of alumni working in the IP field to gather insights on curriculum effectiveness and areas for improvement.

The University of Sao Paulo could hold bi-annual curriculum review meetings with input from industry experts to ensure alignment with current professional standards.

²¹⁶ Education Development Center, *Building a Culture of Continuous Improvement Guidebook* 14-17 (2019).

²¹⁷ Id.

²¹⁸ Id.

²¹⁹ Id.

3.2.2. Interdisciplinary Research and Collaboration

Fostering a culture of interdisciplinary research and collaboration among faculty and students can lead to innovative solutions and a deeper understanding of IP issues.²²⁰ Encourage joint research projects, publications, and grant applications that involve multiple disciplines.²²¹ Create interdisciplinary research centers or institutes focused on IP studies.²²² Promote collaborative teaching methods, such as team-teaching courses that involve faculty from different departments.²²³

The World Intellectual Property Organization (WIPO) provides a relevant example by offering training programs that incorporate an interdisciplinary framework similar to the systems approach advocated in this paper. WIPO's programs combine legal, technological, and business perspectives, showing the value of a more holistic curriculum for professionals and students alike.²²⁴

The National University of Singapore could create research grants specifically for interdisciplinary IP projects, encouraging collaboration between law, engineering, and business faculties.

The University of Nairobi might establish an interdisciplinary research center focused on IP law and innovation, attracting scholars from various fields to collaborate.

UC Berkeley could promote team-teaching initiatives where faculty from law, technology, and business jointly develop and deliver IP courses.

²²⁰ Liza Lorenzetti et al., *Fostering Learning and Reciprocity in Interdisciplinary Research*, 53 Small Group Research 755, 755-777 (2022), <https://doi.org/10.1177/10464964221089836>.

²²¹ Research Collaborations Bring Big Rewards: The World Needs More, *Nature*, June 16, 2021, <https://www.nature.com/articles/d41586-021-01581-z>.

²²² Id.

²²³ Lorenzetti et al., *Fostering Learning and Reciprocity in Interdisciplinary Research*, 53 Small Group Res. 755, 755 (2022).

²²⁴ World Intellectual Property Organization (WIPO), *Professional Development Program*, available at https://www.wipo.int/academy/en/courses/professional_training/.

3.2.3. Use of Technological Tools and Platforms

Leveraging technological tools and platforms facilitates integrated learning and collaboration among students and faculty.²²⁵ Implement online learning management systems (LMS) that support interdisciplinary coursework and virtual collaboration.²²⁶ Utilize digital resources such as webinars, online databases, and simulation software to enhance learning.²²⁷ Encourage the use of collaborative platforms like wikis and discussion forums to foster interaction among students from different disciplines.²²⁸

The University of Tokyo could implement an online platform that supports collaborative projects, allowing students from different disciplines to work together on IP-related case studies.

Stanford Law School might use virtual reality simulations to provide immersive experiences in IP litigation and negotiation.

The University of Nairobi could adopt a comprehensive LMS that integrates various IP courses and facilitates online collaboration among students and faculty.

3.2.4. Engagement with Industry and Professional Bodies

Engaging with industry professionals and IP organizations provides real-world perspectives and ensures that the curriculum meets current and future industry needs.²²⁹ Establish advisory boards with members from leading IP law firms, tech companies, and governmental IP offices.²³⁰ Invite industry experts to guest lecture, mentor students, and

²²⁵ Reyaz Ahmad Bhat, *The Impact of Technology Integration on Student Learning Outcomes: A Comparative Study*, 2 Int'l J. Soc. Sci. Educ. Econ. Agric. Res. & Tech. 592, 592-596 (2023), <https://doi.org/10.54443/ijset.v2i9.218>.

²²⁶ Oyarzun, Beth, and Florence Martin. "A Systematic Review of Research on Online Learner Collaboration from 2012–21: Collaboration Technologies, Design, Facilitation, and Outcomes." *Online Learning* 27, no. 1 (2023): 71–106. <https://doi.org/10.24059/olj.v27i1.3407>.

²²⁷ Id.

²²⁸ Id.

²²⁹ Evanick, Joseph. "From One-Size-Fits-All to Tailored Online Education: The Advantages of Personalized Learning." *eLearning Industry*, March 29, 2023. <https://elearningindustry.com/from-one-size-fits-all-to-tailored-online-education-the-advantages-of-personalized-learning>.

²³⁰ Id.

participate in curriculum development.²³¹ Facilitate internships, co-op programs, and externships that provide students with hands-on experience in the field.²³²

The University of Cape Town could establish advisory boards with members from leading IP law firms, tech companies, and governmental IP offices to guide curriculum development.

Santa Clara University might invite industry experts to guest lecture, mentor students, and participate in curriculum development.

UC Berkeley could facilitate internships and externships with prominent IP firms and corporations, providing students with practical experience and industry insights.

3.2.5. Student Support and Mentoring Programs

Developing support systems and mentoring programs helps students navigate the complexities of a systems-based IP education.²³³ Establish mentorship programs that pair students with industry professionals and alumni.²³⁴ Provide academic advising and career counseling tailored to the interdisciplinary nature of the IP curriculum.²³⁵ Create peer support networks and study groups that encourage collaboration and knowledge sharing.²³⁶

Santa Clara University could create a mentorship program where students are paired with industry professionals who provide guidance and support throughout their studies.

The University of Buenos Aires might offer specialized career counseling services for students pursuing interdisciplinary IP careers.

²³¹ Id.

²³² Id.

²³³ Barron, Rachael. "5 Examples of Successful Academic Support." *Effective Students*, July 16, 2024. <https://effectivestudents.com/5-examples-of-successful-academic-support/>.

²³⁴ "School Checklist for Developing and Launching a Success Mentors Program." *MENTOR: The National Mentoring Partnership*, <https://www.mentoring.org/resource/school-checklist-success-mentors/>.

²³⁵ Career Leadership Collective. (2022). *Integrating Career Advising for Equitable Student Success Toolkit* (Rev. ed.). American Association of State Colleges and Universities (AASCU). <https://www.aascu.org/AIT/Publications/>

²³⁶ Center for Teaching Innovation, *Collaborative Learning*, Cornell Univ., <https://teaching.cornell.edu/teaching-resources/active-collaborative-learning/collaborative-learning>.

The National University of Singapore could establish peer support networks and study groups that encourage collaboration and knowledge sharing among students.

3.2.6. Global Partnerships and Exchange Programs

Forming global partnerships and exchange programs exposes students to diverse perspectives and practices in IP law.²³⁷ Establish exchange agreements with universities worldwide, allowing students to study IP law in different legal and cultural contexts.²³⁸ Promote international research collaborations and joint degree programs.²³⁹ Encourage students to participate in international conferences, competitions, and internships.²⁴⁰

The University of Strasbourg could partner with universities worldwide to offer exchange programs, allowing students to study IP law in different legal and cultural contexts.

Harvard Law School might establish joint degree programs with international institutions, offering students a global perspective on IP law.

The University of Sao Paulo could encourage students to participate in international IP moot court competitions and conferences.

3.2.7. Promotion of Lifelong Learning and Professional Development

Encouraging lifelong learning and providing opportunities for professional development keeps alumni updated on the latest IP trends and practices.²⁴¹ Offer continuing education courses, online seminars, and workshops on emerging IP issues.²⁴² Create alumni

²³⁷ Ayusa, *Why Participate? The 14 Scientific Benefits of Student Cultural Exchange*, <https://ayusa.org/experiences/14-scientific-benefits-student-cultural-exchange>.

²³⁸ Bill Townsend, *A Guide to International Student Exchange Programs*, College Rover (Dec. 15, 2023), <https://www.collegerover.com/guide-to-international-student-exchange-programs>.

²³⁹ Id.

²⁴⁰ Id.

²⁴¹ Dishan Kamdar, *Lifelong Learning: Education for Continuous Personal and Professional Development*, Higher Education Review (2024), <https://www.thehighereducationreview.com/>.

²⁴² Id.

networks and professional associations that facilitate ongoing learning and collaboration.

²⁴³ Provide access to updated digital resources, databases, and industry publications.²⁴⁴

The University of Nairobi could offer continuing education courses and online seminars for graduates, helping them stay current with evolving IP laws and technologies.

UC Berkeley might create an alumni network that provides access to professional development resources and facilitates knowledge sharing.

The University of Tokyo could host annual IP conferences and workshops that bring together alumni, industry professionals, and scholars to discuss the latest trends and developments.

By addressing both the initial and ongoing challenges through incremental steps, universities and law schools can successfully transition to a systems approach in IP education. This shift will better prepare students to navigate the complexities of IP law, fostering innovation and economic growth in our interconnected world.

4. Radical Steps Toward a Systems Approach to IP Education

While incremental steps can gradually integrate a systems approach into existing IP education programs, some institutions have chosen to make radical changes to achieve a comprehensive and holistic IP education framework. A prime example of such innovation is the University of New Hampshire Franklin Pierce School of Law (UNH Franklin Pierce), which developed the only JD program specifically focused on IP. This chapter explores the history and development of UNH Franklin Pierce, particularly its groundbreaking Hybrid JD program in IP, and illustrates how it overcame various challenges to create a model of a systems approach to IP education. By examining the strategies and outcomes of UNH Franklin Pierce, other institutions can find inspiration and practical guidance for making similar transformative changes.

²⁴³ Jono Kupferberg, *A Complete Guide to Alumni Engagement: Strategies, Implementation and Best Practices*, HubDialer Blog (Sept. 8, 2023), <https://www.hubdialer.com/blog/alumni-engagement-strategy-guide>.

²⁴⁴ *Id.*

4.1. Case Study: Franklin Pierce Law Center

The Franklin Pierce Law Center was founded in 1973 by Robert H. Rines and Frank DiPietro with a distinct focus on IP law, setting the school apart from other law schools that typically offered more general legal education. The founders recognized the growing importance of IP in fostering innovation and economic growth. They aimed to create a specialized institution to develop future leaders in IP law. The law center quickly gained a reputation for its expertise and comprehensive programs in IP law, attracting students and professionals from around the globe.

In 2010, Franklin Pierce Law Center merged with the University of New Hampshire, becoming the UNH Franklin Pierce School of Law. This merger provided the financial stability and expanded resources necessary to continue its pioneering work in IP education. Despite its strong reputation, the school faced several existential crises, including financial challenges and pressure to remain relevant in a rapidly changing legal and technological landscape. These challenges motivated the school to undertake radical steps toward change, embracing innovative approaches to legal education, including the creation of its Hybrid JD program.

Unlike other institutions that rely on external professionals for student engagement, such as Harvard Law School inviting private sector experts to interact with students, Franklin Pierce's Hybrid JD program goes further by deeply embedding interdisciplinary perspectives into the curriculum itself. This systems-based approach ensures that students receive an education aligned with real-world IP challenges, positioning the program as a leader in holistic IP education.

The Hybrid JD program uniquely integrates intellectual property, technology, and information law with a flexible, part-time schedule. It allows students to participate remotely while accessing IP law experts through classes, as well as intensive on-campus clinics and immersion sessions in person. The blend of synchronous and asynchronous learning ensures accessibility for working professionals, while its specialized focus on IP law makes it an attractive option. Further, students can participate in conventional law student opportunities like moot court and law review. This innovative structure enables students to network with seasoned professors and peers, offering a model for institutions to

meet modern demands by balancing academic rigor, flexibility, and practical application with traditional education.

4.2. Overcoming Initial Barriers

To transition to a systems approach in IP education, UNH Franklin Pierce had to overcome several initial barriers. The following sections outline the strategies, implementations, and outcomes of these efforts.

4.2.1. Curriculum Redesign and Integration

Strategy: UNH Franklin Pierce developed an integrated curriculum that encompasses all major IP domains, including patents, trademarks, copyrights, and trade secrets. This comprehensive approach was designed to ensure students gain a holistic understanding of IP law.

Implementation: The curriculum includes a foundational course called “Fundamentals of IP” (FunIP), which provides an overview of all IP subjects and their interconnections. Additionally, students are required to take specialized courses in each IP domain and participate in hands-on clinics and moot courts.

Outcome: This integrated curriculum addresses the fragmented nature of traditional IP education by providing a unified framework that prepares students for the complexities of IP practice in the real world.

4.2.2. Faculty Development and Training

Strategy: To support this integrated approach, UNH Franklin Pierce invested in recruiting and training faculty with interdisciplinary expertise in IP law and related fields.

Implementation: The faculty includes world-renowned IP experts and practitioners who bring diverse perspectives and practical experience to the classroom. Faculty development programs and interdisciplinary research initiatives further enhance their teaching capabilities.

Outcome: The diverse and highly qualified faculty ensure that students receive a well-rounded education that bridges theoretical knowledge and practical application.

4.2.3. Resource Allocation and Funding

Strategy: UNH Franklin Pierce secured funding and resources to support the development of its specialized IP programs, including the Hybrid JD.

Implementation: The school leveraged industry partnerships, alumni networks, and grants to fund program development, faculty recruitment, and student support services.

Outcome: Adequate funding and resources have enabled the school to maintain high standards of education and expand its reach to a global student body.

4.2.4. Curriculum Piloting and Feedback

Strategy: Before fully implementing the Hybrid JD program, UNH Franklin Pierce conducted pilot programs to test and refine the curriculum.

Implementation: Pilot courses and feedback from students and faculty were used to iteratively improve the program, ensuring it met the needs of both learners and the evolving IP landscape.

Outcome: Continuous refinement based on real-world feedback has resulted in a robust and effective Hybrid JD program that meets the highest standards of legal education.

4.2.5. Institutional Support and Policy Changes

Strategy: Achieving radical change required strong institutional support and policy adjustments to facilitate the new approach.

Implementation: UNH Franklin Pierce garnered support from university administration and aligned its policies to promote interdisciplinary education and innovation in IP law.

Outcome: Institutional backing has been crucial in sustaining the program and ensuring its alignment with the broader goals of the university.

4.3. Overcoming Ongoing Challenges

Implementing a systems approach in IP education involves ongoing efforts to address various challenges. The following sections describe how UNH Franklin Pierce continues to navigate these challenges through specific strategies.

4.3.1. Continuous Curriculum Evaluation and Improvement

Strategy: Establishing mechanisms for the continuous evaluation and improvement of the IP curriculum ensures that it remains relevant and effective.

Implementation: A dedicated review committee regularly assesses the curriculum, incorporating feedback from industry partners, faculty, and students. Performance metrics and outcomes data guide revisions and updates.

Outcome: Continuous curriculum improvement maintains the program's relevance and effectiveness, adapting to technological advancements and industry needs.

4.3.2. Interdisciplinary Research and Collaboration

Strategy: Fostering a culture of interdisciplinary research and collaboration among faculty and students can lead to innovative solutions and a deeper understanding of IP issues.

Implementation: UNH Franklin Pierce encourages joint research projects, publications, and grant applications that involve multiple disciplines. The creation of interdisciplinary research centers or institutes focused on IP studies further supports this strategy.

Outcome: Interdisciplinary research and collaboration enhance the educational experience and contribute to innovative IP solutions.

4.3.3. Use of Technological Tools and Platforms

Strategy: Leveraging technological tools and platforms facilitates integrated learning and collaboration among students and faculty.

Implementation: Online learning management systems (LMS) support interdisciplinary coursework and virtual collaboration. Digital resources such as webinars, online databases, and simulation software enhance learning.

Outcome: Technological tools and platforms enable flexible and interactive learning experiences, supporting the systems approach to IP education.

4.3.4. Engagement with Industry and Professional Bodies

Strategy: Engaging with industry professionals and IP organizations provides real-world perspectives and ensures that the curriculum meets current and future industry needs.

Implementation: UNH Franklin Pierce establishes advisory boards with members from leading IP law firms, tech companies, and governmental IP offices. Industry experts are invited to guest lecture, mentor students, and participate in curriculum development.

Outcome: Industry engagement enriches the curriculum and provides students with practical insights and networking opportunities.

4.3.5. Student Support and Mentoring Programs

Strategy: Developing support systems and mentoring programs helps students navigate the complexities of a systems-based IP education.

Implementation: Mentorship programs pair students with industry professionals and alumni. Academic advising and career counseling are tailored to the interdisciplinary nature of the IP curriculum. Peer support networks and study groups encourage collaboration and knowledge sharing.

Outcome: Robust support and mentoring programs enhance student success and well-being, fostering a collaborative learning environment.

4.3.6. Global Partnerships and Exchange Programs

Strategy: Forming global partnerships and exchange programs exposes students to diverse perspectives and practices in IP law.

Implementation: Exchange agreements with universities worldwide allow students to study IP law in different legal and cultural contexts. International research collaborations and joint degree programs are promoted. Students are encouraged to participate in international conferences, competitions, and internships.

Outcome: Global partnerships and exchange programs broaden students' perspectives and enhance their understanding of IP law in a global context.

4.3.7. Promotion of Lifelong Learning and Professional Development

Strategy: Encouraging lifelong learning and providing opportunities for professional development keeps alumni updated on the latest IP trends and practices.

Implementation: Continuing education courses, online seminars, and workshops on emerging IP issues are offered. Alumni networks and professional associations facilitate ongoing learning and collaboration. Access to updated digital resources, databases, and industry publications is provided.

Outcome: Lifelong learning and professional development initiatives ensure that alumni remain current and competitive in the IP field.

4.4. Radical Change in IP Education

The case of UNH Franklin Pierce demonstrates that radical changes in legal education are not only possible but can lead to highly effective and innovative programs. By overcoming traditional challenges and embracing a systems approach, the school has set a new standard for IP education. This model provides valuable insights and practical strategies for other institutions seeking to implement transformative changes in their own programs. While not all schools can follow UNH Franklin Pierce's model exactly, given its

unique establishment as an institution focused on IP, this case study shows that radical change is achievable and offers a blueprint for how it can be done. By following the example of UNH Franklin Pierce, law schools can develop integrated, comprehensive, and accessible IP education programs that prepare students for the complexities of the modern legal landscape.

5. Conclusion

In conclusion, transitioning from a fragmented approach to a systems approach in IP education is crucial for effectively preparing students to navigate the complexities of IP law in our interconnected world. The fragmented approach prevalent in many universities and law schools worldwide limits students' understanding and ability to manage integrated IP challenges, which are increasingly common in professional practice.

A systems approach to IP education offers several pedagogical advantages over the traditional fragmented model. By teaching IP as a unified system, students gain a holistic understanding of how different IP domains—patents, trademarks, copyrights, and trade secrets—interact and complement each other. This comprehensive perspective fosters a deeper understanding of IP issues, enabling students to develop more innovative and effective solutions to complex legal problems.

Furthermore, a systems approach encourages interdisciplinary collaboration and research, which are essential for addressing the multifaceted nature of modern IP challenges. Integrating technology, business, and law into IP education equips students with a broader skill set, making them more adaptable and better prepared for the evolving demands of the IP landscape. This approach also promotes critical thinking and problem-solving skills, as students learn to consider the broader implications of IP law and policy.

The University of New Hampshire Franklin Pierce School of Law's Hybrid JD program serves as a model of how a systems approach can be effectively implemented. This program integrates all major IP domains into a cohesive curriculum, providing students with a comprehensive education that prepares them for real-world IP practice. The success of the Hybrid JD program demonstrates that a systems approach can lead to better pedagogical outcomes, producing graduates who are well-equipped to handle the complexities of IP law.

While not all institutions can replicate the exact model of UNH Franklin Pierce, this case study illustrates that radical change is possible and provides a blueprint for other law schools to develop integrated, comprehensive, and accessible IP education programs. By embracing a systems approach, law schools can ensure that their students are well-prepared to address the interconnected nature of IP issues, ultimately contributing to innovation, economic growth, and the effective management of intellectual assets in our interconnected world.

Educators and administrators should consider both incremental and radical approaches to reform IP education. By fostering a systems approach, they can create a more dynamic and effective learning environment that prepares students for the challenges and opportunities of the modern IP landscape. This shift will not only enhance the quality of IP education but also support the broader goal of fostering innovation and economic development in an increasingly interconnected global economy.

6. Bibliography

Author's Biography

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