

SECURED TRANSACTIONS AND IP LICENSES: COMPARATIVE OBSERVATIONS AND REFORM SUGGESTIONS

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I

INTRODUCTION

The history of modern intellectual property law commences in the late seventeenth century, with the enactment of national laws that provided for the appropriation of immaterial goods by virtue of statutory individual rights rather than royal favors and privileges.¹ Over the following two centuries, these foundations were progressively developed into imposing edifices that fostered the social and economic growth of intellectual property rights (IPRs).²

In the late nineteenth century, States recognized that IP-rich products had a uniquely strong cross-border appeal that demanded a set of internationally uniform laws. Accordingly, they began taking steps towards the creation of an international legal framework for IPRs. At that time, legislatures primarily concerned themselves with the rules that define the eligible subject matter of IPRs, their protection requirements, scope of protection, enforcement and mutual recognition.³

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1. See generally BRUCE W. BUGBEE, *THE GENESIS OF AMERICAN PATENT AND COPYRIGHT LAW* (1967); BRAD SHERMAN & LIONEL BENTLY, *THE MAKING OF MODERN INTELLECTUAL PROPERTY LAW* 1 (1999); Keith Aoki, *(Intellectual) Property and Sovereignty: Notes Toward a Cultural Geography of Authorship*, 48 *STAN. L. REV.* 1293 (1996); Paul A. David, *Intellectual Property Institutions and the Panda's Thumb: Patents, Copyrights, and Trade Secrets in Economic Theory and History*, in *GLOBAL DIMENSIONS OF INTELLECTUAL PROPERTY RIGHTS IN SCIENCE AND TECHNOLOGY* 19 (Mitchel B. Wallerstein et al. eds., 1993); Frank D. Prager, *A History of Intellectual Property from 1545 to 1787*, 26 *J. PAT. OFF. SOC'Y.* 711 (1944).

2. For a description of the evolution of IP law during this period, see generally CATHERINE SEVILLE, *THE INTERNATIONALISATION OF COPYRIGHT LAW: BOOKS, BUCCANEERS AND THE BLACK FLAG IN THE NINETEENTH CENTURY* 8 (2006); SHERMAN & BENTLY, *supra* note 1.

3. For discussion of this international harmonization process, see generally SILKE VON LEWINSKI, *INTERNATIONAL COPYRIGHT LAW AND POLICY* (2008); JON NELSON, *INTERNATIONAL PATENT*

The information age has heralded formidable technological progress in all segments of society.⁴ Miniaturization, communication networks, social media, and cloud computing have ushered in new business models that have disrupted existing commercial sectors and spawned new ones.⁵ Knowledge has become the key factor of production in mature economies, elevating IPRs to one of the most economically⁶ and strategically⁷ valuable asset classes.

TREATIES: WITH COMMENTARY (2007); JÖRG REINBOHE & SILKE VON LEWINSKI, *THE WIPO TREATIES 1996: THE WIPO COPYRIGHT TREATY AND THE WIPO PERFORMANCES AND PHONOGRAMS TREATY: COMMENTARY AND LEGAL ANALYSIS* (2002); SAM RICKETSON, *THE PARIS CONVENTION FOR THE PROTECTION OF INDUSTRIAL PROPERTY: A COMMENTARY* (2015); SAM RICKETSON & JANE C. GINSBURG, *INTERNATIONAL COPYRIGHT AND NEIGHBOURING RIGHTS: THE BERNE CONVENTION AND BEYOND* vol. 1 & 2 (2005); DIETER STAUDER, *EUROPEAN PATENT CONVENTION: A COMMENTARY 2* (2003); ELLEN P. WINNER & AARON W. DENBERG, *INTERNATIONAL TRADEMARK TREATIES WITH COMMENTARY* (2004).

4. See generally MANUEL CASTELLS, *THE RISE OF THE NETWORK SOCIETY: THE INFORMATION AGE: ECONOMY, SOCIETY, AND CULTURE* (2011) (providing a broad socio-economic perspective); ROBERT P. MERGES ET AL., *INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE* (2003) (analyzing the impact of the information age on IP law holistically).

5. See generally Henry Chesbrough & Kevin Schwartz, *Innovating Business Models with Co-Development Partnerships*, 50 RES. TECHNOL. MGMT. 55 (2007); Gerald F. Davis & J. Adam Cobb, *The Virtual Corporation*, in MIT CENTER FOR ADVANCED ENGINEERING STUDY (1992); David J. Teece, *Business Models, Business Strategy and Innovation*, 43 LONG RANGE PLAN. 172 (2010).

6. The rise in economic value of IPRs has been documented in numerous empirical studies, see generally E.U. INTELL. PROP. OFFICE, *INTELLECTUAL PROPERTY RIGHTS INTENSIVE INDUSTRIES AND ECONOMIC PERFORMANCE IN THE EUROPEAN UNION* (2016), https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/IPContributionStudy/performance_in_the_European_Union/performance_in_the_European_Union_full.pdf [<https://perma.cc/RAE2-VN7L>]; U.S. PATENT OFFICE, *INTELLECTUAL PROPERTY AND U.S. ECONOMY: 2016 UPDATE 26–27* (2016), <https://www.uspto.gov/sites/default/files/documents/IPandtheUSEconomySept2016.pdf> [<https://perma.cc/5BCE-T2NC>]; see also KEITH EUGENE MASKUS, *INTELLECTUAL PROPERTY RIGHTS IN THE GLOBAL ECONOMY* (2000); Dirk Czarnitzki et al., *The Market Valuation of Knowledge Assets in US and European Firms*, in *THE MANAGEMENT OF INTELLECTUAL PROPERTY 111* (Derek Bosworth & Elizabeth Webster eds., 2006) (providing a comparative assessment of IP asset values in the USA and Europe); Christine Greenhalgh & Mark Rogers, *The Value of Intellectual Property Rights to Firms and Society*, 23 OXFORD REV. ECON. POL'Y 541 (2007) (providing an extensive literature review); Shigeki Kamiyama et al., *Valuation and Exploitation of Intellectual Property* (OECD SCI., TECH. AND INDUS., Working Paper No. 2006/5, 2006). For a literature review of IPRs valuation methodologies, see generally WES ANSON & DONNA SUCHY, *FUNDAMENTALS OF INTELLECTUAL PROPERTY VALUATION: A PRIMER FOR IDENTIFYING AND DETERMINING VALUE* (2005); Yariv Brauner, *Value in the Eye of the Beholder: The Valuation of Intangibles for Transfer Pricing Purposes*, 28 VA. TAX REV. 79 (2008); Zvi Griliches, *Market Value, R&D, and Patents*, 7 ECON. LETTERS 183 (1981) (valuing IP assets on the basis of market capitalization of publicly traded companies); Ted Hagelin, *A New Method to Value Intellectual Property*, 30 AIPLA Q.J. 353 (2002); Céline Lagrost et al., *Intellectual Property Valuation: How to Approach the Selection of an Appropriate Valuation Method*, 11 J. INTELL. CAP. 481 (2010).

7. For an analysis of the use of IPRs as business strategy instruments, see generally Azizjon Alimov & Micah S. Officer, *Intellectual Property Rights and Cross-Border Mergers and Acquisitions*, 45 J. CORP. FIN. 36 (2017) (assessing the strategic relevance of IPRs in cross-border M&A transactions); David M. Gould & William C. Gruben, *The Role of Intellectual Property Rights in Economic Growth*, 48 J. DEV. ECON. 323 (1996); Christoph Grimpe & Katrin Hussinger, *Resource Complementarity and Value Capture in Firm Acquisitions: The Role of Intellectual Property Rights*, 35 STRATEGIC MGMT. J. 1762 (2014); Karl-Heinz Leitner, *Intellectual Capital, Innovation and Performance: Empirical Evidence from SMEs*, 19 INT'L J. INNOVATION MGMT. 1 (2015) (focusing on the strategic value of IPRs for SMEs); Gary Pisano, *Profiting from Innovation and the Intellectual Property Revolution*, 35 RES. POL'Y 1122 (2006).

In this evolving landscape, attention has drifted away from the rules governing the creation and transfer of proprietary rights in tangible assets and documentary intangibles⁸ and gravitated towards the legal tenets that regulate private law dealings involving IPRs.⁹

This paradigm shift has brought unprecedented focus on the legal regime for the taking of security over such assets, reflecting the mounting desire to realize their full value as means to facilitate access to credit and reduce associated costs.¹⁰ At a national level, legal reform initiatives seeking to overhaul the outdated laws that presently govern the use of IPRs as collateral have gained traction both in common and civil law jurisdictions.¹¹ Internationally,¹² the United Nations Commission on International Trade Law (UNCITRAL) has developed a suite of legislative texts on secured transactions law that jointly articulate a sophisticated normative model for the taking of security in IPRs.¹³

8. For recent historical analyses of the development of secured transactions law, see John De Lacy, *The Evolution and Regulation of Security Interests over Personal Property in English Law*, in THE REFORM OF UK PERSONAL PROPERTY SECURITY LAW 3 (2012); Willem J. Zwolve, *A Labyrinth of Creditors: A Short Introduction to the History of Security Interests in Goods*, in SECURITY RIGHTS IN MOVABLE PROPERTY IN EUROPEAN PRIVATE LAW 38 (Eva-Maria Kieninger ed., 2004).

9. For a primer, see generally PETER A. ALCES & HAROLD SEE, COMMERCIAL LAW OF INTELLECTUAL PROPERTY (1994); Robert P. Merges, *The Commercial Law of Intellectual Property*, 93 MICH. L. REV. 1570 (1995).

10. See Kenneth P. Wilcox & Dennis J. White, *Practical Problems with Intellectual Property as Collateral*, 11 COM. LENDING REV. 12, 14 (1995) (presciently highlighting that the fragile value of IP rights can be an obstacle to their use as collateral); C. S. Zimmerman & L. J. Dunlop, *Overview: Intellectual Property—The New Global Currency*, in THE NEW ROLE OF INTELLECTUAL PROPERTY IN COMMERCIAL TRANSACTIONS 592 (Lanning G. Bryer & Melvin Simensky eds., 1994) (suggesting that the use of IP rights as collateral is an important form of exploitation that fosters the creation of further IP protected subject matter).

11. For legal reform initiatives in the United States, see generally Lorin Brennan, *Financing Intellectual Property Under Revised Article 9: National and International Conflicts*, 23 HASTINGS COMM. & ENT. L.J. 313 (2000); Raymond T. Nimmer, *Revised Article 9 and Intellectual Property Asset Financing*, 53 ME. L. REV. 287 (2001); Steven O. Weise, *The Financing of Intellectual Property under Revised UCC Article 9*, 74 CHI. KENT L. REV. 1077 (1999). In Australia, see generally Francina Cantatore, *Intellectual Property Rights and the PPSA: Challenges for Interest Holders, Creditors and Practitioners*, 25 AUSTL. INTELL. PROP. J. 1 (2015). In Germany, see generally SVEN MITSDÖRFFER, SICHERUNGSRECHTE AN SCHUTZRECHTEN: EIN VERGLEICH ZWISCHEN DEM DEUTSCHEN RECHT UND DEM UNCITRAL LEGISLATIVE GUIDE ON SECURED TRANSACTIONS 92 (2014) (comparing German Law with the UNCITRAL Legislative Guide on Secured Transactions). In Italy, see generally Andrea Tosato, *Security Interests over Intellectual Property Rights in Italy: Critical Analysis and Reform Proposals*, in INTERNATIONAL AND COMPARATIVE SECURED TRANSACTIONS LAW: ESSAYS IN HONOUR OF RODERICK A. MACDONALD 259 (Orkun Akseli & Spiros V. Bazinas eds., 2017) [hereinafter Tosato, *Security Interests over IPRs in Italy*]. In the United Kingdom, see generally Iwan Davies, *Secured Financing of Intellectual Property Assets and the Reform of English Personal Property Security Law*, 26 OXFORD J. LEGAL STUD. 559, 559 (2006); Sean Thomas, *Security Interests in Intellectual Property: Proposals for Reform*, 37 LEGAL STUD. 214 (2017); Andrea Tosato, *Security Interests over Intellectual Property*, 6 J. INTELL. PROP. L. & PRAC. 93 (2011) [hereinafter Tosato, *Security Interests over IPRs in the UK*]; David M.R. Townend, *Intellectual Property as Security Interests: Technical Difficulties Presented in the Law*, 2 INTELL. PROP. Q. 168 (1997).

12. For a holistic assessment of international harmonization initiatives in the field of secured transactions law, see generally ORKUN AKSELI, INTERNATIONAL SECURED TRANSACTIONS LAW: FACILITATION OF CREDIT AND INTERNATIONAL CONVENTIONS AND INSTRUMENTS (1st ed. 2011).

13. See U.N. COMMISSION ON INT'L TRADE L. [UNCITRAL], UNCITRAL LEGISLATIVE GUIDE

This article aspires to make a contribution to this discourse by investigating a specific challenge that the twenty-first century levels at the legal framework governing the taking of security over intellectual property: the use of IP licenses¹⁴ as collateral.

IP license contracts are progressively assuming a leading role in both the business-to-business and business-to-consumer markets.¹⁵ The proliferation of the internet of things will reinforce this trend, as most tangible goods progressively integrate digital components and communications capabilities that necessitate licenses for the embedded intellectual property.¹⁶

The majority of IP licenses are of low value, arising from mass-market, business-to-consumer transactions. Nevertheless, there are also licenses of

ON SECURED TRANSACTIONS, at 1, U.N. Sales No. E.09.V.12 (2007) [hereinafter UNCITRAL LGST]; UNCITRAL, UNCITRAL LEGISLATIVE GUIDE ON SECURED TRANSACTIONS—SUPPLEMENT ON SECURITY RIGHTS IN INTELLECTUAL PROPERTY, U.N. Sales No. E.11.V.6 (2010) [hereinafter UNCITRAL LGST-SUPPLEMENT]; UNCITRAL, UNCITRAL MODEL LAW ON SECURED TRANSACTIONS, U.N. Sales No. E.17.V.1 (2016) [hereinafter UNCITRAL MODEL LAW]; Report of UNCITRAL on the Work of Its Forty-Third Session, U.N. Doc. A/65/17, ¶ 227 (July 9, 2010), available at <https://documents-dds-ny.un.org/doc/UNDOC/GEN/V10/556/48/PDF/V1055648.pdf?OpenElement> [https://perma.cc/7Q7J-RGCY]. Specifically on UNCITRAL's approach to the taking of security over IP rights, see Spyridon V. Bazinas, *UNCITRAL's Contribution to Intellectual Property Financing Law, in SECURITY INTERESTS IN INTELLECTUAL PROPERTY* 103 (2017). For commentary on these UNCITRAL texts, see generally ORKUN AKSELI, *INTERNATIONAL SECURED TRANSACTIONS LAW: FACILITATION OF CREDIT AND INTERNATIONAL CONVENTIONS AND INSTRUMENTS* (2011); *SECURED TRANSACTIONS LAW REFORM: PRINCIPLES, POLICIES AND PRACTICE* (2016) (Louise Gullifer & Orkun Akseli eds., 2016).

14. It would be more precise to speak of the rights held by licensees under their license agreement in respect of one or more IP rights. Nevertheless, for simplicity and brevity, the locutions “taking security in an IP license” and “using a license as collateral” will be used throughout this article.

15. For empirical data, see U.S. Patent Office, *supra* note 6, at 26 (measuring IP-licensing revenues at \$115.2 billion in 2012 in United States). See generally OECD, *SUMMARY OF THE EPO-OECD-UKPO CONFERENCE: PATENTS, REALISING AND SECURING VALUE* (2006), <http://www.oecd.org/dataoecd/23/4/37952293.pdf> [https://perma.cc/M37H-TQ5W] (framing the rising importance of IP licenses in digital economies); RUSSELL L. PARR & GORDON V. SMITH, *INTELLECTUAL PROPERTY: VALUATION, EXPLOITATION, AND INFRINGEMENT DAMAGES 2015 CUMULATIVE SUPPLEMENT* ch. 1 (2015); David L. Schwartz & Ted M. Sichelman, *Data Sources on Patents, Copyrights, Trademarks, and other Intellectual Property, in RESEARCH HANDBOOK ON THE LAW & ECONOMICS OF INTELLECTUAL PROPERTY* (Peter S. Menell et al. eds., forthcoming 2018) (providing a rich set of data sources evidencing the central role of IP licenses in the digital economy); Guifang Yang & Keith E. Maskus, *Intellectual Property Rights and Licensing: an Econometric Investigation*, 137 *REV. WORLD ECON.* 58 (2001); Elisabetta Gentile, *Intellectual Property Rights and Foreign Technology Licensing in Developing Countries: An Empirical Investigation* (Asian Dev. Bank, Working Paper No. 515, 2017) (analyzing the function of IP licenses in developing economies); Pluvia Zuniga & Dominique Guellec, *Who Licenses out Patents and Why? Lessons from a Business Survey* (OECD Sci., Tech., and Indus., Working Paper No. 2009/05, 2009) (analyzing data on IP licensing gathered by the OECD, the European Patent Office and the University of Tokyo).

16. For a broad overview on this topic, see generally Remco Dijkman et al., *Business Models for the Internet of Things*, 35 *INT. J. INFO. MGMT.* 672 (2015); Gerd Kortuem et al., *Smart Objects as Building Blocks for the Internet of Things*, 14 *IEEE INTERNET COMPUTING* 44 (2010); Peng-fei Fan & Guangzhao Zhou, *Analysis of the Business Model Innovation of the Technology of Internet of Things in Postal Logistics, in INDUSTRIAL ENGINEERING AND ENGINEERING MANAGEMENT, 2011 IEEE 18TH INTERNATIONAL CONFERENCE ON INDUSTRIAL ENGINEERING AND ENGINEERING MANAGEMENT* 532 (2011), <http://ieeexplore.ieee.org/abstract/document/6035215/> [https://perma.cc/B9DH-WVW6] (last visited Sept. 8, 2017).

substantial monetary worth that are granted in business-to-business agreements. Notable examples include trademark retail-distribution licenses, patent licenses for both manufacturing processes and products, copyright licenses for audio-visual creative content, and business applications software. There is compelling evidence to support the view that these types of licenses will be ever more prominent in the decades ahead, acquiring unprecedented economic and strategic significance. In addition, it is increasingly apparent that high-value licensing arrangements of this kind will be multi-jurisdictional in nature, as market participants design business models that transcend national borders.¹⁷

In such an environment, both licensees and lenders will gradually recognize IP licenses as a palatable source of collateral, repeating a pattern that has recurred throughout history whenever an asset class appreciates substantially.¹⁸ The challenge will be for secured transactions law to provide these parties with suitably supportive legal infrastructure.

This article offers a two-part analysis of the law governing the taking of security in IP licenses. Part II maps this largely unexplored¹⁹ territory to assess

17. The software market provides a telling example of both the internationalization of enterprise license agreements and the dichotomy between consumer and enterprise license markets. *See generally Global Enterprise Software Market (By Segment, Industry Verticals, Geography and Vendors) and Forecast to 2022*, ORBIS RES. (Mar. 27, 2017), <http://www.orbisresearch.com/reports/index/global-enterprise-software-market-by-segment-industry-verticals-geography-and-vendors-and-forecast-to-2022> [<https://perma.cc/2B3D-2KBH>]; *The Growing \$1 Trillion Economic Impact of Software*, BUS. SOFTWARE ALLIANCE (Sept. 2017), https://software.org/wp-content/uploads/2017_Software_Economic_Impact_Report.pdf [<https://perma.cc/G7V8-WX8D>] (providing an extensive list of empirical surveys detailing the difference in consumer and enterprise software markets); *Software Licensing 2016: Seismic Shifts – Shaky Foundations*, FLEXERA SOFTWARE (2016), <https://resources.flexera.com/web/pdf/WhitePaper-SWM-Key-Trends-Shaky-Foundations.pdf> [<https://perma.cc/X49U-XHJ4>] (providing empirical data).

18. Aircrafts and their equipment are examples of asset classes that have soared in value rapidly, attracting the attention of borrowers and lenders. This in turn has led to law reform initiatives and international uniformation projects aimed at facilitating the use of these assets as collateral. *See generally* ROY GOODE, CONVENTION ON INTERNATIONAL INTERESTS IN MOBILE EQUIPMENT AND PROTOCOL THERETO ON MATTERS SPECIFIC TO AIRCRAFT EQUIPMENT: OFFICIAL COMMENTARY (3d ed., 2013); Roy Goode, *Transnational Commercial Law and the Influence of the Cape Town Convention and Aircraft Protocol*, 50 CAN. BUS. L.J. 186 (2011); Charles W. Mooney, Jr., *The Cape Town Convention: A New Era for Aircraft Financing*, 18 AIR & SPACE L. 4 (2003). Intermediated securities are another asset class in respect of which this pattern has occurred. *See generally* LOUISE GULLIFER & JENNIFER PAYNE, INTERMEDIATED SECURITIES: LEGAL PROBLEMS AND PRACTICAL ISSUES (2010).

19. The body of literature exploring the taking of security over IPRs has grown in recent past. *See* Thomas, *supra* note 11 (providing an exhaustive literature review). By contrast, the use of IP licenses as collateral has not been considered in similar depth. *See, e.g.*, RAYMOND T. NIMMER & JEFF DODD, THE LAW OF LICENSING §§ 16:37–16:45 (2016–2017) (analyzing the law in the United States); Peter Picht, *Collateralizing IP Licenses: Present Deficiencies and Proposals for Reform*, 41 AIPLA Q.J. 423, 441 (2013) (providing a *de lege ferenda* analysis of U.C.C. 9); Tosato, *Security Interests over IPRs in Italy*, *supra* note 11, at 271–75 (analyzing the law in Italy). For a rich collection of primary sources regulating IP licenses and the taking of security in these assets across jurisdictions, see AIPPI, CONTRACTS REGARDING INTELLECTUAL PROPERTY RIGHTS (ASSIGNMENTS AND LICENSES) AND THIRD PARTIES (Q190), <http://aippi.org/committee/contracts-regarding-intellectual-property-rights-assignments-and-licenses-and-third-parties-2/> [<https://perma.cc/JCG9-M4EN>] (last visited Feb. 6, 2018); AIPPI, SECURITY INTERESTS OVER INTELLECTUAL PROPERTY, <http://aippi.org/committee/security-interests-over-intellectual-property/> [<https://perma.cc/ACP4-2HMB>] (last visited Feb. 6, 2018).

whether the extant legal framework possesses sufficient elasticity to accommodate the demands of the incoming tide of secured transactions involving IP licenses. This appraisal is carried out comparatively, identifying the key pillars of the normative structures currently in force in different jurisdictions and assessing their respective merits and shortcomings. Subsequently, Part III suggests detailed legislative reform proposals that delineate the fundamental components of an efficient legal regime for the use of IP licenses as collateral.

II

TAKING SECURITY IN IP LICENSES

Secured transactions laws across jurisdictions have long recognized rights as suitable forms of collateral.²⁰ The notion of taking security in IP licenses is neither novel nor unusual. However, such dealings present a unique normative challenge, because their viability and value are conditional on the unimpeded confluence of secured transactions law and the body of rules governing IP licenses (IPL law).²¹

The following analysis expounds the key intersections of these two branches of the law and compares their respective configurations across jurisdictions. This exploration relies on three postulates, which can be enunciated as follows. First, the notion of an IP license is defined heterogeneously by national laws, reflecting underlying differences in both the legal theories that have shaped this category and the branches of the law that inform its legal regime. Despite such fundamental divergences, a functional core is ubiquitously recognized: a license is a transaction through which a licensor grants a licensee permission to perform actions that would otherwise infringe the licensed IP right.²²

20. Seminally, Roman law recognized the use of rights as collateral, provided that they were alienable. See WILLIAM W. BUCKLAND, *A TEXT-BOOK OF ROMAN LAW: FROM AUGUSTUS TO JUSTINIAN 470–75* (1921) (analyzing both classical and Justinian sources). In common law jurisdictions, see generally A. J. DUGGAN & DAVID BROWN, *AUSTRALIAN PERSONAL PROPERTY SECURITIES LAW* (2d ed. 2015) (providing a primer on Australian law); LOUISE GULLIFER, *GOODE ON LEGAL PROBLEMS OF CREDIT AND SECURITY* (5th ed. 2013) (providing a primer on English law); STEVEN L. HARRIS & CHARLES W. MOONEY, JR., *SECURITY INTERESTS IN PERSONAL PROPERTY, CASES, PROBLEMS AND MATERIALS* ch. 6 (6th ed. 2015) (providing a primer on U.C.C. 9). In civil law jurisdictions, see generally *PRINCIPLES, DEFINITIONS AND MODEL RULES OF EUROPEAN PRIVATE LAW: DRAFT COMMON FRAME OF REFERENCE*, IX (Christian von Bar & Eric Clive eds., 2010) (offering a comparative assessment of the secured transactions laws presently in force in all European civil law jurisdictions).

21. In every jurisdiction, the body of rules governing IP licenses is comprised of norms stemming from multiple branches of the law including contract law, IP law, labor law, competition law, and consumer law. See NIMMER & DODD, *supra* note 19, §§ 1:1–1:10; Jacques De Werra, *The Need to Harmonize Intellectual Property Licensing Law: A European Perspective*, in *RESEARCH HANDBOOK IN INTELLECTUAL PROPERTY LICENSING* 450 (Jacques De Werra ed., 2013) (describing this confluence). For simplicity, throughout this article, this legal regime is referred to as “IPL law.”

22. See generally LUCIE GUIBAULT & P. B. HUGENHOLTZ, *STUDY ON THE CONDITIONS APPLICABLE TO CONTRACTS RELATING TO INTELLECTUAL PROPERTY IN THE EUROPEAN UNION* (2002) (providing a European law perspective); NIMMER & DODD, *supra* note 19, § 1:2 (2016–2017) (providing a United States law perspective); Nikhil Krishnamurthy, *Intellectual Property Licensing in India*, in *RESEARCH HANDBOOK ON INTELLECTUAL PROPERTY LICENSING* 400 (2013) (providing an Indian law perspective); Shinto Teramoto, *Intellectual Property Licensing in Japan*, in *RESEARCH HANDBOOK ON INTELLECTUAL PROPERTY LICENSING* 425 (Jacques de Werra ed., 2013) (providing a

Second, a license agreement *per se* does not create a security interest in the resulting license, securing the obligations that the licensee might owe to the licensor. This postulate is conspicuous in legal orders that only recognize a *numerus clausus* of typified security devices.²³ It is equally irrefutable in jurisdictions that adopt a functional approach to secured transactions, as the granting of a license does not afford the licensor an interest in any property of the licensee.²⁴

Third, there is a sharp legal and economic distinction between a licensee granting a security interest in an IP license and a licensor using revenue streams arising from a license agreement as collateral. This article focuses exclusively on the former; the use of receivables as collateral is subject to different rules and raises substantively diverse issues.²⁵

A. The Use of IP Licenses as Collateral: Doctrinal Impediments

The natural starting point of the present enquiry is an evaluation of whether IP licenses are capable of being the object of a security interest. This matter is subject to markedly different rules that vary in both source and substance across jurisdictions.

In some countries, diverging approaches are adopted depending on the type of licensed IP right. For example, in the United Kingdom, the Patents Act 1977 (UK-PA) expressly states that patent licenses can be “mortgaged[.]”²⁶ Conversely, absent express statutory guidance, both exclusive and non-exclusive copyright licenses have been held to be rights *in personam* under UK common

Japanese law perspective); Hong Xue, *Intellectual Property Licensing in China*, in RESEARCH HANDBOOK ON INTELLECTUAL PROPERTY LICENSING 381 (Jacques de Werra ed., 2013) (providing a Chinese law perspective).

23. For an introduction to formalism and functionalism in secured transactions, see generally Michael G. Bridge et al., *Formalism, Functionalism, and Understanding the Law of Secured Transactions*, 44 MCGILL L.J. 567 (1999). Italy and France are examples of civil law jurisdictions adopting a formalistic, *numerus clausus* approach. The United Kingdom is an example of a common law jurisdiction adopting a formalistic approach, admitting only four security devices: lien, pledge, mortgage and charge. See HUGH BEALE ET AL., *THE LAW OF SECURITY AND TITLE-BASED FINANCING* § 1.16 (2012); GULLIFER, *supra* note 20, §§ 1-46–1-50.

24. See, e.g., U.C.C. § 1-201(35) (defining “security interest” as “an interest in personal property or fixtures which secures payment or performance of an obligation”); see also Weise, *supra* note 11, at 1081–85 (showing that the license contract archetype differs fundamentally from that of secured transactions). In Australia, see *Personal Property Securities Act 2009* (Cth), s 12(5)(a). In Italy, see Italian Civil Code 1942, art. 2741.2; see generally A. Veneziano, *Secured Transactions Law Reform: Principles, Policies and Practice*, in ITALIAN SECURED TRANSACTIONS LAW—THE NEED FOR REFORM 355 (Louise Gullifer & Orkun Akseli eds., 2016) (providing a broad overview of secured transactions law in Italy).

25. On the taking security in payment rights arising from an IP license topic, see Brennan, *supra* note 11, at 217–19; Weise, *supra* note 11, at 1086–91. On the securitizations of these payments rights, see generally Steven L. Schwarcz, *What Is Securitization: And for What Purpose*, 85 S. CAL. L. REV. 1283 (2012) (providing a general theory on securitization and an exhaustive bibliography); Dov Solomon & Miriam Bitton, *Intellectual Property Securitization*, 33 CARDOZO ARTS & ENT. L.J. 125 (2015).

26. See The Patents Act 1977, c. 37, §§ 30(2), 30(4)(a) (Eng.); see also RICHARD MILLER ET AL., TERRELL ON THE LAW OF PATENTS § 16:17 (18th ed. 2017); Davies, *supra* note 11, at 566; Thomas, *supra* note 11, at 222; Tosato, *Security Interests over IPRs in the UK*, *supra* note 11.

law, and thus ontologically incapable of being used as collateral.²⁷ By contrast, the position is not entirely clear regarding trademarks licenses. Confronted with ambiguous language in the UK Trade Marks Act 1994 (UK-TMA), courts have classified non-exclusive trademark licenses as personal rights incapable of being used as collateral, while commentators have suggested that the opposite might be true for exclusive trademark licenses as the UK-TMA “seems to leave open the argument that the nature of the interest enjoyed by an exclusive [trademark] licensee is more than a bare permission[.]”²⁸

In other jurisdictions, secured transactions law circumvents dogmatic conundrums and addresses this matter either expressly or implicitly. In Australia, the Personal Property Securities Act 2009 (AU-PPSA) establishes that security can be taken in all “transferable” licenses, regardless of the type of IP right being licensed and whether they are exclusive or non-exclusive.²⁹ In the United States, U.C.C. Article 9 (U.C.C. 9) allows for the taking of security in all types of licenses.³⁰ However, if the license in question is non-transferable³¹ only

27. This is premised on the English law tenet that it is only possible to take security in assets that are legally deemed to be personal property. See GULLIFER, *supra* note 20, §§ 1-05–1-09 (providing an exhaustive explanation of the relevant principles and authorities); BEALE ET AL., *supra* note 23, § 1.04. For details on the impossibility of using copyright licenses as collateral under U.K. law, see C.B.S. United Kingdom Ltd v. Charmdale Record Distributors Ltd [1980] FSR 289 at 295; Heap v. Hartley [1889] 42 Ch Div 461; see also KEVIN GARNETT ET AL., COPINGER AND SKONE JAMES ON COPYRIGHT § 5-203 (Kevin Garnett et al. eds., 17th ed. 2016) (providing detailed analysis of these authorities).

28. The Trade marks of 1994, c. 26, § 25(2)(c) (Eng.) ambiguously mentions the possibility of filing “the granting of any security interest (whether fixed or floating) over a registered trade mark or any right in or under it”. On the classification of non-exclusive trademark licenses as bare permissions that do not award a proprietary interest capable of being used as collateral see Northern & Shell v. Condé Nast [1995] R.P.C. 117 at 122. For the suggestion that exclusive trademark licenses might be personal property see DAVID KEELING ET AL., KERLY’S LAW OF TRADE MARKS AND TRADE NAMES § 15-085 (16th ed. 2017) (based on the exegesis of § 31 of the Trade Marks Act 1994).

29. AU-PPSA § 10; see also Cantatore, *supra* note 11, at 4 (expounding the definitions of “personal property,” “licence” and “intellectual property licence”).

30. See NIMMER & DODD, *supra* note 19, §§ 16:37–16:45; Xuan-Thao Nguyen, *Collateralizing Intellectual Property*, 42 GA. L. REV. 1 (2007); Nimmer, *supra* note 11, at 350–55; Picht, *supra* note 19, at 433; Jennifer Sarnelli, *Grasping for Air: Revised Article 9 and Intellectual Property in an Electronic World*, 11 UCLA ENT. L. REV. 103 (2004); Weise, *supra* note 11, at 1091–96.

31. See *Cincom Sys., Inc. v. Novelis Corp.*, 581 F.3d 431, 436 (6th Cir. 2009) (restating that the transferability of IP licenses is governed by the relevant IP federal law and providing an overview of the applicable rules). For an exhaustive analysis of the rules governing the transfer of licenses under United States federal law, see generally NIMMER & DODD, *supra* note 19, §§ 9:18-9:28. Non-exclusive and exclusive licenses are subject to different rules. For non-exclusive licenses, the default rule is that assignability is conditional on the consent of the licensor and the same is true for exclusive patents and trademarks licenses. See NIMMER & DODD, *supra* note 19, at § 9:22 (providing a detailed analysis of recent authorities). By contrast, under 17 U.S.C. § 101 (2000), the default rules for exclusive copyright licenses is that they are transferable. Notably, the absolute nature of this rule was controversially compressed in *Gardner v. Nike, Inc.*, 279 F.3d 774 (9th Cir. 2002). See also Alice Haemmerli, *Why Doctrine Matters: Patent and Copyright Licensing and the Meaning of Ownership in Federal Context*, 30 COLUM. J.L. & ARTS 1, 7–20 (2006) (analyzing the legal regime applicable to transfers of exclusive copyright licenses and criticizing the ratio decidendi in *Gardner*).

“creation” and “perfection”³² are possible, whereas enforcement is precluded;³³ in these cases, the secured creditor will look primarily³⁴ to the proceeds³⁵ of the encumbered license for satisfaction, rather than to the asset itself.³⁶

Under still further domestic legal regimes, the issue under consideration is governed exclusively by general property law tenets. For example, in Italy, absent express legislative guidance, the prevailing thesis is that IP licenses fall within the statutory category of “rights other than receivables”³⁷ and are thus suitable to be used as collateral pursuant to first principles of secured transactions law.³⁸ However, proponents of this view insist that security interests in IP licenses must be treated analogously to transfers of these assets, and thus conclude that these dealings are void if concluded without the previous consent of the licensor.³⁹

When considered holistically, this legal landscape prompts three considerations. First, legal regimes that preclude the taking of security over specific types of IP licenses effectively render these assets “dead capital” for secured transaction purposes.⁴⁰ This normative stance has produced limited systemic damage in the past, but it is bound to become a source of substantial economic inefficiency in the future, as the value of these assets continues to climb.⁴¹ Second, the policy choice to anchor the viability of IP licenses as collateral to their alienability conceals substantial challenges under a mantle of apparent simplicity. Such an approach is entirely reliant on a precise and lucid

32. Throughout this article, the term “creation” refers to the act by which a security interest becomes effective between grantor and secured creditor. The term “perfection” refers to the act by which a security interest becomes effective against third parties. This terminological choice is aligned with that of the UNCITRAL LGST, *supra* note 13, §§ II:1–11 (explaining the ratio for this terminology and providing an extensive explanation of the different approaches towards creation and perfection across jurisdictions). See Harry C. Sigman, *Perfection and Priority of Security Rights*, 5 ECFR 143–65 (offering a thoughtful explanation of the legal function of creation and perfection).

33. This is the outcome of the norms established in U.C.C. §§ 9-318(4), 9-408(c).

34. See ROBERT P. MERGES & JOHN F. DUFFY, *PATENT LAW AND POLICY: CASES AND MATERIALS* 60–64 (6th ed., 2015) (arguing that a licensor may be interested in taking security in an IP license as additional leverage to control the behavior of the licensee).

35. For the definition of “proceeds,” see U.C.C. § 9-102(64)(a).

36. For detailed commentary, see Nimmer, *supra* note 11, at 351–53; Thomas E. Plank, *The Limited Security Interest in Non-Assignable Collateral Under Revised Article 9*, 9 AM. BANKR. INST. L. REV. 323, 329–37 (2001); Weise, *supra* note 11, at 1092–93.

37. Codice civile, art. 2806.

38. Under article 2806 of Italian Civil Code, a typified non-possessory pledge (*pegno*) is available to take security over rights other than receivables. See Tosato, *Security Interests over IPRs in Italy*, *supra* note 11, at 273 (analyzing scholarly views and primary sources). Recently, new typified devices have been introduced that are theoretically suitable to take security over IP licenses. See generally Giuliano G. Castellano, *The New Italian Law for Non-Possessory Pledges: A Critical Assessment*, 31 BUTTERWORTH J. INT’L BANKING & FIN. L. 542 (2016).

39. Tosato, *Security Interests over IPRs in Italy*, *supra* note 11, at 273.

40. HERNANDO DE SOTO, *THE MYSTERY OF CAPITAL: WHY CAPITALISM TRIUMPHS IN THE WEST AND FAILS EVERYWHERE ELSE* 40 (2000) (introducing this phrase to designate assets that cannot easily be bought, sold, valued or used as an investment). For an analysis in the context of secured transactions, see generally Giuliano G. Castellano, *Reforming Non-Possessory Secured Transactions Laws: A New Strategy?*, 78 MOD. L. REV. 611, 615–16 (2015).

41. See *supra* text accompanying note 6.

definition of the concept of alienability. Moreover, it implies that that these assets are devoid of value as security beyond what can be obtained upon their disposal, an assumption that betrays a simplistic and flawed theorization of secured transactions law.⁴² Third, it is highly problematic that, within a single jurisdiction, licenses of different IP rights may be subject to diverging rules regarding whether they can be used as collateral. This fragmentation muddles the legal system in question and amplifies the difficulty of the due diligence processes that precede secured transactions involving licenses of multiple types of IP rights.

B. Creation, Perfection and Priorities: Deficiencies and Uncertainties

Having addressed the foundational issue of whether IP licenses are legally viable collateral, attention can turn to the rules governing the creation, perfection and priority of security interests in these assets.

In most jurisdictions, secured transactions law is the primary normative source for the creation of security rights in IP licenses. These assets are subjected to the rules generally applicable to all intangibles and only seldom attract *ad hoc* norms. IPL law neither attempts to introduce special security devices for these assets, nor does it meaningfully supplement the regime established by secured transactions law. The sole exception is its prescription of form requirements. This is true both in jurisdictions that have adopted a functional approach to secured transactions and in those that have retained a formalist character.⁴³ With regard to creation, the confluence of secured transactions law and IPL law is relatively straightforward; the resulting regime is no less accommodating to lenders and grantors than that generally available for intangible assets.

The intersection between secured transactions law and IPL law is significantly more problematic regarding perfection and priority. In some jurisdictions, the intertwining of these two normative streams bears meagre fruit. In Italy, for example, neither secured transactions law nor IPL law expressly regulates either perfection⁴⁴ or priority for security interests in licenses. Absent explicit normative guidance, some commentators suggest that rules established for intangible assets should be applied unaltered. By contrast, others emphasize that IP law requires trademarks and patents licenses to be filed in the appropriate specialist registers to become effective against third parties and acquire priority. From this premise, they argue that the same regime should also apply to the taking of security in these assets by analogy.⁴⁵ The result is a piecemeal legal regime beset with

42. See *infra* Part III.A.

43. In numerous jurisdictions, IPL law imposes form requirements for the creation of security interests in IP licenses. See NIMMER & DODD, *supra* note 19, §§ 16:42–16:45 (detailing formalities prescribed by United States IPL law); Thomas, *supra* note 11, at 222–26 (detailing formalities prescribed by UK IPL law); Tosato, *Security Interests over IPRs in Italy*, *supra* note 11, at 271–75 (detailing formalities prescribed by Italian IPL law).

44. It should be noted that Italian secured transactions law does not conceptually sever creation and perfection. Both occur concurrently when a security agreement is validly stipulated by the parties. See Tosato, *Security Interests over IPRs in Italy*, *supra* note 11, at 261–68.

45. See Tosato, *Security Interests over IPRs in Italy*, *supra* note 11, at 273, 279 (providing a detailed

uncertainty, as the interplay between IPL law and secured transactions produces equivocal silence rather than clear normative guidance.

In other jurisdictions, secured transactions law and IPL law are uneasy bedfellows. In the United States, U.C.C. 9 governs perfection and priority of security interests in non-exclusive copyright licenses, and both exclusive and non-exclusive patents and trademarks licenses.⁴⁶ Accordingly, subject to minor exceptions, a notice must be filed in the general security register of the relevant state in order for a security interest in these assets to be perfected and acquire priority.⁴⁷ Conversely, the US Copyright Act classifies both exclusive licenses and security interests as “transfers”⁴⁸ of proprietary interests in copyright, and subjects their third party effectiveness and priority to special requirements that involve filing in the copyright register.⁴⁹ These Copyright Act provisions preempt rules stemming from U.C.C. 9, as federal intellectual property law prevails over state law governing secured transactions in the event of a conflict.⁵⁰ Thus, the United States regime regulating the perfection and priority of security interests in licenses varies depending on the nature of the underlying IP rights: there is one set of rules for exclusive copyright licenses and another for non-exclusive copyright licenses, patent licenses and trade mark licenses. This normative fragmentation reduces efficiency and raises transaction costs and overall complexity, as outlined in Subpart A of this Part. These deficiencies are exacerbated by the dissimilarities between the substantive rules and filing systems of U.C.C. 9 and the US Copyright Act, and the absence of information-sharing mechanisms to bridge this chasm.⁵¹

In still further jurisdictions, secured transactions law and IPL law collide, establishing norms that are irreconcilable. In the United Kingdom, secured transactions law establishes a general regime for perfecting security interests and acquiring priority for intangible assets.⁵² If the grantor is a company, these rules are supplemented by an ulterior normative layer, the cornerstone of which is the requirement to file security interests in the Companies Charges Register for perfection.⁵³ Coextensively, the UK-PA establishes that priority of security

analysis of this doctrinal debate and suggesting legal reforms).

46. See generally Haemmerli, *supra* note 31 (suggesting that exclusive patent licenses should be treated analogously to exclusive copyright licenses).

47. See HARRIS & MOONEY, *supra* note 20, 160–215; NIMMER & DODD, *supra* note 19, §§ 16:37–16:45; JAMES WHITE & ROBERT SUMMERS, WHITE AND SUMMERS’ UNIFORM COMMERCIAL CODE §§ 23-10–23-14 (6th ed. 2010).

48. See 17 U.S.C. § 101 (2000).

49. See 17 U.S.C. §§ 204–05 (2000). For detailed commentary of these rules, see NIMMER & DODD, *supra* note 19, §§ 16:37–16:45.

50. See NIMMER & DODD, *supra* note 19, § 16:9; Weise, *supra* note 11, at 1079–80 (explaining that IP federal law pre-empts U.C.C. art. 9 rules in the presence of a conflict).

51. The former rule is based on a notice filing, and the latter rule is based on title filing. See NIMMER & DODD, *supra* note 19, §§ 16:18–16:36 (offering a comparative analysis of these two filing regimes).

52. See generally GULLIFER, *supra* note 20, §§ 2-01–2-33.

53. On the perfection of security interests through filing in the Companies Charges Register, see The Companies Act 2006, §§ 859A–Q. See also GULLIFER, *supra* note 20, §§ 2-22–2-33; DUNCAN

interests in patent licenses is conditional on registration on the relevant IP specialist register.⁵⁴ Despite this manifest overlap between the UK-PA and secured transactions law, no pre-emption or primacy principle is established to determine which set of rules prevails.⁵⁵ Moreover, no mechanism is provided to address discrepancies if inconsistent filings are recorded in the IP specialist register and Companies Charges Register.⁵⁶ The result is an uncertain legal framework, facets of which commentators describe as “intractable[.]”⁵⁷

Only rarely, perfection and priority rules for the taking of security in IP licenses are characterized by an orderly intersection between secured transaction and IPL law. In Australia, recent legislative reform purposefully repealed a range of scattered provisions from an array of sources that affected security interests in IP rights and licenses.⁵⁸ Accordingly, the AU-PPSA now regulates the perfection and priority of security interests in IP licenses; IPL law continues to govern issues regarding the existence and validity of these assets, and competing ownership and license claims. Though not devoid of challenges, this division of competences spawns a system in which an interested lender can access all relevant information regarding security interests from the Australian Personal Property Security Register.⁵⁹ However, the quality and substance of the rights held by the licensee, and the underlying IP itself, must be assessed by reference to the applicable IPL norms and IP statutes, often requiring searches of the relevant specialist registers.⁶⁰

SHEEHAN, THE PRINCIPLES OF PERSONAL PROPERTY LAW 269–73 (2017).

54. See The Patents Act of 1977, c. 37, §§ 30, 33(3) (Eng.). For an analysis of these provisions, see Thomas, *supra* note 11, at 224–29; Tosato, *Security Interests over IPRs in the UK*, *supra* note 11, at 97–99.

55. Specifically on the potential conflicts between the UK Patent Register and the Companies Charges Registers, see Davies *supra* note 11, at 567; Thomas, *supra* note 11, at 225–31; Tosato, *Security Interests over IPRs in the UK*, *supra* note 11, at 99 (suggesting that the priority rules of the UK-PA should prevail as a *lex specialis*).

56. The Companies Act 2006, § 893 expressly provides that the Secretary of State can issue orders for the purpose of facilitating the making of information-sharing arrangements between the Companies Charges Register and other filing systems. However, no such orders have ever been issued.

57. Townend, *supra* note 11, at 194. See Davies, *supra* note 11, at 573 (equating the taking of security in IP assets to a “leap of faith”). *But see* Vanya Bromfield & John Runeckles, *Taking Security over Intellectual Property: A Practical Overview*, 28 EUR. INTEL. PROP. REV. 344, 348 (2006) (arguing that these normative deficiencies are not problematic); Jeremy Drew & Matthew Starmer, *Taking Security over Intellectual Property—A Pragmatic Approach to Releasing Value from Hidden Assets*, J. OF INT’L BANKING & FIN. L. 320, 324 (2007). For a *media sententia*, see Tosato, *Security Interests over IPRs in the UK*, *supra* note 11, at 104 (suggesting that “the effectiveness of the existing legislative framework varies markedly depending on the characteristics of the secured transaction in question”).

58. For the list of these legislative amendments, see Parliament of the Commonwealth of Australia House of Representatives, Explanatory Memorandum, Personal Property Securities (Consequential Amendments) Bill 2009 (Cth) 9–15. See also Anthony J. Duggan, *Patent Security Interests: Costs and Benefits of Alternative Registration Regimes*, 37 CAN. BUS. L.J. 165–85 (2002) (analyzing the Australian regime for taking security in patents prior to the AU-PPSA).

59. See Robert Burrell & Michael Handler, *The PPSA and Registered Trade Marks: When Bureaucratic Systems Collide*, 34 U.N.S.W.L.J. 600, 611 (2011) (suggesting that determinate elements of the pre-existing system have managed to survive and might undermine the new framework enacted by the AU-PPSA).

60. See Cantatore, *supra* note 11, at 11–14.

The preceding comparative analysis reveals that the legal frameworks presently governing the creation, perfection and priority of security interests in IP licenses suffer from a variety of flaws. Despite the marked substantive differences permeating the relevant law across jurisdictions, two normative failures must shoulder the burden of blame for the vast majority of the aforementioned deficiencies.

First, the hierarchy and respective competences of secured transactions law and IPL law are not established with sufficient precision and lucidity. In principle, the former should establish general tenets, whereas IPL law should provide supplementary, asset-specific provisions. In practice, however, achieving equilibrium between the respective contributions of these two normative streams is a challenging endeavor for most legislators. At one extreme, these assets are vacuously subjected to the general secured transactions rules established for all other intangibles, generating an unsatisfactory regime that fails to cater to the idiosyncrasies of the legal regime of IP licenses. At the other extreme, IPL law encroaches on secured transactions law, producing a body of rules for the creation, perfection and priority of security interests in IP licenses that is irreconcilable with the legal regime established for all other tangible and intangible assets.

Second, the dialogue between secured transactions law and IPL law is asynchronous and ineffectual. These two normative streams seldom operate in concert and information-sharing mechanisms are either missing or inadequate. The result is a legal framework for taking security in IP licenses riddled with lacunae and uncertainties. Moreover, it often yields inconsistent regimes, the rules of which vary depending on the nature of the underlying IP right that is being licensed. This dramatically inhibits secured transactions involving portfolios of such assets.

C. Conflict of Laws: The Dichotomy Between *Lex Loci Protectionis* and the Law of the Grantor

Secured transactions involving IP rights and licenses are not ontologically multi-jurisdictional. The secured creditor, the grantor, the collateral and performance of the security agreement may all be connected to a single legal system and thus subject to its law. Nevertheless, there is evidence that asset-based lending is becoming increasingly transnational.⁶¹ Grantors and secured creditors are often located in different jurisdictions and their agreements often involve cross-border performance.⁶² Moreover, in the information society, grantors are progressively seeking to encumber multiple IP assets protected by different

61. See Richard Kohn, *Current Issues in Cross-Border Asset-Based Lending: Lessons from the Field on the Need for Secured Transactions Reform*, in INTERNATIONAL AND COMPARATIVE SECURED TRANSACTIONS LAW: ESSAYS IN HONOUR OF RODERICK A MACDONALD 101 (Spiros V. Bazinas & Orkun Akseli eds., 2017) (offering an analysis of the increasing cross-border nature of asset based lending).

62. *Id.* at 103–05.

States (International IP Portfolios).⁶³ Secured transactions bearing these characteristics give rise to conflicts of laws, the resolution of which requires careful consideration.

Historically, international and national legislative instruments establishing private international law rules have not taken a keen interest in contracts involving IP rights and licenses.⁶⁴ As a result, only a small minority of jurisdictions contemplate conflict of laws norms that expressly address secured transactions involving such assets.⁶⁵ In most legal systems, private international law issues stemming from these dealings are resolved pursuant to the general principles applicable to all intangibles.⁶⁶

Prior to any substantive analysis of the private international law framework for secured transactions involving IP licenses, a preliminary observation must be noted. Though there is a clear distinction between taking security in an IP right and in an IP license,⁶⁷ conflict of laws rules across jurisdictions regulate secured transactions involving these two asset classes homogeneously.⁶⁸ This normative choice reflects the fact that the permission at the core of every IP license is an emanation of the underlying IP right.⁶⁹ It would be systemically incoherent for security interests in assets that are so intimately bound to be governed by diverging conflict of laws regimes. In practice, it would also be unworkable to subject security interests in an IPR to one law, yet subject security interests in

63. This trend emerges lucidly from the literature that delves into the management of IP assets. *See generally* OVE GRANSTRAND, *THE ECONOMICS AND MANAGEMENT OF INTELLECTUAL PROPERTY* (1999); CHRISTOPHER MAY, *THE GLOBAL POLITICAL ECONOMY OF INTELLECTUAL PROPERTY RIGHTS: THE NEW ENCLOSURES?* (2013); David, *supra* note 1.

64. *See generally* Pedro Alberto De Miguel Asensio, *The Law Governing International Intellectual Property Licensing Agreements (A Conflict of Laws Analysis)*, in *RESEARCH HANDBOOK ON INTELLECTUAL PROPERTY LICENSING* 312 (Jacques de Werra ed., 2013) (providing an exhaustive analysis of the private international rules for IP licenses in the European Union); Carmen Otero García-Castrillón, *Choice of Law in IP: Rounding off Territoriality*, in *RESEARCH HANDBOOK ON CROSS-BORDER ENFORCEMENT OF INTELLECTUAL PROPERTY* 421, 424–425 (Paul L.C. Torremans ed., 2014) (analyzing recent initiatives to develop the international private law framework for contracts dealing in IP rights); Graeme B. Dinwoodie, *Developing a Private International Intellectual Property Law: The Demise of Territoriality*, 51 *WM & MARY L. REV.* 711, 722 (2009) (highlighting the different speed at which public international IP law and private international IP law have developed); Paul L.C. Torremans, *Licenses and Assignments of Intellectual Property Rights under the Rome I Regulation*, 4 *J. PRIV. INT'L L.* 397 (2008) (analyzing specifically the applicable law rules enacted by the European Union Rome I Regulation for license contracts); Paul L.C. Torremans, *Questioning the Principles of Territoriality: the Determination of Territorial Mechanisms of Commercialisation*, in *COPYRIGHT LAW: A HANDBOOK OF CONTEMPORARY RESEARCH* (Paul L.C. Torremans ed., 2007) (exploring the limitation of *lex loci protectionis* as an applicable law rule for IP contracts).

65. The most notable example is found in AU-PPSA § 239. For the exegesis of this provision, see DUGGAN & BROWN, *supra* note 20, §§ 14.33–14.34.

66. *See* TOSHIYUKI KONO, *INTELLECTUAL PROPERTY AND PRIVATE INTERNATIONAL LAW: COMPARATIVE PERSPECTIVES* 186–88 (2012) (providing a comprehensive comparative analysis).

67. *See supra* Part II.

68. *See* KONO, *supra* note 66, at 186–88.

69. On the nexus between the permission that lies at the core of every license and the underlying IP right, *see supra* note 23.

licenses of that same IPR to a different law.⁷⁰ Accordingly, the following discourse analyzes the conflict of laws framework for secured transactions involving IP rights and licenses as a unitary body of rules.

When determining the law applicable to secured transactions, a distinction must be drawn between contractual and proprietary matters. The former concern the mutual rights and obligations of the parties under their agreement.⁷¹ For contractual matters, an established private international law tenet is that parties may designate whichever law best serves their needs.⁷² This rule applies unaltered when IP assets are used as collateral.

Proprietary matters encompass the legal issues regarding the security interest itself, including its creation, perfection and priority.⁷³ A comparative overview reveals that three alternative approaches exist across jurisdictions when IP assets are used as collateral. The first provides that the law applicable to a security interest in these intangibles is that of the State protecting the relevant IP right (the *lex loci protectionis* approach). This normative solution is prevalent across jurisdictions in Europe, South America and Asia.⁷⁴

The ratio of the *lex loci protectionis* approach is that the law of the protecting State shapes all proprietary facets of IP assets and thus it should also regulate their use as collateral.⁷⁵ This normative solution is enticing because of the simplicity and elegance of subjecting both the security interest and the collateral to the same law. Moreover, the *lex loci protectionis* approach is well-established

70. For example, a security interest in a specific patent could be subject to United States law and thus a U.C.C. Article 9 regime, while security interests in its licenses could be governed by Italian law, creating a variety of intractable normative conflicts.

71. Though the characterization can be a challenging endeavor, contractual matters typically are deemed to include the interpretation of the contract, the performance discharge and extinction of the contractual obligations of the parties, and all remedial rights and obligations. See generally Michel Deschamps, *Conflict-of-Laws Rules for Security Rights: What Should Be the Best Rules*, 5 ECFR 284 (2008); Charles W. Mooney, Jr., *Choice-Of-Law Rules for Secured Transactions: An Interest-Based and Modern Principles-Based Framework for Assessment*, 22 UNIFORM L. REV. 842 (2017).

72. The tenet that parties are free to designate a law of their choosing to govern their contract is accepted across jurisdictions. See generally Mo Zhang, *Party Autonomy and Beyond: An International Perspective of Contractual Choice of Law*, 20 EMORY INT'L L. REV. 511 (2006) (providing an extensive analysis of the literature analyzing this tenet). For example, in the United States, see RESTATEMENT (SECOND) OF CONFLICT OF LAWS § 187 (AM. LAW INST. 1971) and U.C.C. § 1-301. In the EU, see Regulation (EC) No 593/2008 of the European Parliament and of the Council of 17 June 2008 on the Law Applicable to Contractual Obligations (Rome I), 2008 O.J. (L177/6) art. 3. In Japan, see Ho no Tekiyo ni Kansuru Tsusokuho [Act on the General Rules of Application of Laws] 2006, art. 7 (Japan). By contrast, there is significant disharmony across jurisdictions regarding the mandatory rules that determine the law applicable to contractual matters when parties do not designate which law governs their agreement. See generally Pedro Alberto De Miguel Asensio, *Applicable Law in the Absence of Choice to Contracts Relating to Intellectual or Industrial Property Rights*, in YEARBOOK OF PRIVATE INTERNATIONAL LAW: VOLUME X (Andrea Bonomi & Paul Volken eds., 2009) (focusing on the law applicable to contractual matters when parties omit to designate an applicable law). However, this is purely a private international law matter and it falls outside the scope of the present enquiry.

73. See generally Deschamps, *supra* note 71; Mooney, *supra* note 71.

74. See KONO, *supra* note 66, at 186–88.

75. See Stefania Bariatti, *The Law Applicable to Security Interests in Intellectual Property Rights*, 6 J. PRIV. INT'L L. 395, 396 (2010).

in the private international law sphere of IP law.⁷⁶ However, its practical corollaries regarding secured transactions are unappealing.

Under the *lex loci protectionis* approach, in transactions involving an International IP Portfolio, creditors must perfect their security interest and acquire priority separately for each asset, pursuant to the law of the protecting State of each IP asset to be encumbered. Procedurally, this process is lengthy, costly and technically demanding. The differences that separate national regimes for the taking of security in these assets are also likely to create substantive legal impediments that adversely affect the business case and economics of the entire transaction. Moreover, the application of a multitude of *leges loci protectionis* rules might also be challenging in the context of insolvency proceedings, as the enforcement of each security right pursuant to its applicable national law might prove irreconcilable with that governing the insolvency itself.

The second approach is to apply the law of the jurisdiction where the grantor is located⁷⁷ to security interests in IP assets (the law of the grantor approach). This normative solution is adopted in U.C.C. 9⁷⁸ and in Canadian common law provinces.⁷⁹ Its ratio is that security interests in IP assets should be subject to the same applicable law rule established by the secured transactions law of these jurisdictions for all assets.

In principle, under the law of the grantor approach, a creditor can perfect a security interest and acquire priority over an International IP Portfolio under the auspices of a single law. This is efficient and rapid, but in practice could result in situations in which a creditor who perfected a security interest under the law of the jurisdiction in which the grantor is based (for example, in the United States or Canada) might have to assert its right against either another secured creditor or a transferee who has perfected their proprietary interest in that same IP asset pursuant to the law of its protecting State. The outcome of such a dispute is extremely hard to predict, particularly if it were to arise in the ambit of infringement proceedings held in the jurisdiction of the State protecting the disputed IP asset. Accordingly, a prudent secured creditor might ultimately need to take the necessary steps to cement its claim pursuant to the law of the

76. See Lorin Brennan, *Intellectual Property Financing: An Overview* 39–40 (Mar. 1, 2010) (paper presented at UNCITRAL Third International Colloquium on Secured Transactions), www.uncitral.org/uncitral/en/commission/colloquia/3rdint.html (suggesting that a holistic interpretation of TRIPS, the Berne Convention and the Paris convention lends support to the thesis that *lex loci protectionis* must be applied to determine the applicable law for all proprietary matters involving IP rights and licenses).

77. Determining the location of the grantor requires its own set of rules. For example, under U.C.C. § 9-307(b) the following rules determine a debtor's location: "(1) A debtor who is an individual is located at the individual's principal residence. (2) A debtor that is an organization and has only one place of business is located at its place of business. (3) A debtor that is an organization and has more than one place of business is located at its chief executive office."

78. See U.C.C. §§ 9-301, 9-307(b); see generally Ryan E. Bull, *Operation of the New Article 9 Choice of Law Regime in an International Context*, 78 TEX. L. REV. 679 (1999); Peter L. Murray, *Choice of Law and Article 9: Situs or Sense*, 9 HOFSTRA L. REV. 39 (1980–1981); Paul J. Petit, *Choice of Law under Article Nine of the UCC*, 7 LOY. U. CHI. L.J. 641 (1976).

79. See RONALD C.C. CUMING ET AL., *PERSONAL PROPERTY SECURITY LAW* ch. 3 (2d ed., 2012).

protecting State, even if the whole transaction were concluded in a jurisdiction that adopts the law of the grantor approach.

The third approach involves partitioning secured transactions into discrete functional segments and choosing different applicable law rules for each one (the bifurcated approach).⁸⁰ The most notable example of the bifurcated approach is found in the AU-PPSA.⁸¹ Under § 239(3) AU-PPSA, as a general rule, the relevant law to determine the validity, perfection, and priority of a security interest in IP rights and licenses is that of the location of the grantor at the time when the security interest attaches.⁸² However, this provision includes a substantial exception: if the issue under consideration is whether “a successor in title to the grantor’s interest in the property or licence takes it free of a security interest[.]” or whether the security interest is “valid against a transferee of the property or license[.]” then the applicable law is that of the jurisdiction “under which the [IP] property or licence is granted, if it provides for the public registration or recording of the security interest, or of a notice relating to the security interest[.]”⁸³

Section 239(3) AU-PPSA attempts to strike a balance between the *lex loci protectionis* and the law of the grantor approaches, as advocated by legal scholars in recent past.⁸⁴ Nevertheless, the Australian legislature elected to limit the scope of this bifurcated regime to registered IP rights and their licenses, implying that it is unwarranted for unregistered IP rights and their licenses.⁸⁵ Regardless of whether this choice passes muster from a substantive standpoint,⁸⁶ its consequence is that IP licenses are not subject to a unitary private international law regime under the AU-PPSA, reducing the viability of an International IP Portfolio as collateral.

This landscape lends itself to two observations. First, the underdevelopment and profound disharmony of the private international law rules for the taking of security over IP rights and licenses across jurisdictions is unsatisfactory. This fragmentation creates uncertainty and gives rise to higher transaction costs, discouraging the use of such assets as collateral and ultimately depressing their value. Second, neither the *lex loci protectionis* nor the law of the grantor approach provide adequate resolution to the conceptual and practical challenges advanced

80. This normative technique is often called *dépeçage*. See SYMEON C. SYMEONIDES, CODIFYING CHOICE OF LAW AROUND THE WORLD: AN INTERNATIONAL COMPARATIVE ANALYSIS 221 (2014).

81. See generally, DUGGAN & BROWN, *supra* note 20, §§ 14.33–14.34. It should be noted that Switzerland has also adopted a conflict of laws rules based on the bifurcated approach. Under Article 105 of the FEDERAL ACT ON PRIVATE INTERNATIONAL LAW, art. 105 (Switz.) parties can designate a law of their choosing for the “pledging” of rights, however the law applicable for third party effectiveness is that governing the rights used as collateral (*lex loci protectionis*). See generally Adam Samuel, *The New Swiss Private International Law Act*, INT’L COMP. L.Q. 681 (1988).

82. AU-PPSA s 239(3)(a)–(b) (Austl.). See DUGGAN & BROWN, *supra* note 20, §§ 14.33–14.34.

83. AU-PPSA s 239(3)(c) (Austl.). See DUGGAN & BROWN, *supra* note 20, §§ 14.33–14.34.

84. See *infra* Part III.C.

85. See DUGGAN & BROWN, *supra* note 20, § 14.34 (providing a detailed commentary of this rule).

86. See Parliament of the Commonwealth of Australia, Senate, Replacement Explanatory Memorandum on the Personal Property Securities Bill 2009 (Cth), ¶ 7.4 (Austl.); *id.* §§ 14.33–14.34.

by the taking of security in International IP Portfolios. The bifurcated approach appears to be the more promising path, by virtue of its flexibility. Nevertheless, segmenting secured transactions involving IP assets and choosing the appropriate conflict of laws rules for each one is not a facile exercise, as evidenced by the difficulties encountered by § 239(3) AU-PPSA.

III

REFORM SUGGESTIONS

The preceding analysis has shown that the extant legal framework for the taking of security in IP licenses suffers from substantive shortcomings and international disharmony. These defects can be alleviated adequately neither by drafting security agreements adroitly nor creatively interpreting current law.

Legislative reform is the superior approach to achieving a satisfactory framework for the taking of security over IP licenses. The normative strategy adopted by each State in pursuit of this objective would need to be tailored to their broader property law frameworks, rather than awkwardly attempt to mimic rules developed for different systems.⁸⁷ Moreover, the breadth and depth of the interventions required would vary across jurisdictions, depending on their respective laws governing both secured transactions and IP licenses. Nevertheless, any legislative reform would need to tackle squarely the key intersections discussed in Part II. The following discussion assesses the policy options available to national legislatures, identifying the issues that will lie at the heart of their deliberations.

A. The Use of IP Licenses as Collateral: A Unitary and Inclusive Approach

The first substantive issue that would need to be addressed in a hypothetical legislative reform would be whether IP licenses can be the object of a security interest. Preliminarily, it would be paramount for each State to commit to the adoption of a unitary approach, regulating this matter homogeneously for all licenses, regardless of the underlying IP right. The inconsistency that presently afflicts the law of several jurisdictions on this matter appears to be the product of a series of historical, uncoordinated legislative developments, rather than the realization of a conscious policy choice.⁸⁸

It is undeniable that IPRs archetypes weaved heterogeneous paths throughout history, bear distinct legal functions, and pursue different policy objectives. Nevertheless, these dissimilarities are immaterial in the context of secured transactions involving IP licenses and do not warrant a differentiated legal regime. A security interest in these assets aims to encumber the direct and indirect benefits that a licensee obtains from the permission that lies at the core

87. On the importance of reform strategy in the context of secured transactions law reform, see Castellano, *supra* note 40, at 621–22.

88. They can typically be traced back to a time when the transferability of IP rights was severely restricted and thus equal limitations were extended to licenses of these immaterial goods. *See generally* SHERMAN & BENTLY, *supra* note 1; David, *supra* note 1; Prager, *supra* note 1.

of each license agreement. Whether the subject matter of this permission is a protected activity under the law of copyright, patent, trademarks or any other IP law is inconsequential. Based on this conceptualization, States should enact a single rule that applies homogeneously to all licenses, treating them as a uniform legal category, regardless of the nature of the underlying IP right.

Having established this preliminary principle, a legislative reform initiative could then proceed to the cardinal policy choice articulated above: whether it is ever admissible for licenses to be the object of security interests, and, if so, under which conditions.

One approach might be to resolve this matter by reference to the legal nature of the assets under consideration. Licenses deemed to be property could be used as collateral, whereas those classified as rights *in personam* could not. It is submitted, however, that this solution would be unsatisfactory. Looking past the classificatory conundrum of defining the legal nature of IP licenses,⁸⁹ such a rule would be unappealing due to its formalistic conception of secured transactions law as unflinchingly adherent to the dogma that only property with determinate features can be the object of a security interest.

Though legislative provisions based on such reasoning may have been grounded in both systemic and practical considerations in the past,⁹⁰ they can scarcely be regarded so at present when secured transactions law has embraced the taking of security over multifarious intangible assets, and provides notice of the existence of these interests to the public through a variety of mechanisms.⁹¹ Moreover, the justification for a mandatory rule that limits party autonomy, excluding the use of specific assets as collateral based solely on their legal nature is not immediately apparent. Neither societal nor individual interests appear to be protected by such a preclusion.⁹²

A different approach might be to adopt a rule based on alienability, allowing only transferable licenses to be used as collateral. Such a norm would be founded on the notion that assets are intrinsically incapable of providing security if they cannot be liquidated in the event of the default of the debtor.

89. Historically, different legal traditions have developed markedly diverging theoretical conceptualization of the legal nature of IP licenses. See generally GUIBAULT & HUGENHOLTZ, *supra* note 22, at 3.2.2 (providing a European perspective); NIMMER & DODD, *supra* note 19, §§ 1:1–1:5 (providing a United States law perspective); Norman Siebrasse & Anthony Duggan, *Intellectual Property Dealings and the PPSA: Contech Enterprises Ltd v. Vegherb, LLC*, 28 INTELL. PROP. J. 21 (2015) (providing a Canadian law perspective).

90. See John De Lacy, *The Evolution and Regulation of Security Interests over Personal Property in English Law*, in THE REFORM OF UK PERSONAL PROPERTY SECURITY LAW: COMPARATIVE PERSPECTIVE 3 (John De Lacy ed., 2010).

91. See Castellano, *supra* note 40, at 621–22 (providing an extensive analysis of the historical and present function of registration systems).

92. On the legal basis of mandatory rules, see generally Duncan Kennedy, *Distributive and Paternalist Motives in Contract and Tort Law, with Special Reference to Compulsory Terms and Unequal Bargaining Power*, 41 MD. L. REV. 563 (1981) (discussing the systemic function of mandatory rules). See also Matthias E. Storne, *Freedom of Contract: Mandatory and Non-Mandatory Rules in European Contract Law*, 15 EUR. REV. PRIVATE L. 233 (2007) (exploring the different types of mandatory rules typically encountered in private law).

It is debatable whether such a principle yields an economically efficient secured transactions law framework. For present purposes, however, the more perplexing element of the approach under scrutiny is that it imbues the norms governing the alienability of licenses with a new and uncharted dimension. In most jurisdictions, the default rule is that licenses are not transferable without the consent of the licensor. This norm is rooted in both historical context⁹³ and considerations of modern law and economics.⁹⁴ Nevertheless, if this rule were to indirectly become the presumptive rule determining whether licenses can be used as collateral, a challenging systemic reassessment would likely be in order.

A third approach might be to establish a rule pursuant to which licenses could be used as collateral unreservedly, regardless of their legal nature or transferability. It is submitted that such a choice would be the preferable normative solution because it would carry the advantage of simplicity, neither creating classificatory issues nor necessitating a substantial reassessment of the default rules governing the transferability of IP licenses. Critically, a secured transactions law provision establishing that all licenses could be used as collateral would not speak to whether these assets could be unreservedly disposed of in the event of default; such issues would continue to be governed by IP law. Therefore, the rule under consideration would be viable only if it granted the secured creditor a proprietary right in a monetizable asset associated with the encumbered license, such as its proceeds, or alternatively a preferential claim for the value of the license in the insolvency proceedings of the licensee.

B. Creation, Perfection and Priorities: Achieving Equilibrium Between Secured Transactions and IPL Law

Having recast the regime pursuant to which IP licenses could be the object of a security interest, States should turn their attention to reforming the rules governing the creation, perfection and priority of security interests in these assets.

It would be paramount to define explicitly the roles of secured transactions and IPL law, drawing bright legislative lines to demarcate their respective domains. The aim should be for the former to govern all facets of the taking of security over these assets, from creation to enforcement. IPL law would retain

93. Historically, the orthodox view was that IPRs holders granted licenses only after careful consideration of the person with whom they were dealing; accordingly, these agreements were deemed strictly personal contracts (*intuitu personae*). For an analysis of the law in the United States, see Haemmerli, *supra* note 31, at 1–5. See also NIMMER & DODD, *supra* note 19, §§ 9:18–9:28; Daniel A. Wilson, *Patent License Assignment: Preemption, Gap Filling, and Default Rules*, 77 B.U. L. REV. 895 (1997).

94. See *Everex Sys., Inc. v. Cadtrak Corp. (In re CFLC, Inc.)*, 89 F.3d 673, 677 (9th Cir. 1996) (holding that free assignability would undermine the reward afforded by IP exclusive rights because “every licensee would become a potential competitor with the licensor . . . in the market for licenses under the patents. And despite the [licensor] could presumably control the absolute number of licenses in existence under a free-assignability regime, it would lose the very important ability to control the identity of its licensees As a practical matter, free assignability of patent licenses might spell the end to paid-up licenses such as the one involved in this case.”).

exclusive competence over all issues that pertain to the license as such, yet indirectly affect the taking of security over these assets.⁹⁵

Realizing this legal framework would require a two-pronged approach. On one side, it would be necessary to introduce a small set of asset-specific provisions into secured transactions law, specifically tailored for IP licenses.⁹⁶ On the other, all IPL law provisions that presently regulate the taking of security over licenses would need to be repealed or rendered inapplicable. It is submitted that such an intervention would be neither drastic nor disruptive. All of these norms are found in IP statutes and their *raison d'être* is almost exclusively historical. They were originally enacted at a time when possession was essential to secured transactions law and the viability of taking security in pure intangibles through a non-possessory device was not a foregone conclusion. In this historical context, it was desirable, even necessary, for IP law to state expressly that these immaterial goods could be used as collateral, and to establish special rules for this purpose. As part of this process, provisions addressing the taking of security in licenses were also introduced, typically subjecting them either to the entirety, or part of, the regime crafted for the underlying IP right.⁹⁷

None of these factors continue to be relevant today. Secured transactions law has evolved formidably, developing effective systems of rules for the taking of security over pure intangibles that are coherently positioned within the broader property law framework. Though limited asset-specific provisions would be required, there are no compelling doctrinal or policy reasons not to bring the taking of security in IP licenses entirely within the remit of secured transactions law. All pre-existing arguments that might have warranted the presence of special security interests rules in IP statutes have disappeared. At present, these provisions merely have a splintering effect on the broader system designed by secured transactions law and undermine the value of these assets as collateral.

Only one thorny area within the thicket of IP legal regimes would remain outstanding: the relationship between specialist IP registers and the general registration systems established by secured transactions law. Specifically, conflicts might arise in jurisdictions where, for purposes of perfection and priority, there is currently a requirement to record all dealings affecting an IP right on the relevant specialist register, including licenses and their security interests.

Three alternative approaches could be adopted to address this issue. One possibility might be to require secured transactions-related events to be filed in the general security interests register, whereas all matters regarding outright title transfers and sub-licensing would continue to be governed by the norms of the specialist IP register. Potential lenders and transferees would need to be duly

95. Notably their existence, attributes, ownership, and transferability.

96. The AU-PPSA and UNCITRAL MODEL LAW might offer useful blueprints.

97. See generally SECURITY INTERESTS IN INTELLECTUAL PROPERTY (Howard P. Knopf ed., 2002) (providing a comparative and historical analysis of the law in both North American and European jurisdictions).

informed of the presence of two registration systems and the need to consult both to acquire all relevant information for a specific IP right and its licenses. The difficulty with this approach would lie in precisely distinguishing outright transfers from security interests, both in theory and in practice.⁹⁸

A second alternative approach might be to establish that all secured transactions involving registered IP rights and their licenses should be filed in the IP specialist register exclusively. This solution would have the advantage of consolidating all relevant data for these assets into one source. However, it would entrench two distinct filing regimes for unregistered and registered IP assets. Secured transactions involving unregistered IPRs and their licenses would belong in the general secured transactions register, whereas security interests for registered IPRs and their licenses would be filed in the IP specialist registers. Persons searching the general secured transactions register would need to be alerted that all information regarding registered IP rights and their licenses can only be obtained from the relevant specialist register. Nevertheless, the support of effective information-sharing mechanisms might serve to mitigate this intrinsic inefficiency.

A third alternative might be to require the registration of both secured-transactions events and all title-related matters into the general secured transactions register, eliminating filing requirements in the IP specialist registers. This approach has been adopted for receivables under U.C.C. 9 and Canadian common law provinces.⁹⁹ It would again have the advantage of consolidating all information into a single register. Nevertheless, such a reform would require a substantial legal and cultural recast of the function of IP registers.

States could opt for any one of these three solutions to coordinate both specialist IP registers and the general registration system established by secured transactions law. Their selection should be driven by an assessment regarding which one better suits their respective IP law, property, and secured transactions law frameworks. Crucially, an entirely unacceptable option would be to leave registered IP rights and their licenses outside of the secured transactions law reform initiative under consideration, as this would fatally damage the viability of these assets as collateral.

98. Differentiating between outright transfers and security interests securing an obligation is ontologically difficult and especially complex when dealing with intangible assets. Though this issue has not been explored regarding IPRs, useful indications can be drawn from existing scholarship dealing with transfers of receivables. See Robert D. Aicher & William J. Fellerhoff, *Characterization of a Transfer of Receivables as a Sale or a Secured Loan Upon Bankruptcy of the Transferor*, 65 AM. BANKR. L.J. 181 (1991); Steven L. Harris & Charles W. Mooney, Jr., *When is a Dog's Tail not a Leg: A Property-Based Methodology for Distinguishing Sales of Receivables from Security Interests that Secure an Obligation*, 82 U. CIN. L. REV. 1029 (2013); Thomas E. Plank, *The True Sale of Loans and the Role of Recourse*, 14 GEO. MASON U.L. REV. 287 (1991).

99. See CUMING ET AL., *supra* note 79; HARRIS & MOONEY, *supra* note 20, at 366–420. See also UNICTRAL MODEL LAW, art. 2(k), 13, 14, 57, 58, 59, 61–67, 83.

C. Conflict of Laws: A Modular and Flexible Approach

The final cardinal component of the legislative reform under consideration would be a redesigned conflict of laws rule. The extant private international law legal framework fails to cater to the increasingly transnational nature of secured transactions involving IP rights and licenses adequately. Across jurisdictions, the rules that determine the law applicable to proprietary matters suffer from a variety of deficiencies that hinder the taking of security of International IP Portfolios.¹⁰⁰

One possibility might be for States to leave this matter to freedom of contract; abstain from establishing a mandatory conflict of laws rule for proprietary matters and allow parties to designate the law that best suits their interests. This approach would have the advantage of empowering grantors and lenders by bequeathing them even greater control over their transactions. Moreover, it would align the regimes of contractual and proprietary matters.¹⁰¹

However, such a conflict of laws rule would carry two fatal flaws. First, third parties would be unable to assess the legal and commercial features of any existing security interest, as it would be impossible to ascertain the applicable law to the transaction in question *ex ante*. Second, allowing the grantor and secured creditor to choose the law applicable to their security interest would enable them to negate or compromise pre-existing proprietary rights of third parties. Thus, a conflict of laws rule for the proprietary matters of secured transactions involving IP assets based on party autonomy appears unworkable.¹⁰²

The preferable solution is to cast aside the intransigence of *lex loci protectionis* and grantor law, and to embrace a bifurcated approach instead. The rationale underpinning such a conflict of laws rule should be that proprietary matters concerning the encumbered IP asset as such should be subject to *lex loci protectionis*, and all others should be subject to a single law: the law of the grantor's residence. The importance of the *lex protectionis* would be fully acknowledged. Concurrently, the practical benefits derived from the ability to take security over multi-jurisdictional IP assets under one law would be substantially conserved.

The primary challenge associated with such an approach would lie in partitioning secured transactions effectively and establishing which of the two aforementioned conflict of law rules applies to each segment.¹⁰³ Nevertheless, States undertaking this legislative reform endeavor would not face a blank canvas. Section 239(3) AU-PPSA would offer a valid starting point. Moreover, further inspiration could be drawn from international organizations' texts and academic projects that recently have devoted substantial attention to the private

100. For the distinction between the law applicable to contractual and proprietary matters in secured transactions, see *supra* Part II.C.

101. See *supra* Part II.C.

102. For further detail, see UNCITRAL LGST-SUPPLEMENT, *supra* note 13, ¶ 312.

103. For an extensive discussion of all the possible bifurcated normative solutions, see UNCITRAL LGST-SUPPLEMENT, *supra* note 13, ¶¶ 303–320.

international law framework for secured transactions involving IP assets.¹⁰⁴ Two of these initiatives are especially noteworthy.

Article 99 of the UNCITRAL Model Law on Secured Transactions (the UNITRAL Model Law) provides a model conflict of laws provision for determining the law applicable to the proprietary matters of secured transactions involving IP rights and licenses. Article 99(1) establishes that the law applicable to the creation, perfection and priority of a security right in IP assets is *lex loci protectionis*.¹⁰⁵ However, Article 99(2) adds that a security right in intellectual property “may also be created under the law of the State in which the grantor is located and may also be made effective under that law against third parties other than another secured creditor, a transferee or a licensee[.]”¹⁰⁶ Article 99(3) closes this provision by establishing that the law applicable to the enforcement of security interests in IP rights and licenses is that of the State in which the grantor is located.

Article 3:802 of the European Max Planck Group on Conflict of Laws in Intellectual Property Principles on Conflict of Laws in International Property (CLIP Principles) articulates a model provision similar to Article 99 of the UNITRAL Model Law. Article 3:802(1) generally establishes that “the law applicable to security interests in intellectual property shall be the law of the State where the grantor has its habitual residence at the time of creation.”¹⁰⁷ It further provides an exemplificative list of issues covered by this conflict of law rule that include, *inter alia*, the enforcement of the security right.¹⁰⁸ However, Article 3:802(2) specifies that *lex loci protectionis* is the applicable means of determining the existence, validity, scope and ownership of the IP rights used as collateral, the third-party effects and priority, any registration requirements in intellectual property registers, and their legal effects.¹⁰⁹ This provision is concluded by Article 3:802(3), which introduces an “accommodation rule” to minimize tensions

104. See EURO. BANK FOR RECONSTRUCTION AND DEV., MODEL LAW ON SECURED TRANSACTIONS art. 11 (2004), available at <http://www.ebrd.com/news/publications/guides/model-law-on-secured-transactions.html> [<https://perma.cc/NZ4P-JTWH>]; EURO. MAX PLANCK GROUP ON CONFLICT OF LAWS IN INTELL. PROP., PRINCIPLES ON CONFLICT OF LAWS IN INTELL. PROP. art. 3:802 (2011), available at http://www.ip.mpg.de/fileadmin/ipmpg/content/clip/the_draft-clip-principles-25-03-20117.pdf [<https://perma.cc/EVQ2-WDF6>] [hereinafter CLIP PRINCIPLES]; INTELL. PROP.: PRINCIPLES GOVERNING JURISDICTION, CHOICE OF LAW AND JUDGMENTS IN TRANSNAT'L DISPUTES § 317 (AM. LAW INST. 2008); ORG. OF AM. STATES (OAS), MODEL INTER-AMERICAN LAW ON SECURED TRANSACTIONS, art. 32, 37 (2002), https://www.oas.org/dil/Model_Law_on_Secured_Transactions.pdf [<https://perma.cc/2YG5-P37J>]; UNCITRAL LGST-SUPPLEMENT, *supra* note 13, Recommendation 248; UNCITRAL MODEL LAW, art. 99.

105. UNCITRAL MODEL LAW, art. 99(1).

106. *Id.* art. 99(2).

107. CLIP PRINCIPLES, *supra* note 104, art. 3:802(1). For detailed commentary, see EURO. MAX PLANCK GROUP ON CONFLICT OF LAWS IN INTELL. PROP., CONFLICT OF LAWS IN INTELL. PROP.: THE CLIP PRINCIPLES AND COMMENTARY 354–70 (2013) (providing an exhaustive commentary of this provision) [hereinafter CLIPS COMMENTARY].

108. CLIP PRINCIPLES, *supra* note 104, art. 3:802(1)(a)–(e). See CLIPS COMMENTARY, *supra* note 107, at 354–60.

109. *Id.*

between the two preceding subsections.¹¹⁰

These two model provisions are not identical, yet they share common elements that should form the basis of any national legislative reform initiative. First, they craft a conflict of laws rule that does not differentiate between registered and unregistered IP rights and their licenses. Second, they both accept that *lex loci protectionis* is applicable in determining the existence, attributes, ownership, and transferability of the IP asset to be encumbered, as well as whether it can be the object of a secured transaction. Third, they stipulate that the law applicable to the creation of a security interest in an IP asset is the law of the state in which the grantor is located, yet Article 99 of the UNCITRAL Model Law also allows the application of *lex loci protectionis*. Fourth, they accept that the applicable law for perfection and priority is *lex loci protectionis*, although Article 99 of the UNCITRAL Model Law contemplates that perfection and priority against judgment creditors can also be achieved pursuant to the law of the state in which the grantor is located.

These model provisions are not entirely above reproach. They are complex and engender questions of characterization that might be challenging to answer judicially. Nevertheless, if States were to adopt the common elements of these proposals as the core of their reform efforts, this would constitute a decisive leap toward a more efficient conflict of laws regime and international harmonization.

IV

CONCLUSION

This article focused on the legal framework for the taking of security in IP licenses. It provided a comparative analysis of the cardinal elements of the positive law governing these transactions, identified normative defects that presently inhibit the utility of these assets as collateral across jurisdictions and suggested legislative reforms to address these deficiencies.

Part II commenced by exploring whether IP licenses can be used as collateral and, if so, under which conditions. It emphasized that States have taken markedly different normative stances towards this integral issue. Some jurisdictions rely on general property law doctrines to determine whether IP licenses can be encumbered; others regard transferability as the decisive factor, while others still allow the unreserved taking of security in these assets. Crucially, this assessment revealed that several States have developed diverging regimes for licenses of different IP rights and exposed the adverse consequences of such a policy choice.

Subsequently, attention turned to the body of rules governing the creation, perfection and priority of security interests in IP licenses. This appraisal

110. Article 3:802(3) establishes that “If the parties designed the security agreement that creates or transfers a security right in an intellectual property right against the background of a law other than the law which applies under paragraph 2, a security right arising from the parties’ agreement shall, for the purposes of paragraph 2, be treated as a security right of the law of the State for which protection is sought which comes closest and is best comparable to the security right the parties intended to create.” For a detailed commentary, see CLIPS COMMENTARY, *supra* note 107, at 363–64.

uncovered a variety of substantial deficiencies and offered evidence to support the notion that they primarily stem from two structural flaws. The areas of competence and respective primacy of secured transactions law and IPL law are uncertain, resulting in unregulated overlaps. Moreover, the dialogue between these two normative streams is fraught, producing a nebulous legal framework.

Concluding Part II, the article examined the private international law framework for the taking of security over IP licenses. It observed that most States adopt either a *lex loci protectionis* approach or a law of the grantor approach to determine the law applicable to proprietary matters stemming from secured transactions involving IP assets. Furthermore, it argued that, though theoretically and substantively coherent, neither of these normative solutions possesses adequate flexibility, as evidenced by their equal inability to accommodate effectively the demands of transactions involving International IP Portfolios.

Part III considered legislative reforms to alleviate or even resolve the shortcomings that presently beset the legal regime for the taking of security in IP licenses. This article proposed three fundamental interventions.

First, States should adopt a unitary approach to the issue of whether IP licenses can be used as collateral, and firmly reject the notion that different regimes should exist based on the nature of the underlying IP right. Moreover, the law should allow for the unreserved taking of security in these assets, eschewing dogmatic limitations based on either their legal nature or transferability.

Second, a new equilibrium should be achieved between secured transactions law and IPL law, regarding their respective competences over the legal framework for the taking of security in IP licenses. Secured transactions law should be the sole voice governing the creation, perfection and priority of security interests in these assets, subject to the introduction of asset specific rules. IPL law should retain exclusive domain over the existence, attributes, ownership, and transferability of licenses. Critically, all provisions presently found in IP statutes that regulate the taking of security over licenses should be repealed.

Third, States should overhaul their private international law frameworks for secured transactions involving IP assets. The intricacy of these dealings favors the adoption of an apposite special conflict of laws rule. Such a norm should be based on the bifurcated approach, mediating between the irreconcilable prerogatives of *lex loci protectionis* and the law of the grantor.

In the information age, IP licenses are becoming more economically and strategically important. This trend shows no signs of abating. The profound inefficiencies that presently plague national legal regimes for the taking of security over these assets, combined with the tumultuous discord that exists at the international level are crippling the use of such assets as collateral. Legal reform is urgently required.