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LICENSE FEE DAMAGES AND THE NATURE OF IP RIGHTS

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ABSTRACT

Remedies represent the practical end of a legal right. While in most cases rights determine the nature of remedies, it is possible that in certain situations the examination of the remedies sheds light on the nature of the right. License fee damages or negotiating damages, as they are called in Anglo-Australian scholarship, are a good illustration of this. In the context of U.S. intellectual property ("IP") law these are called "reasonable royalty" damages. This is an award of damages measured by a hypothetical license fee that the claimant could have required the defendant to pay in order for the claimant to permit the breach of the right at issue. Not all rights lend themselves to an award of license fee damages when breached. There must be something which the claimant is able to license, even if only hypothetically. And the ability to license a right in this context begs the question whether the right can be put to "use." This Article argues that a deeper examination of the remedy of license fee damages can prompt a conceptual analysis of the rights infringed to reveal their nature and characteristics.

English courts have granted license fee damages for the infringement of property rights to tangible things such as land and chattels, and of IP rights including confidential information. But the academic literature is sparse on the question of what unites tangible property rights with IP rights into a single category enabling the courts to award negotiating damages. It is important to answer this question because not all rights will fall neatly into the categories of tangible rights or IP rights. This is the question that this Article investigates: What, if anything, do license fee damages say about the nature of IP rights and property rights to other intangible assets that make them eligible for the award of negotiating damages? To this end, this Article puts forward the idea of a spectrum along which property rights can be mapped by extrapolating conceptual similarity between these two seemingly divergent forms of rights — tangible and intangible. It goes

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on to assert that analyzing license fee damages in the more familiar context of IP rights could assist with cases in the future where property rights to intangibles that are more esoteric and unwieldy might be at the center of litigation.

TABLE OF CONTENTS

I. Introduction	867
II. DOCTRINAL LANDSCAPE AND THE NEED FOR CLARITY	871
A. Tortious Liability	871
B. Equitable Wrongs	875
C. Breach of Contract	876
III. A UNIFYING CONCEPTUAL FRAMEWORK	878
A. Understanding Licenses and Their Grant	879
B. Licenses in the Context of Property Rights	881
1. What Kind of Valuable Resources Attract Property	
Rights?	882
a. Separability of Valuable Resource	883
b. Form of the Valuable Resource	884
c. Content of the Valuable Resource	885
2. What Kind of Conduct Enables a Person to Acquire	
These Property Rights?	887
3. How Does the Power to License Come About?	
IV. Conclusion	892

I. Introduction

Remedies represent the practical end of a legal right. Remedies help actualize in real world terms what it means to redress the infraction of a right. While in most cases rights determine the nature of remedies, it is possible that in certain situations the examination of the remedies sheds light on the nature of the right. License fee damages or negotiating damages, as they are called in Anglo-Australian scholarship, are a good illustration of this. In the context of U.S. intellectual property ("IP") law, these are called damages based on "reasonable royalty" or "value of use." This is an award of damages measured by a hypothetical license fee that the claimant could have required the defendant to pay in order for the claimant to permit the breach of the right at issue. Not all rights lend themselves to an award of license fee damages when breached. There must be something which the claimant is able to license, even if only hypothetically. And the

^{1.} The most noticeable mention of damages based on reasonable royalty is made under 35 U.S.C. § 284. For a detailed discussion on the availability of damages based on reasonable royalty in patent infringement cases, *see* John Gladstone Mills III, Donald Cress Reiley III, Robert Clare Highley & Peter D. Rosenberg, 6 Patent Law Fundamentals §§ 20:57–60 (2d ed. 2024). For similar discussion in relation to copyright, *see* William F. Patry, 6 Patry on Copyright § 22:125 (2024).

^{2.} James Edelman, *The Measure of Restitution and the Future of Restitutionary Damages*, 18 RESTITUTION L. REV. 1, 1 (2010).

ability to license a right in this context begs the question whether the right can be put to "use." This Article argues that a deeper examination of the remedy of license fee damages can prompt a conceptual analysis of the rights infringed to reveal their nature and characteristics.

Much of the debate has centered around whether these damages should be characterized as compensatory or restitutionary, depending on whether the court should focus on the claimant's loss or on the defendant's gain. While this debate rages on, much less attention is paid to the question of the very nature of the rights that attract license fee damages — a question that is at the center of this Article. Classically, license fee damages have been available for the infringement of property rights on the basis that property rights lend themselves to use, and therefore the ability to license such use. However, this prompts the obvious question: What are property rights? That license fee damages can be awarded when the right infringed is a property right to tangible things such as land and chattels (tangible property rights for short) is not in doubt, as borne out in the case law in both English and U.S. law.⁴ In the United States, the availability of reasonable royalty damages in patent infringement matters is written into the statute,⁵ whereas courts have incorporated license fee damages within the language of the statute for copyright infringement.⁶ English courts have also awarded

^{3.} See, e.g., Andrew Burrows, Are 'Damages on the Wrotham Park Basis' Compensatory, Restitutionary or Neither?, in CONTRACT DAMAGES: DOMESTIC AND INTERNATIONAL PERSPECTIVES (Djakhongir Saidov & Ralph Cunnington eds., 2008); Robert J. Sharpe & SM Waddams, Damages for Lost Opportunity to Bargain, 2 OXFORD J. LEGAL STUD. 277, 290-97 (1982) (arguing that the basis for the award of damages is defensible also as compensatory damages, in addition to restitutionary damages); David J. Brennan, The Beautiful Restitutionary Heresy of a Larrikin, 33 SYDNEY L. REV. 209, 225 (2011) (arguing that license fee damages have both restitutionary and compensatory elements and are justifiable under Australian law).

^{4.} For English law, see infra Section II.A. For U.S. law, see RESTATEMENT (THIRD) OF RESTITUTION AND UNJUST ENRICHMENT, § 40, cmt. b (Am. L. INST. 2011).

^{5. 35} U.S.C. § 284. Scholars have explored various methods of arriving at the reasonable royalty in patent cases. See, e.g., Zelin Yang, Damaging Royalties: An Overview of Reasonable Royalty Damages, 29 BERKELEY TECH. L.J. 647 (2014).

^{6. 17} U.S.C. § 504(b). As a threshold matter, the copyright owner must prove that she lost an opportunity to license the relevant copyright, since the license fee damages are read into "actual damage" in the statute. See Oracle USA, Inc. v. SAP AG, No. C 07-1658, 2011 WL 3862074 at *7 (N.D. Cal. Sept. 1, 2011). However, there is no academic consensus on whether the grant of license fee damages represents the natural reading of 17 U.S.C. § 504(b). Compare David Nimmer, Investigating the Hypothetical Reasonable Royalty for Copyright Infringement, 99 B.U. L. REV. 1, 1 (2019) (arguing that the award of damages on this basis is "contrary to the language of the Act and the intent of Congress"), with Kevin Bendix, Copyright Damages: Incorporating Reasonable Royalty from Patent Law, 27 BERKELEY TECH. L.J. 527, 528 (2012) (arguing that "copyright law's adoption of reasonable royalty principles does not run afoul of the Copyright Act" and that "the reasonable royalty concept should be tailored to copyright damages"). It is worth noting that patent law has no such requirement as the statute is unambiguous about the availability of reasonable royalty damages. See 35 U.S.C. § 284 (stating that the court shall award damages to the claimant

license fee damages for the breach of different types of intellectual property rights, as well as breach of confidence. This begs a further question: What unites tangible property rights with IP rights that enables the courts to award license fee damages in all these cases? Beyond the unifying label of property rights, what might be the specific attributes that act as common denominators for these rights?

While some scholars acknowledge these issues, 8 some cases assert that nothing turns on the nature of these rights. This Article, on the contrary, argues that it is vitally important to find answers to these questions because not all rights will fall neatly into the recognized categories of property rights, whether the issue of license fee damages arises in the context of English law or U.S. law. Indeed, the remit of IP rights might itself be problematic. In England (and in Australia) personality rights are not recognized beyond the rubric of passing off, ¹⁰ but many states in the United States do recognize personality rights;¹¹ England recognizes sui generis database rights, ¹² but the U.S. law does not. Further, actions that are recognized by common law, such as passing off, cannot benefit from an express statutory recognition of the availability of license fee damages. The modern economy is powered by an unprecedented number of intangible assets. A court might recognize property rights in certain intangible assets for certain purposes and not others. Recent examples in the United Kingdom include carbon emission allowances in the context of theft and fraud, ¹³ and waste management licenses in the context of insolvency. 14 It may not necessarily follow that license fee damages are available for the infringement of these rights despite being recognized as property rights. Therefore, regardless of the jurisdiction under discussion, a conceptual

which "in no event [shall be] less than a reasonable royalty for the use made of the invention by the infringer").

^{7.} See infra Section II.A for a discussion on IP cases.

^{8.} See, e.g., Sarah Worthington, The Damage in Negotiating Damages, in Shaping the Law of Obligations: Essays in Honour of Professor Ewan McKendrick KC, 171, 173 (Edwin Peel & Rebecca Probert eds., 2023).

^{9.} See, e.g., One Step v. Morris-Garner [2018] UKSC 20, [2019] AC 649 [137] (Carnwath, JSC) (stating that he is "unpersuaded that it is necessary or helpful to redefine, or break down the barriers between, the established categories; nor that to do so offers any improvement in the coherence of the law").

^{10.} Fenty v. Arcadia Grp. Brands [2013] EWHC 2310 (Ch), [2]–[3], [36]; Henderson v. Radio Corp. Pty. [1969] RPC 218, 223.

^{11.} For a state-wise explanation of the law protecting publicity rights, see Jennifer E. Rothman, *Rothman's Roadmap to the Right of Privacy*, UNIV. PA. CAREY L. SCH. (2025), https://rightofpublicityroadmap.com/ [https://perma.cc/3296-D8ZP].

^{12.} The Copyright and Rights in Databases Regulations 1997, SI 1997/3032, art. 13, \P 1 (Eng.) recognizes a property right "in a database if there has been a substantial investment in obtaining, verifying or presenting the contents of the database."

^{13.} Armstrong v. Winnington Networks [2012] EWHC 10 (Ch) [1]-[2], [10].

^{14.} Re Mineral Res. Ltd. [1999] BCC 422, 422.

analysis of the nature and characteristics of a right that lends itself to licensing would be beneficial.

Furthermore, in English law, license fee damages have been awarded not only for the infringement of property rights, but also to redress equitable wrongs and the breach of contract. A deeper analysis reveals that these causes of action only give additional context in which to examine the rights being infringed and do not transform the very nature of the rights that are amenable to the award of license fee damages. Eventually, it is possible to put forward a framework of analysis by extrapolating conceptual similarity between tangible and intangible property rights. Our legal systems have had the experience of formulating and regulating IP rights for over three hundred years now as a prominent category of property rights. Although all rights are intangible, to the extent that one may identify an intangible asset that is separable from the right itself, IP rights may be referred to as intangible property rights. Our understanding of the nature of IP rights could hold the key to understanding the newer types of intangible property rights. This analysis may prompt the idea of property rights along a spectrum, with the attributes common to tangible and intangible assets as the metric that holds the spectrum together. The ability to license could be but one of the many such metrics that help compare and contrast property rights along the spectrum.

Accordingly, Part II begins with a primer on the English doctrinal landscape, examining each of tortious liability, equitable wrongs, and breach of contract. It shows that where a recognized form of property right is at issue, courts have not found the need to engage with the issue as to what makes these rights eligible for the grant of license fee damages. Exceptionally, where the courts have engaged with this issue, the right is described in vague or cryptic terms. The current state of the law highlights the need for the courts to appreciate the irreducible characteristics that make a right a property right, as such or by analogy, for the purposes of the award of license fee damages. It concludes that a conceptual as opposed to a doctrinal response is necessary to identify the kind of rights that attract license fee damages.

Part III proceeds to analyze the rights conceptually, with license fee damages as the lens. Since licenses are at the core of these damages, Section III.A begins with examining what a license is and how it is granted. Among the different circumstances in which licenses can be granted, it goes on to examine those granted in relation to property rights. Since the ability to grant licenses unites tangible property rights with IP rights, this Article proceeds to investigate whether there might be irreducible characteristics that commonly underlie these rights. In Section III.B, the Article goes on to argue that these characteristics, while necessary, are insufficient to give rise to property rights. It demonstrates that rights in relation to these eligible resources must be

acquired for the first time independently in a manner recognized by the law. Once the rights are so acquired, the acquirer will be able to place corresponding duties on the rest of the world of non-interference. The Article argues that this triggers the power of control over the resource, and the privileges associated with the ownership of the resource. With these privileges, the owner acquires the ability to use the resource. The Article demonstrates that if a resource does not have the characteristics of a property right, or is not acquired as such, or does not trigger the power of control, then such resource cannot be put to use, and therefore, cannot be licensed. If the resource cannot be licensed in reality, then no hypothetical license can arise, much less a fee that may be charged for its grant. Accordingly, for such a resource, no negotiating damages will be available. By this investigation, the Article seeks to shed light on the nature of IP rights, as well as to suggest a predictive model which can be applied for other types of intangible property rights, the interference with which can attract negotiating damages.

To conclude, the Article asserts that analyzing negotiating damages in the more familiar context of IP rights could assist with cases in the future where intangible property rights that are more esoteric and unwieldy might be at the center of litigation.

II. DOCTRINAL LANDSCAPE AND THE NEED FOR CLARITY

Justice James Edelman, a Justice of the High Court of Australia, writing extrajudicially, offers a working definition of license fee damages as "a money award of the objective value of a licence fee representing the price that the wrongdoer should have paid for the liberty to have committed the act, whether the wrong occurred by commission of a tort, a breach of contract, or an equitable wrong." It is worth examining briefly as to how the right that is breached manifests in each of these causes of action. An examination of the case law under these causes of action reveals where the missing pieces are in the courts' reasoning for identifying a certain right as being eligible for negotiating damages and not others. Accordingly, this part is divided into three sections, corresponding to each of these causes of action.

A. Tortious Liability

Since a tort as a cause of action involves breach of a duty owed to persons generally, ¹⁶ an infringement of the corresponding right is at the

^{15.} James Edelman, McGregor on Damages (22d ed., Sweet & Maxwell 2024) \P 15-004

^{16.} A tort involves a breach of a duty primarily fixed by law and owed to persons generally. See JAMES GOUDKAMP & DONAL NOLAN, WINFILED & JOOWICZ ON TORT ¶ 1-003 (20th ed., 2020).

heart of the cause of action. This enables the examination of the nature of the right more directly. Property rights are one of the most significant forms of rights held against persons generally. Indeed, property rights are quintessentially *in rem* rights, literally meaning right in or to a thing, held against the world at large. ¹⁷ It should come as no surprise that property tort cases make up a significant body of cases and the longest standing where license fee damages have been awarded. ¹⁸ In relation to land, the hypothetical license fee is calculated as a rent or mesne profits chargeable by the claimant for the use of their land. ¹⁹ Wrongful interference with easements has also been remedied by the grant of license fee damages. ²⁰ It is also common for the courts to award license fee damages to remedy the wrongful interference with chattels, such as in cases of conversion. ²¹

With the development of statutory protection for patents, copyright, and trademarks, statutory, tortious claims of IP infringements also began to be remedied by the grant of negotiating damages.²² In *Watson Laidlaw v. Pott, Cassels and Williamson*,²³ an early case of patent infringement, the court likened patent infringement to a case of "abstraction or invasion of property" which was not authorized, and therefore the recompense must come from "the principle underlying price or hire."²⁴ This indicates that judges deciding IP infringement cases have been inspired by some analogy

^{17.} ARIANNA PRETTO-SACKMANN, BOUNDARIES OF PERSONAL PROPERTY: SHARES AND SUB-SHARES 92–93 (Hart Publ'g 2005).

^{18.} See, e.g., EDELMAN, supra note 15, at ¶ 15-027.

^{19.} See, e.g., Swordheath Props. Ltd. v. Tabet [1979] 1 WLR. 285 (CA) 288; Axnoller Events Ltd. v. Brake [2022] EWHC 1162 (Ch) [58], [67].

^{20.} Examples include cases relating to the right to light. *See, e.g.*, Carr-Saunders v. Dick McNeil Assocs. [1986] 1 WLR 922, 930–931.

^{21.} See, e.g., Strand Elec. Co. v. Brisford Ents. [1952] 2 QB 246 (CA) 252 (awarding license fee damages where chattels at issue were certain electrical equipment).

^{22.} For a patent example, see Watson Laidlaw v. Pott, Cassels & Williamson [1914] SC (HL) 18. For copyright, see Rickless v. United Artists [1988] QB 40 (CA) 49. For trademark, see 32Red Plc v. WHG (International) Ltd. [2013] EWHC 815 (Ch), [1], [22]. One may argue that in IP cases license fee damages assist only in determining the quantum of damages. The basis of this argument tends to be that any infringement of IP rights causes the loss of exclusivity and therefore, one does not have to hypothesize that firstly the IP owner would have granted a license, and secondly to ask what the license fee would have been. Scholars argue that particularly in relation to a cause of action such as trademark dilution, there is always a loss of exclusivity and distinctiveness because of the actual use made of the trademark. Lord Sumption took this view in relation to IP rights in general in One Step v. Morris-Garner [2018] UKSC 20 [120], [110]. However, this essay is not focused on how one must characterize a loss; rather on the nature of the right that IP rights are in the first place.

^{23. [1914]} SC (HL) 18.

^{24.} *Id.* at 31. In the same paragraph, Lord Shaw goes on to provide the following illustration. "If A, being a liveryman, keeps his horse standing idle in the stable, and B, against his wish or without his knowledge, rides or drives it out, it is no answer to A for B to say: 'Against what loss do you want to be restored? I restore the horse. There is no loss. The horse is none the worse; it is the better for the exercise." *Id.*

with tangible property rights, although the precise basis on which this analogy is drawn has not been made clear. ²⁵ As IP law became more specialized, it became more convenient to put IP rights in a category of their own, without having to draw any cross-references from land law or personal property law. ²⁶

Back in the realm of common law, misuse of private information has been recognized as a new form of tort where license fee damages could be available. In a recent case involving hacking of telephone lines by newspapers, the court awarded damages based on the fee that the claimants would have charged for the defendants to use the valuable personal information.²⁷ One may see this as an expansion of the protection extended to intangible assets, although it is unclear whether this also amounts to an expansion of IP rights.²⁸ With technological advancements, there is bound to be an expansion of the intangible assets vying for protection by something akin to property rights and by analogy with the tort of conversion. It is important to assess how much further the law is willing to go in protecting other intangible assets by analogy to property rights.

The difficulty is that English law seems especially attached to the idea that all property rights must be either choses in possession or choses in action and nothing in between.²⁹ That the only intangible property rights that can exist are those that can be claimed or enforced

^{25.} See Stoke-on-Trent City Council v. W. & J. Wass Ltd. [1988] 1 WLR 1406, 1416 (Nicholls L) (observing that the principle was not confined to the physical use of another's property but had been "applied in relation to incorporeal property, in particular patents.").

^{26.} An illustration of this can be seen in One Step v. Morris Garner [2018] UKSC 20, [95] (Reed LJ), where in laying down the categories of rights the infringement of which attract license fee damages, Lord Reed grouped all tangible property rights in paragraph [95](1) and all IP rights in paragraph [95](2), indicating that these belong to different categories. Given that this is a Supreme Court authority, this categorization is bound to endure.

^{27.} Gulati v. MGN Ltd. [2015] EWCA Civ 1291, [22].

^{28.} Misuse of personal information has been dealt with by both IP textbooks and tort law textbooks. *See* LIONEL BENTLY, BRAD SHERMAN, DEV GANGJEE & PHILLIP JOHNSON, INTELLECTUAL PROPERTY LAW 1290–310 (6th ed. Oxford Univ. Press 2022); *see* JAMES GOUDKAMP & DONAL NOLAN, WINFILED & JOOWICZ TORT (20th ed., Sweet & Maxwell 2021) ¶ 13-142 to 13-149.

^{29.} Colonial Bank v. Whinney (1885) 30 ChD 261, 261. This decision was confirmed by the House of Lords on this point in (1886) 11 App. Cas. 426, 439–40, 447–48. The binary classification was reinforced more recently in Your Response v. Datateam Bus. Media [2014] EWCA Civ 281. The distinction between choses in action and choses in possession has troubled English law since at least the 1890s when a lively debate took place over the definition of choses in action in a series of articles by different jurists. One of them Elphinstone, argued that choses in possession are those "where a man hath not only the right to enjoy but hath the actual enjoyment of the thing" and choses in action are "things, in respect of which a man had no actual possession or enjoyment, but a mere right enforceable by action." See Howard W. Elphinstone, What Is a Chose in Action, 9 L.Q. REV. 311, 311–12 (1893).

by initiating an action is a particularly archaic and blinkered view.³⁰ This could mean that there is nothing else one can do with these rights other than to initiate an action to enforce them. It also implies that one can derive no use from these rights nor license their use.³¹ This flies in the face of intangible property rights such as IP rights where licenses are not only commonplace but also form the primary mode of exploitation of IP rights.³² Contractual debts can be assigned, and shares can be sold. But IP rights are licensable in addition to being assignable.³³ If one must retain the terminology of choses in action, it should be confined to contractual debts which cannot be put to use or licensed, but can only be enforced by initiating an action.³⁴ If the remit of choses in action is not reined in this way, the ruling in OBG v. Allan³⁵ that choses in action (and in that case contractual debts) cannot be converted, ³⁶ could mean that no intangible asset can be converted, limiting the extension of property protection to newer intangible assets.37

In more recent times, however, English courts are warming up to the idea of property rights in crypto assets. In AA v. Persons Unknown,³⁸ a case concerning a possible tort of intimidation, fraud, or conversion, an interim proprietary injunction was granted to prevent the defendant from dealing with certain Bitcoins. The court observed that Bitcoin is indeed property, regardless of whether it fits within the

^{30.} This definition of choses in action was given in Torkington v. Magee [1902] 2 KB 427,

^{31.} Historically, one finds very few examples of a nuanced understanding that there can be intangibles which are not choses in action. *See, e.g.*, Spencer Brodhurst, *Is Copyright a Chose in Action?*, 11 L.Q. REV. 64, 71–72 (1895) (arguing that copyright is much less like a chose in action and more like a chose in possession).

^{32.} Yet, some textbooks on personal property law argue that all intellectual property rights are choses in action. *See, e.g.*, MICHAEL BRIDGE, LOUISE GULLIFER, KEVIN K. LOW & GERARD MCMEEL, THE LAW OF PERSONAL PROPERTY ¶ 9-005 (3d ed., Sweet & Maxwell 2022)

^{33.} An incident of ownership of copyright under 17 U.S.C. § 201 and of patent under 35 U.S.C. § 261 is the ability to license one or more of exclusive rights, in addition to the ability to assign these rights.

^{34.} This is the sense in which Smith and Newman refer to case law in their piece discussing conversion in intangibles. *See*, Henry E. Smith & Christopher Newman, *Capturing Intangibles in a Property Restatement*, 38 HARV. J.L. & TECH. 893, 911–19 (2025).

^{35. [2008] 1} AC 1 [97].

^{36.} *Id.* Lord Nicholls and Lady Hale delivered a powerful dissent insisting that common law should be well positioned to extend the liability for conversion to choses in action. *Id.* at [238], [313].

^{37.} Electronic files are not eligible to be regulated as property rights. *See* Your Response v. Datateam Bus. Media [2014] EWCA Civ 281, [2015] QB 41 [26]–[28] [33]–[34], [38] (citing OBG v. Allan [2008] 1 AC 1 [97]).

^{38. [2020] 4} WLR 35.

category of choses in action.³⁹ By analogy with crypto-currencies, English courts are beginning to see that "there is at least a realistically arguable case that NFTs are to be treated as property as a matter of English law."⁴⁰ It is essential to note that these findings were given only at the preliminary stage and not on merits. The issue of whether a court will hold the conversion of a crypto-asset possible is still open.

Beyond the digital assets and outside tort law, assets such as carbon emission allowances,⁴¹ and waste management licenses⁴² have also been considered for recognition as property rights. While property rights can be recognized in certain assets for certain purposes and not others, if these assets were to be at the center of litigation in due course, a question might arise as to whether license fee damages would be available for the infringement of these rights. Importantly, the question will be what exactly it is about these rights that enables a court to award license fee damages.⁴³

B. Equitable Wrongs

Equitable wrongs are those that were historically developed by the courts of Chancery. 44 This article will for its purposes focus on two causes of action where license fee damages have been awarded. What unites them is that in both cases the duty imposed is not against the world at large, but only those with the relevant knowledge. The first is the equitable wrong of breach of confidence. 45 Here the wrong is committed if a person uses or discloses information which he knows or ought to know is confidential, even if the person is not in a contractual relationship while receiving the confidential information. 46 For this

^{39.} *Id.* at [59]–[61]; *see also Ruscoe v. Cryptopia Ltd.* (2020) 2 NZLR 809 (HC) at [133] (N.Z.); Vorotyntseva v. Money-4 Ltd. (trading as nebeus.com) [2018] EWHC 2596 (Ch) [13]; Fetch.ai Ltd. v. Persons Unknown [2021] EWHC 2254 (Comm) [9]. In addition, the UK Law Commission has put forward a powerful case for introducing a third category of digital objects. *See* Law Commission Report on Digital Assets (June 2023), Law Comm 412, Chapter 3.

^{40.} Osbourne v. Persons Unknown [2023] EWHC 39 (KB) [18]; see also Soleymani v. Nifty Gateway LLC [2022] EWCA Civ 1297, [16], [42], [2023] 1 WLR 436, [451] (discussing the application of an arbitration clause to enforce the purchase of a non-fungible token ("NFT")).

^{41.} Armstrong v. Winnington [2012] EWHC 10 (Ch) [50].

^{42.} Re Mineral Res. Ltd. [1999] BCC 422, 427-28.

^{43.} While Smith and Newman's piece in this volume focuses on conversion as a cause of action to enforce intangible property rights, *see* Smith & Newman *supra* note 34, this piece focuses on whether the remedy of license fee damages might be available if a claimant were to be successful in establishing conversion of their intangible property right.

^{44.} Andrew Burrows, Remedies for Tort, Breach of Contract, and Equitable Wrongs 509 (Oxford Univ. Press 2019).

^{45.} Force India Formula One Team Ltd. v. 1 Malaysia Racing Team Sdn Bhd [2012] R.P.C. 29 [383]–[386].

^{46.} See generally LIONEL BENTLY ET AL., supra note 28, at 1262–1310 (describing the actions that can result in a breach of confidence).

article's purposes, because of the requirement of knowledge as to confidentiality, it makes more sense to classify breach of confidence as an equitable wrong than as an IP right.⁴⁷ There is a strong objection to recognizing property rights in confidential information, 48 although there have been instances where judges have expressly acknowledged that license fee damages were being awarded in these cases by analogy with conversion.49

The second illustration of an equitable wrong is breach of restrictive covenant, which is actionable in equity against a successor in title, so long as the successor in title has the knowledge of the existence of the covenant.⁵⁰ It is more common for restrictive covenants to be studied together with easements in land law, rather than as equitable wrongs. However, the point here is that despite having a contractual origin, restrictive covenants have become binding on successors in title to a limited extent due to the intervention of equity. In the instances of breach of restrictive covenant where injunction could not have been awarded for various reasons, damages have been awarded in lieu and the basis has been that of license fee.⁵¹ While it may be possible to regard a restrictive covenant as an equitable property right, it is much less common to regard confidential information as being protected by an equitable property right. Conceptual clarity here would be very welcome.

C. Breach of Contract

Breach of contract as a cause of action does not always point to the breach of an in personam right, although a contract creates in personam rights. The nature of the right that is breached can be in rem. This is because contracts can be used as a vehicle to transact in *in rem* rights such as property rights. For example, trespass to land can occur when a stranger walks over a certain land without permission, and also when a person overstays on land in breach of a contractual license. Similarly, in the context of an IP contractual license IP infringement can take place where the right infringed is an IP right, say the right of

^{47.} The U.K. Supreme Court appears to favor an approach to trade secrets under equity. See Vestergaard Frandsens A/s v. Bestnet Eur. Ltd. [2013] UKSC 31, [2013] 1 WLR 1556 [22]. For larger debate around the doctrinal basis for an action for breach of confidence, see LIONEL BENTLY ET AL., supra note 28, at 1239–41.

^{48.} See, e.g., Tanya Aplin, Confidential Information as Property?, 24 KING'S L.J. 172 (2013) (arguing, upon an extensive review of English case law, that a property right to protect confidential information cannot be supported doctrinally or conceptually).

^{49.} Seager v. Copydex Ltd. (No 2) [1969] 1 WLR 809, 813.

^{50.} Tulk v. Moxhay (1848) 2 Ph. 774; (1848) 41 ER 1143, 1143.

^{51.} Wrotham Park Est. v. Parkside Homes [1974] 1 W.L.R. 798. This case has been so formative that it has gone on to lend its name as an alternative to license fee damages.

reproduction, rather than a right created by the contract, such as the right to seek sales reports.⁵²

More difficult are cases where the defendant breaches obligations within a contract that are hard to pin down as to their nature. The UK Supreme Court decision in *One Step (Support) Ltd. v. Morris-Garner*⁵³ is the locus classicus. Here, parties entered into a contract that imposed duties of confidentiality, non-competition, and non-solicitation. At issue was the breach of a non-compete and non-solicitation clause, which the trial court had concluded to be more significant than the breach of confidential information.⁵⁴ The court denied the award of negotiating damages, indicating implicitly that had the case been about breach of confidence, negotiating damages may have been available.⁵⁵ Speaking of the kind of rights the breach of which may give rise to negotiating damages, the majority led by Lord Reed identified three stable categories: property rights, intellectual property rights, and restrictive covenants.⁵⁶ Given that not all rights may neatly fall within these categories, he sought to bring the remaining cases under an umbrella description that there must be "a loss of a valuable asset which is created or protected by the right which was infringed."57 The finding of the court was that the breach of non-compete non-solicitation clause did not amount to a loss of a valuable asset, and therefore, negotiating damages were denied.

The decision has attracted a significant amount of academic commentary.⁵⁸ The use of the terminology of valuable asset, while helpful in broadening the category of rights, gives no indication of when a right creates a valuable asset and what the attributes of a valuable asset are. Is entering into a contract sufficient to acquire it? Edelman argues that treating the power to license as an asset which was lost might make sense, independent of whether a license would have been granted, and that the damages awarded will then be to compensate

^{52.} See, e.g., Poorna Mysoor, When the Infringer Is the Contractual Licensee, 43 EUR. INTELL. PROP. REV. 7 (2021) (arguing the difference in the remedies available for the breach of different clauses in a contractual license).

^{53. [2018]} UKSC 20.

^{54. [2018]} UKSC 20 [17], [99].

^{55. [2018]} UKSC 20 [120] (Lord Sumption) (citing Seager v. Copydex Ltd. (No 2) [1969] 1 WLR 809, 813; Force India Formula One Team Ltd. v. 1 Malaysia Racing Team Sdn Bhd [2012] RPC 29, [383]–[387], [424] (describing how license fee damages had been awarded for breach of confidence)).

^{56.} One Step v. Morris Garner [2018] UKSC 20 [95]. Conclusion (3) refers to cases where damages are awarded in lieu of injunction, which normally arises in cases of restrictive covenants. However, from the tenor of Lord Reed's speech, it would appear that he would categorize breach of confidence within IP rights.

^{57. [2018]} UKSC 20 [92].

^{58.} See, e.g., Andrew Burrows, One Step Forward?, 134 L.Q. REV. 515 (2018); Sirko Harder, Negotiating Damages in English Contract Law, 14 FIU L. REV. 45 (2020); Philippe Kuhn, Negotiating Damages After One Step: Employment Team Move and Misuse of Confidential Information Cases, 24 EDINBURGH L. REV. 363 (2020).

for the loss of this asset.⁵⁹ But this again begs the question when does the power to license arise? Can the power to license arise in relation to breach of contract to repay a debt?

The above discussion reveals that even if the courts were to lay down a general principle that negotiating damages are available when a property right is infringed, without some guideline as to how one may be able to identify a property right, the general principle would not be of much help. Property rights do not form a monolithic construct. If a diverse set of valuable resources is to be accommodated within a rubric, it would be more appropriate to understand property rights as being located along a spectrum, rather than a singular static concept. Importantly, the metrics with which the spectrum is to be calibrated should be justifiable. The strength of some of these metrics in a particular right determines whether it lends itself to licensing or not. The strength of other metrics might still make it a property right, but not licensable. When appellate courts do take up the challenge of providing a conceptual framework, it is still colored by the context of the case being decided. Courts are not always able to step back and take a broader view on the characterization of these rights. Perhaps what we need here is to go back to basics and begin with understanding what a license is and how it arises. A conceptual, rather than a doctrinal, fix may lead us to a better understanding of the area. This leads to Part III below.

III. A Unifying Conceptual Framework

The essence of negotiating damages is that the right infringed is hypothetically regarded as being licensed by a willing claimant to a willing defendant for a fee. It follows that a sound understanding of a license is crucial. Section III.A below explores what a license is and what it means to grant a license. An analysis of licenses reveals various circumstances when licenses arise, most importantly for this article's purposes, in relation to property rights. "Property right" is an opaque label. We need to understand the characteristics of property rights and what makes them licensable, which is dealt with in Section III.B below.

A. Understanding Licenses and Their Grant

An authoritative definition of a license was given in *Thomas v*. Sorrell⁶⁰ that a license is that which makes an act lawful, which would otherwise be unlawful.61 This definition appears simple, tending towards being too simplistic. Hohfeld accepted that a license is a permission without which the act would be a trespass but famously described licenses as a term of "convenient and seductive obscurity."62 This could be because while we know what a license is, we do not pay much attention to how it arises. In his effort to bring clarity into ordinary expressions that lawyers use, Hohfeld described licenses as "a group of operative facts required to create a particular privilege."63 He describes operative facts as facts which "suffice to change legal relations, that is, either to create a new relation, or to extinguish an old one, or to perform both of these functions simultaneously."64 Together, this would mean that if a person P were to grant a license to Q, Q must have owed a duty to P. The operative facts describe this duty changing over to privilege. For P to bring about this change, P should have the legal power which turns the duty into a privilege. 65 For a license to arise, therefore, the "twin requirements" that need to be fulfilled are:

- (1) the act being performed should be unlawful; and
- (2) the person giving the permission should have the legal power to make this unlawful act lawful.⁶⁶

As regards the first requirement above, it is the prerogative of the state to declare an act unlawful by pronouncements of the law—statutory or common law. Only the prohibition that is sanctioned by the state is good against the whole world, which in turn creates *in rem* duties. Private persons cannot declare a conduct unlawful by simply entering into a contract to this effect. This will have no *in rem* effect in that it will impose no *in rem* duties. But private persons can create *in personam* duties in a contract in exercise of their freedom of contract. Private parties can, as between themselves, also limit or prohibit a particular conduct but cannot regulate the conduct of persons who are

^{60. [1673]} Vaugh 330; 124 ER 1098; [1673] EWHC KB J85.

^{61.} Id.

^{62.} Wesley Newcomb Hohfeld, Faulty Analysis in Easement and License Cases, 27 YALE L.J. 66, 92 (1917).

^{63.} Wesley Newcomb Hohfeld, Some Fundamental Legal Conceptions as Applied in Legal Reasoning, 23 YALE L.J. 16, 44 (1913).

^{64.} Id. at 25.

^{65.} Id. at 44.

^{66.} Hohfeldian analysis has been applied to understand negotiating damages. See Kit Barker, 'Damages Without Loss': Can Hohfeld Help?, 34 OXFORD J. LEGAL STUD. 631, 633 (2014) (arguing that the award of negotiating damages compensates for the loss of a person's power to prevent the infringement of certain primary rights).

not parties to the contract. An example of this is a non-compete clause. The law does not prohibit competition on its own but will enforce a non-compete clause in a contract if certain requirements are satisfied. Since the origin of the prohibition is a contract, I argue that this provides one of the most important reasons why in *One Step* the breach of non-compete clause could not be remedied by the grant of negotiating damages, ⁶⁷ although the court did not explain the rationale for its decision in this manner.

A party to the contract can, however, exercise their own personal autonomy and lift a contractual prohibition. But this may be more appropriately called a waiver, rather than a license. There is a tendency in certain case law to characterize negotiating damages as the negotiation of "the release of the relevant contractual obligation." This makes it appear as if negotiating damages would be available for the release of any contractual obligation, and not necessarily a release that amounts to a license. Clearly, this is not the result intended by the court. Since any contractual right can be waived, but only certain rights can be licensed, the use of the word release in place of license is bound to cause confusion. 69

Regarding the second requirement above, either the state can reserve the power to grant permission to engage in the act it otherwise prohibits or recognize the power to do so in private persons. An example of the former is a waste management license. Here, the state uses its power of regulation in order to declare disposal of harmful waste unlawful, as well as to grant permission to manage waste upon satisfaction of certain requirements. In this sense, licenses are a common regulatory mechanism in the hands of the state when control needs to be exercised in relation to an activity. Other examples where the state deploys licensing include liquor license, mining license, stock trading license, where the state declares engaging in selling alcohol, mining minerals from the earth, trading in securities in the stock market respectively to be unlawful, unless a license is secured from the government. Sometimes, these licenses themselves are regarded as an asset subject to regulation by rights that appear to be property rights.⁷⁰

^{67.} One Step v. Morris Garner [2018] UKSC 20 [93], where the court distinguished the breach of a contractual right as leading to an identifiable loss, and not on the basis of the *in rem* or *in personam* nature of the rights.

^{68.} Pell Frischmann Eng'g Ltd. v. Bow Valley Iran Ltd. [2011] 1 WLR 2370 [49].

^{69.} There are scholars who regard all licenses as belonging to the broader category of waiver. *See* Rob Stevens, *Not Waiving but Drowning*, *in* DEFENSES IN CONTRACT 125, 126 (Andrew Dyson, James Goudkamp & Frederick Wilmot-Smith eds. 2017). However, from a property law perspective, it would be more appropriate to regard licenses as only those that turn *in rem* duties into privileges.

^{70.} These are the kind of licenses that Chris Essert analyzes as property rights according to his definition. *See* Christopher Essert, *Property in Licenses and the Law of Things*, 59 McGill L. J. 559, 559 (2014).

This article will deal with the question of the kind of property rights that these can be in Section III.B below.

An instance where the law recognizes the power to grant permission upon private persons is in the context of torts of trespass to the person. Here, the law regulates the conduct of the world at large rendering unlawful any act of interference with bodily integrity, but the power to make the interferences lawful is with the individual. One may call the exercise of this a power to "consent," rather than to license. It does not make sense to speak of licensing or consenting to the use of one's bodily integrity, much less, charge a fee for its use. 71

Another instance, and the one that is most relevant for this article's discussion, is when the law regulates access to valuable resources. In exercise of its prerogative, the state, through statute or common law, may declare the interference with certain valuable resources unlawful, but grant the power to make such interference lawful, to private persons. This is the kind of licenses that need further analysis. It is essential to examine when a declaration by law of non-interference with valuable resources gives rise to a property right and how the power to grant a license comes to vest in a property right holder. This leads to Section III.B below.

B. Licenses in the Context of Property Rights

It helps to begin by reiterating the twin requirements of the grant of a license discussed in Section III.A above. First, the conduct being permitted should have been unlawful before the grant of the license. In exercise of its power of regulation, when the law prohibits interference with the valuable resource on the rest of the world, it places in rem duties of non-interference. The duty of non-interference grants a corresponding in rem right we call property right.⁷² Not all valuable resources lend themselves to regulation by property rights. As a first step, it is essential to define the characteristics of the resource that makes it capable of being governed by property rights. Second, once these characteristics are identified, the law needs to recognize a particular conduct that a person should engage in to acquire a property right for the first time. Once the person engages in this conduct, then the duties of non-interference will be triggered, whereupon the person acquires the legal power of a property owner. In exercise of this power, the person can make the interference with the property lawful by granting licenses.

^{71.} Lewis v Austl Cap Terr, [2020] HCA 26; (2020) 94 ALJR 740, [149], [155] (Austl.)

^{72.} Summarised as 'right to exclude,' many scholars have examined this attribute of a property right. A prime example is Thomas W. Merrill, *Property and the Right to Exclude*, 77 NEB. L. REV. 730, 730 (1998) (arguing that right to exclude is *sine qua non* for a property right).

In effect, there are three questions that need further answering to establish how property rights become licensable. First, what kind of valuable resources attract property rights? Second, what kind of conduct enables a person to acquire these property rights? Third, how does the person acquiring the property rights come upon the power to be able to grant licenses? If the resource is not of the kind that can attract property rights or if it cannot be acquired as such or if the power to license does not arise, then no license can be granted, in reality or hypothetically. The following deals with each of these questions in turn.

1. What Kind of Valuable Resources Attract Property Rights?

In order to accommodate the diversity of circumstance and meanings of a property right, it is essential to understand property rights as being a spectrum, spanning from the most classical understanding of property rights to the most esoteric. At the classical end of the spectrum, property rights are defined as a right that operates between persons in relation to a thing.⁷³ Thing relatedness is most intuitive when understood in the context of tangible assets. 74 This perhaps makes some scholars believe that only tangible assets can qualify to be a thing.⁷⁵ These scholars might wish to jump to the conclusion that all intangible assets must only be rights, because there is no "thing" to which the rights can relate. 76 This is what leads to the binary (and myopic) classification of choses in possession and choses in action, as some English judges still insist. 77 To rebut this, taking the example of authorial works of copyright, I have argued elsewhere that the recognition of intellectual property rights three hundred years ago had already challenged this classification by introducing the possibility of an "intangible thing." Although English courts are now beginning to see a third category of digital assets in cases concerning crypto assets, ⁷⁹ it is not yet clear what attributes of a thing the courts see in crypto assets that makes them occupy the third category. In the meanwhile, courts continue to recognize property rights in relation to intangible assets where there is no identifiable thing but just the right itself, though such

^{73.} See, e.g., James Penner, The 'Bundle of Rights' Picture of Property, 43 UCLA L. REV. 711, 801 (1996); Henry E. Smith, Property as the Law of Things, 125 HARV. L. REV. 1691, 1691 (2012).

^{74.} Simon Douglas & Ben McFarlane, *Defining Property Rights*, in PHILOSOPHICAL FOUNDATIONS OF PROPERTY LAW 220, 223 (James Penner & Henry E. Smith eds., 2013).

^{75.} Id.; see also William Swadling, Property: General Principles, in ENGLISH PRIVATE LAW ¶ 4.20 (Andrew Burrows ed., 3d ed. 2013), ¶ 4.20.

^{76.} See, e.g., MICHAEL BRIDGE, LOUISE GULLIFER, KELVIN LOW & GERARD MCMEEL, THE LAW OF PERSONAL PROPERTY ¶ 9-005 (3d ed., Sweet & Maxwell 2022).

^{77.} Your Response v. Datateam Bus. Media [2014] EWCA Civ 281, [2015] QB 42 [11].

^{78.} Poorna Mysoor, Possession in Copyright by Analogy, 140 L.Q. REV. 277 (2024).

^{79.} AA v. Persons Unknown [2020] 4 WLR 35 [59]-[61].

recognition is usually in a particular context such as insolvency.⁸⁰ Despite the possibility of property rights being recognized without there being a thing,⁸¹ it is essential to identify the irreducible characteristics of the thing. These characteristics help calibrate the spectrum of property rights, enabling us to plot the position of each type of valuable asset, including those that do not need a thing to exist. The following deals with each of these characteristics.⁸²

a. Separability of Valuable Resource

The idea behind separability is that for a resource to be eligible for property rights, as a bare minimum, it must be separable from the human body. For a person to have a right to a thing good against the rest of the world, there must be a distinguishable person and a distinguishable thing, such that anyone else might just as well own it. 83 Although the law recognizes rights of non-interference with the human body with the torts of trespass against the person, these are not property rights over the human body because the focus of protection is values such as integrity and safety of human body and dignity of human lives, which are inalienable. When these cannot be separated from the human body, it follows that the most fundamental requirement of property rights is not satisfied. This is another reason why no negotiating damages are available to remedy torts of trespass against the person.

When this characteristic is calibrated on the spectrum of property rights, clearly one sees that land and chattels by their nature exist outside the human body. Among the chattels, parts and products of the human body can become subject matter of property rights only if they are separated from the human body. In relation to copyright, this requirement is satisfied by the rule that human thoughts and ideas can be the subject matter of copyright only when they are expressed. A patent right is predicated on disclosure, separating the invention from the human mind. The requirement that a trademark be a sign means that it exists outside the human body. Other forms of intangible assets such as Bitcoins, non-fungible tokens ("NFTs"), or simply electronic files also exist outside the human body because the bits of data that they are

^{80.} For information on waste management licenses, see Re Mineral Res. Ltd. [1999] BCC 422, 422.

^{81.} Roy Goode, What Is Property?,139 L.Q. REV. 139, 1–4 (2023); see also Christopher Essert, Property in Licenses and the Law of Things, 59 McGill L. J. 559 (2014).

^{82.} I have provided elsewhere a more detailed account of the characteristics of a thing. *See* POORNA MYSOOR, COPYRIGHT AS PERSONAL PROPERTY ch. 2 (Oxford Univ. Press 2025) (forthcoming).

^{83.} See James Penner, The IDEA OF PROPERTY IN LAW, 112–15, (Oxford Univ. Press 1997). However, Penner does not apply the separability thesis to intellectual property the way it is applied here, as he maintains that the property right is in the monopoly that the statutes create. See id. at 119–20.

made up of also exist outside of the human body. Contractual rights such as waste management licenses and carbon emission allowances exist outside the human body to the extent that they are embodied in a contract or a grant overtly entered into between the parties (and not simply kept in their mind). However, personal information such as the likeness of a human face does not exist outside the human body, unless a record of it is created by way of, say photographs. This leads to the next requirement below.

b. Form of the Valuable Resource

Upon separation, the valuable resource should acquire a form, such that its boundaries become objectively ascertainable. This requirement is even more important for intangible assets than it is for tangible assets, as the rest of the world needs to know to what it is they owe the in rem duty of non-interference.84 Among tangible assets, one may find this to be too obvious a requirement for chattels, but one cannot overemphasize the importance of boundaries to land for the purposes of enforcing rights against interference by an action for trespass. In the United Kingdom, the law requires that once the authorial works of copyright such as literary, dramatic, and musical works are expressed, they need to be recorded "in writing or otherwise," for property rights to subsist.85 Artistic works usually have a form because they are expressed through channels such as paintings, sculptures and so on. Sound recordings and films intrinsically have a form because they exist as a record. A weaker case exists for broadcasts as a subject matter of copyright as it may exist only in a certain wavelength, and in no other form. Registerable intellectual property rights such as trademarks and patents acquire a form because of the process of registration they go through. Furthermore, for trademarks, the United Kingdom law requires that the representation of the sign be clear, 86 and for patents the law requires the patent application to clearly disclose a novel invention by way of disclosures and claims.⁸⁷ Crypto assets acquire a form because of their recordation on the blockchain. Some scholars have made a case for electronic files to create sufficient physical change in the medium where it is stored for it to acquire a form. 88 Contractual

^{84.} See generally Poorna Mysoor, 'Form' in Conceptualising Copyright as a Property Right, 67 J. COPYRIGHT SOC'Y U.S.A. 79 (2020).

^{85.} UK Copyright, Designs and Patents Act 1988, § 3(2) (UK).

^{86.} UK Trade Marks Act 1994, § 1(1)(a) (UK) requires a mark to be capable of "clear and precise" representation.

^{87.} UK Patents Act 1977, § 14(3) (UK) requires the patent specification to "disclose the invention in a manner which is clear enough and complete enough".

^{88.} Johan David Michels & Christopher Millard, *The New Things: Property Rights in Digital Files*?, 81 CAMBRIDGE L.J. 323, 338–39 (2022).

rights may have a record showing the extent of rights sufficient to satisfy the requirement of form.

Most assets may satisfy the requirements of separability and form to one degree or another. If this was sufficient, all valuable assets would have gone on to become the subject matter of property rights. But this is not the case because of the normative choices made by the law as regards the content of property rights, which leads to the section below.

c. Content of the Valuable Resource

Separability and form are necessary, but insufficient requirements of thing relatedness. There should be substantive content that is independent of the rights, powers, and privileges in such a way that these rights, powers, and privileges are not merged with, but operate in relation to the substantive content of the subject matter. It is, therefore, necessary for the law to make normative choices as to the kind of substantive content that should be subject to the *in rem* rights of non-interference. Given that these rights place duties of non-interference against the whole world, many considerations, including public policy, socio-economic, cultural, moral, and ethical, underlie this decision. This decision can impact the manner in which the society engages with the process of creation and innovation.

Most land and chattels are eligible subject matter, but the law can designate certain tangible assets as incapable of being the subject matter of private property. For example, human body parts and products, even if separated from the human body and have a form, do not become eligible subject matter because of moral and ethical reasons. Among intangible assets, procedures, methods of operation, and mathematical concepts cannot be the eligible subject matter. Because ideas and facts also cannot be regarded as the appropriate content for property protection because these are building blocks of knowledge, culture, communication, innovation, creativity, and expression. Accordingly, authorial works of copyright are eligible because the subject matter for protection is the expression of ideas and not ideas themselves. Expressions perceptible by visual and aural medium are protectable as copyright works because of their objectivity, and not

^{89.} This requirement is stated under art 9(2) of the WTO Agreement on Trade Related Aspects of Intellectual Property. 17 U.S.C § 102(b) reiterates it. Rich case law also exists in this area. See, e.g., Aljindi v. United States, No. 1230, 2023 WL 2778689, at *2 (Fed. Cir. April 5, 2023) (holding that the discovery of an entire scientific field in information security was held not copyrightable); see also Bikram's Yoga Coll. of India v. Evolation Yoga, 803 F.3d 1032, 1037–38 (9th Cir. 2015) (holding that the process of moving from one pose to another in a sequence is not copyrightable).

^{90.} LIONEL BENTLY ET AL., supra note 28, at 234.

those perceptible by olfactory, taste, or tactile senses. 91 The same limitation applies also to trademarks. 92 In patents, there are inventions that are not patentable.⁹³ As regards electronic files, the underlying substantive content at its very core is purely data. No rights can subsist in data as such because the underlying subject matter is only facts and information. In the United Kingdom, the law reform proposals insist that crypto assets are not pure information but have other attributes that make them eligible subject matter. 94 While it is unclear the extent to which data alone can be eligible subject matter, there are assets that may only exist as rights and have no substantive content at all. Waste Management licenses fall into this category. These licenses only enable the holder to engage in a conduct (manage waste in this case) and nothing more. This conduct does not relate to a substantive content because there is no substantive content that is independent of this

Even if the valuable asset does not have substantive content that makes it eligible for property rights to be recognized, if the valuable asset has been acquired in a manner recognized by the law, then a limited property right can be recognized in relation to such an asset. This means that in addition to the characteristics stated above, the conduct necessary for acquisition of property rights is also essential, which leads to the section below.

^{91.} This point may be best illustrated by the decision of the Court of Justice of the European Union ("CJEU") in, Case C-310/17, Levola Hengelo BV v. Smilde Foods BV, ECLI:EU:C:2018:899, ¶42 (Nov. 13, 2018) (holding that there can be no copyright in the taste of the claimant's cheese because it "cannot . . . be pinned down with precision and objectivity" in that the sensation of taste is "subjective and variable, since they depend on . . . age, food preferences and consumption habits, as well as on the environment or context in which the product is consumed" and contrasted taste with "literary, pictorial, cinematographic or musical work . . . which is a precise and objective form of expression.") In the United Kingdom an additional reason why taste of food will not be protectable by copyright is because of the closed list of copyright works that operate within the Copyright, Designs and Patents Act 1988, § 1 (UK).

^{92.} Case C-273/00, Ralf Sieckmann v. Deutsches Patent- und Markenamt, ECLI:EU:C:2002:748 (Dec. 12, 2002) (holding the taste of cinnamon was insufficiently precise to be registrable as a trade mark).

^{93.} See, e.g., In re Nuijten, 500 F.3d 1346, 1352 (Fed. Cir. 2007) (holding that claims on appeal covering transitory electrical and electromagnetic signals propagating through a certain medium, such as wires, air, or a vacuum are not covered by any of the four categories of invention protectable under the US law: "process, machine, manufacture, or composition of matter").

^{94.} LAW COMMISSION, DIGITAL ASSETS: FINAL REPORT, 2022-3, HC 1486, ¶¶ 4.13–4.21; see also LAW COMMISSION, DIGITAL ASSETS: A CONSULTATION PAPER ch. 5, 10 (Law Com No. 256, 2022).

2. What Kind of Conduct Enables a Person to Acquire These Property Rights?

Rights do not become property rights, i.e., bind the rest of the world, unless they are acquired for the first time in a manner prescribed by the law. The law recognizes how rights over valuable resources can be acquired independently for the first time. This conduct is different from derivate acquisition of property rights, which can happen by deploying a contract or through a grant or by way of a gift. There is a close connection between the valuable resource that the law approves as the substantive content of the right and the manner in which rights are acquired for the first time over this content. Property law is replete with diverse ways of taking physical control over tangible things, technically known as "taking possession." First acquisition of rights over land can arise by a person putting down a fence, locking the gate, growing crops, and so on. 96 With chattels, courts have recognized conduct that would be sufficient to take control over a jewel⁹⁷ as much as a shipwreck, 98 or a whale, 99 and it is not difficult to see the plasticity of the concept of possession that morphs depending on the relevant substantive content. Where the valuable resource is not yet in existence, manufacturing it is also recognized as the conduct that enables the person to acquire property rights in the thing manufactured for the first time. 100 It works much the same way in relation to intangible resources, although the term possession is more appropriately reserved for tangible things.

Among various kinds of IP, rights can be acquired by the very act of registration in the case of registrable rights such as patents and trademarks. However, U.S. and U.K. statutes detail a much more elaborate requirement of the precise acts that are necessary to acquire the respective property rights. For patents, the requirement of novelty and inventive step need to be satisfied, among others. ¹⁰¹ For trademarks, in certain jurisdictions such as the United States, although one can apply for a mark with merely an intention to use the mark, rights in the mark are only acquired by the actual use of the mark in

^{95.} KEVIN GRAY & SUSAN FRANCIS GRAY, ELEMENTS OF LAND LAW \P 9.1.44 (5th ed., Oxford Univ. Press 2009).

^{96.} J A Pye (Oxford) Ltd. v. Graham [2002] UKHL 30; [2003] 1 AC 419 [41].

^{97.} Armory v. Delamirie [1722] 1 Strange 505, 505 (holding that grasping of the jewel by the chimney sweeps boy was sufficient to give him possession of it in the context of finders of goods.)

^{98.} The Tubantia [1924] P 78 (PDA) 88-91.

^{99.} Swift v. Gifford, 23 F. Cas. 558, 560 (D. Mass. 1872) (No. 13,696).

^{100.} BEN MCFARLANE, STRUCTURE OF PROPERTY LAW 161-62 (Hart Publ'g 2008).

^{101.} UK Patents Act 1977, §§ 2-4 (UK); 35 U.S.C. §§ 101-03.

commerce. 102 In the United Kingdom, a declaration of an intention to use the trademark is sufficient to grant rights. 103

The discussion can be more nuanced in copyright where it is possible to demonstrate the connection between the nature of the relevant work and the conduct required to acquire the relevant property right, and the corresponding strength of the property right acquired. 104 With authorial works of copyright, the conduct required to acquire rights in the relevant work for the first time corresponds to bringing works into existence for the first time. The technical term for this is "originality," which means that the work must "originate" from the author in the sense of not being copied, 105 but involving a certain judgement on the part of the author, 106 putting in certain intellectual qualities. 107 The author of the authorial work who goes on to acquire rights in relation to the subject matter also acquires rights of control over the substantive content of the subject matter. Not only does the right impose an in rem duty not to create an identical copy of the relevant work, but also a substantially similar copy. Rights in nonauthorial works (also referred to as entrepreneurial works) such as sound recordings and films are acquired simply by creating a record that is not a copy of an existing record. 108 The content of such record may be another authorial work (e.g., music) or content that is not protected by any law (e.g., a sporting spectacle). The rights so acquired do not grant rights of control over the content of the subject matter in that the right only places a corresponding duty not to create an identical copy of the record. 109 In essence, entrepreneurial works are protected not because the substantive content of the rights is eligible as a subject matter of property right. It may or may not be, and where it is, the rights in it may belong to another person. But the in rem rights are acquired because the person engaged in a particular conduct in relation to the substantive content which is recognized by the law as giving rise to in rem rights in his favor.

Based on this discussion, it is possible to argue that this manner of recognizing in rem rights is not limited to entrepreneurial works of copyright alone. Even if data or information does not have the

^{102. 15} U.S.C. § 1051(b) permits an application on the basis of intent to use. However, section 1051(d)(1) requires a statement of use to be filed once the notice of allowance is issued indicating the date of first use of the mark in commerce; and section 1051(d)(4) states that an application on the basis of intention to use will be treated as abandoned if the statement of use is not filed within the designated time.

^{103.} UK Trade Marks Act 1994, § 32(3).

^{104.} Mysoor, supra note 78 (arguing that the possibility of a concept analogous to possession in copyright and its doctrinal application).

^{105.} Univ. of London Press v. Univ. Tutorial Press [1916] 2 Ch 601, 608-09.

^{106.} Interlego v. Tyco [1989] AC 217, 263.

^{107.} BENTLY ET AL., supra note 28, at 101.

^{108.} Copyright, Designs and Patents Act 1988, §§ 5A(2), 5B(4), 6(6), 8(2).

^{109.} BENTLY ET AL., *supra* note 28, at 128–29.

substantive content that makes it eligible to be regulated by property rights, the law does recognize certain conduct in relation to the data which can attract certain limited in rem rights. If a person engages in the conduct of investing in obtaining, verifying, or presenting the contents in creating a database, then the law grants to such person certain limited in rem rights against creating identical copies. 110 Similarly, by taking reasonable steps to keep the information confidential, a person can acquire certain very limited rights to prevent others from accessing or publishing that information.¹¹¹ The obligation of confidentiality is normally imposed on another person by way of a contract, but it is incorrect to characterize this right purely as a contractual right. Even without the existence of the contract, the law still recognizes an obligation not to disclose information that a person comes upon in the circumstances indicating confidentiality. 112 Therefore, the existence of the contract merely shows the manner in which the confidentiality obligation was communicated to the person, rather than the originator of the obligation itself. Furthermore, it is possible for strangers also to come under this duty if they are aware or ought to be aware that the information should be kept confidential.¹¹³ This duty is not an *in rem* duty in the strict sense of the term because it is imposed not on the world at large, but only the part of the world with the knowledge of confidentiality. The manner of enforcement is similar to restrictive covenants, and it may be possible to regard both as being equitable property rights.

What conduct does or should the law regard as sufficient to attract *in rem* rights in relation to data? When an electronic file is created of certain text (for example, emails), a copy of the underlying work is created. Scholars have argued that this copy brings into existence something that was not there before and therefore, it should be sufficient to recognize limited *in rem* rights in the copy in the electronic format, independent of the substantive content that may or may not attract other forms of protection (such as copyright). The law should tread carefully here so as not to recognize a right of non-interference

^{110.} Copyright and Rights in Databases Regulations 1997, § 13(1) (UK). Section 13(2) further clarifies that even if the contents of the database are not protectable by copyright, database as such will be protected under the Regulations.

^{111.} See generally BENTLY ET AL., supra note 28, at 1245–61 (describing the rights one can obtain over different forms of confidential information).

^{112.} The House of Lords held in *Douglas v. Hello*, [2008] 1 AC 1, 3–5, 52, that a stranger could come under an obligation of confidentiality if they had the knowledge that the information is confidential, even if they acquire the information legitimately. Therefore, it does not matter if a person receives the information indirectly (as in *Attorney General v. Guardian Newspapers (No 2)*, [1990] AC 109, 260), or if a person receives the information innocently, so long as they are aware of or later discover the confidential nature of the information, the obligation of confidentiality will be imposed on them.

^{113.} Malone v. Comm'r of Metro. Police [1979] Ch 344, 345, 360-61.

^{114.} Michels & Millard, supra note 88, at 332–37.

with the underlying data, but only with the specific copy. Otherwise, this right could protect through the backdoor what IP laws have denied protection expressly. Regarding digital assets, the conduct in relation to the NFTs that may be sufficient to grant an *in rem* right is recording the data underlying the asset (such as an artwork) on the blockchain. With Bitcoin, the conduct that enables the acquisition of *in rem* rights is the mining process, which no law so far specifically recognizes as being sufficient to attract property rights in the crypto assets. Until now, courts have not recognized the precise conduct that enables a person to independently acquire *in rem* rights in Bitcoins. 115

Moving on to contractual rights such as waste management licenses and carbon allowances, as discussed previously, the only reason these assets come into existence is because of an arrangement that could amount to a contract or a grant by satisfying regulatory requirements, or a combination of the two. A person P acquires a waste management license from the government only because they entered into this arrangement with the government. Before this, the asset did not exist. This arrangement is likely to operate in personam, enforceable only between the grantor and the grantee. 116 Its assignability does not make the right acquire an in rem character. Its assignability and the value that it has might make it a property right for insolvency purposes, but this does not necessarily mean that license fee damages would be available if the license is misappropriated by a third party. A non-compete clause bears resemblance much more to a contractual right of this kind than a property right. When P enters into a contract with Q requiring Q not to carry on the same business as P for three years in the same area as P, this right was acquired by way of a contract. The origin of the right is contract. It only places a corresponding duty against the party to the contract and not against the rest of the world.

3. How Does the Power to License Come About?

A question then arises as to why it is important to first establish the conduct that enables *in rem* rights being acquired. Through the conduct of acquiring the right, the person signals to the rest of the world that they are now under a duty of non-interference. The content of this duty depends on the resource so protected, as discussed above in relation to authorial works, entrepreneurial works, patentable inventions, and so on. The ability to exclude the rest of the world grants the legal power to the acquirer of the rights to decide whether to exercise the rights so acquired or not. At the same point, the person also acquires the privilege

 $^{115.\} See\ supra$ notes 38-40 (discussing cases that have all been decided only at the interim stage, and not on merits).

^{116.} Cf. Essert, supra note 70, at 579.

to exercise these rights and the rest of the world has no rights to stop the person from exercising them.¹¹⁷ What the person acquires is ownership in the Hohfeldian sense of the term, which is a complex aggregate of rights, powers, privileges, and immunities.¹¹⁸ One may also recall the incidents of ownership that Honoré spoke about in this regard.¹¹⁹ The ability to exercise these privileges and powers is what one can regard as putting the resource to "use."

Use in other words is a privilege that one can exercise over a resource. ¹²⁰ The owner has the power to decide whether they will exercise these rights themselves, or authorize someone else to exercise them, i.e., use the resource themselves or permit someone else to use it. In exercise of this power, the owner can transform the duty owed by the rest of the world into a privilege by granting a license. Only if a license can be granted in reality can the law hypothesize as to what may be the fee chargeable if license were to be granted. This is how we can decide whether a resource lends itself to the award of negotiating damages if a right in relation to it is breached.

What use means depends again on what the resource is. With land, this means a wide range of privileges and powers, such as to till the land, build on the land, or leave it vacant, and so on. With chattels, say a bicycle, the acquirer can ride it, paint it, exhibit it, and so on. With IP, the relevant statute lists the rights in relation to the protected subject matter which only the acquirer of the relevant right can exercise. For instance, a composer can perform her musical composition, make records of them, sell records, sell sheet music of her compositions, broadcast her compositions, or make them available on an online platform, or none of these at her own discretion. The creator of a database can make copies, sell them, or offer them in part or whole to others. She has the power to engage in all these acts herself or license someone else to do so again at her own discretion. That IP can be licensed is beyond doubt. Entire industries thrive based on intellectual

^{117.} This can be regarded similar to what Larissa Katz calls the power to set the agenda. *See* Larissa Katz, *Exclusion and Exclusivity in Property Law*, 58 U. TORONTO L.J. 275, 277–78 (2008).

^{118.} See, e.g., Wesley Newcomb Hohfeld, Fundamental Legal Conceptions as Applied in Judicial Reasoning, 26 YALE L.J. 710, 746 (1917). Although Hohfeld himself may not have insisted on thing relatedness of a resource for its ownership, Hohfeld's conceptualization of ownership as consisting of jural relations is a helpful way of understanding ownership.

^{119.} Anthony M. Honoré, *Ownership, in OXFORD ESSAYS IN JURISPRUDENCE*, 107, 112–24 (Anthony Gordon Guest ed., Oxford Univ. Press 1961).

^{120.} Adam Mossoff, What is Property? Putting the Pieces Back Together, 45 ARIZ. L. REV. 371, 376 (2003).

^{121.} UK Copyright, Designs and Patents Act 1988, $\S\S 16(1)(a)$ —(e) (UK) (enumerating exclusive rights); 17 U.S.C. $\S 106(1)$ —(6) (same).

^{122.} UK Copyright and Rights in Databases Regulations 1997, § 16(1) (UK) protects against acts of infringement by extraction or re-utilisation of all or substantial parts of the database. Put positively this means that these are the acts that the database owner themselves will be able to engage in.

property licenses, from record labels to pharma manufacturers. Turning to digital assets, it may be possible to speak of licensing an NFT, such as an art piece to a museum. The use of Bitcoin may also be licensed.

It is much more uncertain whether one can put a contractual right such as a waste management license to use. Although one can argue that the rest of the world is under an obligation not to engage in the subject matter of this particular license, this is because of the government regulation, not because a person P has acquired the right like other property rights discussed above. Therefore, the duty is owed to the government and not to P. This is why if a person wrongfully engages in waste management without the government granted license, it is only the government that can take action and not P. One may still argue that P may be able to sublicense its own license. But such dealings in the license will be tightly controlled by government regulations, not least because the government only grants these licenses to those who meet the eligibility criteria as part of its regulation of the relevant activity. Since there is no in rem duty against the whole world, there does not exist the ability to choose the person in whose favor the duty will be transformed to a privilege. Therefore, the grant of waste management license to P recognizes in P no powers or privileges, other than carrying out the activity authorized. The same applies also to a non-compete clause. Because of its in personam nature, a non-compete clause places no duties on the rest of the world which can be transformed to privileges by the exercise of any powers. 123 Therefore, a non-compete clause is not an asset that can be put to use: no license fee damages can be awarded.

IV. CONCLUSION

This article examined the following question: What, if anything, do license fee damages say about the nature of intellectual and other intangible property rights that make them eligible for this award of damages along similar lines as tangible property rights? This article argued that the analysis of negotiating damages can help us understand property rights better. English case law has only provided a patchwork of guidance regarding the availability of negotiating damages in varied circumstances. There are certain resources in relation to which courts have unquestionably granted negotiating damages, such as

^{123.} Incidentally, the Federal Trade Commission has passed a regulation banning noncompete clauses being inserted into employment and business contracts in the United States. See FTC Non-Compete Rule, 16 C.F.R. § 910. However, in Ryan, LCC v Federal Trade Commission, No. 3:24-CV-00986, 2024 WL 3879954 (N.D. Tex. Aug. 20, 2024), a district court in the Northern District of Texas has set aside this regulation. At the time of writing this article, the FTC was planning to file an appeal to the Fifth Circuit. There are proposals in the United Kingdom for reducing the duration of non-compete clauses to three months, but these proposals have not yet been implemented.

interferences with land or chattels and infringements of intellectual property. However, there is no coherent guidance as to the breach of other rights that may lead to the grant of negotiating damages. Recognizing that the label of property rights is notoriously opaque for this purpose, this article put forward the concept of a spectrum of property rights, calibrated by the aspects that form irreducible core of property rights. Based on this, this article examined the kind of resources that become eligible for property rights, the conduct that enables a person to acquire property rights, and the manner in which this translates to the power to grant licenses. This article demonstrated that it should first be possible to grant the license in reality for a court to hypothesize over its grant and the likely license fee, which is at the heart of negotiating damages. It sought to demonstrate that connecting tangible property rights with IP rights along the spectrum of property rights enables other more esoteric resources vying for regulation by property rights to be mapped onto the spectrum. One of the most significant and practically relevant consequences of this analysis is in the courts' ability to extend remedies such as negotiating damages to these unwieldy resources in a coherent way.